2020
REPORT TO CONGRESS

of the

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

ONE HUNDRED SIXTEENTH CONGRESS
SECOND SESSION

DECEMBER 2020

Printed for the use of the
U.S.-China Economic and Security Review Commission
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The Commission was created on October 30, 2000 by the Floyd D. Spence National Defense Authorization Act of 2001, Pub. L. No. 106–398 (codified at 22 U.S.C. §7002), as amended by: The Treasury and General Government Appropriations Act, 2002, Pub. L. No. 107–67 (Nov. 12, 2001) (regarding employment status of staff and changing annual report due date from March to June); The Consolidated Appropriations Resolution, 2003, Pub. L. No. 108–7 (Feb. 20, 2003) (regarding Commission name change, terms of Commissioners, and responsibilities of the Commission); The Science, State, Justice, Commerce, and Related Agencies Appropriations Act, 2006, Pub. L. No. 109–108 (Nov. 22, 2005) (regarding responsibilities of the Commission and applicability of FACA); The Consolidated Appropriations Act, 2008, Pub. L. No. 110–161 (Dec. 26, 2007) (regarding submission of accounting reports; printing and binding; compensation for the executive director; changing annual report due date from June to December; and travel by members of the Commission and its staff); The Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113–291 (Dec. 19, 2014) (regarding responsibilities of the Commission).
The Commission's full charter and statutory mandate are available online at: *https://www.uscc.gov/charter*.

December 1, 2020

The Honorable Chuck Grassley
President Pro Tempore of the U.S. Senate, Washington, DC 20510
The Honorable Nancy Pelosi
Speaker of the U.S. House of Representatives, Washington, DC 20510

Dear Senator Grassley and Speaker Pelosi:

On behalf of the U.S.-China Economic and Security Review Commission, we are pleased to transmit the Commission's 2020 Annual Report to Congress. This Report responds to our mandate "to monitor, investigate, and report to Congress on the national security implications of the bilateral trade and economic relationship between the United States and the People's Republic of China." The Commission reached a broad and bipartisan consensus on the contents of this Report, with all 12 members voting unanimously to approve and submit it to Congress.

In accordance with our mandate, this Report, which is current as of October 16, includes the results and recommendations of our hearings, research, and review of the areas identified by Congress in our mandate, as defined in Public Law No. 106–398 (October 30, 2000) and amended by Public Laws No. 107–67 (November 12, 2001), No. 108–7 (February 20, 2003), 109–108 (November 22, 2005), No. 110–161 (December 26, 2007), and No. 113–291 (December 19, 2014). The Commission's charter, which includes the 11 directed research areas of our mandate, is included as Appendix I of the Report.

The Commission conducted seven public hearings, taking testimony from 62 expert witnesses from government, the private sector, academia, think tanks, research institutions, and other backgrounds. For each of these hearings, the Commission produced a transcript (posted on our website at *https://www.uscc.gov*). This year's hearings included:

- China's Quest for Capital: Motivations, Methods, and Implications;
- China's Military Power Projection and U.S. National Interests;
- A "China Model?" Beijing's Promotion of Alternative Global Norms and Standards;
- China's Evolving Healthcare Ecosystem: Challenges and Opportunities;
- China's Strategic Aims in Africa;
- The Chinese View of Strategic Competition with the United States; and
- U.S.-China Relations in 2020: Enduring Problems and Emerging Challenges.

The Commission received a number of briefings by executive branch agencies and the intelligence community, including both unclassified and classified briefings on China's relationship with the European Union, the cross-Strait military balance, U.S.-Hong Kong

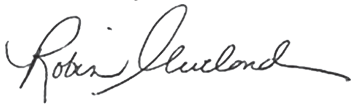
relations, China's threat to U.S. technological leadership, and U.S. policies and actions with regard to long-term competition with China. The Commission also received briefings by foreign diplomatic and military officials as well as U.S. and foreign nongovernmental experts. The Commission includes key insights gained through these briefings either in its unclassified Annual Report or, as appropriate, in a classified annex to that Report.

The Commission was unable to conduct official travel this year due to the COVID-19 pandemic. We adapted and increased our virtual discussions with interlocutors to ensure the continued diversity of perspectives heard by the Commission. The Commission also relied substantially on the work of our excellent professional staff and supported outside research (see Appendix IV) in accordance with our mandate (see Appendix I).

The Report includes 19 recommendations for congressional consideration. The Commissioners agreed that ten of these recommendations, which appear on page 22, are the most important for congressional action. The complete list of recommendations appears on page 535 at the conclusion of the Report.

We offer this Report to Congress in the hope that it will be useful for assessing progress and challenges in U.S.-China relations. Thank you for the opportunity to serve. We look forward to continuing to work with Members of Congress in the upcoming year to address issues of concern in the U.S.-China relationship.

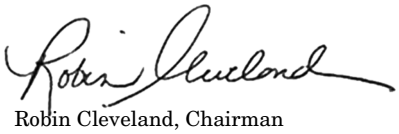
Yours truly,



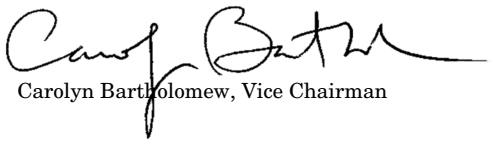
Robin Cleveland
Chairman

Carolyn Bartholomew
Vice Chairman

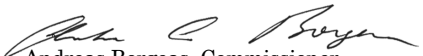
Commissioners Approving the 2020 Report



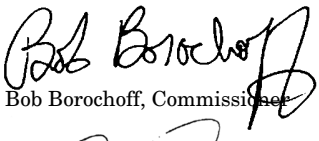
Robin Cleveland, Chairman



Carolyn Bartholomew, Vice Chairman

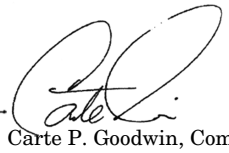


Andreas Borgeas, Commissioner

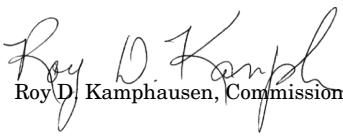


Bob Borochoff, Commissioner

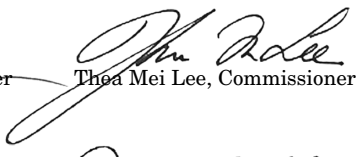
Jeffrey Fiedler, Commissioner



Carte P. Goodwin, Commissioner



Roy D. Kamphausen, Commissioner



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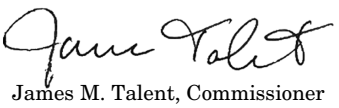
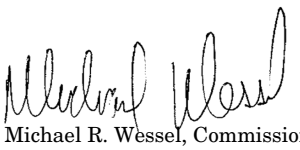
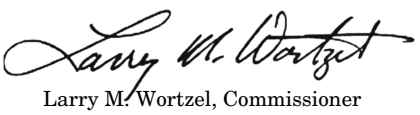
Kenneth Lewis, Commissioner



James M. Talent, Commissioner



Michael R. Wessel, Commissioner



Larry M. Wortzel, Commissioner

CONTENTS

EXECUTIVE SUMMARY

Chapter 1: U.S.-China Global Competition

Section 1: A Global Contest for Power and Influence: China's View of Strategic Competition with the United States

China is engaged in a global competition for power and influence with the United States. The ruling Chinese Communist Party (CCP) regards the liberal democratic values championed by the United States as a fundamental impediment to its external ambitions and an existential threat to its domestic rule. Chinese leaders' assessment of the United States as a dangerous and firmly committed opponent has informed nearly every facet of China's diplomatic strategy, economic policy, and military planning in the post-Cold War era. Although elements of this competition have been evident for some time, under General Secretary of the CCP Xi Jinping the competition has intensified.

Through its modernization efforts, China has emerged as an unprecedented economic rival and a growing military threat capable of inflicting grave harm on the United States and its allies and partners. China's economic engagement with the United States has proved to be a critical enabler of its rapid economic growth, steadily feeding Beijing's confidence in its ability to act on its longstanding ambition to match and ultimately displace the United States as the predominant global leader. Meanwhile, Beijing has intensified its diplomatic efforts, underpinned by an increased use of economic and military coercion, to drive wedges between Washington and its allies.

Strategic competition with China presents an increasing challenge for the United States. As Chinese leaders have perceived the power gap between China and the United States as steadily closing, they have become increasingly confident in their ability to expand the reach of the CCP's authoritarian values and repression to the detriment of the United States, its workers, businesses, and allies. Continued success by the Chinese government in achieving its economic, diplomatic, and military goals could set back U.S. economic and technological progress for decades at the cost of good jobs and shared prosperity, embolden autocrats and dictators around the world, and obstruct U.S. military support to U.S. allies and partners in the Indo-Pacific in the event of a future conflict.

Key Findings

- Beijing has long held the ambition to match the United States as the world's most powerful and influential nation. Over the past 15 years, as its economic and technological prowess, diplomatic influence, and military capabilities have grown, China has turned its focus toward surpassing the United States. Chi-

nese leaders have grown increasingly aggressive in their pursuit of this goal following the 2008 global financial crisis and General Secretary Xi's ascent to power in 2012.

- Chinese leaders regard the United States as China's primary adversary and as the country most capable of preventing the CCP from achieving its goals. Over the nearly three decades of the post-Cold War era, Beijing has made concerted efforts to diminish the global strength and appeal of the United States. Chinese leaders have become increasingly active in seizing opportunities to present the CCP's one-party, authoritarian governance system and values as an alternative model to U.S. global leadership.
- China's approach to competition with the United States is based on the CCP's view of the United States as a dangerous ideological opponent that seeks to constrain its rise and undermine the legitimacy of its rule. In recent years, the CCP's perception of the threat posed by Washington's championing of liberal democratic ideals has intensified as the Party has reemphasized the ideological basis for its rule.
- Beijing views economic competition with the United States in the context of its broader economic development strategy. Beginning in 2006, the United States, as the global economic and technological leader, became a target to chase and surpass as the CCP fostered domestic production and innovation through successive waves of industrial plans.
- In China's most recent industrial policy wave, set by the 2016 Innovation-Driven Development Strategy, which includes the Made in China 2025 plan, policymakers have promoted the development of China's digital ecosystem and accompanying regulatory architecture. The CCP believes China faces a rare historic opportunity to establish control over a cluster of revolutionary, networked technologies, including high-speed internet, sensors, telecommunications, artificial intelligence, robotics, and smart city infrastructure. Doing so could allow Beijing to leapfrog the United States and other powerful competitors and lead in the next generation of global innovation.
- The People's Liberation Army (PLA) views the U.S. military as its primary strategic adversary and has engaged in long-term efforts to close the wide capability gap with U.S. military power since the mid-1990s. In 2004, the PLA shifted its focus to emphasize leapfrogging the United States in certain warfighting areas by introducing new concepts the PLA believed could enable it to defeat a conventionally superior opponent.
- The PLA's long-term strategy to gain advantage over the U.S. military includes developing "informationized" capabilities and exploiting ostensibly civilian information systems, likely including those built overseas by Chinese companies. The PLA is complementing these efforts by developing cyberattack, space and counterspace, and long-range precision-strike capabilities and expanding its capacity to delay and threaten U.S. military forces at increasing distances from China's shores.

Section 2: The China Model: Return of the Middle Kingdom

The CCP sees itself as engaged in a systemic struggle with the United States and other democratic countries over the future of the world order. Beijing seeks to use its growing power to transform the international order, ultimately legitimizing its repressive governance system; expanding its economic, security, and political interests; and restoring China to what it views as its rightful place at the center of the world. It desires for other countries to accept if not praise its authoritarian, single-party governance model as a superior alternative to liberal democracy and seeks to export elements of its model, popularizing internationally the norm that power, not rules-based accountability, is a legitimate basis for political authority. The CCP hopes to remold global governance, ultimately enabling China to act unconstrained by the current rules-based order. These objectives predate General Secretary Xi's rule and will likely persist beyond it, posing a long-term challenge to U.S. interests, the integrity of international institutions, and liberal democracy worldwide.

The Chinese government is shaping and subverting the international governance system to align with Beijing's own principles, which are directly opposed to universal values and individual rights. Beijing uses economic leverage to secure other countries' support for these alternative values in the UN and other organizations while exploiting leadership roles in UN agencies to promote Chinese foreign policy objectives, such as marginalizing Taiwan. Meanwhile, through a parallel order of alternative China-centric organizations, including the Belt and Road Initiative (BRI), China is creating an integrated economic and geopolitical order under China's leadership. Beijing seeks to use its central role in this new parallel order to exploit globalization, using the networks and resources of other countries while limiting access to its own market. It also uses its leverage to export to developing countries elements of its economic model that threaten private enterprise and rule of law in favor of a dominant state sector and corrupt business environment.

As part of its ambitions to shape global governance and become the preeminent power, the CCP seeks to dominate development of emerging technologies and ensure the norms and values for how these technologies are deployed further its geopolitical goals. To do so, it aims to establish China's leadership in international standardization bodies and export Chinese technical standards, the design features and product specifications that allow different products to work together. Because the Chinese government treats technical standards as a tool of industrial policy and market access, China's ambitions threaten to disrupt organic industry-led innovation that has allowed the U.S. technological ecosystem to thrive. Furthermore, China's influence over information and telecommunications technology, including connected technologies used in surveillance and the building blocks of the internet, provide like-minded authoritarian regimes with the tools to repress their own populations, control information flows, and support China's surveillance and data collection programs.

If Beijing succeeds in normalizing its views of governance, the result could undermine individual rights around the world. Underestimating Beijing's intent to revise the international order based on

its current capabilities risks delaying a response until it is already too late to preserve the liberal international order that has allowed the unprecedented flourishing of human life and freedoms for the last three quarters of a century.

Key Findings

- The CCP seeks to revise the international order to be more amenable to its own interests and authoritarian governance system. It desires for other countries not only to acquiesce to its prerogatives but also to acknowledge what it perceives as China's rightful place at the top of a new hierarchical world order.
- The CCP's ambitions for global preeminence have been consistent throughout its existence: every CCP leader since Mao Zedong has proclaimed the Party would ultimately prove the superiority of its Marxist-Leninist system over the rest of the world. Under General Secretary Xi, the Chinese government has become more aggressive in pursuing its interests and promoting its model internationally.
- The CCP aims to establish an international system in which Beijing can freely influence the behavior and access the markets of other countries while constraining the ability of others to influence its behavior or access markets it controls. The "community of common human destiny," the CCP's proposed alternative global governance system, is explicitly based on historical Chinese traditions and presumes Beijing and the illiberal norms and institutions it favors should be the primary forces guiding globalization.
- The CCP has attempted to use the novel coronavirus (COVID-19) pandemic to promote itself as a responsible and benevolent global leader and to prove that its model of governance is superior to liberal democracy. Thus far, it appears Beijing has not changed many minds, if any. Countries already skeptical of the CCP's intentions argue it failed to contain the virus where it originated and withheld information until it was too late to avoid a global pandemic. Countries already predisposed to view Beijing favorably have praised its pandemic response.
- The Chinese government's Belt and Road Initiative is both a blueprint and a testbed for establishing a Sinocentric world order. The initiative has no membership protocols or formal rules but is based on informal agreements and a network of bilateral deals with China as the hub and other countries as the spokes. This framework lets Beijing act arbitrarily and dictate terms as the stronger party.
- The CCP seeks to coopt established international governance institutions by increasing its leadership and functionary positions within these institutions and rewriting the norms by which they operate to align with China's model of international relations. Within these institutions, the Party builds coalitions that support China in the UN and portray its political priorities as supported by international consensus.

- In some cases, Beijing bypasses the existing system by creating alternative international institutions it can influence from the start. Where possible, it excludes the United States and European powers from these institutions, and in some cases the United States chooses not to participate.
- The Chinese government views technical standards as a policy tool to advance its economic and geopolitical interests. It has systematically tried to expand its influence in international standards-setting organizations by installing Chinese nationals in key leadership and functionary positions and pushing standards backed by its industrial policies.

Section 3: China's Strategic Aims in Africa

Over the last two decades, China has reinvigorated its longstanding ties to African countries, placing the continent squarely at the center of its ambitions to become a global political and economic leader. Beijing views Africa as a testing ground for the export of its political and economic model and believes that if more African countries emulate China's system of governance, it will be easier for Beijing to advance its strategic objectives across the continent and globally. To this end, the Chinese government regularly hosts African political and military leaders for training sessions, many of which stress the superiority of China's autocratic governance model. The CCP has used the influence it gains from its political engagement with African countries to enlist African support for its geopolitical objectives, diminishing the impact of U.S. diplomacy in African countries and in the international system.

Economics is a key pillar in Beijing's Africa strategy, with China surpassing the United States as Africa's largest trading partner in 2009. Today, China is also Africa's largest bilateral creditor. Though China's growing presence in African economies can bring much-needed infrastructure to many countries, the Chinese government's lack of transparency, accountability, and adherence to global development standards raises concerns, including over its support for corruption and repression. Beijing's increasing control over the supply of key African commodities such as cobalt could threaten U.S. access to inputs for emerging technologies. Additionally, China's infrastructure financing often comes with requirements that Chinese firms complete the projects, depriving non-Chinese firms of important business opportunities in many African countries.

Chinese loans also risk creating an unsustainable debt burden in some African countries, which may leave them vulnerable to Chinese government coercion. Separately, the United States and other responsible lenders might end up shouldering an outsized burden in debt relief efforts, essentially bailing out Beijing's irresponsible lending practices. While commodities and infrastructure continue to dominate China-Africa economic relations, China has also focused increasing attention on Africa's emerging digital economy. Chinese firms already dominate Africa's mobile phone handset market and have made increasing investments in its venture capital market, providing China with opportunities to set emerging technological standards in Africa.

Although China seeks to minimize its visible military presence on the continent, it nonetheless employs a multidimensional approach to security engagement with African countries that supports its political, economic, and military interests. Beijing primarily relies on private military contractors and African partners to protect its investments, and there is evidence it has shown a willingness to leverage its influence in the UN peacekeeping operations system to advance its economic goals in Africa. China's permanent military base in Djibouti improves its ability to deploy and sustain troops on the continent, while substantial investments in civilian ports could lead to dual-use arrangements or the establishment of additional military bases in the future. If China further expands its military presence on and around the continent, it could allow the People's Liberation Army (PLA) to impede the movement of the U.S. Navy in the western Indian Ocean and even the southern Atlantic in the event of a future conflict in East Asia.

Key Findings

- Beijing has long viewed African countries as occupying a central position in its efforts to increase China's global influence and revise the international order. Over the last two decades, and especially under General Secretary Xi's leadership since 2012, Beijing has launched new initiatives to transform Africa into a testing ground for the export of its governance system of state-led economic growth under one-party, authoritarian rule.
- Beijing uses its influence in Africa to gain preferential access to Africa's natural resources, open up markets for Chinese exports, and enlist African support for Chinese diplomatic priorities on and beyond the continent. The CCP flexibly tailors its approach to different African countries with the goal of instilling admiration and at times emulation of China's alternative political and governance regime.
- China is dependent on Africa for imports of fossil fuels and commodities constituting critical inputs in emerging technology products. Beijing has increased its control of African commodities through strategic direct investment in oil fields, mines, and production facilities, as well as through resource-backed loans that call for in-kind payments of commodities. This control threatens the ability of U.S. companies to access key supplies.
- As the top bilateral financier of infrastructure projects across Africa, China plays an important role in addressing the shortage of infrastructure on the continent. China's financing is opaque and often comes with onerous terms, however, leading to rising concerns of economic exploitation, dependency, and political coercion. Many African countries borrowing from Beijing face growing debt burdens.
- China has shown an apparent willingness to leverage its influence in the UN peacekeeping operations system to advance its economic interests in African countries, raising the possibility that Beijing is subverting UN norms and procedures in the

process. Beijing also relies on the assistance of African partners and private security contractors to advance its economic objectives on the continent.

- China's approach to security engagement allows Beijing to expand its influence in Africa's security domain while minimizing its visible military presence outside of its UN peacekeeping operations contributions. As Beijing's economic and political influence on the continent grows, it might leverage its security ties to establish another base in the medium to long term, as it did in Djibouti.

Chapter 2: U.S.-China Economic and Trade Relations

Section 1: Year in Review: Economics and Trade

The CCP's mismanagement and concealment of the COVID-19 outbreak fueled a global pandemic and contributed to a massive shock to the global economy in 2020. China's own economy appears to be in an early recovery, yet it is concluding 2020 in a more precarious economic position than it began the year. Both the immediate economic shock and uneven recovery have deepened inequality and perpetuated inefficient allocation of resources and credit. To revive growth, the government rehashed a familiar strategy of state-led investment in the industrial sector but did little to shore up the social safety net, leading to a rebound in industrial output but not consumption. Continued increases in supply without revival of demand risk exacerbating Chinese overproduction and could drive down global prices, hurting workers and businesses beyond China's borders.

Prior to the outbreak, in January 2020 the U.S. and Chinese governments signed a Phase One agreement, which secured commitments across a range of U.S. interests. Although the deal was welcomed by many stakeholders, it left unaddressed longstanding structural distortions introduced by China's economic policies. China's commitments to provide greater market access for some foreign financial services may present commercial opportunities for U.S. firms but could also expose U.S. financial institutions and investors to substantial risks. The commitments are by no means synonymous with liberalizing the sector, and U.S. entrants will likely compete with local rivals on unfair terms. A fresh infusion of foreign capital may also allow Chinese banks to roll over delinquent loans and keep perennially loss-making enterprises afloat, rather than pushing through much-needed reforms to address systemic financial risks.

U.S.-China bilateral tensions continued to escalate in 2020. In a series of unilateral measures, U.S. policymakers moved to halt the flow of U.S. advanced technology to Chinese companies that pose a national security threat. Chinese policymakers are considering a range of retaliatory measures, including introducing export regulations and an unreliable entity list—a blacklist—aimed at punitive reciprocal restrictions. As U.S. imports from China declined, U.S. multinationals began to reconsider how best to structure their supply chains in the face of uncertainty and political risk.

Key Findings

- China's GDP contracted 6.8 percent the first quarter of 2020, marking the worst quarterly performance since 1992 and the first contraction since the Mao era. Responding to the economic shock, China's government reverted to past practices, exacerbating enduring structural problems within China's economy. Massive state-led investment and other policy choices have benefitted state-owned enterprises at the expense of households and small business and risk increasing global overcapacity, inequality, and debt buildup.
- U.S.-China tensions continued to escalate over trade and national security concerns. The U.S. Department of Commerce tightened restrictions on Huawei and added over 100 China-based entries to the Entity List for a range of activities, including illicitly providing U.S. technology to China's military, aiding in the repression of China's ethnic Uyghur minority, and constructing artificial islands in the South China Sea. The U.S. Department of Homeland Security also blocked Chinese imports from factories and companies suspected of using forced labor, primarily in China's Xinjiang Uyghur Autonomous Region. Chinese leaders have threatened retaliatory treatment and redoubled efforts to secure technological self-sufficiency.
- Continuing trade tensions and shortages related to the spread of the COVID-19 pandemic revealed key supply chain vulnerabilities, prompting the United States and its allies to accelerate their reassessment of dependence on China for critical inputs and finished goods. As 2020 comes to a close, U.S. companies continue to weigh their sourcing options and consider what degree of reliance on concentrated production in China is acceptable.
- Despite mounting tensions between the United States and China, the two countries reached a Phase One trade agreement in January. In the agreement, China once again committed to ensuring technology transfer occurred on a voluntary basis, providing stronger intellectual property protection, allowing greater market access for U.S. financial services, reducing nontariff barriers to trade for U.S. agricultural products, and reaching specific purchase targets of U.S. exports, though by August 2020 China was on track to import only one third of the aggregate target for the year. Remaining long-term challenges, including Chinese government subsidies, local content requirements, and continuing market access restrictions in other sectors were deferred to future rounds of negotiation.
- The Chinese government's decision to allow greater foreign investment in its financial sector coincides with an urgent domestic demand for capital, as China's banking sector faces an unsustainable debt burden. Favoritism for local corporations, lack of transparency, and weak regulatory and accounting practices place U.S. assets and investors, including pension funds, at substantial risk.

Section 2: Vulnerabilities in China's Financial System and Risks for the United States

In 2020, the Chinese government leaned on state control to contain the economic fallout of the COVID-19 pandemic, instructing banks to lend to companies hard hit by the virus and deploying the country's financial system to absorb the pandemic's shocks. While Beijing's response has enabled a rapid recovery in China's economy, it has done so by fortifying the role of the state in managing economic activity and promoting policies similar to those that have generated misallocation of credit and ballooning debt in the past. The Chinese government's tenacious commitment to economic stability above all else reinforces public expectations that it will always be there to bail out struggling banks or companies. This implicit guarantee of government support contributed to local governments and companies taking on increasing amounts of credit after the 2008 crisis, leading to current concerns about the stability of the financial system. China's first economic contraction in four decades also raises renewed concerns that debt levels will continue to rise.

The Chinese government is beginning to experiment with breaking this implicit guarantee and to defuse risks in China's financial system as regulators embark on a cleanup of the banking sector and assess systemic problems caused by a decade of rapidly accumulated debt. Confronting the scale of these problems, the Chinese government increasingly views foreign capital as part of the solution. Beijing's financial opening in recent years thus reflects a calculated strategy to secure foreign investment inflows and use them to shore up the domestic economy and strengthen its companies. As this opening continues, exposure to unique risks in China's financial system rises for foreign investors, and their financial wellbeing becomes increasingly staked on Beijing's management of the Chinese economy. China's financial opening is also deepening U.S.-China financial integration just as the U.S. government takes more concerted steps to confront China's unfair economic policies and threats to U.S. interests. Of particular concern is the rising inclusion of Chinese securities in global investment indices. These inclusions are funneling hundreds of billions of U.S. investment dollars toward a financial system that lacks transparency, adequate pricing of risks, and regulatory oversight. They are also financing companies whose operations are otherwise antithetical to U.S. national security and foreign policy objectives.

There is every indication that China's quest for foreign capital will continue. Local governments shoulder crushing debt levels, banks remain undercapitalized, and increased public expenditure on caring for an aging population will erode national savings. U.S. portfolio investment inflows to China are also poised to grow significantly, especially if China recovers from the pandemic ahead of other economies, making Chinese financial markets more attractive. As these trends converge and U.S. exposure to risks in China's financial system rises, doubts about whether deepening U.S.-China financial integration is desirable are coming into sharper relief.

Key Findings

- China's formal financial system is dominated by state-owned banks, whose position has been strengthened in the wake of the COVID-19 pandemic in 2020. These banks favor state-owned enterprises (SOEs) and privileged companies, leaving other Chinese companies starved for capital. Between 2008 and 2016, a large and unwieldy shadow banking sector emerged to fill this gap, leading to a proliferation of risky financial products and rising leverage across China's financial sector.
- In 2016, Beijing launched a financial de-risking campaign to rein in shadow banking activity and clean up the financial sector. This campaign choked off small private companies' access to financing. The COVID-19 pandemic has further deteriorated the financial health of these companies, forcing the government to ease its regulatory tightening and prioritize economic stability over financial de-risking. With such vulnerabilities remaining unaddressed, investors in China's capital markets are increasingly exposed to structural problems in China's financial system.
- As Beijing strategically opens its financial sector to secure foreign capital and global investment indices shift asset allocations toward Chinese securities, U.S. investors' exposure to the unique and significant risks accumulated in China's capital markets rises. These risks center around the opacity of China's financial system and Beijing's interference in market activity to advance its political objectives.
- Increased financial exposure to China threatens to undermine U.S. efforts to defend against China's unfair economic practices and protect U.S. policy interests. Several Chinese companies included in global investment indices are subject to U.S. export controls but not investment restrictions. This mismatch enables problematic Chinese companies to continue raising U.S. capital and reduces the strength with which the United States can defend against companies that threaten national security.
- While China's leadership speaks of developing more dynamic capital markets, liberalizing interest rates, and imposing market discipline on the banking sector, these ambitions are tempered by a low tolerance for market instability and a strong bias in favor of state-owned companies to maintain economic growth and safeguard employment.
- After years of unbridled lending, China's financial system is facing mounting problems. Local governments have recorded significant revenue shortfalls, banks remain undercapitalized, and an aging population threatens persistent current account deficits. The Chinese government seeks to attract large volumes of new foreign investment to meet these capital shortfalls. These circumstances provide the key context for the entry of foreign capital and expertise into the country's financial system.
- Beijing continues to deny U.S. audit regulators full visibility into the financials of U.S.-listed Chinese companies in line with U.S. accounting standards. These evasions from effective regulation and oversight, together with U.S.-listed Chinese companies'

complex ownership structures, deprive U.S. investors of both full transparency and the opportunity for legal redress in cases of accounting fraud, eroding the integrity of U.S. capital markets.

- The COVID-19 pandemic has exacerbated key risks in China's already strained financial system. Although a full accounting of economic damage is still underway, China's first economic contraction in four decades will make it more difficult to tackle the country's debt burden, resolve nonperforming loans, and efficiently allocate capital.
- Beijing's imposition of the national security law in Hong Kong has accelerated the territory's assimilation into China's national governance system, which could erode its status as a global financial hub. As the Chinese government calibrates financial opening, it may lean more on Hong Kong to raise foreign capital and serve Chinese companies and continue to rely on the territory as an extension of mainland capital markets.

Section 3: U.S.-China Links in Healthcare and Biotechnology

Beijing views its ability to deliver high-quality healthcare to Chinese citizens as a key aspect of maintaining its legitimacy, yet much of China's healthcare infrastructure is out of date and struggles to meet even the basic needs of many patients. Consequently, Chinese policymakers have set ambitious targets for improvements to China's healthcare system. In particular, the Chinese government has prioritized high-growth sectors such as biotechnology (biotech), digital health, and precision medicine. These sectors not only offer the potential of improving China's healthcare system but also align with Beijing's industrial policy goals of moving up the global value chain.

Despite officially encouraging foreign participation in China's healthcare sector, the Chinese government continues to place foreign firms at a disadvantage, most notably in terms of collecting and sharing healthcare data, which is an increasingly vital component of new healthcare treatments. This data collection occurs through legal channels such as investment in U.S. firms and academic research partnerships as well as illicit methods such as state-sponsored hacking of U.S. healthcare providers and businesses. China's collection of U.S. healthcare data raises privacy concerns for U.S. citizens. China's nonreciprocal collection of health data gives Chinese firms a distinct advantage in research and development, threatening to erode U.S. leadership in medicine and biotech by allowing Chinese companies access to both U.S. and Chinese datasets while blocking U.S. competitors from Chinese data. This comes at a time when the rapid advancement of biological sciences has led to a "biorevolution" that will have increasingly important economic and security implications.

While Chinese policymakers have aggressively supported cutting-edge biotech developments, they have paid far less attention to China's public health system. Years of underfunding, increasing staffing shortfalls, and bureaucratic weaknesses in much of China's public health system have undermined the country's ability to stop the spread of infectious diseases. Moreover, an increasingly repressive political atmosphere has silenced healthcare workers and journalists reporting on such outbreaks, preventing vital informa-

tion-sharing in the early stages of the COVID-19 outbreak. Beijing's unwillingness to cooperate or share information with foreign governments and international organizations further obstructed efforts to contain what was initially a localized outbreak. The widespread loss of human life and economic devastation in the wake of the COVID-19 pandemic has vividly exposed the shortcomings in China's epidemiological preparedness and demonstrated the worldwide ramifications of the CCP's policy priorities.

Key Findings

- Longstanding problems in China's public health system, including funding shortfalls and bureaucratic weaknesses, have undermined the country's epidemiological preparedness. These vulnerabilities are compounded by a political atmosphere that silences and punishes healthcare workers who raise concerns about potential disease outbreaks because the CCP fears such disclosures could undermine social stability. As a result, the risk of another epidemic in China will remain heightened even as Beijing attempts to improve its public health system in the wake of the COVID-19 pandemic.
- Chinese regulators have officially encouraged foreign participation in China's healthcare sector but maintain regulatory barriers that disadvantage foreign firms and hinder free competition. Most notably, Beijing has placed increasingly tight restrictions on foreign firms' ability to access and share healthcare-related data collected in China.
- The Chinese government has made the collection of domestic and foreign healthcare data a national priority and has sought access to U.S. healthcare data through both licit and illicit means. Chinese entities have gained access to U.S. healthcare data through investment in U.S. firms, sales of equipment and services, and partnerships with U.S. universities and hospitals, even as Beijing prevents U.S. entities from gaining reciprocal access to Chinese data. Chinese state-sponsored groups have also obtained U.S. healthcare data and targeted COVID-19 research by hacking U.S. healthcare providers and businesses.
- Through its scientific talent recruitment programs, the Chinese government has systematically targeted the U.S. research community, particularly participants in the biological and medical sciences. Although there are many benefits to research cooperation, Beijing has used financial inducements and other means to encourage foreign researchers to establish shadow laboratories in China that mirror federally funded research conducted in the United States and facilitate the transfer of commercially and medically valuable research to China.
- While China has made significant improvements to its healthcare system, substantial shortfalls remain. In particular, China lacks a long-term care infrastructure for its aging population and its healthcare system is underequipped to handle challenges posed by the rise in chronic disease.

- China's policymakers are making major efforts to improve the quality and affordability of healthcare, prioritizing innovation in technologies and treatments to manage rising chronic disease. Prior to the outbreak of COVID-19, infectious disease monitoring and prevention have received comparatively less attention.

Chapter 3: U.S.-China Security, Politics, and Foreign Affairs

Section 1: Year in Review: Security, Politics, and Foreign Affairs

In 2020, Beijing aggressively escalated its pursuit of global leadership, revealing its ambition to imprint international institutions and influence regions with the agenda of the CCP. Beijing refused to recognize its culpability in the outbreak and spread of COVID-19, lashing out at its critics and initiating a global diplomatic campaign to present itself as the country best suited to lead the world from the devastation left in the pandemic's wake. As the world's attention was focused on the pandemic, China ramped up military intimidation of its neighbors while levying economic punishment against countries that criticized its behavior. The Chinese government's imposition of a draconian national security law for Hong Kong in June sent shockwaves around the globe and demonstrated Chinese leaders' disregard for their international commitments as well as the aspirations of Hong Kong's prodemocracy movement.

Chinese leaders confronted the fallout from the pandemic alongside severe domestic and external challenges as they prepared to mark a series of critical political, economic, and military milestones. The PLA made steady progress toward its goal of becoming a world-class military, although it appeared to only partially achieve its 2020 goal to mechanize the force and admitted a two-year delay in redesigning its personnel and policy systems under its overall reorganization and modernization program. As the CCP prepared for the 2021 celebration of the centennial of its founding, Party leaders reiterated concerns over endemic corruption and bureaucratic ineptitude amid signs of popular and elite discontent, especially with the government's mismanagement of the COVID-19 crisis.

Facing growing opposition abroad and fallout from COVID-19 at home, Chinese leaders intensified their campaign of ideological control and repression. The Ministry of Education issued new guidelines requiring ideological conformity within university curricula, while new details continued to emerge regarding the CCP's campaign of cultural devastation and abuse of China's Uyghur, Tibetan, and Mongolian minority populations. Some experts began to argue that the CCP's campaign against Uyghurs, including forced abortions and sterilizations, fits the legal definition of genocide. Meanwhile, tensions with the United States escalated further as the CCP, under General Secretary Xi, defined a more confrontational relationship with the United States than at any time since the beginning of U.S.-China détente nearly half a century ago.

Key Findings

- In 2020, China sought to project an image of confidence and increased efforts to portray itself as a global leader superior to the United States even as it faced an increasing array of challenges

at home and abroad. Meanwhile, CCP leaders took new steps to silence criticism of the Party and demand praise for its actions both among the Chinese populace and in foreign countries.

- General Secretary Xi continued to emphasize the military dimension of U.S.-China competition, instructing the PLA for a second year to prepare for a potential military conflict with a "powerful enemy adversary"—a phrase used by the CCP to refer to the United States. The PLA commissioned its first indigenously produced aircraft carrier and the first of a new class of advanced, large displacement destroyers while continuing to struggle with persistent weaknesses in its training and the limited command capabilities of its officer corps.
- The CCP grew more openly confrontational toward the United States and key U.S. allies and partners as Beijing increasingly demonstrated its disregard for international rules, norms, and criticism of its actions. This aggressive approach was typified by Beijing's growing use of economic coercion against countries that took actions Beijing perceived as contrary to its interests.
- Beijing ramped up its multiyear coercion campaign against its neighbors, provoking military or paramilitary standoffs with countries from Japan to India and much of Southeast Asia. Shortly after China's defense minister urged Beijing to use military force to stabilize its periphery, a violent clash on the China-India border in June led to the first loss of life between the two countries since 1975.
- The CCP combined its aggressive actions beyond its borders with increasing domestic repression. Beijing implemented a draconian security law that ended the political freedoms it had pledged to guarantee to Hong Kong, while new evidence emerged of the CCP's campaign of cultural genocide against the millions of Uyghurs and Tibetans living under its rule. Concern about its abusive treatment of ethnic Mongolians is also rising.
- The U.S.-China relationship grew increasingly confrontational in 2020 as both governments characterized the other in sharply adversarial terms and unfavorable views toward China among the U.S. public reached a new historic high. The United States took significant new steps to curtail bilateral economic, scientific, and educational exchanges.
- The rapid spread of COVID-19 from Wuhan across China and beyond its borders revealed a range of systemic flaws in the Chinese governance system. Government authorities' active suppression of information, an overriding emphasis on secrecy and political image, and bureaucratic paralysis combined to severely delay any meaningful policy response. Evidence also emerged that Beijing's official numbers dramatically underreported actual cases.

Section 2: China's Growing Power Projection and Expeditionary Capabilities

China has made changes to its military strategy, equipment, and global posture over the last two decades that now enable it to proj-

ect power at greater distances from its shores. Under the leadership of General Secretary Xi, the PLA has begun the process of transforming itself into a "world-class military" to support his ambitions for national rejuvenation. China's strategic requirements relating to the projection of military power are defending sovereign territory as the CCP defines it; delaying or denying potential threats or intervention in a regional conflict or sovereignty dispute by other powers, such as the United States; and protecting China's overseas economic interests and sea lines of communication. PLA strategists argue that a world-class military must possess a blue-water navy capable of conducting expeditionary operations with air and ground forces on faraway continents. Authoritative sources suggest Chinese leaders aspire to project force and be capable of fighting limited wars around the globe by the middle of the century.

Today, the PLA is vigorously updating its equipment, training, and organization in ways that increase the capacity and range of its power projection capabilities. The force's efforts focus on rectifying shortfalls in six operational areas: amphibious assault, naval power projection, air power projection and delivery, long-range precision strike, global logistics, and global command and control. Two notable dimensions of the PLA's capability-building efforts are its incorporation of cyber and space technologies for power projection and its reliance on civilian entities for global logistics and force sustainment. China's base in Djibouti and its expanding access to civilian ports and airfields around the world also help support the PLA's global operations.

China's power projection capabilities are currently most developed in East and Southeast Asia, where its activities threaten the security of the United States and its allies and partners, but these capabilities diminish as distance from the region increases. To prepare the groundwork for a future network of overseas military bases and dual-use logistics facilities, the PLA uses traditional military diplomacy and humanitarian activities to burnish its image and sway host nation leaders. China's overseas access model also relies on civilian ports operated or majority owned by Chinese SOEs, which may become dual-use logistics facilities. The PLA's power projection capabilities have already had significant ramifications for the U.S. security architecture in East Asia and could eventually affect the United States' ability to defend its interests across the globe.

Key Findings

- Recent advances in equipment, organization, and logistics have significantly improved the PLA's ability to project power and deploy expeditionary forces far from China's shores. A concurrent evolution in military strategy requires the force to become capable of operating anywhere around the globe and of contesting the U.S. military if called upon to do so. Chinese leaders have vigorously pushed the PLA to develop power projection and expeditionary capabilities over the last 20 years.
- China's power projection capabilities are developing at a brisk and consistent pace, reflecting the civilian leadership's determination to transform the PLA into a global expeditionary force in a matter of decades. In the short term (next five years), the PLA

will focus on consolidating the capabilities that would enable it to conduct large-scale military operations around its maritime periphery. In the medium term (next 10–15 years), the PLA aims to be capable of fighting a limited war overseas to protect its interests in countries participating in the BRI. By mid-century, the PLA aims to be capable of rapidly deploying forces anywhere in the world.

- China's basing model includes military facilities operated exclusively by the PLA as well as civilian ports operated or majority-owned by Chinese firms, which may become dual-use logistics facilities. Chinese firms partially own or operate nearly 100 ports globally, more than half of which involve a Chinese SOE.
- Despite the PLA's progress in building expeditionary capabilities, it continues to face a number of challenges in projecting power. These challenges grow more pronounced the farther away the PLA operates from China's immediate periphery and include inadequate airlift, sealift, at-sea replenishment, and in-air refueling capabilities.
- China's power projection capabilities are robust in East and Southeast Asia, where it is building military bases. In the Indian Ocean, the PLA deploys naval task forces that regularly operate for seven to eight months as far away as Africa's eastern seaboard. While the PLA's power projection capabilities diminish the farther it operates from China, it is beginning to develop the ability to project power in the South Atlantic, where it occasionally conducts naval operations, makes port calls, and carries out military exercises with local partners. In Latin America and the Caribbean, where PLA power projection capabilities are weakest, the force is cultivating political influence and greater access to the region that will complement the satellite tracking station it already maintains in Argentina.

Chapter 4: Taiwan

The year 2020 was pivotal for cross-Strait relations as well as the United States' relationship with Taiwan. China's imposition of the national security law in Hong Kong and its intensifying military operations around Taiwan suggest that Chinese leaders intend to pursue their political objectives without concern for their existing commitments or the reputational costs they might incur by violating them. President Tsai Ing-wen's reelection in Taiwan and public support for the pro-democracy movement in Hong Kong underscored the island's resolve to remain free in the face of escalating Chinese coercion. Taiwan's government also responded to China's belligerence by moving closer to the United States, taking steps to address longstanding sources of U.S. concern over trade and defense.

Beijing leveraged its undue influence in the World Health Organization and other international bodies to exclude Taiwan from the global response to the COVID-19 pandemic. Despite these efforts, Taipei's robust epidemic control and prevention measures won praise and recognition from leaders around the world. Taipei's contributions to the international response to the pandemic further highlighted Taiwan's determination to be an active participant in

the international community. Leveraging its robust supply of medical expertise and personal protective equipment, Taipei launched a global assistance campaign and formed research partnerships with the United States and European Union to develop treatments for COVID-19.

Taipei underlined its commitment to limiting its vulnerability to Beijing's coercion by reinvigorating efforts to diversify supply chains away from the Mainland and removing barriers to expanded economic ties with the United States. Through an array of investment incentives targeting Taiwan and multinational firms, Taipei moved to fortify its position in technology supply chains and demonstrated how it can serve as a valuable partner in securing them. President Tsai's politically fraught decision to lift restrictions on U.S. meat imports further demonstrated Taiwan's dedication to both reducing its economic reliance on mainland China and forging a stronger relationship with the United States.

A growing chorus of voices in Washington policy circles are questioning whether China's mounting aggression toward Taipei and the deepening cross-Strait military imbalance necessitate a new U.S. approach to cross-Strait relations. U.S. policymakers face an increasingly urgent and difficult set of choices about responses to China's coercion of Taiwan. The U.S. government's steps in the next few years to address China's destabilizing impact on cross-Strait relations will have far-reaching consequences for the people of Taiwan, U.S. interests in the region, and the United States' standing in the world.

Key Findings

- The year 2020 was pivotal for cross-Strait relations. China's imposition of the national security law in Hong Kong and its intensifying military activities around Taiwan proved that Chinese leaders are determined to pursue their political objectives without concern for their existing commitments or the reputational costs they might incur by violating them. Events this year underscored the urgency of ongoing discussions in Washington over whether the United States should alter its longstanding policy toward Taiwan and how China's annexation of the island could affect U.S. national security interests.
- Taiwan President Tsai Ing-wen won reelection by a landslide in January 2020, easily defeating her opponent with an historic number of votes in a victory many experts viewed as improbable just a year ago. President Tsai's late surge in the polls was driven largely by voter dissatisfaction with Beijing's heavy-handed approach to the island and its destruction of basic freedoms in Hong Kong. The CCP's imposition of the national security law in Hong Kong discredits Beijing's assurance that Taiwan could preserve its chosen way of life under a prospective unification model and proved Chinese leaders intend to pursue their sovereignty claims regardless of the international reaction.
- In 2020, Beijing continued its multifaceted pressure campaign against Taiwan. Both of Taiwan's dominant political parties rejected Beijing's pursuit of unification under its "one country, two systems" framework, affirming their commitment to the island's

free, multiparty democracy. The Tsai Administration continued initiatives introduced during its first term to deepen ties with the United States and other countries in the Indo-Pacific region.

- The outbreak of COVID-19 underscored the consequences of Beijing's politically motivated exclusion of Taiwan from international organizations. Despite Beijing's attempts to marginalize the island, Taiwan's impressive domestic epidemic control and prevention efforts earned it the admiration of countries around the world, with many expressing strong opposition to Beijing's actions.
- Through stringent measures for case identification and containment, Taipei mounted a model response to the COVID-19 pandemic and averted a largescale economic shutdown. As a result, Taiwan's economy continued to expand in 2020, albeit at a slower pace, even as its neighbors suffered contractions. Taipei may face challenges in the medium term, however, as the pandemic roils the global economy and threatens to reduce external demand for the island's exports.
- The COVID-19 pandemic brought into stark relief the risks associated with China-centric supply chains and led Taipei to accelerate its push to reduce Taiwan's economic reliance on mainland China. The Taiwan government reinvigorated its efforts to incentivize Taiwan companies operating on the Mainland to relocate production to the island and unveiled other investment incentives and subsidies to encourage multinational technology firms to expand operations in Taiwan. These developments led to the preliminary recalibrations of global technology supply chains.
- The foundations of the U.S.-Taiwan economic relationship began to shift in 2020 as Taipei and Washington took significant steps to upgrade economic engagement. President Tsai removed a longstanding source of friction in bilateral trade ties by lifting restrictions on U.S. meat imports, while the Trump Administration announced it would launch a new Economic and Commercial Dialogue with Taipei focused on supply chain security, among other objectives.
- The PLA's military activities around Taiwan in 2020 were more frequent and more aggressive than those recorded in 2019. The PLA's moves abrogated norms that once managed tensions across the Strait and expanded Beijing's operations in the air and waters around Taiwan. The more frequent presence of PLA aircraft and naval vessels around Taiwan also increases the chance of a crisis stemming from an accident or miscalculation.
- Taiwan stepped up its missile production, upgraded its unmanned aerial vehicles, and continued to develop other asymmetric capabilities in 2020 even as it sought to replace aging conventional legacy systems with modern aircraft and tanks. Despite these efforts, Taiwan's military continued to grapple with ongoing problems related to equipment, readiness, and its transition to an all-volunteer force as the cross-Strait military balance remained deeply tilted in Beijing's favor.

- The U.S. government demonstrated its support for Taiwan through multiple avenues of engagement in late 2019 and 2020. In the political realm, the United States sent U.S. Department of Health and Human Services Secretary Alex Azar to Taipei in August 2020, making him the highest-ranking U.S. cabinet official to visit the island since 1979. In the military realm, the United States dispatched a senior defense official to Taiwan, initiated the sale of multiple major weapons systems to Taiwan; enabled Taiwan's participation in U.S.-led multilateral security consultations; and continued U.S. air and maritime transits around the island.
- The U.S. Department of State reaffirmed longstanding policy by releasing declassified cables containing its "Six Assurances" to Taiwan and emphasizing that the United States regards the question of Taiwan's sovereign status as unresolved. Assistant Secretary of State for the Bureau of East Asian and Pacific Affairs David R. Stilwell said in a speech, however, that the United States was making "important updates" to its engagement with Taiwan in response to "changing circumstances." These changes will be "significant, but still well within the boundaries of [the] One China policy."

Chapter 5: Hong Kong

The Chinese government swiftly brought the 7.5 million residents of Hong Kong under full and direct authoritarian rule with the implementation of a draconian national security law passed in Beijing. The dramatic change in Hong Kong's status showed the CCP's profound disregard for its international commitments and obligations to the people of Hong Kong. Unchecked, the national security law's extraterritoriality could grant China's government broad powers to censor global discourse and punish opinions that are critical of its interests or actions in the territory. This action was one of many in 2020—including border skirmishes with India, military exercises to intimidate Taiwan, and pressure on Australia, Canada, and the United Kingdom, among others—that demonstrated the Chinese government's indifference to its reputation abroad. For Taiwan, the case of Hong Kong exemplifies the hollowness of the CCP's promise that unification under "one country, two systems" is a viable option.

After the law's announcement, the Hong Kong government increasingly turned into the executor of Beijing's directives. The Hong Kong authorities curtailed an anticipated prodemocracy victory in the legislative election originally planned for September 2020, banning a dozen prodemocracy candidates and delaying the election for a year using the pandemic as a pretext. As of October 2020, the Hong Kong authorities and officials from the new Mainland security office created by the national security law continued to arrest prodemocracy activists and supporters as part of a wide-scale crackdown on opposition. U.S. multinationals and their staff in the territory now face the difficult task of assessing an entirely different kind of political and personal risk and are watching the law's implementation and the U.S. government's response.

The United States has maintained deep, longstanding economic and social ties to Hong Kong. More than 1,300 U.S. companies, in-

cluding nearly every major U.S. financial firm, have offices in Hong Kong. Beyond the commercial considerations, approximately 85,000 U.S. citizens are Hong Kong residents. In 2018, 1.3 million U.S. visitors traveled to Hong Kong, while an estimated 127,000 Hong Kong residents came to the United States. The swift imposition of the national security law may have fundamentally undermined the cosmopolitan vibrancy, dynamism, and openness that characterized the city. In light of the changed nature of the city, U.S. policymakers have begun the process of revoking the special status granted to Hong Kong in U.S. regulations.

Key Findings

- On June 30, 2020, the Chinese government implemented a sweeping national security law for Hong Kong that brought the 7.5 million residents of Hong Kong under the full and direct authoritarian rule of the CCP. This action violated China's commitment to preserve the "one country, two systems" framework that would have guaranteed Hong Kong's autonomy through 2047. In passing this law, Beijing demonstrated its willingness to sacrifice economic interests, the rule of law, and basic human rights to establish political control over the territory.
- The national security law has fundamentally transformed Hong Kong's relationship with the United States and other democracies, as well as the international perception of China as a global actor. China's unapologetic violation of a binding treaty once again calls into question the credibility of its commitments to the international community. In recognition of Hong Kong's changed status, the United States has begun dismantling Hong Kong's separate treatment in U.S. law, which served as the basis of U.S.-Hong Kong relations for nearly 30 years.
- The new law's extraterritorial provisions pose a substantial risk to U.S. citizens in Hong Kong and internationally. It criminalizes any perceived criticism of the Chinese or Hong Kong governments, regardless of where the offending individual or entity resides. Under this law, the Hong Kong government has already sought the arrest of a U.S. citizen, the director of a prodemocracy group advocating for congressional action on Hong Kong. Left unchecked, the law could grant the Chinese government broad powers to censor global discourse.
- U.S. multinationals and their personnel in the territory now face a heightened degree of political and personal risk and are waiting on the law's implementation and the U.S. government's response. Companies with operations on the Mainland may replicate precautions there for operations in Hong Kong. Other companies may choose to relocate more international-facing operations elsewhere. Major U.S. technology firms face particular challenges due to their collection of sensitive user data.
- In further confirmation of the territory's changed status, the Hong Kong authorities quickly moved to erase democratic processes in Hong Kong. Facing a likely prodemocracy victory, the government postponed a pivotal Legislative Council election and banned a dozen prodemocracy candidates. The de facto sep-

aration between mainland and Hong Kong security forces also vanished. Immediately after the national security law's implementation, the authorities began targeting and arresting prodemocracy supporters. Despite the danger of arrest under the law, many activists are committed to staying in the city to defend their freedoms, while others seek to move abroad.

- The national security law has significantly compromised Hong Kong's historically strong rule of law and press freedom. Under growing pressure from the CCP, the territory's judicial system has been thrown into crisis as judges are compelled to adopt mainland legal principles and CCP positions. Journalists faced new levels of pressure to self-censor while the Hong Kong authorities harassed prodemocracy news outlets and refused to renew press credentials. The CCP has also suppressed all other aspects of Hong Kong's civil society. Illustrating this trend, the Hong Kong authorities for the first time banned the annual vigil to mark the 1989 Tiananmen Square massacre.

THE COMMISSION'S KEY RECOMMENDATIONS

The Commission considers 10 of its 19 recommendations to Congress to be of particular significance. The complete list of recommendations appears at the Report's conclusion on page 535.

1. Congress adopt the principle of reciprocity as foundational in all legislation bearing on U.S.-China relations. Issues to be considered in applying this principle should include but are not limited to the following:
   - The ability of journalists and online media to operate without undue restriction;
   - The ability of nongovernmental organizations to conduct meaningful engagement with civil society;
   - Access to information, including but not limited to financial and research data;
   - Access for social media and mobile apps from U.S. companies;
   - Access for diplomatic personnel, including but not limited to diplomats' freedom of travel and ability to meaningfully exchange views with the host country public; and
   - Market access and regulatory parity, including but not limited to companies' ability to participate in trade, investment, and financial market transactions, cross-border capital transfer, and protections of intellectual property.
2. Congress expand the authority of the Federal Trade Commission (FTC) to monitor and take foreign government subsidies into account in premerger notification processes.
   - The FTC shall develop a process to determine to what extent proposed transactions are facilitated by the support of foreign government subsidies.
   - The definition of foreign government subsidies shall encompass direct subsidies, grants, loans, below-market loans, loan guarantees, tax concessions, governmental procurement policies, and other forms of government support.
   - Companies operating in the United States that benefit from the financial support of a foreign government must provide the FTC with a detailed accounting of these subsidies when undergoing FTC premerger procedures.
   - If the FTC finds foreign subsidies have facilitated the transaction, the FTC can either propose a modification to remedy the distortion or prohibit the transaction under Section 7 of the Clayton Act, which prohibits mergers and acquisitions where the effect "may be substantially to lessen competition, or to tend to create a monopoly."
3. Congress direct the U.S. Department of State to produce an annual report detailing China's actions in the United Nations and its subordinate agencies that subvert the principles and purposes of the United Nations. Such a report would at a minimum document the following:

- China's actions violating United Nations treaties to which it is a party;
- China's actions to influence the votes of United Nations members, including through coercive means;
- China's actions to nominate or support candidates for United Nations leadership positions that do not adhere to United Nations standards for impartiality or are subject to the influence of the Chinese government;
- Actions by nationals of the People's Republic of China and others currently holding United Nations leadership positions that appear to support the interests of the Chinese government in violation of United Nations impartiality standards;
- Actions by nationals of the People's Republic of China serving in functional positions in United Nations organizations impacting hiring practices, internal policies, and other functions that appear to support the interests of the Chinese government in violation of United Nations impartiality standards;
- Actions by Chinese military and support personnel engaged in United Nations peacekeeping operations that are inconsistent with the principles governing these missions, including China's deployment of these personnel to protect its economic interests and improve the power projection capabilities of the People's Liberation Army; and
- The number and positions of United States personnel employed by the United Nations and its agencies.

4. Congress hold hearings to consider the creation of an interagency executive Committee on Technical Standards that would be responsible for coordinating U.S. government policy and priorities on international standards. This Committee would consist of high-level political appointees from executive departments with equities relating to international technical standards, including the Department of Commerce, the Department of State, the Department of Defense, the Department of Energy, the Office of Science and Technology Policy, and other agencies or government stakeholders with relevant jurisdiction. The Committee's mandate would be to ensure common purpose and coordination within the executive branch on international standards. Specifically, the Committee would:
   - Identify the technical standards with the greatest potential impact on American national security and economic competitiveness;
   - Coordinate government efforts relating to those standards;
   - Act as a liaison between government, academia, and the private sector to coordinate and enhance joint efforts in relation to standards;
   - Manage outreach to counterpart agencies among U.S. allies and partners;
   - Set funding priorities and recommendations to Congress; and

- Produce annual reports to Congress on the status of technical standards issues and their impact on U.S. national security and economic competitiveness.

5. Congress consider establishing a "Manhattan Project"-like effort to ensure that the U.S. public has access to safe and secure supplies of critical lifesaving and life-sustaining drugs and medical equipment, and to ensure that these supplies are available from domestic sources or, where necessary, trusted allies. Such a project would supplement the recommendation the Commission made in its 2019 Annual Report that Congress hold hearings with a view toward enacting legislation requiring the U.S. government to procure medicines only from U.S. production facilities or from facilities that have been certified compliant with U.S. standards.
6. Congress enact legislation establishing a China Economic Data Coordination Center (CEDCC) at the Bureau of Economic Analysis at the U.S. Department of Commerce. The Center would be mandated to collect and synthesize official and unofficial Chinese economic data on developments in China's financial markets and U.S. exposure to risks and vulnerabilities in China's financial system, including:
   - Data on baseline economic statistics (e.g., gross domestic product [GDP]) and other indicators of economic health;
   - Data on national and local government debt;
   - Data on nonperforming loan amounts;
   - Data on the composition of shadow banking assets;
   - Data on the composition of China's foreign exchange reserves; and
   - Data on bank loan interest rates.
7. Congress direct the Administration, when sanctioning an entity in the People's Republic of China for actions contrary to the economic and national security interests of the United States or for violations of human rights, to also sanction the parent entity.
8. Congress consider enacting legislation to make the Director of the American Institute in Taiwan a presidential nomination subject to the advice and consent of the United States Senate.
9. Congress amend the Immigration and Nationality Act to clarify that association with a foreign government's technology transfer programs may be considered grounds to deny a nonimmigrant visa if the foreign government in question is deemed a strategic competitor of the United States, or if the applicant has engaged in violations of U.S. laws relating to espionage, sabotage, or export controls. Association with a foreign government's technology transfer programs can include any of the following:
   - Participation in a foreign government-sponsored program designed to incentivize participants to transfer fundamental research to a foreign country via a talent recruitment program or in a foreign government-sponsored startup competition;

- Acceptance of a government scholarship that requires recipients to study specific strategic scientific and technological fields, to return to the foreign country for a government work requirement after the scholarship term ends, or facilitates coordination with talent programs;
- Association with a university or a department of a university that the U.S. government has designated as a participant in the foreign government's military-civil fusion efforts; or
- Status (current or past) as a scientist, technician, or officer for a foreign military, if the applicant does not disclose such information when applying for a visa.

10. Congress direct the Administration to identify and remove barriers to receiving United States visas for Hong Kong residents attempting to exit Hong Kong for fear of political persecution.

INTRODUCTION

In 2000, Congress established this Commission to monitor and report on the national security implications of the U.S.-China economic relationship. Over the years, we have tracked the People's Republic of China's (PRC) accountability to its global commitments, including those made in its accession to the World Trade Organization. Two decades later, the Chinese Communist Party (CCP) selectively adheres to its global economic, trade, and political obligations and has abandoned any concern for international opinion. Now the CCP envisions itself atop a new hierarchical global order in which the world acquiesces to China's worldview while supplying it with markets, capital, resources, and talent.

The novel coronavirus (COVID-19) pandemic has focused public attention on China, but the PRC's ambitions are neither new nor secret. For decades, the CCP has made its ambitions clear through industrial policy and planning documents, leadership speeches, and military directives. Under General Secretary Xi Jinping, however, the CCP is aggressively asserting its interests both domestically and globally.

In the past, the CCP focused its attempts at economic dominance on legacy sectors of steel, aluminum, and transportation, among others. Its current goals are to dominate the world's newest and most cutting-edge industries, including biotechnology, semiconductors, artificial intelligence, and clean energy. Though the focus of China's industrial policies is changing, the government's strategy and objectives retain the same mercantilist and coercive tools: compelling foreign entrants to transfer technology to their domestic competitors for limited market access, lavishing generous subsidies on state-owned enterprises and domestic national champions, and leveraging illicit methods, including cyber-enabled theft, to obtain valuable intellectual property and mountains of data.

China's security laws threaten the arrest of anyone who criticizes China, its leaders, or its policies. This threat now extends to Americans inside China as well as those who live in or travel to countries that have an extradition treaty with China. Foreign journalists live in fear of detention or expulsion.

The CCP claims to protect the interests of the Chinese people. Its true purpose, however, is to protect its own existence and grow its power, no matter the costs. Party leaders judge any sign of criticism to be too great a risk to CCP rule. The CCP's response is harsh and swift whether reacting to the single voice of a doctor raising health alarms about the emergence of COVID-19, to internal criticism, or to millions of peaceful prodemocracy demonstrators in Hong Kong. This year, the CCP undertook new levels of effort to silence critics and prevent the flow of information.

The CCP's actions in Hong Kong show the Party's lack of tolerance for any sign of opposition to its interests and its lack of intent to honor its international commitments. Acting with swiftness and brutality, the CCP imposed draconian restrictions in Hong Kong, bypassing citizens' rights, the local government, and the legislature with a law drafted and directed by Beijing. Moving mainland authorities into Hong Kong, the CCP has arrested hundreds and threatened thousands of citizens who have simply demanded China honor its pledge to guarantee Hong Kong a "high degree of autonomy" in its legal, social, and economic life. That the CCP's brazen assertion of power violated a legally binding treaty registered with the UN did not constrain its actions. Responding to global criticism, the head of China's Hong Kong and Macau Affairs Office affirmed the new CCP approach, replying, "The era when the Chinese cared what others thought and looked up to others is in the past, never to return."

From its mismanagement of the COVID-19 outbreak in Wuhan to its imposition of full and direct authoritarian rule in Hong Kong and continued militarization of the South China Sea, the PRC has repeatedly violated its own pledges and international obligations. Enabled by its economic strength, China's disregard for international rules and norms or censure from the international community raises grave concerns over future CCP policy choices and actions. The prospect is growing that the CCP will use military or other coercive means to forcibly absorb Taiwan. Taiwan's thriving democracy and civil society stand as the ultimate rebuke to the CCP's claim that Chinese people are not suited for democracy.

As the CCP accelerates its aggressive pursuit of global power and leadership, this Report shows that the PRC considers its relationships with African countries to be a blueprint for building its new, Sinocentric world order. The PRC's dominance of extractive industries on the African continent that are critical for technology and defense, combined with its influence over media and political parties, are key elements of a multidimensional approach it is now advancing in other regions, including Latin America and the Caribbean.

China's activities in Africa serve as the template for projecting power and influence far from China's shores. Such activities include the establishment of a military base it calls a "logistics facility" in Djibouti, the use of Chinese troops involved in peacekeeping operations in violation of the spirit if not the letter of its UN obligations, and political opportunism and interference enabled by predatory economic practices. Chinese companies' construction of potentially dual-use ports and telecommunications networks along the ever-expanding Belt and Road Initiative are representative of the mutually reinforcing nature of its military-civil fusion strategy and expansionist goals.

Meanwhile, the People's Liberation Army is evolving into a formidable and increasingly modern force. It augments robust force projection capabilities in East and Southeast Asia with routine operations in the Indian Ocean, initial forays into the South Atlantic, and the asymmetric capability to project power globally in the space and cyber domains. The CCP employs its armed forces as a coercive tool during peacetime, carrying out large-scale intimidation

exercises around Taiwan and in the South China Sea. This year, it provoked the first deadly clash on the China-India border in nearly half a century.

China's rising aggression has not gone unnoticed. Policymakers, businesses, civil society leaders, and citizens around the world have been awakened to the ambitions and tactics of the CCP. Governments in developed and developing countries alike have become more cautious about accepting China's coercive terms of trade, technology products, and services. No trend exemplifies this shift in opinion better than rising restrictions in many countries limiting access to 5G infrastructure for Chinese companies beholden to the CCP by its national security laws.

In addition to reporting on the current state of the U.S.-China relationship, the Commission has focused on new theaters and emerging dimensions of the threat to U.S. interests posed by CCP policy choices. This year, we examined how the CCP advances its interests in new domains of competition. In international organizations, both those falling under the UN umbrella and those bringing together regional partners, China is positioning trusted officials, whether nationals of the PRC or others vulnerable to Chinese influence, in key leadership posts. Long dependent on foreign technology, China is working to influence international technical standards for emerging technologies to promote Chinese companies and technologies as the basis for new global standards. The cumulative effect of China's influence in these organizations was on full display this year when the director-general of the World Health Organization (WHO) publicly praised Beijing's transparency and early response to the COVID-19 outbreak, despite the extreme measures Beijing took to lock down information while allowing infected persons to travel domestically and internationally, seeding a global pandemic. At the same time, the WHO, at Beijing's behest, blocked Taiwan from meaningful participation in the global pandemic response despite Taiwan's early and open communication and model epidemic control and prevention efforts.

While General Secretary Xi and the ruling CCP have sought to project an image of confidence, their tone-deaf response to global criticism suggests the possible hazards ahead. By suppressing all criticism and dissent, General Secretary Xi has created a dangerous echo chamber leaving China's government vulnerable to miscalculation. The United States and its allies and partners cannot afford, however, to simply wait out the PRC's current rulers with a false hope of reform or policy change. The CCP's repression of the Chinese people, and especially the atrocities it has committed against ethnic Uyghur and Tibetan minorities, may constitute crimes against humanity, even genocide. Concern about the Party's abusive treatment of ethnic Mongolians is also rising.

The CCP has launched determined and systematic efforts to hollow out global governance institutions, suppress internal opposition, subjugate free peoples in Hong Kong and around China's periphery, dominate global economic resources, and project military power. These efforts threaten vital interests of the United States and the security and vitality of an increasing number of countries around the globe.

Left unchecked, the PRC will continue building a new global order anathema to the interests and values that have underpinned unprecedented economic growth and stability among nations in the post-Cold War era. The past 20 years are littered with the CCP's broken promises. In China's intended new order, there is little reason to believe CCP promises of "win-win" solutions, mutual respect, and peaceful coexistence. A clear understanding of the CCP's adversarial national security and economic ambitions is essential as U.S. and allied leaders develop the policies and programs that will define the conditions of global freedom and shape our future.

CHAPTER 1

U.S.-CHINA GLOBAL COMPETITION

SECTION 1: A GLOBAL CONTEST FOR POWER AND INFLUENCE: CHINA'S VIEW OF STRATEGIC COMPETITION WITH THE UNITED STATES

Key Findings

- Beijing has long held the ambition to match the United States as the world's most powerful and influential nation. Over the past 15 years, as its economic and technological prowess, diplomatic influence, and military capabilities have grown, China has turned its focus toward surpassing the United States. Chinese leaders have grown increasingly aggressive in their pursuit of this goal following the 2008 global financial crisis and General Secretary of the Chinese Communist Party (CCP) Xi Jinping's ascent to power in 2012.
- Chinese leaders regard the United States as China's primary adversary and as the country most capable of preventing the CCP from achieving its goals. Over the nearly three decades of the post-Cold War era, Beijing has made concerted efforts to diminish the global strength and appeal of the United States. Chinese leaders have become increasingly active in seizing opportunities to present the CCP's one-party, authoritarian governance system and values as an alternative model to U.S. global leadership.
- China's approach to competition with the United States is based on the CCP's view of the United States as a dangerous ideological opponent that seeks to constrain its rise and undermine the legitimacy of its rule. In recent years, the CCP's perception of the threat posed by Washington's championing of liberal democratic ideals has intensified as the Party has reemphasized the ideological basis for its rule.
- Beijing views economic competition with the United States in the context of its broader economic development strategy. Beginning in 2006, the United States, as the global economic and technological leader, became a target to chase and surpass as the CCP fostered domestic production and innovation through successive waves of industrial plans.
- In China's most recent industrial policy wave, set by the 2016 Innovation-Driven Development Strategy, which includes the Made in China 2025 plan, policymakers have promoted the

development of China's digital ecosystem and accompanying regulatory architecture. The CCP believes China faces a rare historic opportunity to establish control over a cluster of revolutionary, networked technologies, including high-speed internet, sensors, telecommunications, artificial intelligence (AI), robotics, and smart city infrastructure. Doing so could allow Beijing to leapfrog the United States and other powerful competitors and lead in the next generation of global innovation.

- The People's Liberation Army (PLA) views the U.S. military as its primary strategic adversary and has engaged in long-term efforts to close the wide capability gap with U.S. military power since the mid-1990s. In 2004, the PLA shifted its focus to emphasize leapfrogging the United States in certain warfighting areas by introducing new concepts the PLA believed could enable it to defeat a conventionally superior opponent.
- The PLA's long-term strategy to gain advantage over the U.S. military includes developing "informationized" capabilities and exploiting ostensibly civilian information systems, likely including those built overseas by Chinese companies. The PLA is complementing these efforts by developing cyberattack, space and counterspace, and long-range precision-strike capabilities and expanding its capacity to delay and threaten U.S. military forces at increasing distances from China's shores.

Recommendations

The Commission recommends:

- Congress adopt the principle of reciprocity as foundational in all legislation bearing on U.S.-China relations. Issues to be considered in applying this principle should include but are not limited to the following:
  - The ability of journalists and online media to operate without undue restriction;
  - The ability of nongovernmental organizations to conduct meaningful engagement with civil society;
  - Access to information, including but not limited to financial and research data;
  - Access for social media and mobile apps from U.S. companies;
  - Access for diplomatic personnel, including but not limited to diplomats' freedom of travel and ability to meaningfully exchange views with the host country public; and
  - Market access and regulatory parity, including but not limited to companies' ability to participate in trade, investment, and financial market transactions, cross-border capital transfer, and protections of intellectual property.
- Congress direct the U.S. Department of State to produce an annual report detailing China's actions in the United Nations and its subordinate agencies that subvert the principles and purposes of the United Nations. Such a report would at a minimum document the following:

- China's actions violating United Nations treaties to which it is a party;
- China's actions to influence the votes of United Nations members, including through coercive means;
- China's actions to nominate or support candidates for United Nations leadership positions that do not adhere to United Nations standards for impartiality or are subject to the influence of the Chinese government;
- Actions by nationals of the People's Republic of China and others currently holding United Nations leadership positions that appear to support the interests of the Chinese government in violation of United Nations impartiality standards;
- Actions by nationals of the People's Republic of China serving in functional positions in United Nations organizations impacting hiring practices, internal policies, and other functions that appear to support the interests of the Chinese government in violation of United Nations impartiality standards;
- Actions by Chinese military and support personnel engaged in United Nations peacekeeping operations that are inconsistent with the principles governing these missions, including China's deployment of these personnel to protect its economic interests and improve the power projection capabilities of the People's Liberation Army; and
- The number and positions of United States personnel employed by the United Nations and its agencies.

- Congress expand the authority of the Federal Trade Commission (FTC) to monitor and take foreign government subsidies into account in premerger notification processes.
  - The FTC shall develop a process to determine to what extent proposed transactions are facilitated by the support of foreign government subsidies.
  - The definition of foreign government subsidies shall encompass direct subsidies, grants, loans, below-market loans, loan guarantees, tax concessions, governmental procurement policies, and other forms of government support.
  - Companies operating in the United States that benefit from the financial support of a foreign government must provide the FTC with a detailed accounting of these subsidies when undergoing FTC premerger procedures.
  - If the FTC finds foreign subsidies have facilitated the transaction, it can either propose a modification to remedy the distortion or prohibit the transaction under Section 7 of the Clayton Act, which prohibits mergers and acquisitions where the effect "may be substantially to lessen competition, or to tend to create a monopoly."
- Congress direct the Administration, when sanctioning an entity in the People's Republic of China for actions contrary to the economic and national security interests of the United States or for violations of human rights, to also sanction the parent entity.

- Congress amend the Immigration and Nationality Act to clarify that association with a foreign government's technology transfer programs may be considered grounds to deny a nonimmigrant visa if the foreign government in question is deemed a strategic competitor of the United States, or if the applicant has engaged in violations of U.S. laws relating to espionage, sabotage, or export controls. Association with a foreign government's technology transfer programs can include any of the following:
  - Participation in a foreign government-sponsored program designed to incentivize participants to transfer fundamental research to a foreign country via a talent recruitment program or in a foreign government-sponsored startup competition;
  - Acceptance of a government scholarship that facilitates coordination with talent programs or requires recipients to study specific strategic scientific and technological fields or to return to the foreign country for a government work requirement after the scholarship term ends;
  - Association with a university or a department of a university that the U.S. government has designated as a participant in the foreign government's military-civil fusion efforts; or
  - Status (current or past) as a scientist, technician, or officer for a foreign military, if the applicant does not disclose such information when applying for a visa.

Introduction

In recent years, the U.S. government and public have increasingly viewed China as a strategic competitor of the United States. The Trump Administration's 2017 national security strategy labeled China a "revisionist power" engaged in a "great power competition" with the United States, while opinion polls show unfavorable views toward China among the U.S. public reaching new historic highs.[1] These developments mark profound shifts in U.S. policy and perceptions that have broken with the historical approach to U.S.-China relations since the establishment of bilateral diplomatic ties over 40 years ago. During that time, successive administrations from both political parties called for policies of constructive engagement with China while welcoming and attempting to shape its emergence as a strong, peaceful, and prosperous country.[2] Diverse interest groups in the United States, including in the policymaking, business, and research communities, also perceived substantial benefits from deepening ties, the promised opening of the Chinese market, and opportunities to relocate production to China.

For Chinese leaders, however, the U.S.-China relationship has always been fundamentally competitive. Over the nearly three decades of the post-Cold War era, Chinese leaders have regarded the United States as China's primary adversary and as the country most capable of preventing the CCP from achieving its goals, including what has become its sweeping ambitions for global leadership. In fact, the United States has occupied this position in Beijing's worldview since the establishment of the People's Republic of China (PRC) in 1949, excepting a nearly two-decade interregnum (1972–1989) of U.S.-Chi-

na cooperation during the most intense period of the Sino-Soviet split. China's view of the United States is based on the ideology of the ruling CCP, which regards the liberal democratic values championed by the United States as a fundamental impediment to its external ambitions and an existential threat to its domestic rule.

Beijing's view of the United States as a dangerous and firmly committed opponent has informed nearly every facet of China's diplomatic strategy, economic policy, and military planning in the post-Cold War era. Through its modernization efforts, China has emerged as an unprecedented economic rival and a growing military threat capable of inflicting grave harm on the United States and its allies and partners. China's economic engagement with the United States has proved to be a critical enabler of its rapid economic growth, steadily feeding Beijing's confidence in its ability to act on its long-standing ambition to match and ultimately displace the United States as the predominant global leader. Meanwhile, Beijing has intensified its diplomatic efforts to drive wedges between Washington and its allies and undermine the liberal democratic values that have underpinned the international order the United States has championed for 75 years.

This section examines China's view of the ideological, economic, and military dimensions of strategic competition with the United States. First, the section discusses the global dimension and adversarial nature of China's approach to competition with the United States. Next, it examines the ideological roots of Beijing's view of the United States, which have shaped the CCP's view of Washington as a dangerous and committed opponent. It then assesses the consequences of China's broader economic strategy for its economic and technological competition with the United States. Finally, the section surveys China's approach to military competition with the United States. It concludes with a discussion of the implications of China's competitive strategy for U.S. interests and policy. This section is based on the Commission's June 2020 hearing on the topic and open source research and analysis.

A Global Contest for Power and Influence

China views itself today as engaged in a global competition for power and influence with the United States. Beijing's ambition to match and ultimately surpass the United States as the world's most powerful and influential nation has been present to different degrees since the establishment of the PRC in 1949.[3] Chinese leaders came to view the Soviet Union as China's primary competitor and threat for much of the Cold War and, at the outset of China's "reform and opening" era in the late 1970s, recognized the country had fallen far behind the United States in economic and technological terms.[4] In the view of Chinese leaders, these developments necessitated a degree of economic, military, and other cooperation with the United States.[5] As China's economic and technological prowess, diplomatic influence, and military power have grown during the post-Cold War period, however, Chinese leaders have shifted toward a more directly competitive approach to relations with the United States.[6] Beijing has framed this approach both in terms of ideology and "comprehensive national power," a term adopted by CCP leaders

to describe the combination of a country's material strength and normative appeal.*[7]

Although U.S.-China economic, cultural, and educational ties expanded dramatically following the normalization of diplomatic relations in 1979, Beijing's view of its relationship with Washington remained deeply competitive. In public, Chinese leaders have routinely professed their desire for "win-win" and "mutually beneficial" cooperation.[8] These claims are repeated during leader-level summits with U.S. presidents and cabinet officials.[9] At the same time, however, Party documents and speeches articulate a much more competitive view of international relations whereby an increase in Chinese power and influence must come at the expense of others—particularly, and most significantly in Beijing's view, at the expense of the United States.[10] According to Barry Naughton, So Kwanlok Chair of Chinese International Affairs at the University of California San Diego, Chinese policymakers "overwhelmingly see the global order as… being hierarchical," with the United States currently as the dominant power.[11]

Planning for Competition: 1990s–2008

Beijing's preparations for a global strategic competition with the United States were apparent as China recalibrated its national strategy following the Soviet Union's disintegration. With the disappearance of the shared U.S. and Chinese perception of the Soviet threat, Beijing moved quickly to resume identifying Washington as its primary opponent.[12] According to Chinese leaders, as the sole remaining superpower, the United States was now attempting to create a unipolar world in which it could "control international affairs" and pursue a "global strategic expansion."[13] In a speech to Chinese diplomats in 1993, then CCP General Secretary Jiang Zemin declared that the United States' position as the world's most powerful nation and its "posture of hegemonism and power politics" in its relationship with China, among other reasons, rendered it China's "main adversary in international dealings," a position it would occupy "for a relatively long time into the future."[14]

In the meantime, General Secretary Jiang urged, China should take advantage of the "best" security environment since the founding of the PRC to modernize and reorient its national strategy toward a "global competition in comprehensive national power."[15] Bei-

*Huang Shuofeng, a researcher at the PLA Academy of Military Science who later held the rank of senior colonel, developed the concept of "comprehensive national power" that CCP leadership adopted in the early 1990s. Although the idea of an aggregate measuremeant for national strength had already been explored by multiple thinkers outside of China, Huang considered his formulation a new and distinct contribution to the field. Comprehensive national power is an aggregate measure of a country's material strength, latent potential, and international influence, illustrating that country's ability to survive, develop, and coordinate its internal and external relations. According to Huang, a measurement of comprehensive national power is constructed through the holistic assessment of a country's geographic, political, economic, technological, military, diplomatic, cultural, and other characteristics. In February 1990, *People's Daily* covered an interview with Huang detailing the concept and its significance. This coverage in the Party's official paper, combined with Deng Xiaoping's featuring of the term during his famed "Southern Tour" in 1992, likely indicated the CCP's official adoption of the concept. See Ming Zhang, "China's Military Great Leap Forward?" *Georgetown Journal of International Affairs* 2:1 (2001): 97–104, 100; Deng Xiaoping, "Deng Xiaoping's Remarks on the Southern Tour (邓小平南巡讲话)," January 18–February 21, 1992. Translation; Lu Mu, "Year of the Horse New Spring Conversation on National Power—Interviewing Chinese Comprehensive National Power Research Worker Huang Shuofeng (马年新春话国力——访我国综合国力研究工作者黄硕风)," *People's Daily*, February 26, 1990. Translation.

jing perceived additional opportunities to build its strength after the turn of the millennium. Speaking at the CCP's 16th National Congress in 2002, Jiang declared China would enjoy a "period of strategic opportunity" spanning the first two decades of the 21st century during which it would be able to rapidly develop its economy, political standing, and military power.[16]

Increasing Confidence and Concerns: 2008–2012

By the end of the first decade of the 2000s, Beijing had become increasingly confident in its growing power and global influence while remaining wary of the threat posed by Washington. Beijing's sense of opportunity heightened significantly after the 2008 global financial crisis, at which time China's assertiveness increased considerably due to its view of the weakening relative position of the United States and belief its economic model had managed to avoid many pitfalls of the crisis.[17] In 2010, then General Secretary Hu Jintao declared that China had taken advantage of its "period of strategic opportunity" to grow its economy and comprehensive national power to unprecedented heights.[18] Reflecting this growing confidence, he advised Chinese officials to be increasingly proactive in moving the international political and economic order away from its current, U.S.-dominated pattern and adopt more "offensive moves" to advance its interests as opportunities presented themselves.[19]

Nevertheless, Chinese leaders warned that as China's power grew, the threats posed by the United States and other foreign powers would also increase. In a speech to Chinese diplomats shortly before the global financial crisis, General Secretary Hu reiterated that the United States remained China's "primary adversary… in international dealings" and noted that, although the world was trending away from unipolarity, Washington—referred to as an unnamed "big country"—would continue its "struggle" to maintain its "hegemonic" status.[20] He further assessed that as China's economic development progressed, it would inevitably encounter increasing "obstruction and risks" and the "strategic containment… of outside enemy forces."[21] In a second speech to Chinese diplomats in 2009, General Secretary Hu described the world as experiencing intensifying international strategic competition and "contests of strength" over comprehensive national power.[22] To account for an additional expected increase in foreign pressure, he advised China to continue adhering to its relatively patient and low-profile approach to international affairs to avoid falling into a "vortex of conflict and confrontation" by establishing itself as the primary focal point of international competition.[23]

An Open Bid for Global Leadership: 2012–Present

Under General Secretary Xi, a new generation of CCP leaders assumed power in 2012 and perceived even greater opportunities for displacing the United States from its position atop the global hierarchy. In his speech at the CCP's 19th National Congress in 2017, General Secretary Xi declared that China was moving closer to the "world's center stage" while its power relative to Washington's—a shift referred to obliquely as part of the global trend toward multipolarity—was "surging forward."[24] Chinese leaders began to speak

openly about Beijing's authority to "lead" revisions to the global governance system, reorganized as a Sinocentric "community of common human destiny," as the international balance of power underwent profound changes "not seen in a century."[25] Taking aim at the United States and its allies, Beijing declared in its 2019 white paper on China's foreign policy, "It is now impossible for one single country or bloc of countries to exercise dominance in world affairs."[26] Meanwhile, the Chinese government adopted a more openly confrontational approach to the United States, with state media variously labeling Washington as the "source of global unrest," a puppet master driving Hong Kong's prodemocracy protests, and "evil."[27] (For more on China's increasing confidence in its ability to reshape global governance, see Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom.")

At the same time, Beijing viewed the risks and challenges it faced from the United States as multiplying. In his testimony before the Commission, John Pomfret, author and former Washington Post Beijing bureau chief, noted that while China's power had increased immeasurably by the time of General Secretary Xi's assumption of power, "if anything . . . the Communist Party has acted as though the threat posed by the United States is intensifying."[28] Official Chinese documents and leadership speeches reflect a similar view. In a thinly-veiled reference to the United States, China's 2015 defense white paper warned of the "new threats from hegemonism, power politics, and neo-interventionism" and an intensification of the "international competition for the redistribution of power."[29]

In May 2019, amid growing tensions with the United States over technology and trade, General Secretary Xi declared China to be engaged in a "New Long March."*[30] Later that year, he noted China's challenges were likely to become even more severe, warning the country to prepare for a wide-ranging struggle spanning the economic, political, cultural, foreign policy, and military domains that would last until at least the middle of the 21st century.[31] A December 2019 address by Chinese State Councilor and Foreign Minister Wang Yi further typified China's simultaneous confidence and concern. In his remarks, he lauded China's growing international strength and influence while warning of the risks of increasing U.S. "suppression" of China and intensifying "great power games."[32] Furthermore, Foreign Minister Wang cautioned, despite China's growing strength, the United States remained the "country with the greatest comprehensive national power" on earth.[33]

Diplomacy in Key Regions and International Organizations as Tools to Displace the United States

Key to China's strategy for improving its relative position in the international balance of power are diplomatic efforts to drive wedg-

*In the original Long March, the CCP's Red Army—the predecessor of today's PLA—undertook a series of military retreats from 1934 to 1935 to evade encirclement by the Chinese Nationalist Army. The best known of these retreats began in Jiangxi Province in central China and involved a punishing journey over mountainous and remote terrain to Yan'an, a small town in northern China that became the CCP's wartime stronghold. It is estimated that only one tenth of the force that left Jiangxi arrived alive in Yan'an. The Long March, which also began the ascent of Mao Zedong to the CCP's top leadership position, remains an important CCP symbol of revolutionary determination in the face of hardship. For more, see Chapter 1, Section 2, "Year in Review: Security, Politics, and Foreign Affairs" in *2019 Annual Report to Congress*, November 2019, 84–85.

es between the United States and its most important allies and partners.* It also seeks to use international organizations, and particularly the UN, to gain advantage over Washington and its allies.

Beijing views East Asia and Europe as particularly important regions to succeed in these efforts.[34] As stated by Satu Limaye, vice president of the East-West Center, in testimony before the Commission, "East Asia is the only region where both the U.S. and China have identified core interests, and where failure or success could be a game changer for their respective global and regional roles and ambitions."[35] Under General Secretary Xi, China has further emphasized the strategic importance of countries in the Indo-Pacific region, defining its periphery as "the anchor of China's existence and survival, the foundation of its development and prosperity, and the starting point of great power diplomacy with Chinese characteristics."[36]

China's relationships with the EU, Russia, Japan, and India have historically featured in its efforts to improve its global standing relative to the United States. Writing as early as 2003, current vice chairman of the Central Military Commission Zhang Youxia assessed Japan and the United Kingdom (UK) to be Washington's "chief allies and strategic pillars in Asia and Europe, respectively," while France, Germany, and Italy were basically aligned with the United States despite harboring conflicts of interest and political differences.[37] Nevertheless, he assessed, China would be able to "exploit the structural strategic void" between the United States and its allies, and especially differences between the United States and the EU, to improve its relative power and influence.[38] According to Hudson Institute visiting fellow Liselotte Odgaard, Europe's position as a "leading global economic force with reservations about U.S. cooperation on key European priorities" makes it a potential "jewel in the crown" of Chinese strategic partners.[39] In 2019, Beijing reflected its aspiration to gain strategic advantage from its relationship with the EU, claiming that China-EU cooperation would "strengthen global governance, uphold multilateralism… and address global challenges."[40]

At the same time it has extolled the significance of its relationships with the EU, Japan, India, and other important U.S. partners, Beijing has demonstrated an increasing willingness to sacrifice those ties in pursuit of its own interests. Beijing's altered approach to its relationships with these countries may derive in part from an assessment that it no longer requires their cooperation to counterbalance the United States.† In 1998, for example, then General Secretary Jiang noted the strategic importance of maintaining friendly

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*In China's view, countries are sorted into three primary categories, each able to support China's diplomatic aims to different degrees and in different ways. The first category consists of "great powers," typically including the United States, Russia, and the EU. Chinese leaders also included Japan and sometimes India in this category through the mid-2000s. The second category comprises China's "neighboring countries," whom Beijing aims to leverage as a "geostrategic support" for its broader diplomatic efforts. Finally, "developing countries" serve to "consolidate the political foundation and traditional advantages" of Chinese diplomacy. For example, see Hu Jintao, "The International Situation and Our Diplomatic Work (国际形势和外事工作)," August 21, 2006, in *Selected Works of Hu Jintao*, Volume II, Beijing: People's Publishing House, 2016, 509–510. Translation.

†A key exception to this trend may be China's relationship with Russia. Sino-Russian ties have deepened considerably in recent years, although enduring tensions in some areas continue to limit cooperation between the two countries. For more on the China-Russia relationship, see Chapter 4, Section 2, "An Uneasy Entente: China-Russia Relations in a New Era of Strategic Competition with the United States," in *2019 Annual Report to Congress*, November 2019, 315–358.

ties with Japan and India.[41] In contrast, since General Secretary Xi's ascent to power, China has steadily increased military pressure on both countries, leading to a significant deterioration in Sino-Japanese and Sino-Indian ties. (For more on China's increasingly confrontational approach to Japan and India, see Chapter 3, Section 1, "Year in Review: Security, Politics, and Foreign Affairs.")

China has viewed the UN as another key diplomatic forum to compete with the United States and diminish the influence of U.S. norms and values. In testimony before the Commission, Kristine Lee, associate fellow at the Center for a New American Security, argued Beijing has devoted "considerable resources" to presenting itself as a "nimbler, more dynamic, and more reliable alternative" to U.S. leadership in the UN.[42] In his 2003 article, General Zhang characterized China's approach in similarly strategic terms, urging China to use its UN Security Council membership and veto power to enhance the UN's role as an arena for "restricting and checking the United States."[43] In recent years, China has used its veto privilege more frequently, while ranking among the countries that converge the least with the United States on votes in the UN General Assembly defined by the U.S. Department of State as "directly affect[ing] important United States interests" and for which the United States had "lobbied extensively."[44] In 2018, China aligned with the United States only 5 percent of the time on these votes,* converging at the same frequency as Iran and Cuba and trailing both North Korea (which coincided with the United States on 6 percent of votes) and Russia (which overlapped with the United States on 13 percent of votes).[45]

According to Ms. Lee, another key Chinese tactic in mobilizing support for its priorities is building influence among both G77 countries, which constitute a full 70 percent of UN member states, and countries participating in China's Belt and Road Initiative (BRI).†[46] China's effort to position itself as a champion of the developing world has long been a key feature of its foreign policy.[47] (For more on China's efforts to deepen its ties with African countries, see Chapter 1, Section 3, "China's Strategic Aims in Africa.")

Beijing Views Washington as a Dangerous Ideological Opponent

China's deeply competitive approach to its relationship with the United States is rooted in the CCP's view of Washington as a dangerous ideological opponent. This perception is informed both by the CCP's general sense of threat from universal values and liberal democratic governance and by its view of Washington as a particularly hostile adversary of its governance system.[48] Notably, China's

*Examples include votes on the promotion and protection of human rights and fundamental freedoms, the situation of human rights in Crimea, advancing responsible state behavior in cyberspace, and condemning the activities of Hamas and other militant groups in Gaza. Of the 20 resolutions adopted with a vote in 2018, China voted with the United States zero times, voted against it 18 times, and abstained twice (a country is considered to be in partial alignment with the United States on votes where one country, but not both, abstained on a resolution). For more, see U.S. Department of State, *Voting Practices in the United Nations in 2018: Report to Congress*, March 31, 2019.

†The G77, or Group of 77 countries, is a UN non-governmental organization that allows developing countries to articulate and promote their collective economic interests. The BRI is one of China's most prominent foreign and economic policy initiatives and a signature project promoted by General Secretary Xi. For more on BRI, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 1, "Belt and Road Initiative," in *2018 Annual Report to Congress*, November 2018, 259–303.

perception of the ideological threat from the United States has not fundamentally changed since the establishment of U.S.-China diplomatic ties in 1979. Even during periods when bilateral trade and investment and cultural, educational, and scientific exchanges expanded to unprecedented levels, Chinese leaders were not shaken from their belief in Washington's commitment to regime change through a combination of attempts at "peaceful evolution" and "Westernization," subversion, or the outright overthrow of the CCP.[49]

An important consequence of China's assessment of the ideological threat posed by the United States has been Beijing's hardening view of a deeply adversarial competition between two incompatible political systems. According to Mr. Pomfret, CCP leaders have come to hold "profoundly tortured views on the United States" that influence every dimension of Beijing's interactions with Washington, while a "battle between two ideologies—China's version of Leninism versus Western liberalism" frames China's view of U.S.-China relations.[50] Mr. Pomfret argued that long before U.S. leaders and the public debated the strategic challenges posed by China, "China's government had already entered a new Cold War with the United States."[51]

Relations since Normalization: A Hostile Embrace

Beijing reinforced the ideological foundation for its more contentious relationship with the United States in the years following the Tiananmen Square massacre. In his oral testimony before the Commission, Mr. Pomfret identified 1989 as a key inflection point that allowed a "powerfully anti-Western, anti-liberal faction within the Communist Party to rise to prominence."*[52] In the ensuing years, at the same time some Chinese leaders continued debating the merits of allowing greater liberalization of China's governance system, a "paranoid, virulently anti-American view of the world took root" among other CCP leaders and the key centers of power within the Chinese state.[53] According to Anthony Saich, director of Harvard University's Ash Center for Democratic Governance and Innovation, Chinese leaders intensified "patriotic education" for Chinese students during this timeframe, promoting a selective and deeply problematic narrative that glorified China's imperial past and encouraged nationalism and public hostility toward Japan and the United States.[54]

Deng Xiaoping, then China's paramount leader, was cognizant of the substantial material advantages of deepening relations with the United States. At the same time, he authorized and led Beijing's hardening approach to the United States, reverting to deeply ideological terms in describing the perils for the CCP of the U.S.-China

*Arguably, the CCP's basic political line had been firmly established at the outset of China's "reform and opening" period, long prior to the Tiananmen crackdown. In 1979, Deng Xiaoping established the CCP's "Four Cardinal Principles," a set of foundational ideological and political guidelines he viewed as preconditions for China's economic opening to the outside world. These included remaining committed to (1) the socialist path, (2) the dictatorship of the proletariat, (3) the leadership of the CCP, and (4) Marxism-Leninism and Mao Zedong Thought. While the 1980s saw a high-water mark of open political discussion within China, powerfully conservative figures generally retained control over China's political system. Even key CCP leaders perceived as reformers, such as then CCP General Secretary Hu Yaobang, exhorted Party members to remain faithful to Communist ideas and discipline while warning of "capitalist forces and other forces hostile to the socialist cause" seeking to "corrupt and harm" the PRC. Deng Xiaoping, "Persisting in the Four Cardinal Principles," March 30, 1979; Hu Yaobang, "Report to the 12th National Congress of the Communist Party of China: Create a New Situation in All Fields of Socialist Modernization," September 12, 1982.

relationship. In 1992, he warned CCP cadres, "The imperialists are pushing for peaceful evolution toward capitalism in China, placing their hopes in the generation that comes after us.... Hostile forces realize that so long as we of the older generation are still alive and carry weight, no change is possible."[55] To guard against this risk, Deng concluded the CCP needed to properly educate a new generation of "revolutionary" leaders and cadres working in the "organs of the dictatorship."[56] This cynical view of the United States was apparent in the speeches of General Secretary Jiang, Deng's chosen successor. "The long-term objective of some Americans has been to promote peaceful evolution toward capitalism in China," he argued in 1993. "Basically, they are not willing to let China unite, develop and become strong."*[57]

Chinese leaders' view of the United States as an ideological adversary persisted through the 1990s. In a speech to Chinese diplomats in 1998, then General Secretary Jiang claimed that influential voices in Washington were refusing to abandon their "political plot" to work with other countries to "Westernize and divide China" and ultimately carry out regime change.[58] In response, he urged Chinese diplomats to prepare for a "long and complex struggle" in which China "must always remain clearheaded and not lose [its] vigilance."[59] Neither China's World Trade Organization (WTO) accession nor its deepening ties with the United States throughout the 2000s ameliorated Beijing's cynical view of the bilateral relationship. In then General Secretary Hu's 2006 address to Chinese diplomats, he emphasized that "outside enemy forces" remained determined to Westernize and divide China, stir up domestic social unrest, and infiltrate and instigate rebellion among CCP cadres.[60]

Toward an All-Encompassing Threat

Under General Secretary Xi, Chinese leaders' views of the dangers posed by perceived U.S. ideological hostility toward China have hardened further and expanded to encompass nearly every dimension of China's interactions with the United States. Shortly after rising to the CCP's top post, General Secretary Xi oversaw the publication of "Document Number 9," an internal Party communique ordering heightened vigilance against seven "false ideological trends, positions, and activities" purportedly inspired by U.S. ideals.[61] Pro-

*The views expressed by Deng and Jiang were hardly new to the CCP. In the eras before and during the process of normalization of U.S.-China diplomatic ties, Mao Zedong and Zhou Enlai portrayed the United States in even more vivid terms. Mao charged Washington in the 1940s with carrying out a purported "imperialist policy of world-wide aggression" to "'destroy the Communists' and turn China into a U.S. colony," mocking these efforts as a U.S. attempt to "fulfil its 'international responsibilities' and carry out its 'traditional policy of friendship for China." Later, speaking at the outset of U.S.-China rapprochement in 1973, Zhou quoted Lenin in arguing for a temporary period of cooperation with the United States at a time of Chinese weakness so as to eventually return to the CCP's original goal: the defeat of their erstwhile U.S. partners. "There are compromises and compromises," he said. "One must learn to distinguish between a man who gave the bandits money and firearms to lessen the damage they can do and *facilitate their [ultimate] capture and execution*, and a man who gives bandits money and firearms in order to share in the loot" [emphasis added]. In Zhou's estimation, China's cooperation with the United States belonged to the former category. In 1993, Jiang extolled this foreign policy approach, urging China's diplomats to "carry forward the fine traditions and work style of our country's diplomatic corps" initiated by Mao and Zhou. For more, see Mao Zedong, "Farewell, Leighton Stuart!" August 18, 1949; Zhou En-Lai, "Report to the Tenth National Congress of the Communist Party of China," August 24, 1973; and Jiang Zemin, "Our Diplomatic Work Must Unswervingly Safeguard the Highest Interests of the State and the Nation," July 12, 1993, in *Selected Works of Jiang Zemin*, Volume I, Beijing: Foreign Languages Press, 2011, 307.

scribed beliefs included constitutional democracy, universal values, "Western"-inspired notions of media independence and civil society, pro-market neoliberalism, "nihilistic" views of the CCP's history, and the "questioning [of] . . . the socialist nature of socialism with Chinese characteristics."[62] The document further described China's ideological situation as a "complicated, intense struggle" and framed the proponents of its proscribed ideals as enemies.[63]

Chinese leaders described the U.S. ideological threat in increasingly urgent terms as concerns mounted in the United States about the consequences of China's authoritarian governance system for Chinese citizens and U.S. interests. In June 2019, China's vice minister of public security issued a notice to security bureaus across the country warning that "U.S. suppression" had become the greatest external factor affecting China's "political security."[64] In a July 2019 speech, a senior CCP official relayed General Secretary Xi's instructions to China's influence apparatus to step up efforts to "win the ideological war" in the face of "increasingly severe challenges by the West to contain China."[65]

In his December 2019 speech, Foreign Minister Wang charged the United States with taking advantage of international forums to "vilify China's social system and development path" and deliberately "attacking and defaming" China on the issues of Hong Kong, Taiwan, Xinjiang, Tibet, and human rights.[66] At the core of U.S.-China tension, he concluded, was the fact that some in the United States could not accept the success of "socialism with Chinese characteristics" or that China's political system demonstrated that the world had other paths to modernization besides the "Western model."[67] In his testimony before the Commission, Mr. Pomfret similarly described Chinese leaders' sense of a ubiquitous threat: "Across a vast array of fields, including ideology, diplomacy, standards-setting in the technological realm, the military, and the media," he argued, China is now engaged in a "full-scale strategic competition with the United States."[68] (For more on recent assessments of U.S.-China relations by Chinese leaders, see Chapter 3, Section 1, "Year in Review: Security, Politics, and Foreign Affairs.")

Catch Up and Surpass: Beijing's Economic Strategy

The Chinese government has viewed economic competition with the United States in the context of its broader economic strategy, which evolved from aiming to "catch up" with the United States to "surpassing" it in key technologies. According to Dr. Naughton, whereas China's traditional approach to growth was exemplified by iterative five-year plans that targeted broad economic development, in the first decade of the 2000s, the Chinese government shifted toward "a more directly competitive approach" vis-à-vis the United States.[69] Overtaking the United States would fulfill twin strategic and economic imperatives: to maintain and secure the power of the CCP and to avoid a "middle income trap"* that could hobble China's

*The "middle income trap" is a popular term referring to an economy whose growth has stagnated—often due to an aging population and rising labor costs for labor-intensive industries—before per capita income converges with that of advanced economies. Colloquially, the middle income trap is referred to as "growing old before getting rich." These economies may be at a competitive disadvantage relative to both low-wage labor-intensive economies and high-wage economies boosting their productivity through technological advancement. Indermit S. Gill and Homi Kharas, "The Middle-Income Trap Turns Ten," *World Bank*, August 2015, 7.

development. In the CCP's view, the United States, as the global economic and technological leader, became a target to chase and, ultimately, surpass. Dr. Naughton asserted that as Chinese policymakers steered China's economic development, they benchmarked progress "almost exclusively" against the United States.*

To achieve its stated development targets, the Chinese government has undertaken three successive waves of industrial policy planning that ultimately put China on a "collision course with the United States and the world."[70] The first wave, embodied by the National Medium- and Long-Term Plan for Science and Technology Development (2006–2020), constituted a "concerted effort" to invest in domestic production and master certain "core technologies."† After 2010, technologies targeted by the government were specified in the promulgation of the Strategic and Emerging Industries (SEI) program. The chosen technologies represented potentially "revolutionary" new industries in emerging fields, which could allow Chinese companies to "surpass" rather than simply "catch up" to the international technological frontier.[71] Finally, beginning in 2016, Chinese economic planners instituted the Innovation-Driven Development Strategy (IDDS), which promoted "mastery of a wide range of interrelated and economically significant technologies" capable of altering a country's economic trajectory and the international balance of power.[72]

First Wave: The National Medium- and Long-Term Plan for Science and Technology Development

The Medium- and Long-Term Plan, introduced in 2006, recognized the need for technological catch-up with "developed" countries, including the United States. The plan introduced key themes echoed in later Chinese industrial policies.[73] It made clear that China faced "enormous pressure from developed nations who possess economic and [science and technology] superiority."[74] Relative to these countries, it argued, China's advancements in science and technology had a "fairly big gap to close."[75] The plan made a direct link between economic development and scientific innovation, assessing that China was "not yet an economic power" due to its "weak innovative capacity."[76] The CCP believed this weakness derived from several critical problem areas, among them insufficient investment, a talent shortage, and low self-sufficiency in key technologies.[77]

To address these shortcomings, the plan argued for "indigenous innovation," defined as the "assimilation and absorption of imported technology" to develop China's innovation capacity.[78] This innovation should play to China's advantages, including China's openness to the outside world "allowing the country to share the fruits of new

*According to Dr. Naughton, Beijing's efforts to "catch up and surpass" advanced economies have formed a "near constant" in Chinese policymaking. In 1958, Beijing determined it needed to catch up to U.S. steel production levels and embarked on the Great Leap Forward. After the turmoil of the Great Leap Forward and the Cultural Revolution, policymakers found the Chinese economy had fallen far behind advanced economies and de-emphasized rhetoric about surpassing in favor of "catching up." Barry Naughton, written testimony for U.S. China Economic and Security Review Commission, *Hearing on Chinese Views of Strategic Competition with the United States*, June 24, 2020, 1.

†According to Dr. Naughton, in the 2006 Medium- and Long-Term Plan, the types of technology to be targeted were "ill defined" relative to highly specific targets set in later industrial policies. Barry Naughton, written testimony for U.S. China Economic and Security Review Commission, *Hearing on Chinese Views of Strategic Competition with the United States*, June 24, 2020, 3.

science and technology innovation," and China's "political advantage" of resource mobilization.[79] It noted that countries like the United States, Japan, and South Korea had used major defense targets to further scientific breakthroughs. The plan stated that "major special projects" were "an important measure in raising [these countries'] national competitiveness."[80] To promote technological advancement, the plan defined seven categories of international "frontier" technologies spanning biotech, information technology, advanced manufacturing and materials, energy technologies, and marine and laser technology.[81] It also served as the basis for 16 "megaprojects" to receive funding for applied research in industries where Beijing identified a competitive advantage.[82]

China's high-speed rail network represents an early, clear example of the Chinese government's predatory "indigenous innovation" strategy.* In 2004, the Chinese government released the first Medium- to Long-Term Railway Plan, which aimed to extend China's railway network by 120,000 km (over 74,500 miles) and foster an internationally competitive Chinese high-speed rail industry.[83] China's Ministry of Railways signed contracts with foreign companies, including Alstom,[84] Siemens,[85] Bombardier,[86] and Kawasaki Heavy Industries,[87] to create a complete line of high-speed rail technologies.[88] China introduced the country's first high-speed rail line in 2007, followed by the first ostensibly Chinese-designed high-speed rail train in 2010.[89] The extent of "indigenous" design in trains sold by Chinese companies is questionable, since foreign rail executives estimated that "roughly 90 percent of high-speed [rail] technology" in China is attributed to partnerships with international corporations.[90] Yet by 2014 these international corporations found themselves competing with Chinese railway companies in third markets.[91] High-speed rail exports now form a part of BRI.[92] (For more on how China uses BRI to promote its interests globally, see Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom.")

Crisis as Opportunity: The 2008 Global Financial Crisis

The 2008 financial crisis convinced Chinese policymakers of both the validity of their approach to governance and the necessity to capitalize on a perceived pivotal moment of relative strength vis-à-vis the United States when the U.S. economy struggled to recover.[93] Chinese policymakers had already witnessed the devastating impact of capital flight on the South Korean and Southeast Asian economies during the 1997 Asian financial crisis, while the Chinese economy—with strict capital controls, a relatively closed financial system, and minimal external debt†—remained comparatively unscathed.[94] According to Julian Gruin, professor at the

*For more information about China's promotion of its high-speed rail technology internationally, see Michelle Ker, "China's High Speed Rail Diplomacy," *U.S.-China Economic and Security Review Commission*, February 21, 2017.

†At the time of the Asian financial crisis in 1997, China's external debt only accounted for 15 percent of gross domestic product, compared to 28 percent for Korea, 38 percent for Malaysia, 51 percent for Indonesia, and 60 percent for Thailand. In addition, China's external debt was primarily composed of foreign direct investment and other funds with long-term time horizons, rather than short-term loans. Andrew Sheng, *From Asian to Global Financial Crisis: An Asian Regulator's View of Unfettered Finance in the 1990s and 2000s*, Cambridge University Press: New York, 2009, 282.

Crisis as Opportunity: The 2008 Global Financial Crisis—*Continued*

University of Amsterdam, the 2008 financial crisis further "underscored for the Chinese leadership at an ideological level the necessity and the correctness of China's socialist market economy."[95]

To chart China's path after 2008, now Vice Premier Liu He (then executive deputy director of the State Information Center), whom Dr. Naughton described as the "crucial brains" behind Chinese economic policy,[96] convened a working group of financial and economic regulators to compare the fallout from 2008 with shifts in the global economy after the Great Depression.[97] In a 2014 retrospective from this working group, Vice Premier Liu observed that financial crises create "a strong redistribution effect," causing "shifts of power among large countries and major changes in the international economic order."[98] The piece argued that China's policies following the 2008 financial crisis should mirror U.S. actions in the wake of the Great Depression. Using the strength of its economic and technological competitiveness, China should act as a cautious creditor nation, working to shape global institutions around its interests. In Dr. Naughton's assessment, while Vice Premier Liu's report did not mention a final step, it "clearly implie[d] displacing the [United States] as the world's dominant power."[99]

Second Wave: The Strategic and Emerging Industries Program

Dr. Naughton identified the formation of the SEI program in 2009–2010 as a coalescence of industrial policy trends begun in 2006. With this program, Beijing saw an opportunity to surpass rather than simply catch up to the United States and other global leaders by focusing on technologies without entrenched market incumbents where Chinese entrants could develop a first-mover advantage.[100] A popular slogan described this opportunity as "[seizing] the commanding heights of the new information economy."[101] The program targeted seven industries: energy-efficient technologies, next-generation information technology, biotechnology, high-end equipment manufacturing, new energy, new materials, and new-energy vehicles.[102] Advancements in these industries would be supported by state financial backing for corporate "national champions," targets in research and development (R&D), patents produced, and compulsory* and high school educational attainment.[103]

From the start, the SEI program focused on the use of foreign technology, obtained legally or through illicit means, to develop local industries and intellectual property.† For example, it directed

*Compulsory education denotes the years of education required under government law. In China, nine years of education are compulsory, from kindergarten to middle school. High school education is not compulsory, though it has become much more common. In 2005, China's National Bureau of Statistics reported only about 40 percent of middle school graduates attended high school. By 2015, 95 percent of middle school graduates attended high school. Organization for Economic Co-operation and Development, "Education in China: A Snapshot," October 2016, 10.

†In practice, this transfer occurred through a variety of legal and illicit means, ranging from forced technology transfer from foreign companies using the Chinese market as leverage to acquisitions of foreign technology and talent to commercial espionage by Chinese government actors.

domestic companies to "digest and absorb" new technologies,[104] making "better use of global [science and technology] achievements" and supporting Chinese firms' expansion abroad.[105] Despite the emphasis on cooperation, U.S. and other foreign companies pointed out these policies appeared only to benefit Chinese companies, with foreign participation constrained by regulatory barriers like technology catalogues, localization requirements, and local intellectual property requirements.[106] In 2013, the U.S.-China Business Council expressed concern that U.S. and other foreign companies faced "significant challenges in finding reliable information" on SEI program policies and implementation due to "the opaque manner in which policies are being developed."[107] Foreign companies with operations in China began to question the degree to which they might be allowed to participate in SEI-related developments.[108]

Defend, Expand, Surpass: Emergence of China's National Champions

In an effort to surpass the United States and other technological leaders, the Chinese government provides subsidies and government "guidance" to "national champions," or companies it selects for special development and advancement.[109] Chosen companies may be state-owned or private. For example, Jack Ma, founder and former CEO of Alibaba, has spoken about the important role of "big enterprises" in furthering the Chinese government's goal of achieving self-sufficiency in technology.[110] Dr. Naughton argued Beijing initiates private companies into the "national team" through purchasing contracts and regulatory support.[111] As R. Evan Ellis, professor at the U.S. Army War College, noted in testimony before the Commission, Beijing works to advance the position of these companies "both at home and in global markets."[112] For example, in November 2017, the China Ministry of Science and Technology identified the private tech giants Alibaba, Baidu, Tencent, and iFlytek as the first members of an AI "national team," a designation that entails central and local government support.[113] Each company was chosen to build specific platforms in support of new technologies: autonomous vehicles (Baidu), smart city infrastructure (Alibaba), medical imaging (Tencent), and natural language processing (iFlytek).[114]

The Chinese government's approach for selecting, fostering, and promoting national champions follows an established pattern. First, Beijing protects and defends China's domestic companies and market by limiting U.S. and other foreign companies' access and encouraging technology transfer. Next, as domestic companies' capabilities grow, Beijing pushes them to expand beyond China's borders, including into the United States, to pursue new markets and technological know-how. This process assists Chinese national champions in surpassing and supplanting global market leaders.

For more information, see Sean O'Connor, "How Chinese Companies Facilitate Technology Transfer from the United States," *U.S.-China Economic and Security Review Commission*, May 6, 2019.

Third Wave: Innovation-Driven Development Strategy

Despite decades of investment into technological development, the CCP remained deeply troubled by persistent weaknesses in China's innovation system. In 2013, General Secretary Xi stated that gaps in China's technological know-how represented China's "root cause of backwardness."[115] The promulgation of the IDDS was precipitated by Chinese leadership's conviction that "technological changes were coming together in a distinctive pattern that constituted a new technological revolution."[116] While the United States is not mentioned by name in the IDDS, the strategy compared progress in China to the innovation environment in unnamed advanced countries. The strategy reiterated that "for many countries," innovation formed the "core strategy for pursuing competitive advantage."[117] The strategy also noted some critical core technologies were "controlled by others," as advanced countries were "still clearly ahead" in cutting-edge science and technology.[118]

Overseas Chinese Students and Scholars in China's Drive for Innovation

China's government has a long history of seeking to harness the intellect of overseas Chinese nationals and ethnic Chinese citizens of other countries to overcome China's shortfalls in technological know-how and innovative capacity.*[119] General Secretary Xi has continued in his predecessors' footsteps by making clear that Chinese students and scholars studying overseas in the United States and other technologically-advanced countries are key to his plans to transform China into an innovative and militarily formidable world power. "In the final analysis, competition for comprehensive national strength is competition for talents," he declared in a 2013 speech. "Whoever can cultivate and attract more outstanding talents will have an advantage in the competition."[120]

China's government has built a sprawling ecosystem of structures, programs, and policies to coopt and exploit Chinese students and scholars for the scientific and technological (S&T) expertise they acquire abroad.[121] This ecosystem selects and sponsors promising Chinese students and scholars at U.S. and other foreign universities, incentivizes their return to China for the long term, and employs transnational organizations to channel S&T know-how from those remaining abroad back to China.[122] Broadly speaking, Beijing targets foreign-educated Chinese students and scholars with expertise in fields and technologies identified in China's plans for industrial policy and military-civil fusion.† These areas of expertise range from mobile communica-

*Deng Xiaoping revived China's study abroad programs after the Cultural Revolution to accelerate the transfer of S&T that could support his "reform and opening up" strategy. Following the Tiananmen Square massacre, which led many Chinese students to seek asylum in the United States, the CCP began to articulate in internal documents the global competition for talent as a "struggle of life and death" for the regime. In the early 1990s, Chinese leaders introduced a series of policies designed to ensure that those trained in S&T disciplines served the CCP's needs regardless of where they physically resided. Increasingly, these efforts now target non-Chinese foreign experts as well. For more information, see Anastasya Lloyd-Damnjanovic and Alexander Bowe, "Overseas Chinese Students and Scholars in China's Drive for Innovation," *U.S.-China Economic and Security Review Commission*, October 7, 2020.

†For more on the military-civil fusion, see Chapter 3, Section 2, "Emerging Technologies and Military-Civil Fusion: Artificial Intelligence, New Materials, and New Energy" in *2019 Annual*

Overseas Chinese Students and Scholars in China's Drive for Innovation—*Continued*

tion and aviation to biotechnology and new materials.[123] A notable element of the ecosystem is its focus on acquiring unclassified fundamental research,* the transfer of which is not prohibited by U.S. export controls or intellectual property laws.[124]

In the United States, the overall population of Chinese students and research scholars has risen dramatically over time from around 68,000 in the 2006–2007 school year to about 370,000 in January 2020, a trend driven by China's modernization policies, U.S. policy decisions, and U.S. universities' need for funding after the global financial crisis.[125] Chinese students and scholars now constitute roughly a third of all foreign students in the United States, with approximately 130,000 pursuing graduate degrees in science, technology, engineering, and mathematics fields.[126]

The Chinese government's exploitation of overseas Chinese students and scholars with S&T expertise has concerning implications for the United States. When Chinese students and scholars trained at U.S. universities return to China to commercialize research they developed overseas, U.S. firms that would have employed them lose a first-mover advantage. More worryingly, because Beijing has promulgated a strategy of military-civil fusion and called for those with S&T expertise to serve state goals, state-affiliated institutions will seek to absorb and leverage this expertise to improve China's military capabilities and further the interests of the CCP.[127]

Under IDDS, legal and illicit channels for foreign technology acquisition gained a new significance. Weaving together a series of plans, including the SEI plan, the Made in China 2025 plan, the Internet Plus plan, military-civil fusion, and the AI plan,[128] the IDDS emphasized attracting global talent and foreign investment and innovation.[129] It mandated encouraging "foreign investment in strategic emerging industries" and the "establishment of [multinational companies'] R&D centers in China."[130] This would allow local industry to master core technologies and rise to compete internationally as well as in the domestic market.

The success of this strategy is reflected, in part, in the rapid rise in R&D expenditures by U.S. multinational enterprises (MNE) in China. In 2000, the year before China's accession to the WTO, R&D expenditure by U.S. MNEs in China was the tenth highest globally, at $506 million.[131] By 2017, it increased 631.2 percent to $3.7 billion, making China the fourth-largest destination for U.S. MNE

Report to Congress, November 2019.

*The Reagan Administration's National Security Decision Directive 189 defined fundamental research as "basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community," as distinguished from proprietary and industrial information protected for national security or commercial reasons. The policy asserted that fundamental research should remain unrestricted "to the maximum extent possible" in order to preserve the creativity and collaboration necessary for healthy innovation, while proprietary or national security-related research should be restricted. For further information, see Anastasya Lloyd-Damnjanovic and Alexander Bowe, "Overseas Chinese Students and Scholars in China's Drive for Innovation," *U.S.-China Economic and Security Review Commission*, October 7, 2020, 16.

R&D expenditure abroad.* In the pharmaceutical industry, for instance, a 2017 joint report by the European Commission and World Health Organization noted both Chinese government support for the sector as well as "substantial foreign direct investment in R&D," whereby foreign companies would license technology to local firms and research centers.[132] By 2011, the top 20 pharmaceutical MNEs had already established R&D facilities and research centers in China.[133] As of 2017, China had at least 400 local- and national-level biotechnology parks.[134]

For the Chinese Government, Economic Security Is National Security

For the Chinese government, the goal of advancing technological development responds to economic and national security imperatives. While China benefitted tremendously from its integration into global value chains and access to foreign technology, China's leaders have come to view its dependence on foreign technology imports as creating untenable security vulnerabilities, particularly in relation to the United States. Harvard scholar Julian Gewirtz argued General Secretary Xi holds an "expansive" concept of "big security" that extends to the security of key industries "related to the lifeline of the national economy."† [135] One key sector is the semiconductor industry, the foundation of the digital economy, for which Chinese policymakers established a goal of indigenously meeting 40 percent of Chinese market demand by the end of 2020 and 70 percent by 2025.‡ [136] General Secretary Xi's push to end China's dependence on foreign semiconductors prompted Chinese entities to spend more than $30 billion in unsuccessful attempts to acquire U.S. and European semiconductor technology between 2015 and 2017.[137]

General Secretary Xi has pointed to advanced technology as a crucial reason "Western countries were able to hold sway over the world in modern times."[138] This view has gained prominence among Chinese policymakers as U.S.-China tensions related to access to technology began to escalate in 2018, when the United

*In 2017, the top five destinations for U.S. MNE R&D expenditure abroad were Germany ($8.2 billion), the UK ($6.4 billion), Switzerland ($4.7 billion), China ($3.7 billion), and India ($3.6 billion). U.S. Department of Commerce, Bureau of Economic Analysis, *Activities of U.S. Multinational Enterprises*, August 23, 2019. For in-depth analysis of U.S. MNE operations in China, see Kaj Malden and Ann Listerud, "Trends in U.S. Multinational Enterprise Activity in China, 2000–2017," *U.S.-China Economic and Security Review Commission*, July 1, 2020.

†As stated in the *People's Daily*, "Economic security is the foundation of national security." *People's Daily*, "14, Resolutely Defending National Sovereignty, Security, and Development Interests (Xi Jinping New Era Socialism with Chinese Characteristics Thought Study Outline (15)) (十四、坚决维护国家主权、安全、发展利益（习近平新时代中国特色社会主义思想学习纲要(15)）," August 9, 2019. Translation.

‡Analysis by IC Insights, a U.S. market research firm, suggests China is likely to achieve only one third of its self-sufficiency goal for semiconductors given the current trends. Chinese chipmakers have so far been unsuccessful at mastering the intricate production processes required to fabricate the most cutting-edge chips widely used in consumer electronics, with the Semiconductor Industry of America estimating China as being at least two generations behind as of 2018. Translating theory and design into manufacturing requires a combination of engineering and scientific expertise, managerial talent, trade secrets, and multibillion-dollar production facilities that only a few companies located in Taiwan, South Korea, the United States, and Japan have achieved. The pace of innovation makes market leaders constantly vulnerable. IC Insights, "China to Fall Far Short of its 'Made-in-China 2025' Goal for IC Devices," May 21, 2020; John VerWey, "Chinese Semiconductor Industrial Policy: Past and Present," *United States International Trade Commission, Journal of International Commerce and Economics*, July 2019; Deloitte, "China Inside: Chinese Semiconductors Will Power Artificial Intelligence," December 11, 2018.

For the Chinese Government, Economic Security Is National Security—*Continued*

States published the results of its Section 301 investigation that found China to engage in forced technology transfer, among other practices.* The Chinese government is working to reduce this technological "stranglehold," as General Secretary Xi has termed it, by cutting U.S. firms out of local companies' procurement and supply chains in certain sectors.[139] (For more on U.S.-China tech tensions, see Chapter 2, Section 1, "Year in Review: Economics and Trade.")

In addition to securing local supply chains, national champions may help China's military and internal security forces to develop advanced capabilities.[140] Through the Chinese government's military-civil fusion policy, the Chinese defense sector leverages innovation in the commercial sphere to improve its technological know-how. Consequently, China benefits economically and strategically from economic interdependence with the United States and other foreign countries while also working to mitigate the vulnerabilities that interdependence creates for China's economy and national security.[141]

The recent iteration of China's industrial policies is predicated on the assumption that a "cluster of revolutionary new technologies" will reshape "the global competitive landscape and [change] the relative strength of nations."[142] This cluster incorporates high-speed internet and 5G telecommunications networks, AI and robotics, and interconnected sensors, with applications spanning economic and military realms.[143] Beijing views mastery of this integrated suite of technologies as Chinese companies' chance to overtake U.S. and other market incumbents in the global hierarchy, while failure to do so would represent a major setback.[144]

The Chinese government believes China's unified regulatory and standards architecture,† supported by investments in physical infrastructure, may give China an advantage over the United States in creating a digital ecosystem even if it lacks an absolute leadership in any individual sector.[145] According to Dr. Naughton, Chinese policymakers believe the United States may retain leadership in each individual digital technology, but that "the prospect for the [United States] combining [unified] management and control" of networks such as the internet, telecommunications, networked sensors, and AI is "virtually zero."[146] Leveraging these advantages, China aims to become a "cyber superpower" capable of information control, cybersecurity, infrastructure for the digital economy, and influence in global internet governance and standards.[147] China's comprehensive

*In March 2018, the Office of the U.S. Trade Representative released a report detailing the findings of its Section 301 investigation into China's acts, policies, and practices related to technology transfer, intellectual property, and innovation. This report served as the impetus for the Trump Administration to impose tariffs on U.S. imports of Chinese goods.

†Coordinated by the Cyberspace Administration of China, an overarching legal framework was first established in the 2017 Cybersecurity Law and expanded through subsequent laws (e.g., the National Intelligence Law and the Data Security Law). Graham Webster, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on U.S. Tools to Address Chinese Market Distortions,* June 8, 2018, 3.

approach to technological development and infrastructure can ultimately be exported through channels such as BRI's Digital Silk Road, where loan signatories may be required to adopt Chinese technical standards as part of the terms of agreement.[148]

U.S. policymakers' moves to mitigate predatory, trade distorting practices and national security concerns raised by Chinese companies within the U.S. market have sent Chinese companies scrambling to protect alternative markets. In Commission testimony, Janka Oertel, director of the Asia program at the European Council on Foreign Relations, said, "For China, Europe has become a key battleground in the strategic competition with the United States for economic and technological supremacy."[149] For example, Chinese telecommunications providers Huawei and ZTE account for a large share of existing EU third-generation and fourth-generation infrastructure, making up more than half of radio access networks (RAN).*[150]

As the United States, the UK, Australia, and Japan, among others, remove Chinese equipment from their telecommunications infrastructure due to network security concerns, EU member states are debating whether and how to do the same. Seeking to forestall the emergence of an EU-wide decision, Beijing has engaged individual EU member states at the bilateral level, where it can employ more leverage.[151] Dr. Oertel argued that Germany, which boasts the largest European telecommunications market, may ultimately affect considerations for other EU members. ZTE and Huawei have already established a large presence in Germany's local infrastructure, and Germany has maintained a special economic relationship with China.†[152] By contrast, in July 2020 France implemented rules to gradually phase Huawei equipment out of its 5G infrastructure[153] and Telecom Italia excluded Huawei from bidding on 5G tenders.‡ Poland, Estonia, Romania, Latvia, Slovenia, and the Czech Republic have also signed agreements with the United States confirming their 5G suppliers would not be subject to control by a foreign government, a de facto exclusion of Huawei.[154]

China's Perception of Military Competition against the United States

U.S.-China military competition constitutes the hard power underpinnings of the two countries' broader competition to shape the regional and international order. As CNA Vice President David Finkelstein testified to the Commission, the U.S.-China relationship has

*RAN are a key part of telecommunications infrastructure, managing the transmission of signals from core networks to endpoints such as mobile devices. The evolution of RAN from largely physical to increasingly digitized, software-based solutions is a key component in the development of 5G. For more, see Department of Homeland Security Cyber and Infrastructure Security Agency, "5G Wireless Networks: Market Penetration and Risk Factors," July 2019.

†As Sino-European relations expert Noah Barkin stated, Berlin and Beijing established close trade and investment ties through the 2000s which assisted Germany's management of the 2008 financial crisis. According to media reporting in September 2020, however, the German government plans to impose new restrictions on telecommunications equipment which, while stopping short of a ban on Huawei, will include significant requirements Huawei would not be able to meet. These restrictions would effectively lock Huawei out of the German market. Guy Chazan and Nic Fildes, "Germany Crackdown Set to Exclude Huawei from 5G Rollout," *Financial Times,* September 30, 2020; Noah Barkin, "Germany's Strategic Gray Zone with China," *Carnegie Endowment for International Peace*, March 25, 2020.

‡Although Huawei did not participate in building Telecom Italia's core 5G network, it provided equipment to build part of its current RAN. *Reuters*, "Huawei Says It's Working with Telecom Italia despite 5G Exclusion: Paper," July 20, 2020.

always featured military tension.[155] The CCP was preoccupied with domestic security and a hostile regional environment in the first decades of the PRC and focused the PLA's early strategies on repelling perceived military threats from the United States and, later, from the Soviet Union. By the mid-1990s, following the collapse of the Soviet Union, China refocused the PLA on long-term military competition with the United States.* Chinese strategic planning considered the United States as a likely opponent in any regional conflict and was supported by substantial increases in military spending beginning in 1996.†[156] Meanwhile, a series of debates over China's external security environment throughout the 1990s and first decade of the 2000s continued to inject urgency into Beijing's preparations for a potential future conflict.[157]

The CCP considers the U.S. military an existential threat looming behind U.S. regional allies and partners. In Beijing's view, the United States militarily threatened China from the Korean Peninsula just one year after the PRC's founding, waged a war in Vietnam and other Southeast Asian nations, and deployed military forces during Taiwan Strait crises in 1954, 1958, and 1996.[158] In each of these instances, the CCP's most pressing threat was the presence of U.S. military forces in neighboring countries. Moreover, the CCP believed these conflicts occurred in theaters where U.S. core security interests were not at stake, so U.S. actions reflected hegemonic interests.[159]

This account of U.S. antagonism has endured in Beijing and was recently exhibited in a 2013 propaganda video (referred to by Chinese state media as a "documentary") produced by the PLA's National Defense University, which asserted the United States had a longstanding objective of destroying China despite superficial U.S. efforts at cooperation.‡[160] According to Dr. Finkelstein, in 2013, the PLA claimed that "hostile foreign forces," presumably including the U.S. military, threatened Chinese sovereignty, PLA modernization processes, and CCP regime security.[161] As such, the PLA has consistently echoed the CCP line in portraying the United States as having "fundamentally malevolent intentions."[162] At times, the PLA can be even more bellicose than China's civilian leaders in its rhetoric.§ In May 2020, for instance, PLA commentators accused the United States of burying its head in "the sand of arrogance and self-conceit"

*In comparison, U.S. government planning for long-term military competition against China began years later with the 2001 Defense Strategy Review and 2004 Global Posture Review. Although the U.S. focus on military conflicts in the Middle East limited the implementation of these plans, they constituted the first in several shifts within the U.S. Department of Defense to focus on Asia as a key region for military competition. These steps included the 2011 "Pivot to Asia" and the Defense Department's 2018 designation of China as a "strategic competitor." See U.S. Department of Defense, "Summary of the National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge," 2018; Nina Silove, "The Pivot before the Pivot: U.S. Strategy to Preserve the Power Balance in Asia," *International Security* 40:4 (Spring 2016): 45–88.

†Using constant prices and including military spending that China does not report in its official defense budget reveals patterns in Chinese spending. On average, the PLA's budget contracted by 3 percent each year from 1993 to 1995. In contrast, the PLA budget from 1996 to 1998 grew by an average of 10 percent each year. Shaoguang Wang, "The Military Expenditure of China, 1989–98," in *SIPRI Yearbook 1999: Armaments, Disarmaments and International Security*, 1999, 348.

‡The propaganda video's producers included then President Wang Xibin of the National Defense University and Political Commissar Liu Yazhou.

§PLA officers often issue belligerent statements to attract both domestic and international attention. These statements are typically part of a broader ecosystem of CCP propaganda and reflect the interests and direction of China's top leaders. For more, see Andrew Chubb, "Propaganda, Not Policy: Explaining the PLA's 'Hawkish Faction' (Part One)," *China Brief*, July 25, 2013.

and threatened U.S. Secretary of State Michael Pompeo as being "doomed to a pathetic end" because "good and evil will meet their karma."[163]

Meanwhile, the PLA has benchmarked its capabilities against those of the United States. According to Dr. Finkelstein, China's preparations for a military competition with the United States have driven the PLA's "force modernization decisions, deployment decisions, organizational and doctrinal developments, technological innovation, [and] regional military diplomacy."[164]

Defining and Refining Strategies for Military Competition with the United States

The chaotic security environment in the PRC's early years prevented Beijing from developing a coherent policy for competing with the U.S. military until the early 1990s. Beijing also lacked a strategy to prosecute this competition until the first decade of the 2000s. From the PRC's founding until Mao Zedong's death in 1976, the PLA's strategy was to employ protracted campaigns of attrition to repel invasions from at least one of two militarily superior adversaries.[165] The record of China's military strategic guidelines, the authoritative planning guidance periodically issued to the PLA, identified the United States as the PLA's primary opponent in the 1950s and 1960s following the Korean War.[166] It identified the Soviet Union as the PLA's primary opponent beginning in the late 1960s following the Soviet military buildup along the Sino-Soviet border.[167] After the CCP determined in 1985 that a Soviet invasion of China was unlikely, the PLA began turning its strategic attention away from defending against invasion and toward resolving territorial and maritime disputes and long-term preparation for local conflicts.[168]

Easing security pressures into the 1990s also provided the PLA its first opportunity to reconsider a long-term competitive strategy toward the United States. Then General Secretary Jiang's 1993 declaration that the PRC enjoyed its "best" regional security environment since 1949 occurred simultaneously with Beijing's issuance of its first military strategic guidelines for building long-term competitive capabilities rather than preparing for U.S. or Soviet attacks on China's borders.[169] The 1993 military strategic guidelines were also Beijing's response to U.S. technological capabilities exhibited in the 1990–1991 Gulf War, which some PLA strategists believe triggered a revolution in military affairs, revealing a new model of war.[170]

In his speech on the 1993 guidelines, then General Secretary Jiang identified the focal point of China's strategy as deterring Taiwan from declaring independence.[171] While the guidelines did not specify China's primary strategic opponent, they revealed this opponent was no longer the Soviet Union and had changed based on "major changes in the strategic threat."[172] The guidelines also noted that the most important geographic focus for China's military planning, known as the "primary strategic direction," would be China's southeast, toward Taiwan.[173] By leaving unstated the new strategic opponent the PLA would likely face, Chinese leaders avoided naming the United States directly, while tacitly acknowledging that a

conflict over Taiwan would likely require the PLA to also fight the United States.*[174]

The 1993 military strategic guidelines reflected a strategic urgency to catch up to but no urgency to fight the United States; while PRC defense budgets nearly quadrupled between 1989 and 1998, the PLA Army, Navy, and Air Force each faced double-digit force reductions during this time.[175] The PLA considered the United States to be an adversary it would not likely face until the distant future, and one that until then could be considered a benchmark for military development.[176] The 1993 military strategic guidelines were also poorly specified, offering little conceptual understanding of the supposed revolution in military affairs other than that future wars would be fought involving joint service operations using capabilities offered by technological advances.

In the first decade of the 2000s, Beijing refined its blueprint for military competition, responding to a series of crises in the bilateral relationship throughout the mid- to late-1990s. Several events during this period, including the 1995–1996 Taiwan Strait Crisis, 1999 accidental U.S. bombing of the Chinese Embassy in Belgrade, and Tokyo's and Washington's respective announcements of plans to establish a ballistic missile defense system covering East Asia, prompted urgency and some panic in Beijing regarding U.S. strategic intentions.[177] In 1999, then General Secretary Jiang revealed a new official assessment of the international environment, concluding the debate. Beijing now assessed that U.S. "hegemonism" and military interventions were growing challenges to China's development, contradicting earlier assessments that portrayed the U.S. challenge as declining.[178] Specifically, top Chinese leaders were convinced the United States was preparing for military interference or intervention in East Asia by prosecuting an "anti-China containment policy."[179]

As a result, the PLA focused its approach with a new set of military strategic guidelines, issued in 2004, that shaped China's approach to military competition around two key concepts: "informationization," a key operational concept aiming to digitally link discrete military elements, and "systems destruction warfare," the PLA's theory of victory, which envisions the coordination of combat, logistics, and intelligence systems constituting a force multiplier to challenge superior opponents.[180] The CCP considered informationization a concept for the societal and technological revolutions defining the information age, akin to what mechanization was to the industrial age. PLA strategists describe informationization as the still-ongoing revolution in military affairs that began with the Gulf War, and they envision its potential as a force multiplier enabling the PLA to prevail against militarily superior foes, including the United States.[181]

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*Chinese leaders' likely identification of the United States in 1993 as the PLA's primary strategic opponent is reinforced by General Secretary Jiang's speech to Chinese diplomats that same year in which he described the United States as China's "main adversary in international dealings." In the 1993 military strategic guidelines, the PLA's primary strategic opponent is distinct from its "main target of operations," which is likely the Taiwan military. See Jiang Zemin, "Our Diplomatic Work Must Unswervingly Safeguard the Highest Interests of the State and the Nation," July 12, 1993, in *Selected Works of Jiang Zemin*, Volume I, Beijing: Foreign Languages Press, 2011, 303 and Shou Xiaosong, ed., *The Science of Military Strategy* (战略学), Military Science Press, 2013, 47.

Waging Informationized War through Systems Destruction Warfare

The current Chinese strategy to surpass the U.S. military is to informationize the PLA and adopt asymmetric concepts targeting an opponent's perceived weaknesses. Informationization describes full combat, communications, and sensor integration under a single command network. Then General Secretary Hu summarized the practice of informationized warfare as confrontation between "systems of systems" instead of between discrete forces, hence "systems confrontation."[182] PLA strategists believe an integrated system of systems is a military's force multiplier as well as its critical vulnerability.[183] In turn, the PLA approach depends on the integrated systems being a force multiplier for Chinese forces while creating vulnerabilities for the PLA's opponents.[184] In 2018, PLA National Defense University Vice President Xiao Tianliang defined systems confrontation as the "essential character of informationized war" and the core metric by which a great power's military capabilities should be assessed.[185]

Since 2006, PLA literature has also discussed leveraging integrated forces for the purpose of destroying key nodes in an enemy's system of systems to paralyze and thus defeat an opponent, hence "systems destruction warfare."[186] Where systems confrontation generally describes informationized war, systems destruction warfare is how the PLA anticipates applying systems confrontation to defeat superior opponents such as the United States.*[187] PLA strategists also envision these concepts as a way to take advantage of civilian assets for warfighting, for example by targeting civilian critical infrastructure. In this scenario, interstate conflict becomes a whole-of-society matter† determined by comprehensive national power rather than by military power alone, where the United States has an advantage.[188]

The significance of these concepts cannot be overstated. In a 2014 speech, General Secretary Xi reaffirmed deepening PLA informationization as continuing a revolution in military affairs by which the PLA can "narrow the gap" and "leapfrog" the status quo, clearly indicating informationization is the way to catch up with and surpass the U.S. military.[189] The 2013 edition of the *Science of Military Strategy*, an authoritative PLA publication, describes the focus on informationization in the 2004 military strategic guidelines as a

*Systems confrontation and systems destruction are distinct operational concepts. Systems confrontation describes a force's ability to face an opponent while maintaining the operational integrity of an integrated system of combat, surveillance, communication, and sensor platforms. Systems destruction entails a higher level of capability, describing that system's ability to then destroy linkages integrating the same components in an opponent's system.

†PLA military planning may account for civilian contributions, particularly in surveillance and intelligence gathering before or in the early stages of conflict. For instance, Chinese nationals in service to PLA intelligence operations may potentially assist the PLA in achieving military objectives. For example, from 2018 to 2020, four Chinese nationals were arrested for illegally photographing parts of the U.S. naval air station at Key West where access is restricted to those with U.S. military identification. In 2020, the U.S. Federal Bureau of Investigation charged three Chinese graduate students conducting research in the United States with lying about their PLA affiliations in their visa applications. See Elizabeth Redden, "Scholars Charged with Lying about Chinese Military Ties," *Inside Higher Ed*, July 28, 2020; Geoff Ziezulewicz, "Three Chinese Nationals Sentenced for Taking Photos on Navy Base," *Navy Times*, June 10, 2020.

"strategic choice that had decisive significance."[190] The concept features prominently in the PLA's latest military strategic guidelines, issued in 2014, and China's latest defense white papers, issued in 2015 and 2019.[191]

Preparing for Informationized War with the United States

The PLA envisions military competition against the United States as being regional in focus but global in scope.[192] As CNA principal research scientist Alison Kaufman testified, CCP leaders are keenly aware the PLA may not yet be able to prevail in a large-scale kinetic conflict against the United States, such as in a campaign to blockade or invade Taiwan.[193] Despite significant advancements in power projection capabilities over the past 20 years, the 2019 defense white paper noted PLA capabilities still lag behind those of other leading militaries.[194]

As such, the need and opportunity identified in the 1993 military strategic guidelines remain intact: the PLA needs to develop the capabilities to pose a credible threat to the United States in and beyond the Indo-Pacific, and it must do so without provoking a major armed conflict or counterstrategy that would threaten China's economic development or progress toward informationization. The PLA develops these capabilities with parallel lines of effort. First, the PLA modernizes to develop capabilities necessary for informationized war, which includes operationalizing systems destruction warfare. Second, it contests the United States by extending the PLA's reach throughout and beyond the Indo-Pacific with power projection capabilities and international access agreements. China's modernizing capabilities demonstrate Beijing's operational vision for the Indo-Pacific theater, where U.S.-China military competition is most intense.

Operationalize Systems Destruction Warfare

The PLA has made significant progress toward waging informationized war, featuring modernizing command and control networks able to rapidly transfer complex information, new space jamming and antijamming weapons, and increasingly sophisticated cyberattack capabilities.[195] To further operationalize systems destruction warfare, a growing portion of PLA training events simulate systems confrontations, which involve red force-blue force* exercises with constant electromagnetic interference on both sides' communications and sensor networks. For example, PLA Air Force airmen conducting these exercises attempt to gain situational awareness and develop new approaches to break through an adversary's defenses to strike its central command network.[196]

PLA documents only describe the PLA Air Force as consistently and successfully executing systems confrontation training events. The 2019 defense white paper singles out the air force as conducting system-vs.-system exercises while characterizing PLA

*In these exercises the PLA plays the "red force" while the "blue force" represents the PLA's opponent. In PLA training, the blue force often uses U.S. military doctrine and sometimes U.S. uniforms or equipment. Conversely, U.S. and allied militaries commonly refer to themselves as the "blue force" and represent adversaries as the "red force" in their force-on-force training. See David C. Logan, "The Evolution of the PLA's Red-Blue Exercises," *China Brief*, March 14, 2017; Gary Li, "The Wolves of Zhurihe: China's OPFOR Comes of Age," *China Brief*, February 20, 2015.

Navy and Rocket Force exercises as force-on-force, implying only the PLA Air Force is able to consistently realize force-multiplying effects through systems integration in training.[197] While all PLA services demonstrate conventional capabilities to degrade or destroy enemy infrastructure, Chinese state media have not indicated that any PLA service has exhibited capabilities to do so in an integrated fashion descriptive of systems destruction warfare. PLA strategists have also begun considering the impact of AI on informationization.[198]

Leveraging Military-Civil Fusion for Whole-of-Society Systems Destruction Warfare

Due to the increasing integration between civilian and military information systems, informationization casts systems destruction warfare in a whole-of-society light. As such, Chinese commercial endeavors are key enablers of its military strategy. Beijing's ostensibly commercial endeavors abroad include constructing and purchasing soft infrastructure networks such as communications, computational, AI, cloud computing, and space systems.[199] These investments position countries receiving Chinese investment as battlegrounds for U.S.-China military competition. This is particularly the case in cyberwarfare, where Chinese-built civilian telecommunications networks are almost certain to feed China's intelligence operations.* These networks additionally offer the PLA avenues to impact foreign civilians directly through cyberattacks on communication, banking, and other widespread services using these networks.[200] Chinese control over these systems constitutes latent military power the PLA intends to harness. As Dr. Ellis testified, China's vast resources and disregard for privacy or individual rights also offer it a likely advantage in fusing communication and other technologies for societal control.[201] These advantages likely translate to the PLA's ability to exploit ostensibly civilian networks for military purposes.

PLA strategists' intent to use civilian networks under Chinese control to augment China's military capabilities presents an asymmetric challenge to the U.S. military. The PLA considers civilian networks to be inherently dual-use and along with military networks comprise the "network domain," which facilitates PLA cyber warfare and creates linkages for systems destruction warfare.[202] The PLA's approach to cyber warfare mirrors systems destruction warfare: it is an effort to employ military or undirected civilian "forces" to destroy or cripple an opponent's information networks while maintaining one's own.[203] The 2013 edition of the *Science of Military Strategy*

*Examples of such civilian networks include the Pacific Light Cable Network, a project to boost digital transmissions between the United States, Hong Kong, Taiwan, and the Philippines by building a massive undersea fiber-optic cable between them. The project, announced in 2017, temporarily held the support of U.S. firms, including Google and Facebook. On July 17, 2020, Team Telecom, a multiagency panel within the U.S. Department of Justice, recommended that the Federal Communications Commission prohibit the network's link to Hong Kong due to concerns that link would "expose U.S. communications traffic to collection by the PRC." By August 2020, with the cable already laid but not yet operational, Google and Facebook formally withdrew their prior plans and submitted a revised proposal linking only the United States, Taiwan, and the Philippines. See Todd Shields, "Google, Facebook Dump Plans for U.S.-Hong Kong Undersea Cable," *Bloomberg*, August 28, 2020; U.S. Department of Justice, *Team Telecom Recommends that the FCC Deny Pacific Light Cable Network System's Hong Kong Undersea Cable Connection to the United States*, June 17, 2020; Kate O'Keefe, Drew FitzGerald, and Jeremy Page, "National Security Concerns Threaten Undersea Data Link Backed by Google, Facebook," *Wall Street Journal*, August 28, 2019.

explicitly describes "military-civilian joint integrated attack" and encourages compounding kinetic strikes with cyberattacks on civilian targets to maximize "psychological shock" and force a more powerful enemy into submission.*[204] PLA strategists argue these joint attacks could target an adversary's infrastructure and upend its transportation grid, interrupt its communications networks, and paralyze its financial system.[205] One potential scenario U.S. analysts have envisioned involves Chinese cyberforces employing these concepts to target U.S. critical infrastructure, such as by disrupting the flow of natural gas pipelines and restricting public access to energy, in attempts to deter U.S. intervention into a regional conflict or undermine the U.S. public's will to continue an ongoing conflict.[206] The PLA Strategic Support Force, established in 2015, institutionalizes these concepts by coordinating the PLA's cyber, electronic, and psychological warfare.†

The PLA's concept of one cohesive network domain indicates it understands informationization to be a whole-of-society operational concept by which it will use any network—military or civilian—of any country to carry out network and systems destruction warfare.[207] As such, ostensibly nonmilitary investments by Chinese companies, particularly state-owned enterprises, in the soft infrastructure of other countries provides the PLA additional opportunities to exploit foreign civilian resources for military use. While the PLA's process for weaponizing civilian telecommunications networks in other countries remains unclear, the CCP's culture of strategic opportunism suggests these investments may turn out to be useful even if exactly how is not immediately apparent.[208]

Potential Military Use of Commercial State-Owned Sensors in China's Near and Far Seas

One example of an ostensibly commercial network the PLA could exploit for military purposes is China's Blue Ocean Information Network, which is a network of sensors designed to improve monitoring of maritime information, such as ship movement and weather conditions, in China's near seas‡ and the world's oceans. Between 2016 and 2019, the Chinese state-owned enterprise China Electronics Technology Group Corporation (CETC) built its first network of sensors in the South China Sea with the endorsement of the National People's Congress.[209] According to Johns Hopkins University Applied Physics Laboratory

*Some PLA analysts view the 2003 Iraq War as an early case study of how the U.S. military leverages psychological shock to achieve operational effects. These analysts argue the United States coordinated computer network attacks with conventional military operations to undermine the Iraqi will to fight. Dean Cheng, "The Chinese People's Liberation Army and Special Operations," *Special Warfare* 25:3 (July–September 2012).

†China established the Strategic Support Force to improve the PLA's joint warfighting and information operations capabilities as part of the PLA's broader reorganization in late 2015. The new force combined the PLA's previously disparate cyber, electronic, and psychological warfare units under a unified command structure. The Strategic Support Force is responsible for collecting and managing technical intelligence, including from cyber and space assets; supporting joint operations; and carrying out attacks against an adversary's command network. See John Costello and Joe McReynolds, *China's Strategic Support Force: A Force for a New Era*, National Defense University Press, 2018, 28–29.

‡Beijing refers to the Bohai, Yellow, East China, and South China seas as well as the waters east of Taiwan as its near seas. See China Ministry of Natural Resources, First Institute of Oceanography, "Which Seas Comprise China's Near Seas?" (我国的近海都包括哪些海？), May 4, 2017. Translation.

Potential Military Use of Commercial State-Owned Sensors in China's Near and Far Seas—*Continued*

senior researcher J. Michael Dahm, this network was an early demonstration for CETC's broader campaign to build a network of permanent maritime sensors with hydrographic sensing, radar, and communication functions in and beyond China's near seas.[210] CETC has developed features in these maritime sensors to improve situational awareness, underwater surveillance, and China Coast Guard response.[211] A 2019 *PLA Daily* article reported the segment of the network already built in the South China Sea will "play an important role in the construction on China's [Spratly] and [Paracel] Islands, defending the islands and reefs, and continuous monitoring of targeted waters."[212] CETC intends to cover China's Maritime Silk Road* with these sensors by 2035 and extend them to the Arctic and Antarctic oceans by 2050.[213]

Contesting the United States through and beyond the Indo-Pacific

A second key component of the PLA's strategy for competition with the United States is to extend the PLA's reach through advancements in conventional missile, naval, and combat aviation capabilities that can hold distant U.S. forces at risk and so deter or delay U.S. military efforts to threaten the Chinese mainland. As Dr. Finkelstein testified, the PLA appears to aspire to prevent any potentially hostile military, especially that of the United States, from operating with impunity near China's shores.[214] The CCP reinforced this message on July 4, 2020, stipulating in state media that "any U.S. aircraft carrier movement in the region is solely at the pleasure of the PLA."[215] As the PLA's reach extends outside of the theater, Beijing's operational vision threatens U.S. military influence and navigation in any place the CCP feels it threatens China's interests. The PLA complements investments in conventional platforms capable of long-range precision strikes with an evolving doctrine to station and deploy forces farther from China's shores. China's military strategy is also limited by PLA power projection capabilities, however, which do not yet extend through the full Indo-Pacific and diminish sharply beyond East and Southeast Asia. (For more on PLA power projection capabilities, see Chapter 3, Section 2, "China's Growing Power Projection and Expeditionary Capabilities.")

Extending the PLA's Reach in the Indo-Pacific

Since the mid-1990s, the PLA's strategy, doctrine, and force development have focused on extending the reach of its strike capabilities farther from China's shores. These changes align with the 1993 military strategic guidelines' shift in threat perceptions from China's continental borders to maritime East Asia, which required significant improvements in the PLA's maritime and air power. Substantial cuts to ground force personnel and investments in naval, air, missile, space, and cyber capabilities reflect a force posture that emphasized

*The Maritime Silk Road describes investments to boost maritime connectivity between China, Southeast Asia and Oceania, the Indian Ocean region, the Persian Gulf, and the Mediterranean Sea.

engaging distant maritime powers, such as the United States, while also improving the PLA's ability to prevail in a conflict with China's continental neighbors.[216] In 2004, then General Secretary Hu unveiled the "new historic missions" for the PLA, which called for the PLA to extend its reach by (among other tasks) defending China's national interests abroad, including in the maritime, space, and cyber domains.[217] Reflecting this new charge, China's 2006 defense white paper explicitly identified PLA Navy and Air Force objectives to increase the PLA's reach and transition from territorial defense to offshore defensive operations. All subsequent defense white papers have similarly reflected the new historic missions' call for the PLA to project power farther from China's shores.[218] By 2013, the PLA's *Science of Military Strategy* called for establishing an "arc-shaped strategic zone that covers the Western Pacific Ocean and the northern Indian Ocean" to enable the PLA to "strike the enemy from as far a range as possible" from China's shores.[219]

PLA strategists envision long-range strike capabilities as an asymmetric advantage to prevent the U.S. military from leveraging its overwhelming technological advantage close to China's shores and interests. As a recourse, these strategists have called for using the Chinese landmass to secure spatial security, projecting PLA activities farther abroad under the belief that in any confrontation, the U.S. military would have superior technology but comparatively sparse basing options.[220] From this, the PLA produced capabilities the Pentagon calls anti-access and area denial, which emphasizes using land-based assets to deny U.S. forces a permissive operating environment with hopes of deterring, delaying, or defeating U.S. power projection into a given denied area or to the region more broadly.[221]

Critical to China's anti-access and area denial capabilities are ground-launched antiship missiles, primarily operated by the PLA Rocket Force.[222] These missiles, along with weapons systems operated by the PLA Navy, are well-tailored for a high-end kinetic conflict against the U.S. Navy. PLA analysts commonly discuss the PLA Rocket Force's ability to strike and sink U.S. aircraft carriers and Arleigh Burke-class destroyers, and PLA Rocket Force doctrinal publications describe procedures to strike links in the U.S. Aegis radar system used on U.S. and allied ships.[223] The PLA Navy also invested heavily in anti-air naval capabilities suited to counter U.S. carrier aviation and by building a flotilla of ships with area air defense capabilities.*[224]

PLA Air Force modernization has also emphasized building strategic depth with long-range strike and territorial air defense capabilities. Weapons systems introduced into the force in the early 2010s are able to reach over and beyond Taiwan to interdict U.S. military aircraft and strike back at U.S. ships and bases.[225] State-sponsored research invests heavily in building jet engines with supercruise—or sustained supersonic flight—capabilities that offer advantages

*The PLA Navy has consistently added warships with area air defense capabilities, starting from 0 in 1996 and boasting 20 in 2018, including 14 Type 052D destroyers with extended-range anti-air capabilities. See *Sina*, "The PLA's First Lengthened 052D Enters Service Equipped with Prominent Meter-Wave Radar Anti-Stealth Capabilities" (我军首艘加长版052D入役 换装米波雷达反隐性能突出), January 20, 2020. Translation; U.S. Defense Intelligence Agency, *China Military Power: Modernizing a Force to Fight and Win*, November 2018, 70.

for long-range strikes and defending larger swathes of airspace.[226] The PLA Air Force has also developed long-range PL-15 air-to-air missiles and is exploring increasing its fifth-generation combat aircraft's weapons bay to carry more of these missiles.[227]

Broker International Access beyond the Indo-Pacific

U.S.-China military competition beyond the Indo-Pacific will be largely political-military insofar as PLA power projection depends on access agreements to foreign bases. The PLA Navy has significantly increased its military diplomacy with other countries since the early 2000s.[228] Further, it has secured access and potential naval basing facilities in Pakistan and Cambodia, in addition to its naval base in Djibouti. In conjunction with Chinese-invested ports in the Indian Ocean region, these facilities may provide sufficient support for current PLA Navy operations.[229] While commercial facilities might offer stopgap basing services to PLA Navy vessels in peacetime, these facilities lack the munitions storage, warship maintenance infrastructure, and security needed to replace military bases and may constitute a liability for Beijing in a high-intensity kinetic conflict.[230]

Gray Zone Activities and Risk Acceptance Heighten Prospects for Conflict

China employs gray zone* operations and paramilitary forces to coerce its neighbors, accomplishing objectives such as seizing territory or restricting maritime access in the South China Sea.† In these operations, Chinese forces calibrate their coercion to areas and levels of intensity where PLA strategists believe the United States considers responsive actions too costly.[231] CCP leaders believe gray zone activities may help the PLA maintain or even improve the regional security environment for China.[232]

The risk of unintended escalation rises when gray zone tactics are combined with increased risk tolerance and potential misperception of U.S. intentions.‡ Chinese strategists believe conflict between two nuclear powers has a natural escalation ceiling insofar as a nuclear threat necessarily precludes total war. Yet the threshold for nuclear war, as with Chinese strategic thresholds for armed escalation in general, remains poorly defined.[233] PLA strategists seem certain that so long as a credible nuclear threat exists, the PLA can safely initiate or otherwise employ carefully controlled conflict, escalated

*Gray zone operations are akin to military activities that leverage largely nonmilitary tools to achieve competitive objectives through activities falling below the threshold for open war. Gray zone activities often creep incrementally toward their objectives. For more on gray zone operations, see Michael J. Mazarr, "Struggle in the Gray Zone and World Order," *War on the Rocks*, December 22, 2015.

†China has used gray zone tactics against the Philippines to wrest away control of Scarborough Shoal in 2012 and deter militarization of Thitu Island in 2019. See Asia Maritime Transparency Initiative, "The Long Patrol: Staredown at Thitu Island Enters Its Sixteenth Month," *Center for Strategic and International Studies*, March 5, 2020; Michael Green et al., "Counter-Coercion Series: Scarborough Shoal Standoff," *Asia Maritime Transparency Initiative*, May 22, 2017.

‡Escalation control is distinct from deterrence in PLA strategic literature. PLA strategists describe military deterrence as preventing a war and halting its escalation, while they describe escalation control as managing the speed and intensity at which an armed conflict progresses to maximize the CCP's ability to shape events and benefit from the conflict. The PLA conception of escalation control is not inherently de-escalatory, and the strategic literature often describes controlling conflict by broadening the theater or intensifying the conflict. For more on this topic, see Alison A. Kaufman and Daniel M. Hartnett, "Managing Conflict: Examining Recent PLA Writings on Escalation Control," *CNA*, February 2016.

even to the level of a regional war, in the service of CCP political objectives.[234] Moreover, PLA strategists appear to believe that coercive activities carry low risk and assume that Chinese intentions are clear to others.[235]

Yet Chinese beliefs regarding which actions are escalatory do not necessarily align with those of other countries. As Dr. Kaufman testified, some Chinese analysts suggest the PLA can probe an opponent's intentions by carrying out direct kinetic strikes on that country's vessels, while U.S. military operators are more likely to view such actions as the very conflict that escalation control should avoid.[236] These beliefs regarding escalation control foster bellicose PLA doctrine: the 2001 edition of the *Science of Military Strategy* stipulates that China may take a "tactical" first shot to instigate war in response to any country that takes a "strategic" first shot by challenging Beijing's perceived sovereignty.[237] Additionally, CCP officials' inclination to sweepingly ascribe nefarious, anti-China intentions to U.S. activities predisposes PLA operators to misperceive the intentions behind U.S. military actions. This misperception is particularly pronounced in the Indo-Pacific, where the CCP believes it has core interests and thus justification for its actions, while the United States does not.*[238]

The PLA's risk of escalation is particularly high in the maritime domain, where the PLA attempts to discourage the U.S. military from operating near China's shores by employing confrontational tactics that fall below the threshold for open conflict. These tactics reflect an apparent belief among Chinese leaders that aggressively confronting U.S. military activity in the region will raise the costs to the United States of such activity and could convince U.S. leaders to limit operations near China to avoid escalation to a kinetic exchange. The PLA demonstrated this approach as early as 2001, when a PLA Navy F-8II collided with a U.S. EP-3 surveillance plane, forcing the U.S. crew into an emergency landing on Hainan Island.[239]

The PLA has increased the aggressiveness of its tactics in recent years. In 2009, Chinese vessels surrounded the unarmed ocean surveillance vessel USNS *Impeccable* as it transited the South China Sea, ordering it to leave the area or "suffer the consequences," then obstructing *Impeccable*'s path as it attempted to withdraw.[240] In 2016, Chinese forces seized a U.S. Navy undersea drone, with state media boasting, "If the U.S. military can send the drone, surely China can seize it."[241] In 2018, a PLA Navy destroyer aggressively maneuvered near a U.S. Navy destroyer, nearly forcing a collision.[242] In 2020, a PLA Navy destroyer shined a military-grade laser at a U.S. Navy P-8A Poseidon maritime patrol aircraft flying over international waters west of Guam, threatening to damage aircraft sensors and blind U.S. Navy personnel conducting vehicle maneu-

*Despite the apparent belief in its ability to manage escalation, the PLA's response to recent U.S.-China tensions in the South China Sea suggests some level of awareness that exchanging fire with the United States could lead to uncontrolled escalation between the two sides. In August 2020, a source close to the PLA described the dynamic between U.S. and Chinese forces in the South China Sea as "highly tense and very dangerous." The source claimed that in this situation, PLA leaders had ordered frontline forces "not to fire the first shot" for fear the PLA would be unable to "control the consequences." See Wendy Wu and Minnie Chan, "South China Sea: Chinese Military Told Not to Fire First Shot in Stand-Off with U.S. Forces," *South China Morning Post*, August 11, 2020.

vers.[243] Chinese state media subsequently praised the action and encouraged future electromagnetic attacks on the U.S. military.[244]

The PLA may apply similar or even more confrontational tactics to test U.S. resolve to enforce its new South China Sea policy, which rejects much of China's claims to offshore resources in the South China Sea and describes China's efforts to secure them as "unlawful."[245] In August 2020, a month after two U.S. aircraft carriers conducted exercises in the South China Sea, the PLA tested the limits of gray zone activities by firing at least two antiship ballistic missiles into the area.[246] The PLA may use gray zone or other similarly confrontational tactics targeting U.S. allies and partners in the region in an attempt to undermine support for the new U.S. position. (For more on the new U.S. policy and the region's response, see Chapter 3, Section 1, "Year in Review: Security, Politics, and Foreign Affairs.")

As the local military balance shifts in China's favor, PLA officers may become increasingly tempted to employ offensive tactics or even instigate a limited war against its neighbors. The PLA may test U.S. resolve by engaging in limited conflict with a U.S. treaty ally such as Japan or the Philippines.[247] While a Taiwan conflict is increasingly likely given unification's paramount political importance to Beijing, the political costs of failure are prohibitive. As such, while the risks of the PLA instigating conflict over Taiwan may grow as PLA capabilities increase and as prospects for a mutually agreed upon unification arrangement diminish, Beijing's continued concerns over the PLA's inability to prevail against the U.S. military may convince the CCP to defer a conflict until it considers the PLA advantageously positioned.[248]

Implications for the United States

U.S. policy since the inception of U.S.-China diplomatic ties may have underestimated the consistency and degree of the Chinese government's adversarial views toward the United States. After more than 40 years of deepening bilateral ties, China has grown increasingly competitive and confrontational in its relationship with the United States. Meanwhile, as Chinese leaders have perceived the power gap between the two countries as steadily closing, they have become increasingly confident in their ability to expand the CCP's authoritarian values and repression to U.S. citizens, businesses, and allies.

The stakes of U.S.-China competition are high. In the economic realm, the flood of Chinese imports—buttressed by state subsidies and other unfair trade policies—has devastated U.S. industries and communities since China's WTO accession. The impact of China's trade-distorting practices on U.S. small businesses has been particularly severe. U.S. workers and companies, no matter how innovative and efficient, struggle to compete when the Chinese government so decisively tilts the playing field in favor of Chinese companies through a variety of legal, regulatory, and financial mechanisms, and when U.S. companies are granted access to the Chinese market, it is at the cost of transferring valuable intellectual property to their Chinese counterparts. As Chinese leaders turn their attention to emerging technologies, their goal is not merely to achieve parity

with the United States—it is to surpass and displace the United States altogether. Failure to appreciate the gravity of this challenge and defend U.S. competitiveness would be dire. Because these emerging technologies are the drivers of future growth and the building blocks of future innovation, a loss of leadership today risks setting back U.S. economic and technological progress for decades.

Should the Chinese government achieve some of its goals in the political and informational domain, the consequences for the United States would be similarly dire. Politically, the long arm of Chinese censorship would intrude further into the United States, silencing free speech and punishing business decisions that Chinese leaders judge to run counter to the interests of the Chinese government. U.S. policymakers would be complicit in their silence as the CCP continued to crush aspirations for freedom of speech and of religion, representative government, and rule of law in China and in the formerly autonomous Hong Kong. Similarly, the United States would stand by as China continued its campaign of cultural genocide against the millions of Uyghurs, Tibetans, and other non-Han Chinese populations living under its rule. Within the United States, Chinese censorship is already corrupting the arts, sports, and the political process. An increasingly influential China could see Hollywood and the National Basketball Association, among others, expand their self-censorship to stay in the good graces of the CCP.

An ascendant China may also constrain U.S. foreign policy and is already seeking to drive wedges between the United States and its allies. Meanwhile, it would exploit U.S. economic dependency on China to enforce acquiescence to Chinese government policies. In the military sphere, a PLA trained and equipped to defeat the U.S. armed forces could forestall U.S. assistance from reaching U.S. allies and partners in the Indo-Pacific. With its regional presence diminished, the United States could prove unable to prevent China from forcibly annexing Taiwan and subjugating its 23 million citizens to the CCP's authoritarian rule. Meanwhile, autocrats and dictators around the world are being emboldened by China's support and encouragement.

On the other hand, a more overtly competitive U.S. strategy toward China could come with its own consequences. In the near term, U.S. companies could face substantial economic disruption as they untangle critical supply chains from China. Friction with U.S. allies could increase as joint efforts are made to reduce the more harmful aspects of economic interdependence with China, a competitor more economically formidable than the Soviet Union ever was. Militarily, the United States could risk armed confrontation with an increasingly capable PLA devoted to the Chinese government's openly expansionist aims to gain control over key portions of its neighbors' territory. U.S. defense treaties or other requirements to aid its allies and partners could force a decision to invoke the mutual defense clauses of those pledges, bringing U.S. and Chinese forces into direct conflict over opposing vital interests. Finally, the U.S. public could be called upon to support a generational commitment of resources and energy to this competition, defending the United States and the rules-based international order from an opponent dedicated to subverting the core principles and values of that order.

China's increasingly open antagonism toward the United States and U.S. allies and partners demands a new and more competitive U.S. approach. Although China's increasing strength cannot be overlooked, the United States enjoys its own significant advantages. U.S. values and good governance have inspired countries around the world and underpinned a global order upholding the rule of law, peaceful settlement of disputes, and respect for sovereignty and self-determination. Due in large part to these values, today the United States counts nearly every one of the world's largest economies and strongest militaries among its closest allies.

China's brand of authoritarianism may hold sway with the world's autocrats and interest groups benefitting from Beijing's economic largesse, but its values hold little inspirational appeal for publics around the globe. The spread of liberal democracy and accountable, transparent governance has been particularly notable in countries in the Indo-Pacific, the very region Beijing identifies as most important for achieving its goals. These countries, while deeply connected to Beijing economically, are clear-eyed about the threat China poses to their democratic freedoms and independence. As Dr. Limaye of the East-West Center testified, the region's elites and publics have no interest in returning to a regional order dominated by "China's demands for obeisance and hierarchy."[249]

Strategic competition with China presents an increasing challenge for the United States. The United States' ability to retain its economic dynamism, ensure its military edge, and continue to champion its values and diplomacy is not yet certain. But it has much to draw from its ability to inspire and its tools of national power. If approached with bipartisan commitment and creativity, this competition may ultimately prove an opportunity for the United States to rededicate itself to its core values and strengths. Absent these competitive advantages, it will face a far more challenging future.

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SECTION 2: THE CHINA MODEL: RETURN OF THE MIDDLE KINGDOM

Key Findings

- The Chinese Communist Party (CCP) seeks to revise the international order to be more amenable to its own interests and authoritarian governance system. It desires for other countries not only to acquiesce to its prerogatives but also to acknowledge what it perceives as China's rightful place at the top of a new hierarchical world order.
- The CCP's ambitions for global preeminence have been consistent throughout its existence: every CCP leader since Mao Zedong has proclaimed the Party would ultimately prove the superiority of its Marxist-Leninist system over the rest of the world. Under General Secretary of the CCP Xi Jinping, the Chinese government has become more aggressive in pursuing its interests and promoting its model internationally.
- The CCP aims to establish an international system in which Beijing can freely influence the behavior and access the markets of other countries while constraining the ability of others to influence its behavior or access markets it controls. The "community of common human destiny," the CCP's proposed alternative global governance system, is explicitly based on historical Chinese traditions and presumes Beijing and the illiberal norms and institutions it favors should be the primary forces guiding globalization.
- The CCP has attempted to use the novel coronavirus (COVID-19) pandemic to promote itself as a responsible and benevolent global leader and to prove that its model of governance is superior to liberal democracy. Thus far, it appears Beijing has not changed many minds, if any. Countries already skeptical of the CCP's intentions argue it failed to contain the virus where it originated and withheld information until it was too late to avoid a global pandemic. Countries already predisposed to view Beijing favorably have praised its pandemic response.
- The Chinese government's Belt and Road Initiative (BRI) is both a blueprint and a testbed for establishing a Sinocentric world order. The initiative has no membership protocols or formal rules but is based on informal agreements and a network of bilateral deals with China as the hub and other countries as the spokes. This framework lets Beijing act arbitrarily and dictate terms as the stronger party.
- The CCP seeks to coopt established international governance institutions by increasing its leadership and functionary positions within these institutions and rewriting the norms by

which they operate to align with China's model of international relations. Within these institutions, the Party builds coalitions that support China in the UN and portray its political priorities as supported by international consensus.

- In some cases, Beijing bypasses the existing system by creating alternative international institutions it can influence from the start. Where possible, it excludes the United States and European powers from these institutions, and in some cases the United States chooses not to participate.
- The Chinese government views technical standards as a policy tool to advance its economic and geopolitical interests. It has systematically tried to expand its influence in international standards-setting organizations by installing Chinese nationals in key leadership and functionary positions and pushing standards backed by its industrial policies.

Recommendations

The Commission recommends:

- Congress hold hearings to consider the creation of an interagency executive Committee on Technical Standards that would be responsible for coordinating U.S. government policy and priorities on international standards. This Committee would consist of high-level political appointees from executive departments with equities relating to international technical standards, including the Department of Commerce, the Department of State, the Department of Defense, the Department of Energy, the Office of Science and Technology Policy, and other agencies or government stakeholders with relevant jurisdiction. The Committee's mandate would be to ensure common purpose and coordination within the executive branch on international standards. Specifically, the Committee would:
  - Identify the technical standards with the greatest potential impact on American national security and economic competitiveness;
  - Coordinate government efforts relating to those standards;
  - Act as a liaison between government, academia, and the private sector to coordinate and enhance joint efforts in relation to standards;
  - Manage outreach to counterpart agencies among U.S. allies and partners;
  - Set funding priorities and recommendations to Congress; and
  - Produce annual reports to Congress on the status of technical standards issues and their impact on U.S. national security and economic competitiveness.

Introduction

Beijing seeks to use its growing power to change the international order, ultimately legitimizing its repressive governance system; expanding its economic, security, and political interests; and restoring China to what it views as its rightful place at the center of the

world. Beijing's authoritarian, single-party governance model combines an unorthodox version of Marxism-Leninism, elements from China's philosophical traditions, and a deep-seated national chauvinism. In the CCP's ideal international order, this system would be not just accepted but also universally acknowledged as a superior alternative to democracy. These ambitions are longstanding among Chinese leaders and will likely last beyond the current leadership of General Secretary Xi. For these reasons, the CCP sees itself as engaged in a fundamentally ideological and antagonistic clash of systems with democratic countries and the norms and values undergirding the existing international system. As China's power has grown, the CCP has increasingly sought not only to stamp out the influence of liberal or universal values within China but also to proactively undermine these values and their spread worldwide.

China's BRI* serves as a testbed and forms the relational and economic blueprint for this ambition, weaponizing globalization to create a commercial and political order centered around and dependent on China. Rather than replace the entire existing architecture of international governance organizations to institute this vision, the CCP seeks to coopt elements of the UN-centric international governance system to advocate for its interests and also establish a range of China-led alternative institutions. In systematically expanding its influence in technical standards-setting organizations, Beijing is positioning itself to corner emerging markets and shape the norms underpinning how these technologies are developed and deployed. These efforts, which the CCP believes can succeed due to China's increased economic power, aim to establish an alternative international system favoring its centralized authoritarian power over the constraints of the current rules-based international order. In this system, other countries will not only acquiesce to Beijing's prerogatives but also acknowledge what it perceives as China's rightful place at the top of a new hierarchical world order.

This section addresses the CCP's political characteristics that motivate it to change the international system and its methods for achieving this transformation; its preferred alternative international system and attempts to export aspects of its governance; its use of technical standards to achieve its geopolitical goals; and the implications for the United States. It draws on the testimony prepared for the Commission's March 2020 hearing, "A 'China Model?' Beijing's Promotion of Alternative Global Norms and Standards," the subsequent April roundtable of the same name, open source research and analysis, and consultations with outside experts.

Reshaping the International Order

The CCP seeks to change the international system by bending global governance institutions and norms to better conform to its own interests and authoritarian governance system. As a Marxist-Leninist party, the CCP views itself as an enlightened politi-

*BRI is an economic and foreign policy project designed to finance and build infrastructure and connectivity around the world. Launched in 2013 with an initial focus on Eurasia and the Indo-Pacific region, BRI has now expanded to include economic corridors or passages on all continents, as well as in the Arctic, outer space, healthcare, and the digital domain. For more background on BRI, see "Belt and Road Initiative," in U.S.-China Economic and Security Review Commission, *2018 Annual Report to Congress*, November 2018, 259–303.

cal vanguard uniquely equipped to render "scientific judgments"* about China's domestic governance system as well as the trend of world history. It is for this reason the CCP believes it will succeed in restoring China to its perceived historical greatness.[1] Moreover, the CCP seeks global respect and recognition for its model of "socialism with Chinese characteristics." The CCP seeks to revise the international system and the norms underpinning it to view this model as not just acceptable but laudable and superior to liberal democracy. To this end, the CCP hopes to leverage the support of developing countries to reproduce its normative approach not in a sphere of contiguous geographic influence but rather in countries around the world willing to respect and defer to China's primacy.[2]

The CCP believes the United States established the current international system to benefit its own material interests and that the Party is now strong enough to create a system of its choice.[3] This includes the freedom to break its own rules when it likes, such as its longstanding official policy of "noninterference" in other countries' internal affairs.†[4] Displacing the United States and the liberal rules-based order it has led since World War II is therefore a prerequisite for the CCP to achieve its goal. Contrary to the liberal order's basis in rule of law, the CCP rejects the authority of rules or norms to constrain its behavior while also rejecting the idea that it should change its governance system, which relies on censorship and political repression, to comport with the democratic world's expectations.[5] As a corollary, Beijing signals to other countries with authoritarian inclinations that they also need not meet these expectations. In recent years, Beijing has become increasingly transparent in its ambitions to export key elements of its own governance system, such as technologically enabled surveillance and censorship and the legitimacy of one-party rule by the CCP. The Chinese government also seeks to popularize internationally the norm that power, not rules-based accountability, is a legitimate basis for political authority locally and globally, as per then Foreign Minister Yang Jiechi's 2010 assertion that "China is a big country, and other countries are small countries, and that is just a fact."[6]

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*The CCP believes it is uniquely capable of interpreting world developments in an objective "scientific" manner and formulating its strategy to leverage them, first and foremost to promote and protect its own power. During his address at the CCP's 19th National Congress in October 2017, General Secretary Xi exhorted the Party to "undertake theoretical analysis and produce policy guidance" on developing and reforming the CCP's governance in response to and in anticipation of changes occurring both within and without China. This process, according to the CCP, is at the core of its supposed unique ability to capitalize on global events. Daniel Tobin, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on A "China Model?" Beijing's Promotion of Alternative Norms and Standards*, March 13, 2020, 5, 21; Xi Jinping, *Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era*, October 18, 2017.

†Despite this official policy, Beijing has repeatedly attempted to coerce other governments into awarding 5G and other telecommunications equipment contracts to Huawei, threatening them with consequences to their bilateral and trade relations with China if they refuse. At the same time, foreign companies consistently face market barriers selling into China. Laura Hughes and Helen Warrell, "China Envoy Warns of 'Consequences' if Britain Rejects Huawei," *Financial Times*, July 6, 2020; Jamie Fullerton, "Chinese Ambassador 'Threatens to Withdraw Trade Deal with Faroe Islands' in Huawei 5G Row," *Telegraph*, December 11, 2019; U.S.-China Economic and Security Review Commission, *2019 Annual Report to Congress*, November 2019, 10, 43–44; *Xinhua*, "Chinese FM Refutes U.S. Allegations, Stresses Adherence to Non-Interference Policy," September 27, 2018.

Socialism with Chinese Characteristics: Domestic Model, Global Implications

The CCP views its Marxist-Leninist political model as providing the basis for "scientifically" interpreting trends and pursuing international relations and directing China's efforts to increase its comprehensive national power.*[7] Beijing has labeled its governance system "socialism with Chinese characteristics" and declared it the best model for developing China's strength due to the specific attributes of the country, with the ultimate goal of proving to the world that this methodical approach is superior to any other. This supposedly scientific aspect is a core component of the CCP's ideology, according to General Secretary Xi, who argued in 2013 that socialism with Chinese characteristics "is socialism and not any other kind of -ism; [the CCP] cannot discard the fundamental principle of scientific socialism, or else it would no longer be socialism."[8] According to Daniel Tobin, member of the China studies faculty at the National Intelligence University, there is no static "plan in a box" to which the leadership refers as it reforms its policies; rather, the CCP dynamically reassesses circumstances and calibrates its tactics relative to its capabilities and its long-term goal to increase China's power.[9] In the CCP's lexicon, "reform" refers not to liberalizing economic policy, much less its political system, but rather to adapting to changing circumstances and fine-tuning its governance—always with the CCP firmly in control as the vanguard—in pursuit of "unceasing improvement."[10]

The CCP believes adhering to this path has rescued China from the collapse of its power in the 19th and early 20th centuries, allowing it to first "stand up" and then "grow rich" before finally "growing strong."[11] According to General Secretary Xi, this course of events has proven "the historical inevitability of the CCP's leadership of China."[12] Under this allegedly scientific framework, Mr. Tobin argues, the Party views dissent against its judgment by individuals or groups not as legitimate expression but as sabotage of the state's unimpeachably correct nation-building effort.[13] For example, in September 2020 General Secretary Xi rejected foreign criticism of the CCP's policies in Xinjiang, calling his government's ongoing campaign to indoctrinate and transform Uyghurs and other Muslims into loyal cadres "totally correct."[14] Every CCP leader since Mao Zedong has proclaimed the Party would ultimately prove the supe-

*Huang Shuofeng, a researcher at the PLA Academy of Military Science who later held the rank of senior colonel, developed the concept of "comprehensive national power" that CCP leadership adopted in the early 1990s. Although the idea of an aggregate measurement for national strength had already been explored by multiple thinkers outside of China, Huang considered his formulation a new and distinct contribution to the field. Comprehensive national power is an aggregate measure of a country's material strength, latent potential, and international influence, illustrating that country's ability to survive, develop, and coordinate its internal and external relations. According to Huang, a measurement of comprehensive national power is constructed through the holistic assessment of a country's geographic, political, economic, technological, military, diplomatic, cultural, and other characteristics. In February 1990, *People's Daily* covered an interview with Huang detailing the concept and its significance. This coverage in the Party's official paper, combined with Deng Xiaoping's featuring of the term during his famed "Southern Tour" in 1992, likely indicated the CCP's official adoption of the concept. See Ming Zhang, "China's Military Great Leap Forward?" *Georgetown Journal of International Affairs* 2:1 (2001): 97–104, 100. Deng Xiaoping, "Deng Xiaoping's Remarks on the Southern Tour (邓小平南巡讲话)," January 18–February 21, 1992. Translation; Lu Mu, "Year of the Horse New Spring Conversation on National Power—Interviewing Chinese Comprehensive National Power Research Worker Huang Shuofeng (马年新春话国力——访我国综合国力研究工作者黄硕风)," *People's Daily*, February 26, 1990. Translation.

riority of its system over capitalism, according to Mr. Tobin's testimony to the Commission, which requires the Party to wage a battle for moral legitimacy on the international stage.[15]

Under General Secretary Xi, the CCP has more explicitly transitioned its narrative to building China into a great power in the eyes of other countries, requiring the Party to actively shape the international order. Anthony Saich, Director of the Ash Center for Democratic Governance and Innovation at Harvard University, testified to the Commission in September 2020 that at the 2018 Central Conference on Work Relating to Foreign Affairs the CCP assessed that global conditions had become more receptive to China's rise and to the decline of democratic countries, strengthening its resolve to pursue its core interests on the international stage even more assertively.[16] As General Secretary Xi pointed out in 2018, the CCP's victory in the Chinese civil war was merely the prologue of a longer story. To reach the climax of this drama, he argued, China must "not only be good at breaking an old world, but become good at building a new world."[17]

A New Middle Kingdom on the World Stage

Reclaiming what Chinese leaders view as China's rightful place, the "Middle Kingdom"* at the center of world affairs, would fulfill the CCP's promise to the Chinese people to restore their past glory—a key pillar of the Party's legitimacy.[18] Beijing's ambition places China at the top of the international order, able to freely exploit the markets, resources, and networks of others. At the same time, Beijing seeks to constrain the ability of others to influence its behavior or access what it controls. Andrew Scobell, Senior Political Scientist at the RAND Corporation, testified to the Commission in September 2020 that CCP elites believe Beijing must "ruthlessly [battle] to monopolize international markets" in order to win a zero-sum competition with other countries and foreign corporations to acquire control over a fixed amount of natural resources.[19] The Chinese government's conduct in international commerce already reflects this inclination: the CCP seeks to maintain access to the international markets, technology, and intellectual property (IP) on which China's growth still depends while limiting other countries' access to its own market.[20]

Simultaneously, Beijing's reaction to international criticism of its behavior increasingly expands on its refusal to tolerate criticism domestically, and it uses economic coercion to force others to defer to its preferences. For example, after then Houston Rockets general manager Daryl Morey tweeted in support of Hong Kong prodemocracy activists in October 2019, the Chinese government severely restricted the National Basketball Association's business in China, demanded the team "correct [Mr. Morey's] error," and reportedly even demanded that the league fire him.[21] Chinese state television did not resume broadcasting the league's games until October 2020 (for

*"Middle kingdom" is the literal translation of the Chinese word for "China." The Qing Dynasty first used this phrase to refer to China in an official legal document in 1689, and the Republic of China adopted it as its short-form name in 1912, followed by the People's Republic of China in 1949. The most widely accepted interpretation of this phrase is that China sees itself as the center of global culture and civilization that others seek to emulate. Wee Kek Koon, "How China Got Its Name, and What Chinese Call the Country," *South China Morning Post*, October 5, 2016.

more on Beijing's crackdown on Hong Kong protesters and imposition of a new security law for the territory, see Chapter 5, "Hong Kong").[22]

Contrary to the post-World War II international system, the CCP desires a new framework that requires other countries to defer to its own economic, security, and political interests, creating a dynamic in which China's power and interests take precedence over rules. This system would not be value driven in the sense that the liberal rules-based order privileges individual human rights; rather, it would prioritize collective growth and countries' right to make decisions based on their alleged "particular" circumstances as long as they do not impact Beijing's interests.[23] Also key to the CCP's model is the goal of legitimizing the use of coercion to interfere in other countries' politics and to engineer consent for its policies, contrary to accepted practice and its own claims of noninterference.[24] Nadège Rolland, an expert at the National Bureau of Asian Research, testified to the Commission that the CCP seeks "anti-ideological" changes that simply erode the normative influence of the current system.[25] The result will create space for the CCP's belief in "might makes right" to gain ground over rules-based norms, effectively creating a new norm.

General Secretary Xi has advocated for a new global governance concept that would institutionalize China's preeminence. He has echoed Mao Zedong's call for China to "stand tall in the forest of nations," and according to Mr. Tobin he desires "nothing less than preeminent status within the global order."[26] At the CCP's 19th National Congress in October 2017, General Secretary Xi vowed national rejuvenation would see China become "a global leader in terms of comprehensive national power and international influence."[27] Since General Secretary Xi took power, the CCP has increasingly promoted the "community of common human destiny,"* a concept for a new international community influenced by historical Chinese traditions and underpinned by an organizing vision that offers to unite the whole world, despite its differences, under the CCP's harmonizing influence.

It is through the "community of common human destiny" that the CCP will finally secure what General Secretary Xi has called "the ultimate demise of capitalism and the ultimate victory of socialism," and he has ordered CCP cadres to be faithful and to be prepared to make sacrifices to achieve this goal.[28] Ms. Rolland testified to the Commission that the "community of common human destiny" signifies General Secretary Xi's rejection of the idea that liberal democracy is the pinnacle of human society.[29] It also makes the case that other countries should join it in rejecting the liberal democracy-dominated international order because this China-centric governance system presents an equally if not more viable option and will not expect them to liberalize or protect human rights.[30]

Mr. Tobin testified to the Commission that the only difference between the ambitions of Hu Jintao, the previous CCP general secretary, and Xi Jinping is their assessment of China's strength and

*This phrase is variously translated by Chinese and foreign sources as "community of common human destiny" or "community of shared future for mankind." See the textbox below for more on this concept. Nadège Rolland, "China's Vision for a New World Order," *National Bureau of Asian Research*, January 2020, 36–37.

capabilities, presaging the current view that the CCP should use its economic strength to increase its international influence.[31] Then General Secretary Hu, who advocated for a "harmonious world" that resembled a less assertive proposal for the "community of common human destiny," called for Chinese officials to use economic interdependence to increase China's international clout. He argued in a 2004 speech to Chinese diplomats that the CCP must exploit the interconnected nature of political and economic diplomacy to protect China's political and economic security simultaneously, using their mutually reinforcing relationship to "improve China's international status and influence."[32]

The "Community of Common Human Destiny": China-Centric Global Governance

Beijing's ideological framework for its global leadership ambitions is loosely drawn from what both CCP officials and Chinese academics view as China's rich philosophical and historical traditions combined with elements of the CCP's Marxist-Leninist system. Regardless of specific terminology, the highest levels of CCP leadership explicitly endorse basing modern Chinese governance on its ancient heritage.[33] The "community of common human destiny," a term then General Secretary Hu used as early as 2012 but which General Secretary Xi has refined and increasingly tied to Beijing's global leadership ambitions, evokes the concept of *tianxia*, or "everything under heaven."[34] Tianxia is a term to describe the historical view* of a hierarchical international system characterized not by rules and borders but by China's central role and the moral authority of the leaders in Beijing over other power centers, which complements the CCP's Marxist-Leninist view of itself as the elite vanguard.[35]

As a proposed global governance concept, the "community of common human destiny" is based on the assumption that China's development and the world's development are interdependent and that the Party should be the primary force guiding this symbiosis.[36] A 2018 state-backed study of CCP strategy published by Fudan University describes the "community of common human destiny" as "the contemporary Chinese Marxist cultural form of China moving toward and leading the world" and as China's post-19th National Party Congress "global cultural strategy."[37] According to the State Council Information Office, the "community of common human destiny" is "at the core" of BRI, General Secretary Xi's signature foreign policy initiative to finance and build infrastructure around the world, indicating it is bound to Beijing's growing international ambition.[38]

*The term is literally Chinese for "everything under heaven," in reference to the emperor holding the mandate of heaven, and everything else falling under his authority. The concept of *tianxia* was first proposed during the Zhou dynasty (roughly 1046–221 BCE), and its Confucian emphasis on hierarchy remained a "powerful influence" on China's view of itself throughout China's dynastic history, according to Australian scholar Richard Rigby. It still holds currency in political thought through China's later Republican and current Communist eras and is deeply connected to the idea of the "Middle Kingdom." Richard Rigby, "Tianxia 天下," *China Story*, 2013.

The Party Seeks Greater "Discourse Power" to Set the International Agenda

The CCP seeks to use its increased material power to augment what it calls its "discourse power," or the ability to actively shape the discourse of others so that international narratives both praise the CCP and refrain from threatening it, just as domestic Chinese narratives do.[39] According to a May 2018 *People's Daily* article, the main advantage the CCP has in strengthening its discourse power is its economic prowess and "orderly model of development," which China can hold up as an example to other countries.[40] Crucially, Beijing is not advocating simply for its perspective to be more influential, but rather for it to be effectively the only perspective that matters, as is the case within China. The CCP's discourse power depends on its ability to make international narratives converge with its own, drowning out or silencing dissenting narratives.[41] For example, Chinese officials frequently urge other countries to refrain from criticizing China and to adopt the "correct" or "proper" view of China and their relationship with it.[42]

Beijing's proposal of its model as an alternative for developing countries is distinct from the old Maoist strategy of fomenting global revolution, but it is nevertheless a form of export.* In his testimony to the Commission, David Shullman, senior advisor at the International Republican Institute, suggested it may be more useful to describe the CCP's activities as "popularizing" authoritarian governance, lending support to governments that are suspicious of universal values or accountability.[43] The CCP's strategy purports to build consensus for the changes it seeks by offering aspects of authoritarian-enabling governance to foreign governments and providing technological and political support for those that adopt these methods.[44] For example, to market aspects of the CCP's governance in Africa, the International Department of the CCP, which cultivates relationships with foreign political parties as part of Beijing's drive to bring global governance more in line with its own vision,† has established academies in both China and Africa.[45] These academies train African cadres in issues including public opinion management, targeted poverty alleviation, and how CCP committees operate.[46] The International Department's efforts demonstrate a desire to inculcate CCP narratives, suppress criticism of the CCP, and teach participants to emulate the CCP's governance goals and structure

*Under Mao, beginning in the 1940s the CCP supported guerilla warfare against colonial powers and extolled the virtues of its Communist system, but the CCP's current export of its model is of a different type entirely. Julia Lovell, "Mao's Global Legacy of Revolution and Bloodshed," *Wall Street Journal*, October 4, 2019.

†The International Department has targeted members of U.S. political parties as well. For example, then Deputy Minister of the International Department Liu Jieyi and other Chinese officials participated in the Fourth High-Level Meeting between Chinese and American Political Parties in 2011, which both Republican and Democratic officials attended. In December 2017, the Republican National Committee treasurer gave a speech at the International Department's High-Level World Political Parties praising the CCP's proposal for a "community of common human destiny," according to Xinhua. *Xinhua*, "Xi Jinping Attends the Opening Ceremony of the High-level Dialogue between the Chinese Communist Party and World Political Parties and Deliver the Keynote Speech" (习近平出席中国共产党与世界政党高层对话会开幕式并发表主旨讲话), December 1, 2017. Translation. *http://www.xinhuanet.com/politics/leaders/2017-12/01/c_1122045499.htm*; Embassy of the People's Republic of China in the United States of America, "The Fourth High-Level Dialogue between Chinese and American Political Parties Held in Washington" (第四届中美政党高层对话在华盛顿举行), December 12, 2011. Translation. *http://www.china-embassy.org/chn/gdxw/t885906.htm*.

(for more on the International Department's engagement with African governments, see Chapter 1, Section 3, "China's Strategic Aims in Africa").*[47]

The International Department has relationships with over 600 political parties in more than 160 countries, and since 2013 it has sent high-level briefing teams to countries all around the world to explain CCP policies and the advantages of Beijing's approach to governance.[48] In July 2019, the department hosted a symposium in Baku for over 120 Azerbaijani politicians, think tank staff, and media representatives to extoll the virtues of Xi Jinping Thought, and in November 2019 for the same reason it hosted a forum in Nanchang with at least 300 attendees representing more than 50 foreign political parties from over 60 countries.[49] Yun Sun, an expert at the Stimson Center, testified to the Commission that even if this training does not always persuade other governments to adopt elements of the China model, it is clear Beijing is intent on pursuing strategic ideological goals in marketing its model.[50] In other words, the Party is "marketing and selling [its model] to consumers abroad," as senior fellow and director for Asia studies at the Council on Foreign Relations Elizabeth Economy testified to the Commission, but it is also determined to force consent for its priorities where necessary.[51]

Beijing Offers "Chinese Wisdom" to the World

The CCP's narrative of China's national rejuvenation promises to increase its material power and strengthen its moral leadership. At the 19th Party Congress in 2017, General Secretary Xi proclaimed the CCP offered "Chinese wisdom" to other countries, "a new option for other countries and nations who want to speed up their development while preserving their independence."[52] Crucially, in this context, national rejuvenation would not merely achieve geopolitical objectives of attaining power but also redress grievances from what Chinese leaders call the "century of humiliation,"† which Beijing believes robbed it of its rightful global leadership.[53] According to Australian National University scholars Michael Clarke, Jennifer S. Hunt, and Matthew Sussex, General Secretary Xi's emphasis on the moral narrative of China's national rejuvenation most gravely threatens the international order due to its assertion that Chinese civilization offers a superior development model to the rest of the world.[54] Raising just this question of the CCP's intent to shift the paradigm of morality in the international system, in 2019 Chinese State Councilor Yang Jiechi argued China must "transform" existing

*For more on the CCP's political training in Africa, see U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May 8, 2020; and Will Green, Leyton Nelson, and Brittney Washington, "China's Engagement with Africa: Foundations for an Alternative Governance Regime," *U.S.-China Economic and Security Review Commission*, May 1, 2020.

†Chinese leaders describe the period between the Qing Dynasty's (1636–1911) defeat at the hands of the British during the first Opium War (1839–1842) and the founding of the People's Republic of China in 1949 as China's "century of humiliation." They attribute China's humiliation specifically to a series of military defeats by European powers, Russia, and Japan. The phrase disregards a number of domestic governance challenges that contributed to the erosion of the Qing Dynasty, including a series of uprisings during the late 19th century, as well as fractious infighting between regional elites and warlords that prevented unification of Republican China in the first part of the 20th century. Alison Kaufman, "The 'Century of Humiliation,' Then and Now: Chinese Perceptions of the International Order," *Pacific Focus* 25:1 (April 2010): 1–33, 1–2; Jonathan Spence, *The Search for Modern China*, 2nd Ed.,W. W. Norton and Company, 1999, 141–143, 152–191, 267–270.

global governance concepts and "seize the commanding heights of international morality and justice."[55]

Beijing Leverages COVID-19 Crisis to Promote Its Model

Beijing has tried to use the COVID-19 pandemic to promote itself as a responsible and benevolent global leader and to prove that its model of governance is superior to liberal democracy.[56] According to Josep Borrell, the European Union's (EU)'s chief diplomat, Beijing has stoked "a battle of narratives," hypocritically arguing its system is better positioned to mobilize in response to such a crisis even though the Chinese government failed to contain the virus in the first place.[57] For example, in March the official CCP propaganda organ *People's Daily* claimed the Party's epidemic response had proven it is "by far the political party with the strongest governance capability in human history."[58] Beijing has also falsely portrayed its sales of often substandard medical equipment as humanitarian aid while reportedly requiring recipient countries such as Poland and Germany to praise the superiority of China's epidemic response model.[59] Overall, Beijing has sought to capitalize on the chaos in other countries to further secure supply chains, attract overseas investment, and entrench market dominance, opportunistically exploiting a global crisis it triggered to benefit its own ambitions.[60]

Beijing has seized the opportunity to tout the virtues of its China-centric vision of international order and claimed its success shows the wisdom of its governance model. In its international pandemic response, Beijing has emphasized its so-called "Health Silk Road," a rhetorical component of BRI focused on health cooperation.[61] State Councilor and Foreign Minister Wang Yi argued in April that the Chinese government's international and domestic pandemic response had "won high recognition from the international community" due to its speed, scope, efficacy, and ability to build international consensus.[62] Most importantly, according to State Councilor and Foreign Minister Wang, Beijing's success in coordinating the international pandemic response was "a telling testament to China's role as a responsible major country and its commitment to building [a 'community of common human destiny']."[63]

The CCP's disinformation and attempts to market its expertise surrounding the global pandemic have changed some perceptions of the Chinese government for the worse and hardened preexisting negative perceptions in others. For example, after downplaying concerns about the Chinese government's intentions for months, British Prime Minister Boris Johnson reportedly decided in May 2020 to eliminate Huawei's role in the UK's 5G buildout in part as a result of the Chinese government's handling of the outbreak.[64] Beijing's portrayal of itself as a responsible leader tackling a global crisis was marred by its adoption of aggressive new "Russian-style" political warfare based on disinformation, or what is known as active measures, to deflect scrutiny from the SARS-CoV-2 novel coronavirus's* origins.[65] The CCP's self-congratulatory propaganda and aggressive spreading of offensive conspiracies and attacks on foreign counter-

*The official name of the novel coronavirus responsible for the pandemic is "severe acute respiratory syndrome coronavirus 2," which is abbreviated SARS-CoV-2. COVID-19 is the name of the disease caused by the SARS-CoV-2 virus. World Health Organization, "Naming the Coronavirus Disease (COVID-19) and the Virus That Causes It," 2020.

parts by China's so-called "wolf warrior" diplomats have hardened negative views and resentment of Beijing in many countries (for more on China's "wolf warrior" diplomacy, see Chapter 3, Section 1, "Year in Review: Security, Politics, and Foreign Affairs").[66]

In Europe, a major target of China's pandemic propaganda, the acceptance of the European Commission's official view that China is a "systemic rival" has become more widespread as a result of China's actions during the pandemic.[67] According to the German Marshall Fund's Alliance for Securing Democracy, rather than sending aid where it was needed most in Europe, Chinese pandemic assistance prioritized shaping recipients' perception of Beijing.[68] Lucrezia Poggetti at the Mercator Institute for China Studies (MERICS) pointed out that Italian Foreign Minister Luigi di Maio, who had orchestrated Italy's accession to BRI and was arguably predisposed to favor China, highlighted arrivals of aid from China but not from the United States, disproportionately giving the impression that only China had sent aid, helping to further this agenda of perception shaping.*[69] The New York Times reported that many Italians dismissed China's gestures as hollow, however, given that it was selling rather than donating masks, respirators, and other medical equipment to Italy.[70] Italians also expressed anger that Beijing prioritized Chinese citizens in Italy.[71] Beijing's aggressive attempts to control the pandemic narrative prompted the EU to criticize the CCP's disinformation as "targeted influence operations" that aggravated Europeans in national governments, media, and the public.[72] For example, in April French President Emmanuel Macron, previously ambivalent but not hostile toward China, doubted China had actually been more successful in its response than Western countries. He also described General Secretary Xi as "hegemonic" and as trying to rebuild an empire.[73] Europe is still intent on pursuing economic opportunities in China, but it is increasingly wary of the danger China's state capitalist economy poses to European prosperity and security.[74]

Coopting Multilateral Institutions to Build a Sinocentric World Order

The CCP aims to change the international system without dismantling the current architecture of international governance institutions. Rather, it intends to rewrite the norms by which existing institutions operate to align with China's model of international relations. As Dr. Economy testified to the Commission, "If the norms subvert the institutions, you begin to develop a different system."[75] At the same time, Beijing seeks to circumvent organizations like the UN by establishing what Sun Jinsheng, vice president of China Foreign Affairs University, describes as institutions Beijing can influence from their outset.†[76] While Beijing's foreign policy under

*By June 2020, the U.S. Agency for International Development had provided Italy approximately $50 million of health, humanitarian, and economic assistance. According to the State Department, by that time the United States had provided more than $12 billion in global assistance that will benefit the international pandemic response, including $1.2 billion in foreign assistance from the State Department and the U.S. Agency for International Development. U.S. State Department, *UPDATE: The United States Continues to Lead the Global Response to COVID-19*, June 18, 2020; U.S. Department of State, *U.S. Assistance to Italy*, April 11, 2020.

†Professor Sun lists the Silk Road Forum, the China-Central and Eastern European States Summit (called the "16+1" and later "17+1"), and the China-Latin America Forum, among other examples, as institutions initiated by Beijing that will follow its agenda. Sun Jisheng, "Shaping and Promoting China's International Discourse Power Path" (中国国际话语权的塑造与提升路径), *Chinese Academy of Social Sciences Institute of World Economics and Politics*, April 10, 2019.

General Secretary Xi has been more assertive, exercising international influence through control of multilateral organizations has been a pillar of Chinese leaders' diplomacy since the 1990s.*

Subverting the International Order from Within

The CCP's goal of transforming international governance places particular importance on bringing the UN system more in line with its preferences. According to the Chinese State Council's 2019 foreign policy white paper, the UN is "at the core of the global governance system."[77] In other words, according to Melanie Hart, a China expert at the Center for American Progress, China's call to transform global governance is really a call to change the UN system to bring it more in line with Beijing's principles.[78] For this reason, the 2018 U.S. National Defense Strategy concludes China is intent on "undermining the international order from within the system by exploiting its benefits while… undercutting its principles."[79]

Beijing has sought to bring international law and the UN's definition of human rights more in line with its own interests by decreasing emphasis on individual rights. China is the second-largest donor to the UN after the United States: it provides 12 percent of the UN's total budget, up from 1 percent 20 years ago.[80] The CCP seeks to use this as leverage to reduce funding for human rights-related functions such as human rights officers in peacekeeping missions.[81] Chinese diplomats successfully ensured the passage of related resolutions in the UN Human Rights Council, including one in 2017 calling for balancing human rights with economic development needs and another in 2018 acknowledging that human rights standards may vary based on countries' "national and regional particularities."[82]

Beijing has also sought to use UN legal instruments for its own gain, contrary to their intended purpose. For example, according to international law expert Jonathan G. Odom, instead of using the UN Convention on the Law of the Sea to prevent foreign commercial activity in waters near China's coast, Beijing uses its interpretation of the treaty to prevent foreign military vessels from operating in waters near its coast at all.[83] Thus, according to Commander Odom, Beijing seeks both to exploit the instrumental aspects of international law and to normalize weaponizing it for ends it was never meant to achieve.[84] China's successful retention in August 2020 of

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Translation. Qtd. in Nadège Rolland, "China's Vision for a New World Order," *National Bureau of Asian Research*, January 2020, 45.

*General Secretary Jiang Zemin viewed multilateral institutions as a mechanism for China to pursue interests it could not achieve bilaterally. In 2004, then General Secretary Hu Jintao declared "multilateral platforms are the stage" for China's foreign policy objectives, a dictum General Secretary Xi has incorporated into his Belt and Road vision of "great power diplomacy with Chinese characteristics" and recast as the basis for China-led fora and BRI. Daniel Tobin, oral testimony for U.S.-China Economic and Security Review Commission, *Roundtable on a "China Model?": Beijing's Promotion of Alternative Norms and Institutions*, April 27, 2020, 217; Su Ge, "General Secretary Xi Jinping's Diplomatic Thought Leads Great Power Diplomacy with Chinese Characteristics" (习近平总书记外交思想领航中国特色大国外交), *People's Tribune*, September 24, 2017. Translation. *http://www.ciis.org.cn/chinese/2017-09/28/content_40031024.htm*; Lü Hong et al., "Global Coverage Review of Taking Comrade Xi Jinping as General Secretary of the Party Central Committee to Realize Great Power Diplomacy with Chinese Characteristics" (以习近平同志为总书记的党中央实现中国特色大国外交全球覆盖述评), *People's Daily*, January 26, 2016. Translation. *http://cpc.people.com.cn/n1/2016/0126/c64094-28083872.html*; Zhang Jiang, "China Moves toward Grand Diplomacy (Current Trends in Focus)" (中国走向"大外交"（时事聚焦）), *People's Daily*, February 8, 2011. Translation. *http://paper.people.com.cn/rmrbhwb/html/2011-02/08/content_740513.htm*.

a judge's seat on the International Tribunal on the Law of the Sea, the international body responsible for adjudicating disputes related to the Convention, will help it to continue advocating for these interpretations of international law.[85]

In addition to revising UN norms, Beijing exploits its influence over UN organizations to promote specific Chinese foreign policy objectives, contrary to both the spirit and the letter of how the UN was intended to operate. Officials from China currently hold director-generalships of four out of 15 UN specialized agencies, more than those from any other country (see Table 1).[86] Chinese nationals in UN leadership positions violate UN standards of conduct and leverage the institutions they lead to promote China's political objectives, such as policies concerning Taiwan, industrial development, and technological standards.[87] Chinese nationals also hold numerous other influential senior posts.[88] According Dr. Hart, "Beijing leverages those individuals to coopt the institution and push narrow Chinese political objectives."[89] This behavior directly contradicts UN professional guidelines. According to the UN's Standards of Conduct for the International Civil Service, international civil servants should prioritize their organizations' interests over their own countries' interests, be loyal to the whole UN system rather than just to the organizations in which they serve, and remain independent of any outside authority.[90] According to these rules, "It cannot be too strongly stressed that international civil servants are not… representatives of Governments or other entities, nor are they proponents of their policies."[91]

Table 1: UN Special Agency Leadership

Organization	Leadership Nationality	Expected End of Current Term
Food and Agriculture Organization	**Chinese**	**Jun. 2023**
International Civil Aviation Organization	**Chinese**	**Oct. 2022**
International Fund for Agricultural Development	Togolese	Feb. 2021
International Labour Organization	British	Nov. 2021
International Maritime Organization	South Korean	Nov. 2022
International Monetary Fund	Bulgarian	Nov. 2022
International Telecommunications Union	**Chinese**	**Nov. 2022**
United Nations Educational, Scientific and Cultural Organization	French	Oct. 2021
United Nations Industrial Development Organization	**Chinese**	**Nov. 2021**
Universal Postal Union	Kenyan	Dec. 2020
World Bank Group	U.S.	Apr. 2024
World Health Organization	Ethiopian	May 2022
World Intellectual Property Organization	Singaporean	May 2026

Table 1: UN Special Agency Leadership—*Continued*

Organization	Leadership Nationality	Expected End of Current Term
World Meteorological Organization	Finnish	Dec. 2023
World Tourism Organization	Georgian	Dec. 2021

Source: Various.[92]

UN Agencies Bow to the CCP on Taiwan: The World Health Organization and International Civil Aviation Organization

In early 2020, with the COVID-19 pandemic spreading around the world, Beijing exerted pressure on the World Health Organization (WHO) to suppress information about the outbreak within China's borders and ensure Taiwan remained marginalized from international coordination, despite directly increasing the risk to global health as a result.[93] The CCP has an ally in current WHO Director-General Tedros Adhanom Ghebreyesus, who has praised China's growing trade with Africa and reiterated support for Beijing's "One China" principle since his election.[94] Since the emergence of the novel coronavirus in late 2019, as a result of the CCP's pressure the WHO consistently ignored Taiwan's requests for information about the virus and refused to facilitate Taipei's attempts to share its own findings with the international community.[95]

Despite being isolated from international coordination, Taiwan rapidly implemented a government response and by the end of January had developed a four-hour test, isolated two separate strains of the virus, and effectively delayed and contained community transmission.[96] Even while Chinese officials intentionally concealed the extent of China's domestic outbreak, Dr. Tedros praised the Chinese government's transparency and the effectiveness of its response while ignoring Taiwan's efforts.[97]

Beijing's attack on Taiwan continued at the International Civil Aviation Organization (ICAO). In the early spring of 2020, the official Twitter account of the ICAO began blocking users who mentioned Taiwan, including congressional staff, journalists, and other analysts, demonstrating deference to Beijing's efforts to isolate Taiwan.[98] Fang Liu, a Chinese government official, has led the ICAO since 2015. Under her leadership, the ICAO's marginalization of Taipei increased.[99] The ICAO misrepresented Taiwan's past engagement with the organization in its official statements in response to this censorship campaign and demanded some social media users effectively perform "self-criticisms" in order to be unblocked.[100] Representatives from the U.S. Congress and State Department officials expressed concern that this apparent policy violated UN and ICAO principles and demonstrated the effectiveness of Beijing's efforts to coerce international organizations into obeying its demands.[101] As of September 2020, according to an informal survey of affected Twitter users, more than two dozen still appeared to be blocked by the ICAO.[102]

Promoting a Sinocentric Order through Alternative Institutions

Beyond molding the existing framework of international organizations to better suit its interests, Beijing seeks to exercise influence through China-led alternative organizations and initiatives. First among these is BRI, which Professor Heng Wang of the University of New South Wales law faculty terms "quasi-multilateral."[103] Rather than a multistakeholder forum that parallels other international organizations, BRI is a unifying schema for China's strategy to shape global bilateral and multilateral development activities.[104] In providing a framework for centering global trade flows and political and cultural exchange around China, BRI is increasingly both a testbed and a blueprint for the "community of common human destiny."[105]

Complementing BRI, and in many cases predating it, Beijing has also launched numerous regional organizations that allow China to position itself as a leader unconstrained by the United States and other developed democracies.[106] For example, the triennial Forum on China-Africa Cooperation (FOCAC), first held in 2000, provides Beijing a single venue to engage with its African partners on economic, cultural, and military issues, without mediation by or competition from other countries.[107] It has attempted to create similar dynamics through other fora, such as the China-Community of Latin American and Caribbean States (CELAC), discussed below. Through both BRI and China's regional organizations, Beijing is able to circumvent established multilateral institutions and promote its alternative vision of global governance norms. Beijing's strategy focuses on framing its alternative institutions as complementary to rather than in competition with existing organizations while increasingly displacing their functions.

BRI: A Hub-and-Spokes Global Governance System

BRI provides a unifying framework for Beijing's bilateral and multilateral activities, allowing China to export elements of its domestic governance model and weaken existing international organizations while creating an integrated economic and geopolitical order under China's leadership.* The ultimate aspiration for BRI is a realization of the Sinocentric model of international relations envisioned in the CCP's "community of common human destiny."[108] To achieve this, BRI's remit has expanded beyond financial and economic integration to encompass new diplomatic strategies, military cooperation, and cultural exchanges aiming to extend Beijing's ideological influence and ability to shape perceptions of China internationally.[109] Rather than developing a set of institutions and rules to support BRI, Beijing has designed the initiative to allow maximum flexibility so it can dictate terms on an ad hoc basis and choose to conform to international agreements when it suits its interests but ignore them in other cases.[110]

*This section focuses on Beijing's geopolitical motivations in establishing and promoting BRI and BRI's place within China's envisioned model of the international system. A core objective in its launch was also sustaining China's pace of economic development through building future export markets and driving growth in China's less developed inland border provinces. For more background on BRI, see "Belt and Road Initiative" in U.S.-China Economic and Security Review Commission, *2018 Annual Report to Congress*, November 2018, 259–303.

BRI as the Blueprint for the "Community of Common Human Destiny"

The "community of common destiny" has been embedded in General Secretary Xi's objectives for BRI from the start and has grown in scope and ambition since BRI's launch in 2013.*[111] Originally centered on Eurasia and Southeast Asia, BRI has now been extended to encompass Africa and Latin America and the Caribbean. At a state-to-state level, BRI's amorphous institutional mechanisms lay the groundwork for a Sinocentric international system in which Beijing is unconstrained by formal rules and procedures.

In place of formal treaties and legally binding arrangements, BRI has no membership protocols and is based on informal agreements and partnerships, many executed through the Belt and Road Forum and China's regional organizations, discussed in the next section.[112] The CCP hopes to leverage these partnerships to "expand its circle of friends," aiming to foster alignment and reception of authoritarian norms in nondemocratic countries and countries disaffected by globalization.[113]

Below the state-to-state level, numerous exchange initiatives under the banner of BRI bring foreign officials, executives, journalists, academics, and other groups to China in what the CCP calls people-to-people exchanges and what Professor Sun calls "home-based diplomacy."[114] Taken together, these exchanges form a vehicle for Beijing to promote its official narrative and export elements of its domestic governance model. People-to-people exchanges include training programs, such as programs that bring journalists from developing countries to China in order to foster a pro-China media abroad, or party-to-party capacity building in internet censorship techniques and use of China's surveillance technology exports.[115]

"Home-based diplomacy" includes international fora hosted within China, allowing Beijing "more control over participating foreign countries' willingness to endorse and sign on to Chinese ideas and norms."[116] Ms. Rolland cited China's South-South Human Rights Forum, a biennial gathering organized by China's State Council Information Office and Ministry of Foreign Affairs, as a key example.[117] Over 300 representatives from 70 countries attended the December 2017 forum, which concluded by adopting a declaration emphasizing that countries should foster human rights based on their own national conditions—language China frequently uses to defends its own human rights record and promote an alternative to universal values.[118]

Popularizing Elements of the China Model through BRI

Where a Sinocentric world order is the end vision for BRI, in present-day implementation the initiative serves as a catchall to absorb both China's existing bilateral activities and China-led regional organizations. By design, BRI's amorphous setup allows it the flexibility to fit these diverse projects within organizations like the

*BRI initially included two economic corridors focused on connecting Eurasia to China. The southerly Maritime Silk Road runs through Southeast Asia, the Indian Ocean, and the Middle East. The northerly overland Silk Road Economic Belt traces the historic Silk Road through Central Asia and the Middle East to Europe. BRI has now expanded to include economic corridors, or passages, on all continents except Antarctica, as well as in the Arctic and outer space. Nadège Rolland, "A Concise Guide to the Belt and Road Initiative," *National Bureau of Asian Research*, April 19, 2019.

UN or frameworks like the WTO when it serves China's interests. For instance, at the April 2019 Belt and Road Forum, UN Secretary General António Guterres gave a speech praising BRI and claiming the pillars of BRI* were "intrinsically linked to the [UN's] 17 Sustainable Development Goals."[119] As Professor Heng summarizes, "China is proactive in relation to only selected aspects of the BRI (e.g., dispute settlement, trade and investment facilitation and promotion, intellectual property, technical standards, e-commerce) and passive in relation to other more sensitive aspects (such as governance, debt sustainability, labor, other social impacts)."[120] In effect, Beijing is leveraging international agreements selectively to extend elements of China's domestic business environment, resulting in debt-driven infrastructure investment, support for state-owned enterprises (SOEs), absence of transparency, poor labor standards, and poor environmental practices.[121]

While Beijing presents BRI as a platform for mutually beneficial trade and investment, in practice the initiative is effectively "a sea of bilateral deals" that allow China to build export markets for its SOEs and create a network of countries indebted to state-run banks.[122] China Development Bank, a state-run policy bank,† had alone financed $190 billion for BRI projects between BRI's founding in 2013 and March 2019.[123] By contrast, as of March 2020 China's multilateral development bank, the Asian Infrastructure Investment Bank (AIIB), had invested only $12 billion from its founding in 2015 to March 2020.[124] Whereas China can lend unconstrained by financial sustainability considerations and other governance standards through its own policy banks, the AIIB counted 82 members as of July 2020 and is subject to governance constraints modeled on those of the World Bank.[125]

According to the State-Owned Assets Supervision and Administration Commission (SASAC), central Chinese SOEs were involved in 3,116 BRI projects by the end of October 2018.‡ Though these projects have been conducted under the banner of BRI, the initiative simply formalizes tactics China had been using to secure markets and resources and build political influence abroad for decades before launching BRI. It also enables China to inflate the impact of disparate trade, investment, and lending by presenting it as a coordinated, state-level effort. In 2013, the year the Chinese government launched BRI, China Development Bank and the Export-Import Bank of China's combined outbound loan balance totaled $368.6 billion.[126]

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*The pillars are "policy coordination, facilities connectivity, unimpeded trade, financial integration, and people-to-people exchanges." António Guterres, "Remarks at the Opening Ceremony of the Belt and Road Forum for International Cooperation," *United Nations*, April 26, 2019.

†China has three national state-owned policy banks, China Development Bank, Export-Import Bank of China, and Agricultural Development Bank of China, that lend to advance government policy objectives and are not subject to the capital adequacy constraints and loan loss provisions of commercial banks. China Development Bank and Exim Bank both have extensive loan portfolios of international projects. Though policy banks have a mandate to advance state priorities, the state is a majority shareholder in nearly all commercial banks within China and also gives them political guidance. For more information on China's banking sector, see Virgil Bisio, "China's Banking Sector Risks and Implications for the United States," *U.S.-China Economic and Security Review Commission*, May 27, 2020.

‡Studies by the World Bank and the Reconnecting Asia Project at the Center for Strategic and International Studies have found that procurement and tender processes for BRI projects are highly opaque, and that Chinese firms are awarded contracts far more often when projects are funded by a Chinese source than when they are not. Testimony from Tania Ghossein et al., "Public Procurement in the Belt and Road Initiative," *MTI Global Practice Discussion Paper* No. 10 (December 2018), 1, 6.

Importantly, China has not signed onto the standards of responsible development finance agreed to by other major creditor nations and participants in multilateral banks.* Among other provisions, these standards prohibit requiring collateral for development loans. By contrast, Chinese banks require collateral for roughly 60 percent of their loans to developing countries.[127] This allows China, as a creditor, to address potential defaults on an ad hoc basis, often negotiating settlement terms that grant it further influence over the debtor's economy or territory. Beijing prefers acting bilaterally because it can be the stronger negotiating party, dictate terms, and flout international norms to achieve its objectives without institutional constraints.[128] For instance, China's relationship with Tajikistan, which owes more than half of its $2.8 billion external debt to China,† exemplifies a pattern of deepening economic dependency on and concessions to China.[129] In 2019, Tajikistan reportedly granted China mining rights to silver deposits on especially favorable terms to pay down debt to China, and modified foreign investment restrictions to raise capital by selling off strategic national assets, clearing the way for a Chinese firm to acquire a stake in the country's largest aluminum plant.[130]

Many BRI projects have proven to be financially unsustainable, prompting international backlash.[131] A 2018 study by the Center for Global Development found that 23 of 68 BRI countries‡ were highly vulnerable to debt distress if they borrowed internationally to fund BRI projects.[132] Based on announced BRI projects, the authors concluded that of these 23, eight countries are at particular risk of debt sustainability problems due to the likely loan volumes necessary to fund the projects.§ Moody's Analytics notes that of the 130 countries that had signed BRI agreements as of June 2019, only 25 percent had an investment-grade sovereign credit rating; 43 percent had junk bond status and 32 percent were not rated.[133]

The COVID-19 pandemic has likely rendered some BRI projects nonviable, compounding potential financial duress.[134] In June 2020,

*China is only an observer in the Organization for Economic Cooperation and Development (OECD) and has not agreed to the OECD's framework for sustainable debt. It is not a member of the Paris Club, an international organization of creditor nations that coordinate sustainable frameworks for resolving payment difficulties among debtor nations, although it attends some Paris Club meetings as an ad hoc participant. *Nikkei*, "China Is a Major Global Lender; It Should Act Like One," May 22, 2019; OECD Trade and Agricultural Directorate Trade Committee Working Party on Export Credits and Credit Guarantees, *Recommendation of the Council on Sustainable Lending Practices and Officially Supported Export Credits*, June 8, 2018; Isabella Massa, "Export Finance Activities by the Chinese Government," *Policy Department for Directorate B of the EU Parliament Directorate General for External Policies of the Union*, September 23, 2011.

†The rate of Tajikistan's dependence on China has also grown rapidly. Between 2007 to 2016, 80 percent of the country's increase in external debt was held by China. John Hurley et al., "Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective," *Center for Global Development*, March 2018, 18.

‡The study examined 68 countries that China claimed were part of BRI as of the first Belt and Road Forum in May 2017. By October 2019, China's main economic planning agency, the National Development and Reform Commission, claimed China had signed BRI Cooperation Agreements with 137 countries. *Xinhua*, "China Has Signed 197 'Belt and Road' Cooperation Documents with 137 Countries and 30 International Organizations" (中国已与137个国家、30个国际组织签署197份"一带一路"合作文件), November 15, 2019. Translation; James Griffith, "Just What Is This One Belt, One Road Thing Anyway?" *CNN*, May 11, 2017.

§The eight countries include Djibouti, Kyrgyzstan, Laos, Maldives, Montenegro, Mongolia, Pakistan, and Tajikistan. Each country has a public debt to GDP ratio of above 60 percent, except Tajikistan. With the exception of Pakistan and Montenegro, Chinese institutions would hold over half of these countries' external debt given projected BRI-related lending. The authors of the study constructed projected BRI lending pipelines based on publicly available data on announced BRI projects. John Hurley et al., "Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective," *Center for Global Development*, March 2018, 8, 11–12.

China's Ministry of Foreign Affairs acknowledged 50 to 60 percent of BRI projects were impacted by the pandemic, 20 percent of them "seriously."[135] Opaque debt to Chinese financial institutions can further undermine these countries' creditworthiness from the perspective of other international lenders. In testimony before the Commission, Andrew Small, Senior Transatlantic Fellow with the German Marshall Fund, noted that private lenders are reluctant to extend loans to developing countries without clarity on the terms and volume of their debt to China, and are wary borrowers will use new lines of credit simply to pay back Chinese lenders.[136]

Chinese firms have readily ignored labor, governance, and other social impacts in BRI projects, allowing Chinese firms to do business in countries other firms and organizations would not approach, and to underbid or outmaneuver vendors bound by higher standards. While Chinese firms' use of Chinese workers has drawn criticism and caused tension in countries hosting BRI projects, this overshadows an equally egregious issue: in some instances Chinese firms are able to bid low in part because they impose forced-labor conditions on an overseas Chinese workforce.[137] Aaron Halegua and Jerome A. Cohen, both of the New York University School of Law's U.S.-Asia Law Institute, detail a pattern of overseas Chinese workers paying hefty recruitment fees, working unpaid for months in abhorrent conditions, and sometimes being cheated out of promised wages by their employers.[138] In one non-BRI example, Chinese laborers working in Chinese government facilities in New York for a private Chinese firm, Chinese Liaoning Rilin Construction, were forced by the firm's U.S. head of operations, Dan Zhong, to work on private projects benefiting him personally.[139] Another case occurred in the BRI-affiliated construction of a casino in the U.S. territory Saipan, in which trafficked Chinese laborers were forced to work in unsafe conditions.[140]

Beijing pays lip service to international agreements when they advance or safeguard its interests. Beijing respects international agreements for dispute settlement, trade and investment facilitation and promotion, IP agreements, technical standards, and e-commerce as applicable to BRI.[141] These existing features of the international economic order help open markets to Chinese firms and protect their assets and investments.

A Proliferation of Regional Organizations

While BRI encapsulates China's overall blueprint for the international order, the Chinese government relies on the extensive use of regional fora to advance specific foreign policy objectives and realign regional dynamics in its favor.[142] These fora provide Beijing a platform to tailor messaging, promote their regional approach, and further bilateral ties, coopting local institutions and individuals to advance the CCP's policy objectives as though they were local initiatives (see textbox "Attempting to Displace ASEAN with the Lancang-Mekong Cooperation Mechanism").[143] Many of these fora take on a "China+" format, such as the China-Central and Eastern European States Summit (17+1, formerly 16+1) established between China and Balkan, Baltic, and Central and Eastern European states in 2012. Beijing has now established "China+" partnerships cover-

ing the majority of every continent except North America and Antarctica.[144] It also routinely leverages regional ties as voting blocs: from 1972* to 2009, African states supported China in defeating 11 attempts to criticize China's human rights record.[145] In June 2019, China's favored candidate to lead the UN Food and Agriculture Organization won comfortably with 108 out of 191 votes after China forgave $78 million of debt owed by Cameroon and a candidate from Cameroon backed by the African Union dropped out of the race.[146]

Common Approaches in China's Regional Engagement

Although Beijing's strategy is regionally tailored to adapt both to local political considerations and within the broader scheme of its global diplomatic strategy, its approach has a few common characteristics across organizations:

- *Beijing assigns each region a role in supporting China's development:* Beijing frames its relations with specific regions according to the roles it envisions for them in the "community of common human destiny." The Chinese government's white papers on relations with Africa and Latin America and the Caribbean apply this language in describing advancement of China's economic, political, and security objectives, such as resource exploration, holding increased military exchanges, and deepening extradition cooperation.†[147] This trend notably attempts to establish the relevance of China's economic development experience and governance model to all developing countries, in contrast to previous Chinese leaders' assertions that Chinese socialism was uniquely suited to China's particular circumstances.[148] For instance, China's 2015 white paper on its policy toward Africa articulates a clear China-inspired model for African countries' political governance and economic development, urging China's closest African partners to promote state-led development across the continent. It emphasizes the advantages of China's legal system, media landscape, and science and technological capabilities. The white paper also urges African countries to work with China to establish global governance institutions with greater representation for developing countries. Lastly, China's most recent white papers on both Africa and Latin America seek to distinguish Beijing's diplomacy from that of the United States, stressing nonintervention and other countries' right "to choose their own paths of development."[149]
- *China is a "one-stop shop" for development practices:* Beijing uses regional dialogues to present what Joshua Eisenman, associate professor at the University of Notre Dame, calls an irresistible "comprehensive package."[150] Economic diplomacy is consistently the central priority, but party-to-party trainings, cultural or educational exchanges, and security cooperation may be combined into one broad dialogue, making cooperation with

*Beijing was able to replace Taipei as the government representing China in the UN in 1972 with 26 votes from African countries, or more than a third of countries supporting the resolution. Yun Sun, "Africa in China's Foreign Policy," *Brookings Institution*, April 2014, 4.

†China also releases white papers on topics such as foreign aid that a follow a similar pattern. *Xinhua*, "China's Policy Paper on Latin America and the Caribbean," November 24, 2016; *Xinhua*, "China's Second Africa Policy Paper," December 5, 2015; State Council Information Office, *White Paper on China's Foreign Aid (2014)*, July 10, 2014.

Beijing seem "irresistible."[151] Criticism of BRI has also prompted Beijing to seek more ways to shape other countries' domestic discourse on China directly or indirectly.[152] People-to-people exchanges discussed in the previous section, such as programs to train foreign journalists and researchers in China, are the centerpiece of this evolving strategy.[153]

- *Beijing establishes strong partnerships as regional bulwarks:* Beijing builds regional engagement by first establishing a handful of strong ties to countries regarded as regional leaders, then leveraging connections with these countries as a springboard to launch multilateral initiatives.[154] For instance, in Africa during the 2000s Beijing initially prioritized developing partnerships with South Africa and Egypt as mid-sized powers before seeking engagement with other countries.*[155]
- *Beijing uses bilateral engagement to leverage its relative power:* Bilateral deals remain the predominant feature of China's diplomacy, and regional fora can serve as an overture for this or even as an arena in which countries compete against one another for Chinese investment.[156] After China initially established the 16+1 framework (now 17+1, described below) in Europe, for instance, Hungary, Serbia, the Czech Republic, and Poland all competed with one another to advance different bilateral approaches with Beijing, aiming to establish themselves as regional leaders in China-EU relations.[157] Beijing's investments in 17+1 countries ultimately were meager and centered on infrastructure construction rather than the greenfield investment Central European countries hoped to negotiate, which would have created longer-term employment and industrial productivity gains.[158]

Several key China-led organizations in which Beijing applies this characteristic approach are detailed below. First among these is China's original regional organization, FOCAC, through which Beijing has attained significant access to Africa's natural resources, established broad export markets for Chinese firms, and convinced some African countries to sever diplomatic ties with Taipei in favor of Beijing.† The success of FOCAC has inspired Beijing to use it as a template for multilateral engagement in other regions.

China-led fora have in some cases proven to be less effective platforms for carrying out Beijing's objectives when interests of member countries are not aligned. For instance, India and Pakistan's accession to the Shanghai Cooperation Organization (SCO) raises

*This does not necessarily reflect the current-day importance of Beijing's relationship with these countries. It counts Ethiopia among its first-tier ("comprehensive strategic cooperative") partners, but South Africa and Egypt are only second-tier (or "comprehensive strategic") partners. Paul Nantulya, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 3.

†When China established FOCAC in 2000, 49 of 54 African countries recognized China. Since 2000, four more have switched diplomatic recognition: Burkina Faso (2018), Chad (2006), Malawi (2007), and São Tomé and Príncipe (2016). The Gambia switched from China to Taiwan in 1995, then severed ties with Taiwan in 2013 and recognized China in 2016. Eswatini is now the only African country that recognizes Taiwan. Rob Schmidt, "Taiwan Loses 2 More Allies to China and Scrambles Jets to Track Chinese Bomber Drills," *NPR*, May 25, 2018; Mike Ives, "A Small African Nation Severs Ties with Taiwan, and Beijing Applauds," *New York Times*, December 22, 2016; Austin Ramzy, "China Resumes Diplomatic Relations with Gambia, Shutting Out Taiwan," *New York Times*, March 18, 2016; Yun Sun, "Africa in China's Foreign Policy," *Brookings Institution*, April 2014, 5.

the organization's international status, but their joint participation could undermine China's ability to use the organization to push its foreign policy goals because the two rivals share little in the way of security objectives.[159] In June 2018 at its first SCO forum after joining the organization, India refused to endorse BRI, claiming a BRI project for Pakistan in the disputed area of Kashmir threatened its territorial sovereignty.[160]

Forum on China-Africa Cooperation (FOCAC): Established in 2000 by China and its African partners, the triennial FOCAC provides Beijing with a single venue to engage with 53 out of 54 African countries and shape the narrative of Chinese engagement with Africa.*[161] In covering economic cooperation, cultural exchanges, and military cooperation, the forum follows Beijing's tactic of presenting a comprehensive package that inflates the importance of China's diplomacy.[162] U.S. investment stock in Africa has consistently exceeded that of China,† but Beijing has been able to leverage its pledges of $60 billion in loans and investment on the continent to portray an outsized impression of Chinese engagement.[163]

FOCAC serves as a framework for China to engage African countries multilaterally via other formats, such as establishing research institutes to promote a Sinocentric vision in the foreign policy of African countries.[164] Paul Nantulya, an expert at the National Defense University, testified to the Commission that General Secretary Xi's inaugural speech at one such institute reflects Beijing's shift from "non-interference" to increasing involvement in shaping "how Africa's political systems operate, including the security sector"[165] (for more on FOCAC and China's interests in Africa, see Chapter 1, Section 3, "China's Strategic Aims in Africa").

China-Central and Eastern European States Summit (17+1): Originally established in 2012 as the 16+1, the forum expanded when Greece joined in 2019, though Greece has served as an effective surrogate for Beijing's interests in Europe since at least 2015.‡[166] The 17+1 serves mostly as a vehicle for Beijing to forge bilateral BRI deals with Balkan, Baltic, and Central and Eastern European countries.§ Deepening political and economic ties with Eu-

*Fifty-three of 54 African countries attended the seventh and most recent forum in September 2018, with only Eswatini not present. Yun Sun, "China's 2018 Financial Commitments to Africa: Adjustment and Recalibration," *Brookings Institution*, September 5, 2018.

†Investment stock refers to the total cumulative volume of long-term investments in which the investor has a significant degree of influence (e.g., a greater than 10 percent share of voting rights in a corporation) on the management of an enterprise, as distinguished from passive "portfolio investment." Flow refers to net change over a given time period. As of 2018, the latest year for which data is available, U.S. foreign direct investment stock in Africa totaled $47.8 billion versus $46.1 billion for China, marking the closest China has come to eclipsing the United States. China-Africa Research Initiative, "Data: Chinese Investment in Africa," *John Hopkins University School of Advanced International Studies*, February 2020; United Nations, "UNCTAD Training Manual on Statistics for FDI and the Operations of TNCs Volume 1: FDI Flows and Stocks," 2009, 35.

‡China invested heavily in Greek assets at several points when its EU creditors imposed financial austerity measures on it following the Eurozone Crisis. Following the election of Alexis Tsipras as prime minister in January 2015, Athens and Beijing announced an "upgrading of relations" and Prime Minister Tsipras acknowledged Greece's role as "China's gateway into Europe." Jason Horowitz and Liz Alderman, "Chastised by E.U., a Resentful Greece Embraces China's Cash and Interests," *New York Times*, August 26, 2017.

§The original 16 members include Albania, Bosnia, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, North Macedonia (then Macedonia), Montenegro, Poland, Romania, Serbia, Slovakia, and Slovenia, 11 of which are EU member states. The remaining five are seeking EU membership. Dusan Stojanovic, "China's Spreading Influence in Eastern Europe Worries West," *Associated Press*, April 10, 2019.

ropean countries with more populist and less liberal regimes have enabled Beijing to fracture the cohesive EU stance toward China.[167] In 2016, Hungary and Greece attempted to block a critical reference to China in an EU statement on The Hague Tribunal's South China Sea ruling.[168] The next year, Hungary broke EU consensus by refusing to sign a letter denouncing Beijing's torture of detained human rights lawyers, while Greece blocked an EU statement criticizing China's human rights record.[169]

The 17+1 has prompted wariness from Brussels, particularly for undermining a common EU policy toward China. In March 2019, the European Commission labeled China a "systemic rival" and exhorted EU member countries to maintain a unified approach to China, citing engagement bilaterally or through the 17+1 framework as particular areas of concern.[170]

China-Community of Latin American and Caribbean States (CELAC): Like FOCAC, China has used CELAC as a single venue to promote economic engagement, military cooperation, and people-to-people exchanges.*[171] China-CELAC, which includes 33 Latin American and Caribbean countries and China, was established in 2015. Compared to China's success in FOCAC, lack of consensus among CELAC members has hampered some of Beijing's efforts. At the second Ministerial Meeting of China-CELAC in January 2018, CELAC did not endorse BRI, though a joint plan of action recognized BRI's economic opportunities and pledged to deepen regional connectivity with China.[172] Consequently, Beijing still relies on other multilateral approaches, such as participation in multilateral development finance or ad hoc fora, to advance its interests in the region.[173]

Shanghai Cooperation Organization (SCO): Unlike the other organizations profiled here, SCO is primarily a security rather than an economic group and is heavily influenced but not directly led by China.[174] Founded by China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan in 2001,† the organization added both Pakistan and India at its June 2017 summit.[175] In SCO's initial decade, China was a principal political and economic force driving the organization and used it to ensure security cooperation and diplomatic support from its Central Asian neighbors in preventing unrest in its northwest Xinjiang Uyghur Autonomous Region.[176] In the past ten years, China's ability to advance its economic objectives within SCO has been limited by Russia's view of former Soviet states as falling within its sphere of influence, as well by as Central Asian members' skepticism toward Chinese investment.[177] In seeking to expand the organization's focus from border demilitarization and counterterrorism to enhancing economic cooperation,

*CELAC is a multilateral forum that Latin American and Caribbean states established in 2011 in the Declaration of Caracas exclusively for those countries. CELAC states use the forum to engage with a number of other states and organizations in addition to China, including Russia, South Korea, the EU, and the Cooperation Council for the Arab States of the Gulf. CELAC International, "Community of Latin American and Caribbean States XXI."

†The SCO was preceded by the Shanghai Five, a group established in 1996 between China, Russia, Kazakhstan, Kyrgyzstan, and Tajikistan mainly covering military activity along China's border. The Shanghai Five added Uzbekistan and announced the creation of the SCO in 2001. *Diplomat*, "The Shanghai Cooperation Organization: A Vehicle for Cooperation or Competition?" June 21, 2019; Eleanor Albert, "The Shanghai Cooperation Organization," *Council on Foreign Relations*, October 14, 2015; *Xinhua*, "History of Development of SCO," June 12, 2006.

China attempted to use SCO as a platform for BRI to subsume Russia's stagnant regional Eurasian Economic Union (EAEU).[178] While acknowledging that BRI and the EAEU have compatible goals, Russian President Vladimir Putin sidestepped relegating EAEU to a subordinate regional project within the broader BRI framework.[179] Neither China nor Russia has managed to expand its Central Asian energy networks under the aegis of SCO, though both have realized energy projects outside the organization.[180]

Asia Infrastructure Development Bank (AIIB): In 2015, Beijing established the AIIB, a multilateral development bank intended principally to finance Asian Belt and Road projects. Financially, the AIIB has been a small player: it had only invested $12 billion as of March 2020, a small fraction of $339 billion in BRI lending extended by Chinese policy banks between 2013 and April 2019.[181] Creation of the AIIB nonetheless presents an image of China as a responsible global stakeholder.[182] As Jonathan Hillman, senior fellow and director of the Reconnecting Asia Project at the Center for Strategic and International Studies, argued in testimony to the Commission, the establishment of AIIB furthers the narrative of China as an ascendant power and leader among developing countries, even as the AIIB leans heavily on established multilateral development banks for governance practices and operational support.[183]

Attempting to Displace ASEAN with the Lancang-Mekong Cooperation Mechanism

To establish influence in Southeast Asia at the expense of ASEAN, Beijing is rapidly expanding the remit of an organization ostensibly established to coordinate management of the Mekong River's water resources, according to testimony provided to the Commission by Bradley Murg, assistant professor of political science and Asian studies at Seattle Pacific University.*[184] Established in 2016, the Lancang-Mekong Cooperation (LMC) mechanism aims to displace other rival institutions not through overt competition, but rather by attempting to appear complementary. The scope of the LMC is even modelled on ASEAN's "three pillars": Political and Security Community, Economic Community, and Social Cultural Community.[185] The LMC also displaces regional coordination on Mekong River management through the Mekong River Commission, a successor to the U.S.-led Mekong Committee that China rendered ineffective through refusal to participate.[186]

Central to Beijing's tactics is creating the impression that initiatives conducted under the banner of the LMC are the outcome of organic cooperation (rather than directed by China) while leveraging the LMC to become increasingly entrenched in local institutions. One such example is the Global Center for Mekong Studies (GCMS), a think tank network launched in parallel with

*The LMC mechanism includes Cambodia, Laos, Myanmar, Thailand, and Vietnam. It was founded through the Sanya Declaration, an agreement Beijing had worked toward with member countries the preceding year to address mounting tensions over regional management of the Mekong River's water resources (e.g., damming, drought prevention, and river ecology). *Sanya Declaration of the First Lancang-Mekong Cooperation (LMC) Leaders' Meeting*, March 3, 2016.

Attempting to Displace ASEAN with the Lancang-Mekong Cooperation Mechanism—*Continued*

the establishment of national LMC secretariats in 2018.[187] GCMS national centers coordinate with government organizations in their respective countries and court prominent individuals to build legitimacy, while programming follows Beijing's priorities. In particular, Beijing is using the GCMS to steer the narrative on China in academic, government, and civil society circles within member countries.[188]

Dr. Murg believes the LMC mechanism could serve as a testbed for coopting local institutions, particularly along BRI.[189] According to Dr. Murg's written testimony to the Commission, the LMC's response to the COVID-19 pandemic in February 2020 was emblematic of Beijing's approach and goals for the organization: the LMC duplicated ASEAN's efforts without coordination, following instructions on public health efforts from Beijing without input from other countries, while State Councilor and Foreign Minister Wang depicted the response as locally led and stressed local partnerships when introducing the pandemic response initiative in Vientiane.[190] In August 2020, Premier Li Keqiang promised LMC countries priority access to a COVID-19 vaccine once China has developed one and announced China would set up a dedicated public health program under the LMC.[191]

Beijing Uses Technical Standards to Advance an Alternative Technological Order

Achieving leadership in technologies that will define the 21st century is a distinguishing feature of Beijing's industrial and foreign policies.[192] Dominance of technical standards underpinning information and communications technologies (ICT) and other emerging fields is integral to Beijing's ambitions, both to secure global markets for Chinese firms and to shape the norms and values for how emerging technologies are deployed (for a taxonomy of technical standards, see Addendum I: "What Is a Technical Standard?").[193]

Beijing's approach to exporting China's technical standards threatens to disrupt the international technology landscape. In treating technical standards as a tool of industrial policy and market access, China's export of standards parallels China's model for the global economy: Beijing aims to assert privileged access to foreign markets and IP for Chinese firms while controlling access to its domestic market and shielding domestic companies from having to abide by the rules of the international economy. Similarly, in setting the standards, Beijing seeks to cultivate export markets for Chinese technology and freely make use of foreign technology while maintaining a closed domestic standards-setting environment.

Beijing's behavior in international standards-setting organizations follows patterns observed in other multilateral fora. Namely, Beijing is installing Chinese nationals or individuals sympathetic to Beijing's interests in key leadership positions to undermine and revise institutional norms in alignment with its own agenda. Its participation violates the spirit of these organizations, making them

less effective for other members and in some cases deliberately attempting to undermine U.S. technological leadership.

Technical Standards as a Policy Tool

In contrast to the United States, where technical standards are developed by industry in response to commercial need and adopted by consensus, Chinese state agencies formulate standards and use them to advance industrial and foreign policy objectives. Historically, Beijing has prioritized developing mandatory and unique domestic technical standards as a barrier to foreign firms' market entry and to help grow domestic industry. Now, it is also coordinating industrial policy and diplomatic strategy to expand its influence in international standards-making bodies, both to increase adoption of Chinese technology abroad and to influence norms for how technology is applied.[194] The goal of increasing participation in international standards-setting bodies is written explicitly into China's 2017 Standardization Law, and will likely be extended into a comprehensive strategy in the China Standards 2035 plan, a draft 15-year plan not yet released to the public. The China Standards 2035 plan will outline China's nation-level objectives in standardization much like "Made in China 2025" did for emerging technology.[195]

A Walled Garden: China's Domestic Standards Environment

Following China's WTO accession in 2001, the Chinese government initially sought both to limit adoption of foreign standards and to institute alternative compulsory (as opposed to voluntary) domestic standards.*[196] The former reduced licensing fees Chinese firms needed to pay foreign IP holders, while the latter served as a market access barrier to protect domestic industry from foreign competition. While this was a domestic policy, China's systematic infringement or evasion of standard-essential patents (SEPs), or IP requisite for codifying a common standard, has had a chilling effect on U.S. companies. If U.S. SEP holders do not anticipate a return on their IP because Chinese firms are evading patents, they have less incentive to develop SEPs and to advocate for their adoption as international standards.[197] Given that standards-making is driven by the private sector in the United States, this trend threatens U.S. influence on the evolution of technology, particularly in competition with a country that seeks to promote standards as a matter of coordinated industrial policy and heavily subsidizes corporate research and development.[198]

Some economists have argued that respect for IP in China will increase as Chinese firms' SEP portfolios grow. In practice, however, Chinese policymakers are more interested in using IP as a tool of achieving national priorities than in allowing individual companies to derive economic benefits from IP. Notably, the composition of patent holders in China includes more academics, interested in advancing their research careers through patenting, but fewer enterprises seeking to protect or license their IP.[199] In short, China's policymakers are not seeking to develop an economic structure like

*The use of conflicting technical standards when widely adopted international standards exist constitutes a technical barrier to trade under China's WTO obligations. World Trade Organization, "Technical Barriers to Trade," *WTO Agreement Series*, 20.

the United States, where companies are incentivized to innovate on the basis of substantial gains from leading-edge IP. As Chinese technology firms increasingly compete with U.S. firms that rely on licensing revenues from patent portfolios, Chinese firms' emphasis on goods sales and comparatively low IP revenues may undermine competing U.S. firms' business model.

Changes in China's domestic standards-setting system since 2015 have addressed some concerns that unique domestic standards, as well as the domestic standards drafting process, form a market access barrier.[200] Foreign firms report improved access to technical committees within Chinese standards-setting organizations and more involvement of enterprises (both Chinese and foreign) in standards development, though the Standardization Administration of China and the Ministry of Industry and Information Technology still maintain firm control.[201] U.S. industry organizations, such as the U.S.-China Business Council, credit China's greater participation in international standards-making bodies as encouraging adoption of international best practices domestically, particularly in facilitating sound procedures for vetting new standards proposals.[202] Nonetheless, protectionist application of standards remains a chief market access concern in technologies for which China's government has set guidelines to improve domestic producers' market share at the expense of foreign firms, such as manufacturing telecommunications equipment and medical devices.[203] More broadly, China's standards-making landscape is fragmented and difficult for foreign companies to navigate.[204]

China's Attempts to Dominate International Standards-Setting Organizations

Where most standards-making body participants represent their corporate members' interests, the Chinese government coordinates participation by Chinese companies to advance national policy objectives. China's 2006 National Medium- and Long-Term Plan for Science and Technology Development explicitly set international promotion of Chinese technical standards as a goal of Chinese industrial policy.[205] By 2010, a coordinated policy to increase China's presence in various international standards-making bodies had achieved noticeable successes, including by increasing the number of Chinese nationals in leadership positions within these organizations.

From virtually no leadership presence in the three largest standards-setting organizations prior to 2006, China now leads 64 out of roughly 740 technical committees and subcommittees it participates in under the International Standards Organization (ISO), compared to 104 for the United States.[206] China leads 11 out of 186 technical committees and subcommittees in the International Electrotechnical Commission (IEC), compared to 26 out of the 170 for the United States.[207] China is tied with Germany for participating in the most technical committees and subcommittees of any country, at 186, compared to 169 for the United States.[208] Within the three study groups in the International Telecommunications Union (ITU) most focused on networked technologies, China holds more than a third of rapporteurs,* the functionary position in charge of manag-

*The ratio includes both rapporteurs and associate rapporteurs. These three study groups include Future Networks, Security, and IoT [Internet of Things] Smart Cities. Gary Fishman,

ing committee workflow.[209] The director general of the ITU, a UN agency, is Zhao Houlin, a Chinese national who began his second four-year term in 2019 (see Addendum II: "Leadership in International Technical Standards-Making Organizations" for more details on the differences between various standards-setting organizations, how they operate, and China's influence within them).[210]

Common standards allow different products to work together seamlessly and enable firms to sell across national boundaries, in turn allowing consumers greater choice. Countries and companies participating in standards-setting organizations with genuine intent to put forward the best technical solutions further this beneficial cycle, but Beijing's approach deliberately betrays this spirit. At a minimum, it impinges on the efficacy of international standards-making, and in some cases Chinese delegations manipulate the procedures of standards-making bodies.

Within various organizations, Beijing has sought to undermine U.S. technological leadership and gain an advantage for Chinese companies and to advance authoritarian norms in setting standards for sensitive technologies like facial recognition in video surveillance. Furthermore, the Chinese government's involvement in dictating policy priorities for standards development may lead to setting ill-conceived standards before technology is mature, hampering long-term innovation.

Several patterns of China's participation in international standards-setting bodies are of note:

- *Coordinating Chinese firms' votes:* The Chinese government requires Chinese firms to vote as a bloc for Chinese nationals seeking leadership positions in standards-setting organizations or for proposals that favor adoption of Chinese standards, regardless of technical merit. Within the 3rd Generation Partnership Project (3GPP),* Chinese firms all changed their votes to favor a proposal by Huawei after initial results showed many firms favored a compromise solution combining Huawei's proposal with a different standard favored by U.S. chip designer Qualcomm.[211] The founder of Lenovo faced tremendous public scorn in China for initially voting in favor of Qualcomm's proposal, even after changing his vote to favor Huawei in the final round.[212]
- *The bounty system:* To incentivize individuals and firms to propose more standards and raise the overall number of Chinese standards adopted in international organizations, various Chinese government agencies, academic institutions, or industry associations may offer monetary awards or other professional recognition for successfully adopted proposals. For instance, ChemChina, a large SOE, offers several annual research awards of $56,500 (renminbi [RMB] 400,000) for research that either makes clear technical contributions to the company or contributes to international standards; a second tier of prizes pays only half as much for research that contributes to China's

"ITU-I Rapporteur and Editor Tutorial," *International Telecommunication Union*, October 2012.

*3GPP is a consortium of regional telecommunications standards-making bodies that develop the technical standards for 5G wireless technology.

domestic standards.*[213] Generally, the bounty system is more of a nuisance than a threat to U.S. economic interests, as it has led to standards-making bodies being flooded with low-quality proposals that other countries quickly reject.[214] Some incentive programs, however, such as grants administered by the Ministry of Science and Technology, align with sectors targeted by Chinese industrial policy.[215] Additionally, Chinese policy incentivizes academics to further China's editorial presence in engineering journals that influence international deliberation on technical standards, such as those published by the Institute of Electrical and Electronics Engineers (IEEE), an international standards-setting organization that also houses numerous trade publications and academic journals.†[216] These editorial positions are separate from technical committees that set standards, but give Chinese entities more voice in the direction of future engineering research that will shape how standards-setting efforts evolve.‡

- *Splitting proposals to inflate Chinese contributions:* In order to increase their total contributions§ to standards-making bodies, Chinese participants often divide a proposed technical standard into multiple proposals that only advance one substantive technical solution. For instance, the Standardization Administration of China has issued separate standards for quality versus technical requirements for fingerprints, an area covered by a single standard under development within ISO and the IEC's biometrics subcommittee.[217] For bodies like 3GPP, this behavior allows the Chinese delegation to claim it is leading 5G development simply because it has submitted a greater number of total proposals, even if many are frivolous compared to U.S. proposals. More importantly, it floods the standards-making process, diluting an organization's ability to focus on important issues and

*Unless noted otherwise, this section uses the following exchange rate throughout: $1 = RMB 7.08.

†These incentives dovetail with a broader program to improve the international footprint of China's science and technology publications by bringing reputable overseas publishers to China to launch academic journals. A 2016 Action plan specifically provided up to $3.7 million (RMB 25 million) a year for three years to top academic publishers, including IEEE, to establish journals in China. China Association for Science and Technology Net, "Publish the Dream of a Powerful Country and Boost Scientific and Technological Innovation: A Summary of the Development of Chinese Science and Technology Journals (刊载强国梦想 助力科技创新 ——中国科技期刊发展综述)," November 10, 2018. Translation. *https://www.sciping.com/22219.html*; Wang Enge, ed., Bluebook of China Science and Technology Publication Development (2017) 中国科技期刊发展蓝皮书(2017), *Science Press*, 2018, 44. Translation. *http://www.castscs.org.cn/u/cms/www/201805/24105303r5g2.pdf*.

‡According to Carl Cargill, a former principal scientist at Adobe Systems, an important stage of the standardization process before any standards proposals begin are the "pre-conceptualization" and "conceptualization" stages, where a company tries to define a clearly bounded problem that needs to be solved, such as defining a standard for streaming video in web applications. Journals like those published by IEEE can play a part in shaping this preliminary discussion on what industry problems should be addressed through standardization by scoping the technical problems and offering prototypes. This research can influence the direction that technical committees may later take when submitting proposals. Charles Schmidt, "Best Practices for Technical Standard Creation," *MITRE Corporation*, April 2017, vii, 3–4; Carl F. Cargill, "Why Standardization Efforts Fail," *Journal of Electronic Publishing* 14:1 (Summer 2011).

§Most standards-setting organizations are contribution driven, meaning the agenda for a working group in most standards-setting organizations is determined by the proposals delegates contribute, though generally aspects of many different submissions will be combined and modified into one published standard. Some organizations may more actively attempt to guide the direction of contributions or solicit contributions that tackle a specific technology area. Ken Krechmer, "Market Driven Standardization: Everyone Can Win," *Standards Engineering* 52: 4 (July/August 2000), 15–19.

advantaging China's often large and coordinated delegations, which can devote more participants to decisions on different topics while other delegations are stretched thin.[218] For instance, prior to a meeting to determine 5G standards in March 2018, Swedish internet communications firm Ericsson expressed concern that Huawei was at an unfair advantage because it was flooding the agenda and sending 40 delegates compared to only 25 from Ericsson.*[219]

- *Leveraging diplomatic influence:* In the ITU, China has advanced its economic and geopolitical agenda by garnering support from countries heavily dependent on Chinese investment, particularly on matters of internet governance and the jurisdiction of international standards-setting bodies.[220] Chiefly, China has used the UN and the ITU to advance its vision of "cybersovereignty," or that cyberspace is a sovereign domain countries should govern in accordance with their domestic laws (see "China's Vision of Cybersovereignty Challenges a Free and Open Internet"). In 2015, the ITU established a smart cities working group carved out of areas covered under ITU members who are the recipients of Chinese smart cities systems,† while other countries, including the United States, objected on the basis that the technology was immature or covered by existing standards-making processes.[221] In contrast, consensus-based organizations like ISO and the IEC rejected Chinese proposals to launch a smart cities working group because the technology is immature. China has used the platform extensively to promote its own technologies. Since 2017, Chinese organizations have participated in 246 submissions for standards in the ITU's smart cities study group, compared to 108 for the next-largest contributing country, South Korea, and only 35 for the United States.[222]

China's Vision of Cybersovereignty Challenges a Free and Open Internet

Under China's cybersovereignty model, data and networks would constitute sovereign territory within individual countries' jurisdictions, to be governed according to local laws.[223] This model of the internet is directly in contrast to the free and open multistakeholder platform championed by the United States and other democracies. China's Cyberspace Administration has invoked the logic of nationally bounded cyberspace to justify limiting the exercise of free speech and personal privacy in China, and to resist the efforts by the United States and other countries to apply in-

*As of early 2017, Huawei had submitted 234 proposed standards to 3GPP, the most of any participant, followed by Ericsson with 214 proposals. At the March 2018 meeting, Ericsson was able to broker a compromise with Huawei capping the number of proposed standards that could be reviewed in a meeting, though it was still more than the company believed reasonable. Newley Purnell and Stu Wu, "China's Huawei Is Determined to Lead the Way on 5G despite U.S. Concerns," *Wall Street Journal*, March 30, 2018.

†Smart cities systems employ networked technologies like cameras, sensors, and location devices to collect a wide variety of data for urban management, including traffic flow, energy usage, and crime. China has used smart cities technology to expand its surveillance and repression capabilities. For more on China's smart cities technology exports, see Katherine Atha et al., "China's Smart Cities Development," *SOSi's Special Programs Division* (prepared for the U.S.-China Economic and Security Review Commission), April 29, 2020.

China's Vision of Cybersovereignty Challenges a Free and Open Internet—*Continued*

ternational law to the internet.[224] The model has provided other authoritarian-leaning countries, such as Russia, with a template for using the internet and related technologies as a tool for surveillance and social repression.[225]

China has used the UN and the ITU, respectively, to promote both the overarching vision of centrally controlled, nationally bounded internet as well as an alternative technical architecture to undergird such a system. On the normative side, in 2015 China advocated for enshrining cybersovereignty in a series of documents defining global internet policies and frameworks, aligning with Russia, Cuba, and a group of 134 developing countries. China ultimately dropped the proposed language owing to strong resistance from developed countries led by the United States, but the final documents approved by the UN General Assembly allowed a greater role for state management of the internet.[226] With China and Russia's backing, the UN later passed a resolution ostensibly to combat cybercrime that would make it easier for countries to coordinate political repression across borders in November 2019.[227]

On the technical side, in March 2020 the Financial Times reported that Huawei had proposed an alternative standard for the internet protocol* by which countries would govern a national internet.[228] Under the model, internet service providers would have complete oversight and control over every device connected to the internet through their service.[229] This would effectively rebuild the technical architecture of the internet to support centralized enforcement and top-down control of information flows within a single country's cyberspace.[230]

Even as China's government claims sovereignty over China's domestic cyberspace, China's data governance regime asserts extraterritorial jurisdiction over data and internet activity outside of China. China's draft Data Security Law, released July 2020, grants Chinese law enforcement power to access data and regulate, investigate, and prosecute data controllers located outside of China that harm "the national security, the public interest, or the law interests of [Chinese] citizens or organizations."[231] "National security" is undefined in the law, but Chinese authorities may interpret it expansively in application.[232] Notably the law applies equally to Hong Kong and Macau, further eroding Hong Kong's separate legal system. (For more discussion of the CCP's violation of the "one country, two systems" framework, see Chapter 5: "Hong Kong").[233] China's Anti-Terrorism Law, enacted in 2015, similarly requires internet service providers and platforms to provide surveillance access to any and all data concerning Chinese nationals, even if they are located outside of the country.[234]

*An internet protocol is the information architecture, standards, and policies underlying how individuals connect to the internet. See Lawrence E. Strickling, "United States Government's Internet Protocol Numbering Principles," *National Telecommunications and Information Administration*, December 3, 2012.

Circumventing International Standards-Setting Organizations

As with its participation in international governance organizations, China is trying to increase its influence and stature within international standards-setting bodies while simultaneously working outside of them to promote adoption of Chinese technology. Both efforts undermine the efficacy of international standards-setting bodies and erode their normative influence while furthering adoption of Chinese technology (and potential long-term commitment to Chinese technical standards) in emerging markets.

Recent Chinese policy explicitly encourages promoting the adoption of Chinese technical standards as a goal of diplomatic engagement, effectively circumventing standards-making institutions.[235] Even without formal adoption of Chinese technical standards, importing primarily Chinese equipment can result in a de facto commitment to Chinese technical standards, especially for economies in which Chinese products dominate the market or China is a major export destination.[236] A key part of the National Development and Reform Commission's strategy to export Chinese standards along BRI is to encourage construction of "demonstration projects" that showcase Chinese standards across sectors, including agriculture, industry, and services.[237] For example, China has used diplomatic agreements and demonstration projects to promote Chinese agricultural standards in Southeast Asian countries. At the second Belt and Road Forum in May 2019, China signed a cooperation agreement on pesticides with nine countries, including five Southeast Asian countries.* A 2019 proposal from China's Ministry of Agriculture described the agreement as "using pesticides as a breakthrough to promote [cooperation] with Southeast Asian countries on standards for veterinary drugs, agricultural machinery, processing for high quality produce, and other materials."[238] In September 2020, Chinese state-owned media reported the provincial standards organization in China's southern Guangxi autonomous region had established nearly 5,000 acres of agricultural standardization demonstration areas in Vietnam, Cambodia, Laos, and Myanmar as part of BRI.[239] The projects had led to formulation of 20 technical standards, as well as training 700 managers, technicians, and horticulturalists.[240]

Andrew Polk, partner at research consultancy Trivium China, suggests some of China's short-term losses on infrastructure investments in BRI countries may yield dividends if they create long-term dependence on technology adherent to Chinese standards.[241] Chinese firms' cultivation of export markets via BRI also follows this trend: aggressive marketing of ICT infrastructure within BRI countries by Chinese firms like Huawei and ZTE, often supported by loans from Chinese policy banks, has occurred in tandem with China advocating for standards to govern such systems in the ITU.†[242]

*The countries include Bangladesh, Cambodia, Myanmar, Nepal, Pakistan, the Philippines, Thailand, Sri Lanka, and Vietnam. *Xinhua*, "List of Achievements of the Second 'Belt and Road' International Cooperation Summit Forum, (第二届'一带一路'国际合作高峰论坛成果清单)," April 28, 2019. Translation.

†In the 2017–2020 ITU study period, Huawei and ZTE have authored or coauthored 25 proposed standards in the Internet of Things (IoT) working group and 40 proposed standards in the Smart Cities working group as of June 2020, compared to 35 total by the United States. International Telecommunications Union Study Group 20, "Contributions—Study Period 2017," March 24, 2020.

China's ability to export a unique set of standards for critical communications and transportation infrastructure could have dual-use implications, potentially improving Beijing's ability to project military force outside China's borders.[243] Under China's program of military-civil fusion, the National Defense Transportation Law and several other regulations on standards require civilian industry standards to support defense sector requirements in key projects, and in some cases provide government subsidies to absorb the cost where doing so is not commercially advantageous.[244] For instance, analysts for the People's Liberation Army (PLA) have flagged commercial port infrastructure standards as far below those required to provide logistical support to the PLA Navy in cold chain storage, cargo terminal size, refueling capacity, and other standards.[245]

Exports of Chinese communications infrastructure could allow the PLA to access or control this infrastructure after it has been deployed in other countries or to deny adversaries access in the event of conflict. China's State Administration for Market Regulation, the PLA services' respective equipment departments, and other agencies coordinate to oversee the unification of industry and commercial standards with military requirements.[246] A 2018 article in the market regulator's agency journal *China Standardization* encouraged the PLA to exploit Chinese commercial firms' access to international markets to improve the PLA's modernization and compatibility with international systems.[247]

Implications for the United States

Beijing's long-standing ambitions are designed to undermine and ultimately displace the United States as a global leader. These goals enjoy broad support within the CCP and are expected to persist beyond General Secretary Xi. A China-centric order replacing the current U.S.-led rules-based order could have profound effects on global security, freedom, and prosperity.[248] Statements by General Secretary Xi suggest this new China-led order would redefine the very concept of sovereignty. In a speech to the Central Military Commission in November 2015, he claimed the global governance system is undergoing a "profound revolution [and] the international balance of power is undergoing the most revolutionary change in recent times," declaring this "a great change to the international system [that has existed] since the Treaty of Westphalia."[249] According to General Secretary Xi, the Westphalian system, which cemented the norm of state sovereignty in 1648, was only "a limited international configuration established by various European countries" without the input of other regions.[250] Therefore, he argued, the recent, rapid growth in the strength of developing countries—and implicitly that of China in particular—presented an opportunity to reexamine the international system.[251]

The international norm of sovereignty determines that with very few exceptions, states are inviolable as individuals, but the "community of common human destiny" seeks to replace this system with a theory of international relations purporting to treat the world as a single integrated society under Beijing's guidance. Just as Beijing's interpretation of human rights prioritizes collective development over the rights of individuals, the "community of common hu-

man destiny" would subsume the agency and interests of individual countries to the goal of collective harmony on China's terms.[252] If the CCP succeeds in normalizing its views of governance, individual rights, and economic exchanges, the result could fundamentally undermine these rights in a large swath of countries (including the United States and its allies and partners) and intensify the United States and democratic countries' current ideological competition with the CCP.

Beijing's popularization of undemocratic norms may not result in countries uniformly adopting the CCP's political system, but it is increasingly clear that authoritarian-leaning regimes look to China for guidance. Repressive governments have used expertise gained from Beijing to more effectively censor and surveil their populaces. If governments around the world accept the CCP-promoted notion that authoritarianism is not just acceptable but superior to democracy, repressive governments may become increasingly emboldened to abandon even the superficial trappings of rule of law, encouraging corruption and repression while eroding transparent governance globally. Moreover, the Chinese government's promotion of alternative nation-based internet protocols presents the risk of cutting off access to information crucial to participatory government. Controlling, limiting, and censoring information strengthens authoritarian regimes and silences critics and opposition.

Beijing's efforts to expand influence in international standards-setting organizations threaten to distort the international standards ecosystem and disadvantage U.S. firms by undermining the principles of market economics. Even where Chinese firms do not rival U.S. firms' technological capabilities, greater Chinese influence in international standards could allow inferior technologies to become dominant. De facto adoption of Chinese standards, driven by Chinese firms' exports along BRI, could also put U.S. firms in the position of having to adapt to Chinese technical standards (and pay licensing fees to Chinese firms) to access other markets. In some technological domains, especially ICT, China's dominance may also enhance security concerns.

China faces a steep learning curve in its efforts to establish a new hierarchical global order, but its approach is deliberate and adaptive. Moreover, while the CCP's vision is far from Mao Zedong's ambitions to export violent revolution and establish China-inspired regimes worldwide, the Party has never abandoned its goal of fundamentally revising the international system. The eventual impact of these efforts could erode global governance norms and U.S. leadership and influence within already weakened institutions. Underestimating Beijing's intent based on its current capabilities risks delaying a response until it is already too late to preserve the liberal international order that has allowed the unprecedented flourishing of human life and freedoms for the last three-quarters of a century.

Addendum I: What Is a Technical Standard?

Technical standards are design features or product specifications that allow different products to work together seamlessly regardless of where they were made or which firm made them.[253] These standards are called interoperability standards, compatibility standards, or interface standards (see Table 2: Types of Standards). Technical standards work effectively when they are invisible to the product user.[254]

Table 2: Types of Standards

Type of Standard	Definition	Examples	U.S. Governing Organization(s)
Interoperability, Compatibility, or Interface	Design features or product specifications that allow different products to work together seamlessly	Compatible plugs and electrical outlets Wireless telecommunications (e.g., 5G)	Led by nongovernment industry representatives like the American National Standards Institute (ANSI) with guidance from the U.S. Department of Commerce's National Institute of Standards and Technology (NIST)
Health, Safety, and Environmental Standards	Requirements that ensure products are safe to use or consume, meet a minimum clinical threshold in delivering promised health benefits, or do not cause harm to the environment	Health: minimum performance criteria for medical devices Safety: uniform fire hydrant hose connections Environmental: vehicle emission standards	Food and Drug Administration, Environmental Protection Agency, etc., in conjunction with NIST
Measurements and Metrology	Standardized units of measurements are a prerequisite for design specifications and were the earliest work of many standards-making bodies	Weight (pound), volume (gallon), and distance (miles) An amp, an ohm, and a volt in electricity measurement	NIST
Conformity Assessments Tests and Benchmarking	Conformity and assessment tests verify that a product complies with standards. Benchmarks establish repeatable tests to evaluate the performance of a technology, often for new fields	Conformity assessment: tests certifying imports into the EU comply with EU safety standards Benchmark: a set of pictures for gauging the accuracy of an image-recognition algorithm	NIST

Table 2: Types of Standards—*Continued*

Type of Standard	Definition	Examples	U.S. Governing Organization(s)
De Facto	Voluntary standards that arise by industry consensus because of widespread use and acceptance, but without formal adoption	Google's open source software library of machine learning tools, TensorFlow, is used by other institutions all over the world	Not governed

Source: Casey P. Grant, "Putting Safety First: A Look from Yesterday to Tomorrow on the Building of Our Safety Infrastructure," in Mary Jo DiBernardo et al., eds., *NIST Centennial Standards Symposium - Standards in the Global Economy: Past, Present and Future*, 2002, 71–72.

In the United States, domestic technical standards are often developed by nongovernmental organizations like the American National Standards Institute (ANSI) or industry consortia. These standards are consensus based, and the organizations and consortia leading the standards-making process serve to convene a dialogue between various stakeholders in the outcome of a standards formulation process.[255] Technical standards agreed upon by organization or consortium members are voluntary—no law or regulation requires producers to follow them—but widespread adoption can make them a prerequisite for market entrance.[256] Organizations like ANSI also represent U.S. commercial interests in international standards-making bodies.[257]

While standards-making is industry led in the United States, government is also an active participant in formulating standards primarily ensuring consumer welfare and facilitating, rather than guiding, commercial development. The National Institute for Standards and Technology (NIST) establishes testing standards and measurements, while agencies like the Food and Drug Administration and the Environmental Protection Agency develop safety, health, and environmental standards, often in coordination with NIST and the private sector.[258] These standards may be codified into regulation for sectors like food standards or medical device standards. In other cases, NIST helps advance new benchmarks and performance criteria for emerging technologies, for instance by hosting robotics competitions to determine current industry or academic capabilities.[259]

Addendum II: Leadership in International Technical Standards-Making Organizations

Numerous international standards-making bodies have formed to coordinate development of technical standards suitable for application across global economies (Tables 3, 4, and 6 briefly describe the three largest). These organizations facilitate agreement in design specifications for complex technologies like wireless telecommunications, where lack of international consensus would require producers to conduct substantial additional research, development, and design to optimize new models for each market with different standards.[260]

While the particulars of each organization vary, the three largest organizations each follow a similar hierarchical structure. Technical committees are responsible for entire sectors (e.g., telecommunications). In turn, they oversee subcommittees that lead the standards-setting agenda for specific industries or applications (e.g., streaming internet video). Within subcommittees, working groups typically draft actual standards (e.g., developing a video encoding format, such as MPEG).[261] These three organizations take one of two forms to ratify standards.

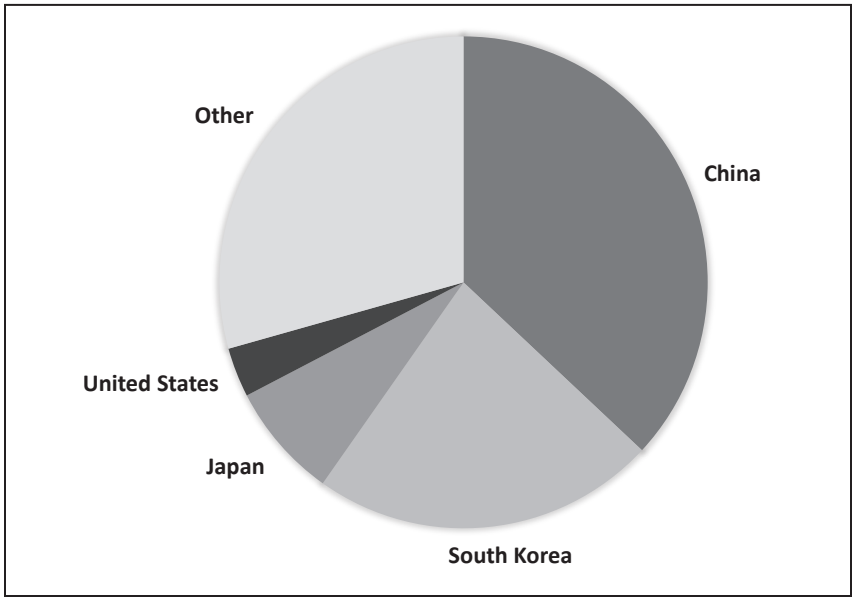
In parliamentary or "treaty-based" organizations like the ITU, each member or participant votes on whether to adopt standards proposals put before the technical committee, subcommittee, or working group.[262] In consensus-based organizations like ISO and the IEC, proposals are vetted among members and revised as a group before going to vote if enough members agree a proposal is sound and should go to vote after the vetting stage (see Table 3: Current Leadership in the ITU).[263] Beijing is able to wield much greater influence in parliamentary organizations, where it can leverage political influence among other countries.

Table 3: Current Leadership in the ITU

Name	Organizational Style	Remit and Examples of Committees	China's Participation and Leadership vs. the United States
International Telecommunications Union (ITU)	Parliamentary	The ITU is a UN agency that promulgates telecommunications and radio standards to member countries. For some technologies, such as 5G, it adopts standards developed by other more qualified organizations—3GPP in the case of 5G.	China is participating in 40 percent of ITU telecommunications technical groups for standards in formulation versus 5 percent for the United States. Within 3GPP, China is participating in 27 percent of specifications groups versus 23 percent for the United States. China's involvement outstrips its global market share.

Source: Various.[264]

Figure 1: Rapporteurs in Select ITU Study Groups: Future Networks, Security, and Internet of Things Smart Cities, 2020*



Source: Various.[265]

Table 4: Current Leadership in the ISO

Name	Organizational Style	Remit and Examples of Committees	China's Participation and Leadership vs. the United States
International Standards Organization (ISO)	Consensus-based	ISO is the largest international standards-making body and issues standards on everything from biotechnology to cutlery. ISO and the IEC jointly issue some standards. For information technology, they convene Joint Technical Committee 1 on which Subcommittee 42 oversees artificial intelligence standards.	As of 2020, the United States held the second-most secretariats (behind Germany), the key position leading technical committees and subcommittees. China held the sixth-most secretariats. The U.S. share has declined steadily since 2008, while China's share has tripled in the same period. China leads ISO in technical committee and subcommittee participation, while the United States ranks 17th.

Source: Various.[266]

*Rapporteurs manage committee workflow in the ITU. The figure includes both rapporteurs and associate rapporteurs. These three study groups provide a picture of China's influence in telecommunications standards. Gary Fishman, "ITU-I Rapporteur and Editor Tutorial," *International Telecommunication Union*, October 2012.

Table 5: Share of ISO Technical Committee Secretariats Held by Select Members, 2020

Country	Number of Secretariats	Percent of Subset	Country	Number of Secretariats	Percent of Subset
Germany	133	23%	Japan	76	13%
United States	105	18%	China	63	11%
France	77	14%	Italy	21	4%
United Kingdom	76	13%	South Korea	19	3%

Source: International Standards Organization, "Members."

Table 6: Current Leadership International in the IEC

Name	Organizational Style	Remit and Examples of Committees	China's Participation and Leadership vs. the United States
International Electro-technical Committee (IEC)	Consensus-based	In contrast to ISO, the IEC issues standards exclusively for products that use electricity	Similar to ISO, China trails the influence of the United States and Germany in leadership positions, but it has grown steadily from a minimal presence in the IEC prior to 2006. Notably, China is tied with Germany for participation in the most technical committees and subcommittees (at 183). The United States is involved in 170.

Source: International Electrotechnical Commission, "Who We Are."

Table 7. Share of IEC Technical Committee Secretariats Held by Select Members, 2020

Country	Number of Secretariats	Percent of Subset	Country	Number of Secretariats	Percent of Subset
Germany	36	22%	United Kingdom	20	12%
United States	26	16%	Italy	13	8%
Japan	24	15%	China	11	7%
France	22	14%	South Korea	10	6%

Source: International Electrotechnical Commission, "Who We Are."

ENDNOTES FOR SECTION 2

1. Daniel Tobin, response to questions for the record for U.S.-China Economic and Security Review Commission, *Hearing on A "China Model?" Beijing's Promotion of Alternative Norms and Standards*, March 13, 2020, 170–174.
2. Nadège Rolland, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on A "China Model? Beijing's Promotion of Alternative Global Norms and Standards*, March 13, 2020, 5–6.
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SECTION 3: CHINA'S STRATEGIC AIMS IN AFRICA

Key Findings

- Beijing has long viewed African countries as occupying a central position in its efforts to increase China's global influence and revise the international order. Over the last two decades, and especially under General Secretary of the Chinese Communist Party (CCP) Xi Jinping's leadership since 2012, Beijing has launched new initiatives to transform Africa into a testing ground for the export of its governance system of state-led economic growth under one-party, authoritarian rule.
- Beijing uses its influence in Africa to gain preferential access to Africa's natural resources, open up markets for Chinese exports, and enlist African support for Chinese diplomatic priorities on and beyond the continent. The CCP flexibly tailors its approach to different African countries with the goal of instilling admiration and at times emulation of China's alternative political and governance regime.
- China is dependent on Africa for imports of fossil fuels and commodities constituting critical inputs in emerging technology products. Beijing has increased its control of African commodities through strategic direct investment in oil fields, mines, and production facilities, as well as through resource-backed loans that call for in-kind payments of commodities. This control threatens the ability of U.S. companies to access key supplies.
- As the top bilateral financier of infrastructure projects across Africa, China plays an important role in addressing the shortage of infrastructure on the continent. China's financing is opaque and often comes with onerous terms, however, leading to rising concerns of economic exploitation, dependency, and political coercion. Many African countries borrowing from Beijing face growing debt burdens.
- China has shown an apparent willingness to leverage its influence in the UN peacekeeping operations (PKOs) system to advance its economic interests in African countries, raising the possibility that Beijing is subverting UN norms and procedures in the process. Beijing also relies on the assistance of African partners and private security contractors to advance its economic objectives on the continent.
- China's approach to security engagement allows Beijing to expand its influence in Africa's security domain while minimizing its visible military presence outside of its UN PKO contributions. As Beijing's economic and political influence on the

continent grows, it might leverage its security ties to establish another base in the medium to long term, as it did in Djibouti.

Recommendations

The Commission recommends:

- Congress require the Office of the U.S. Trade Representative, within 180 days, to prepare a report on China's use of rules of origin intended to benefit countries eligible for the African Growth and Opportunity Act (AGOA) to ensure AGOA countries obtain the benefit of favorable trade policies and China is not using them to circumvent U.S. trade policies.

Introduction

Over the last two decades, China has reinvigorated its longstanding ties to African countries,* placing the continent squarely at the center of its ambitions to become a global leader. In its official policy documents, Beijing claims to assist African countries in choosing their own development path while upholding its principle of "non-interference" in African domestic politics. In practice, however, the Chinese government exports its model of state-led economic growth under one-party, authoritarian rule. Economically, Beijing contends it seeks to help Africa industrialize and promote "win-win" cooperation. Its trade and investment, however, are characterized by increasing control over key African commodities and infrastructure. Opaque loans from China are pushing some African countries deeper into debt. To some, these patterns are reminiscent of Africa's colonial past and have led to concerns among African citizens and leaders that China's economic presence is not mutually beneficial, but rather an example of Beijing's "debt trap diplomacy."

China has accompanied the substantial increase in its political and economic engagement with a modest deepening of its military influence. To date, Beijing has mostly refrained from expanding its visible military footprint on the continent, focusing instead on alternative forms of military influence to support political and economic objectives. Military training programs, arms sales, joint exercises, and the deployment of military units under the auspices of UN missions have all served to enhance China's influence in key partner countries. Still, other military activities have served more purely operational ends. Beijing's first overseas military base, located in Djibouti, has allowed it to expand its military presence farther in and around Africa. As its economic and political influence grows, Beijing may be considering plans to establish a second base, while it has taken initial steps to extend its naval presence into the Atlantic Ocean.

This section explores China's growing influence across Africa and assesses its implications for the United States. It examines the strategic goals of China's Africa policy and Africa's significance to Beijing's global leadership ambitions. The section then assesses China's economic activity in Africa, including its desire for commodities and resources, investment in critical infrastructure and sectors,

*This section examines China's engagement in all 54 internationally recognized African countries, including those in North Africa and the Maghreb, areas that may fall culturally, politically, and economically as both part of Africa and the Middle East.

and role in Africa's growing digital economy. Finally, it discusses China's expanding security presence on the continent and examines how China leverages security cooperation to pursue its political and economic interests. The section draws from the Commission's May 2020 hearing on "China's Strategic Aims in Africa," the Commission's staff and contracted research, and consultations with policy experts and open source research and analysis.

China's Africa Strategy: Foundations for a New World Order

Beijing assigns Africa a central role in its foreign policy and views its ties with the continent as a cornerstone of its broader efforts to revise the international order. To demonstrate the consistency of this emphasis, China's foreign ministers have chosen African countries as their first overseas trip destinations each year since 1991.*[1] To date, Beijing has released two white papers on its Africa policy, one in 2006 and one in 2015.[2] While China's 2006 white paper called for a "new type of strategic partnership with Africa," the 2015 white paper assigns a much higher priority for the continent by elevating relations to the status of a comprehensive strategic cooperative partnership—phraseology used by China's foreign ministry to denote its most important relationships.[3] The 2015 white paper underscores Africa's role in building a "community of common human destiny," a CCP concept for a China-led global governance regime.[4] It also notes that Beijing seeks to enlist African support for its broader foreign policy goal of achieving "comprehensive reform" of the current international system.[5]

In 2018, Chinese State Councilor and Foreign Minister Wang Yi described the Chinese government as viewing its relations with Africa as a "template" for its "community of common human destiny."[6] Christopher Maloney, acting assistant administrator in the U.S. Agency for International Development's Bureau for Africa, argued in his written testimony to the Commission that China "is looking for political allies [in Africa] who are sympathetic, whether by ideology or situation, to rewriting the rules of the international order."[7] (See Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom," for further discussion of China's global leadership ambitions.)

Beijing has also increased its efforts to export its political governance and economic development model to some African countries. In contrast to the 2006 white paper, the 2015 white paper articulates a discernibly China-inspired model for the continent's political governance and economic development.[8] In one reflection of this more assertive approach, the 2015 white paper notes that Beijing seeks to enlist "chosen African countries"—referring to China's closest African partners—to promote state-led economic development across the continent.[9] The 2015 white paper also highlights Beijing's comparative advantages in a variety of domains, such as law enforcement, the judicial process, media, and science and technology, while openly calling on African countries to learn from China's experience.[10] Additionally, it describes a number of deficiencies in Africa, such as "backward infrastructure," "cyberspace management," and

*Chinese State Councilor and Foreign Minister Wang Yi repeated this pattern most recently with his visit to Burundi, Djibouti, Egypt, Eritrea, Kenya, and Zimbabwe in January 2020. Eric Olander, "Why Wang Yi's Boring, Uneventful Tour of Africa Was So Important," *China-Africa Project*, January 13, 2020.

"riot control," and posits a Chinese role in guiding African countries to build up their capacity in these and other domains through training and exchanges.[11]

More broadly, Beijing uses its relationships with African countries to accomplish other important objectives. These goals include gaining preferential access to the continent's natural resources, using free trade zones to circumvent U.S. and EU trade quotas, opening up African countries as markets for Chinese exports, and enlisting African support for Chinese global diplomatic goals, such as garnering support for China's Belt and Road Initiative (BRI).*[12] China blends all of its tools of national power—political, economic, and military—to accomplish these objectives.[13]

China Leverages Historical Ties to Africa

The foundations of Beijing's current relationships with African countries are built on the influence China gained through its engagement with the continent during the Cold War. Africa has been a focus of Chinese foreign policy since the establishment of the People's Republic of China in 1949. From the 1950s to the late 1970s, the CCP actively supported various national liberation movements in Africa to advance its broader strategy of establishing Beijing as a leader of the global communist movement.†[14] Beijing's foreign policy in Africa during the Cold War was often in direct competition with both the United States and the Soviet Union.[15] By the 1980s, however, changes in China's internal politics diverted attention away from promoting revolution in Africa.[16] Nevertheless, China's engagement with Africa did not halt completely: Beijing continued to provide financial assistance to African political parties, organizations, and states, and by the mid-1980s had established formal diplomatic ties with a majority of African countries.[17] By the turn of the millennium, Beijing began to reemphasize commercial, diplomatic, and political ties with African countries, in many cases leaning on those historical ties as Beijing looked to fill its need for raw materials and desire to court African political support internationally.[18]

Implementing Beijing's Africa Strategy

China works to achieve its goals in Africa by leveraging its most significant bilateral relationships and exerting influence through key regional and international institutions.

*Launched in 2013, China's BRI is a well-resourced, whole-of-government concept for regional and global connectivity. Since its inception, BRI has climbed to the top of Beijing's foreign policy agenda and has been extolled by General Secretary Xi as the "project of the century." U.S.-China Economic and Security Review Commission, *2018 Annual Report to Congress*, November 2018, 261.

†One of the People's Republic of China's goals during this time was leveraging African support to gain China's permanent seat at the UN Security Council. The Republic of China was one of five permanent members of the Security Council until 1971. With 26 African countries voting in favor of UN Resolution 2758, Beijing gained the permanent seat at the UN Security Council when it replaced Taipei at the UN. United Nations General Assembly, "Resolution 2758," October 25, 1971.

Reliance upon Key Strategic Partners

China has deepened ties with all countries across the continent—with the exception of Eswatini (Swaziland), which recognizes Taipei over Beijing—but clearly prioritizes its relationships with a set of major strategic partners located in each key African region.[19] Some of Beijing's top strategic partners on the continent include Ethiopia, Kenya, and Tanzania in East Africa; Angola, Mozambique, Namibia, South Africa, and Zimbabwe in Southern Africa; Egypt and Sudan in North Africa; and Guinea and Nigeria in West Africa (see Figure 1).[20] Of all its strategic partners, Beijing relies most heavily on the African partners with which it developed close ideological ties during the Cold War. This ideological affinity, which draws on a shared socialist and anticolonial heritage, plays a key role in a number of China's strongest and most enduring partnerships.*[21] Beijing's strategic partners rank among the most populous, economically dynamic, and culturally influential countries in each region.[22]

China's Strategic Partnerships in Africa†

Beijing has a multitiered system to rank its diplomatic partnerships with countries around the world, including in Africa. In general, the higher the partnership level, the more Beijing will engage with the country, such as by increasing economic ties and diplomatic exchanges.[23] The three highest levels of partnership are "comprehensive strategic cooperative partnership," "comprehensive strategic partnership," and "strategic partnership." China counts the following African countries in these three levels of partnership:

Comprehensive strategic cooperative partnership: Ethiopia, Guinea, Kenya, Mozambique, Namibia, Tanzania, and Zimbabwe.

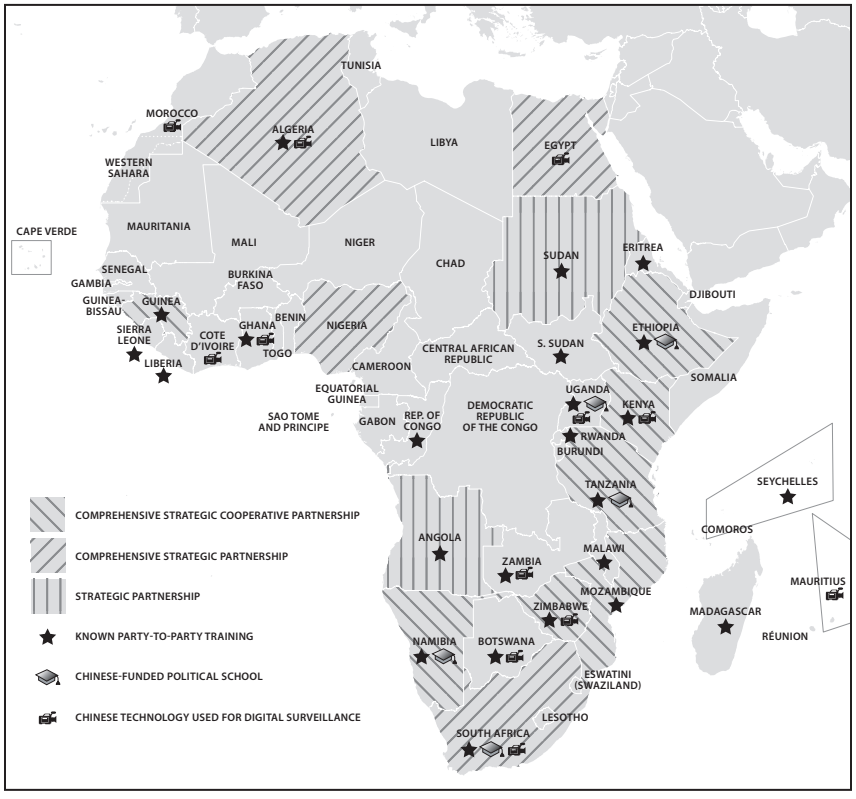
Comprehensive strategic partnership: Algeria, Egypt, Nigeria, and South Africa.

Strategic partnership: Angola and Sudan.[24]

*Beijing leverages its shared ideological affinity with countries such as Angola, Ethiopia, Mozambique, Namibia, South Africa, Tanzania, and Zimbabwe. Will Green, Leyton Nelson, and Brittney Washington, "China's Engagement with Africa: Foundations for an Alternative Governance Regime," *U.S.-China Economic and Security Review Commission*, May 1, 2020; Paul Nantulya, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Influence Strategic Aims in Africa*, February 20, 2020, 4.

†There are no clear definitions of China's partnership arrangements. In some cases, agreements on partnership levels are negotiated bilaterally. In others, they evolve over time. In general, the higher the partnership level, the more Beijing will engage with the country through high-level engagements, enhanced contacts, and coordination of international affairs. For more on China's partnership diplomacy, see *South China Morning Post*, "Quick Guide to China's Diplomatic Levels," January 20, 2016.

Figure 1: China's Strategic Partnerships in Africa



Source: Various.[25]

Exerting Influence through Regional and International Institutions

The Forum on China-Africa Cooperation (FOCAC), established in 2000, represents a significant evolution from a relatively limited approach to the continent employed in the 1990s to a much more active one. FOCAC also significantly enhances Beijing's ability to garner widespread African support for its geopolitical and economic agenda.[26] FOCAC was the first major regional forum established by China* and holds meetings every three years in either China or Africa.† African participation in FOCAC has been very high, with the top leaders of nearly all African countries attending the most recent summit in 2018.‡[27] The various action plans published after

*Other China-led fora include the Boao Forum for Asia (2001), the China-Arab States Cooperation Forum (2004), the China-CELAC Forum (2015), and the Conference on Dialogue of Asian Civilizations (2019). China's State Council Information Office, *China and the World in the New Era*, September 2019.

†The meetings could be held at either the ministerial or summit level. In total, there have been seven ministerial conferences and three summits held. *Xinhua*, "Full Text of Yang Jiechi's Written Interview with Xinhua News Agency," December 21, 2019.

‡The African countries that did not send their top leaders to attend the 2018 summit are Algeria, Burundi, the Democratic Republic of the Congo, Eritrea, and Tanzania. These countries did send lower-ranking officials on behalf of their governments. Eswatini did not send a delegation at all as it does not have diplomatic relations with China. Yun Sun, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May

each FOCAC meeting provide a framework for China's engagement with Africa for the next three years. The meetings have often included Chinese pledges of additional financial support for the continent.[28] According to Yang Jiechi, Politburo member and director of the CCP's Central Foreign Affairs Commission Office, FOCAC allows China and African countries to use "[their] own voice" on international and regional issues, implying that Beijing's policies are accepted by all African countries.[29]

At the 2018 summit, China and the 53 African countries in attendance agreed to defend each other's "core interests"—a term used to describe issues to which Beijing is particularly sensitive, such as human rights and Taiwan—as well as "the overall interests of developing countries."[30] The two sides also pledged to build a "new model of international relations" based on the "community of common human destiny." Paul Nantulya, research associate at the National Defense University, argued in his testimony before the Commission that enlisting African countries to endorse this pledge has been China's "driving objective" for FOCAC.[31]

Beyond FOCAC, Beijing uses other regional organizations and initiatives, such as the African Union (AU), the Economic Community of West African States, and the Organization of Islamic Cooperation (OIC), to spread its influence in Africa.[32] China attaches considerable importance to its relationship with the AU, which includes all 54 internationally recognized African countries and is a full member of FOCAC.*[33] Highlighting the close ties Beijing has cultivated with the institution, AU Commission Chairman Jean Ping pledged in 2009 that the AU would "continue to stand by China on major issues concerning China's sovereignty and territorial integrity," a sentiment that has continued to the present day.[34] The AU was also the first multilateral body to formally endorse Beijing's "community of common human destiny" framework.[35]

In 2015, China established a permanent mission to the AU in Addis Ababa, Ethiopia, where the AU is headquartered, and subsequently invited the AU to open an office in Beijing.[36] China designed, built, and paid for the AU's $200 million headquarters, with Huawei installing the servers, raising concerns over potential Chinese espionage.† Construction consisted of a mix of Chinese and Ethiopian laborers.[37] David H. Shinn, former U.S. ambassador to Ethiopia and Burkina Faso and currently adjunct professor at the George Washington University, noted in his testimony before the Commission that the headquarters serves as "a daily reminder [to African countries] of China's benevolence."[38] (See the section on China's "Digital Silk Road in Africa" for further discussion on Chi-

8, 2020, 7; Abdur Rahman Alfa Shaban, "Handful African Residents Not Attending 2018 FOCAC Summit in China," *Africa News*, March 9, 2018.

*The AU has 55 member states in total, including the Sahrawi Arab Democratic Republic (Western Sahara), territory that Morocco partially controls. China does not recognize Western Sahara. David H. Shinn, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May 8, 2020, 6–8.

†In 2018, a French newspaper reported that the headquarters had been hacked and had its data transferred to a server in China, causing some AU officials to raise concerns over potential Chinese espionage. The AU and China later denied the allegations. Bukola Adebayo and Tim Schwarz, "China Denies Bugging African Union Headquarters It Built in Ethiopia," *CNN*, February 2, 2018; John Aglionby, Emily Feng, and Yuan Yang, "African Union Accuses China of Hacking Headquarters," *Financial Times*, January 29, 2018.

na installing telecommunications equipment in African government buildings.)

Smaller regional organizations also play into Beijing's calculus. For example, in 2018, the Economic Community of West African States accepted China's offer to provide the organization with a $31.6 million grant to build its new headquarters in Abuja, Nigeria.[39] Building the headquarters in Abuja will strengthen ties with both the organization and with Nigeria, Africa's most populous country. Under the agreement, the Chinese government will choose the contractor to build the new headquarters, with the building's digital infrastructure likely to be installed by Chinese telecommunications companies.[40] Additionally, Beijing has a longstanding relationship with the OIC, which is not an Africa-focused regional organization but has 27 African members.[41] Chinese and OIC senior officials conduct regular exchanges, and the OIC has supported the Chinese government's mass detentions of Uyghurs and other Muslim ethnic groups in China's western Xinjiang region.[42] OIC officials have visited Xinjiang on delegation trips to China, such as in December 2019 when representatives from Cameroon, Chad, Egypt, Niger, Nigeria, and Sudan visited the region.[43]

China's Political Influence in Africa: Exporting an Authoritarian Model

Beijing views Africa as a uniquely promising testing ground for the export of its political and economic model and believes that if more African countries emulate China's system of governance, it will be easier for Beijing to advance its strategic objectives across the continent and globally.* As Yun Sun, codirector of the East Asia program at the Stimson Center, noted in her testimony before the Commission, "From Beijing's perspective, the popularity of the China Model is the best way to validate the credibility, or even the desirability, of the Chinese system."[44] Additionally, Beijing is able to leverage the considerable influence it gains through its political engagement to garner African support for China's broader diplomatic priorities, especially at the UN.

Deepening Influence through Political and Ideological Training

Although China's political engagement in Africa has evolved over the decades, under General Secretary Xi there has been an emphasis on spreading China's model in Africa. The Chinese government

*R. Evan Ellis, research professor of Latin American studies at the U.S. Army War College, argued in his testimony before the Commission that China's Africa strategy provides a template for Beijing's strategy in other regions, such as Latin America and the Caribbean. For example, the model China employs in both Africa and Latin America and the Caribbean includes acquiring control over commodities extraction and processing operations, training media professionals and launching related influence operations, financing the construction of infrastructure, and requiring that Chinese firms do the work on Chinese-financed projects. China's efforts have not experienced as much success in Latin America and the Caribbean due to its historic ties to the United States and some countries in the region's relatively strong institutions. These factors have forced Beijing to modify its approach to Latin America and the Caribbean to adapt to local conditions, such as by emphasizing public-private partnerships and working with well-respected local partners and consultants. R. Evan Ellis, oral testimony for U.S.-China Economic and Security Review Commission, *Hearing on the Chinese View of Strategic Competition with the United States*, June 24, 2020, 138; R. Evan Ellis, response to questions for the record for U.S.-China Economic and Security Review Commission, *Hearing on the Chinese View of Strategic Competition with the United States*, June 24, 2020, 211–213.

describes this push as "the exchange of governance experience," implying mutual exchange between China and its African partners based on equality.[45] In reality, however, Beijing's intention is for African states to adopt key aspects of China's governance model, with these exchanges being "mostly a one-way street," according to Ms. Sun.[46] To promote its model, Beijing pledged at the 2018 FOCAC summit to provide 50,000 capacity-building training opportunities for African partners, including for government officials, opinion leaders, scholars, journalists, and technical experts.[47] As Ms. Sun notes, "These are essentially the African political, economic, and social elites as well as opinion leaders that will shape the future of the continent and its relations with China."[48]

Despite the fact that Beijing is making a concerted push to enlist African elites to emulate the China model, according to a 2020 survey conducted across 18 African countries, the U.S. model was respondents' most-preferred model of governance, although China's model ranked a close second.[49] Additionally, according to a 2019 survey conducted across 34 African countries, three-quarters of Africans said they prefer regular, open, and honest elections to choose their national leaders—a preference that is directly in contrast to what Beijing has sought to export to Africa: state-led economic growth under one-party, authoritarian rule.[50]

The CCP's party training program is the primary mechanism Beijing employs to spread its ideology of authoritarian governance on the African continent.* The overarching goal of the program is to train African political parties to emulate China's one-party system of governance and prevent large-scale democratization and political liberalization on the continent. According to an authoritative commentary written in 2012 by the CCP Central Liaison Department's Africa Bureau,† the expansion of multiparty democracy in Africa in the 1990s had a "negative impact" on Sino-African political ties because Africa's new, democratic parties "lacked understanding" of the CCP.[51] The CCP claims the appeal of this training is mutual, asserting that in recent years the desire among African political parties (especially ruling parties) to conduct party-to-party training and engagements has become increasingly strong.[52]

Operationally, Beijing is flexible in tailoring its party training to different countries. For example, the CCP would train the Ethiopian People's Revolutionary Democratic Front (EPRDF), Ethiopia's former ruling party with Marxist-Leninist roots, in traditional Leninist ideology, propaganda, and party management.‡[53] When the

*The CCP Central Committee's International Department, an organization that is part of the CCP's semiofficial diplomacy apparatus tasked with cultivating foreign officials and political parties, is the main organizing entity for Party training. The International Department is also known as the International Liaison Department. It is one of several organizations under the CCP's Central Committee tasked with managing perceptions of Party outsiders, along with the United Front Work Department and the Propaganda Department. Alexander Bowe, "China's Overseas United Front Work: Background and Implications for the United States," *U.S.-China Economic and Security Review Commission*, August 24, 2018; Joshua Eisenman and David H. Shinn, "China's Strategy in Africa," in Joshua Eisenman and Eric Heginbotham, eds., *China Steps Out: Beijing's Major Power Engagement with the Developing World*, Routledge, 2018, 148.

†The CCP Central Liaison Department's Africa Bureau is also known as the Fourth Bureau. *China Party-Government-Military Directory* (中国党政军名录), Mingpao Publishing House, Ltd., 2009. Translation.

‡The EPRDF was the dominant party in Ethiopia from 1991 to late 2019, when it was disbanded. For most of its history, the Tigray People's Liberation Front (TPLF) led the broader EPRDF. The TPLF emphasized the EPRDF's role as a vanguard party and the dictatorship of the proletariat and was at times particularly close with the CCP. The EPRDF had been dubbed the CCP's

CCP trains African parties that do not have a socialist or left-wing heritage, such as South Sudan's current ruling party, the Sudan People's Liberation Movement, the CCP will stress other aspects of authoritarian governance, such as the importance of the ruling regime retaining absolute control of the armed forces.[54] The CCP also engages with African opposition parties, but according to analysis by Ambassador Shinn and Joshua Eisenman, associate professor at the University of Notre Dame, these engagements are "subordinated" if they jeopardize the CCP's relations with the ruling party.[55]

Many African political parties participating in these trainings are keen to integrate the CCP's teachings on governance into their own domestic political system. This is especially true among governing parties that already share elements of China's authoritarian political culture or ideological worldview. For example, during a training in China in 2011, Samson Gwede Mantashe, then secretary general and current chairperson of South Africa's ruling African National Congress (ANC), stated that "the Chinese Communist Party's ruling experience and party building theory merits the ANC's study and to be used as a reference."[56] In June 2020, the secretary general of Kenya's dominant Jubilee Party said, "Jubilee Party can only aspire, and where possible learn some lessons [from the CCP]."*[57] After a September training session with the CCP that included lessons on General Secretary Xi's third volume of *The Governance of China*, the general secretary of the Republic of the Congo's ruling Party of Labor stated, "Congo will stand firmly on China's side under any circumstances."[58]

According to Ms. Sun, these trainings "remain attractive to African parties that are inspired by the CCP's longevity and level of control" and will "ensure that the CCP continues to cultivate interest in its model from African parties well into the future."[59] Other parties that have participated in CCP trainings and engagements include the National Congress Party of Sudan, the South African Communist Party,† and the South West Africa People's Organization

"most eager student" for ideological training. The CCP focused its trainings for the EPRDF on critical principles underpinning a Leninist party-state, such as organizational work, ideological work, propaganda, cadre education, and relations between the central and local party committees. The CCP has also held trainings for EPRDF cadres on how China "guides" public opinion through media control. There had been some pushback from the Ethiopian opposition against the EPRDF for its close relationship with the CCP, with Ethiopian civil society and human rights activists asserting that the CCP was hardening the EPRDF's authoritarian tendencies. This pushback has even led to violence. In 2007, armed insurgents, considering Chinese firms as proxies to the EPRDF, attacked the Sinopec-operated Abole oil field, leaving at least 74 people dead. Yun Sun, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May 8, 2020, 8; Tom Gardner, "Will Abiy Ahmed's Bet on Ethiopia's Political Future Pay Off?" *Foreign Policy*, January 21, 2020; Tefera Negash Gebregziabher, "Ideology and Power in TPLF's Ethiopia: A Historic Reversal in the Making?" *Journal of African Affairs* 118: 472 (July 2019), 463–484; Yun Sun, "Political Party Training: China's Ideological Push in Africa?" *Brookings Institution*, July 5, 2016; *BBC*, "Scores Die in Ethiopia Oil Attack," April 24, 2007.

*The Jubilee Party is a right-wing party in Kenya. As part of an agreement, the CCP has trained Jubilee Party officials on "democracy and party management." Moses Nyamori, "Jubilee Party Learns from Chinese," *Standard*, 2018.

†The ANC and the South African Communist Party, together with the Congress of South African Trade Unions, form a political alliance in South Africa. The CCP was an early supporter of the ANC in its struggle against apartheid, and Mao Zedong purportedly gave his blessing to the movement in 1960. These ties were disrupted during the Sino-Soviet split (1956–1966) in which the ANC backed the Soviet Union in its contest with China, but they were never truly lost. After the Cold War, former South African president and ANC leader Nelson Mandela established South Africa as a successful democracy, but the CCP's relationship with the ANC remains strong. Joshua Eisenman, "Comrades-in-Arms: The Chinese Communist Party's Relations with African Political Organizations in the Mao Era, 1949–76," *Cold War History* 18:4 (2018): 429–445; Martin

of Namibia. Beijing also funds political schools in Africa to educate Beijing's African partners on China's governance model and development experience.*[60]

The CCP's party training program also acts as a unique venue for Beijing to promote its foreign policy goals. While attending training in China, African party participants receive lectures and training on a wide range of topics, such as the Chinese government's controversial international positions like Beijing's vast territorial claims in the Indo-Pacific region.[61] Underscoring the role of these engagements in geopolitics, in October 2019 the CCP International Department hosted a South African delegation led by Deputy President of the ANC David Mabuza (who concurrently serves as deputy president of the country) focused on supporting China and South Africa's "core interests."[62] In December 2019, the International Department hosted a delegation from Nigeria's ruling All Progressives Congress, which focused in part on promoting China's BRI.[63] As Chinese economic initiatives such as BRI expand in Africa, cooperation of ruling parties is essential for securing approval for major projects.[64]

Enlisting African Support for Beijing's Global Diplomatic Goals

Beijing has used the influence it gains from its political engagement with African countries to secure support for its global diplomatic goals, including for its repressive domestic policies and disputed sovereignty claims, many of which have faced strong international criticism. Governments of multiple African countries have offered official support for the Chinese government's mass detentions of Uyghurs and other Muslim ethnic groups in China's western Xinjiang region, and many African governments have also offered approval for Beijing's suppression of the 2019 Hong Kong prodemocracy protests and its 2020 Hong Kong national security law.†[65] In a joint

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Plaut, "Why Is the ANC Following the Example of the Chinese Communist Party?" *New Statesman America*, January 6, 2015.

*Beijing funds political schools in at least five African countries. For example, in July 2018 Chinese construction firms broke ground on the Julius Nyerere Leadership School in Tanzania. Named after Tanzania's founding president and revolutionary leader, the school is being built with Chinese financial support and will act as a political training academy for the ruling parties of Angola, Mozambique, Namibia, South Africa, Tanzania, and Zimbabwe. These parties make up the Former Liberation Movements of Southern Africa, an influential regional grouping of former liberation movements that have been dominant parties in their respective countries since they achieved independence. Other Chinese-funded political schools include the National Political School and the Oliver Tambo Leadership School in Uganda, the Tatek Political School in Ethiopia, Windhoek Political School in Namibia, and the Venterskroon Political School in South Africa. Will Green, Leyton Nelson, and Brittney Washington, "China's Engagement with Africa: Foundations for an Alternative Governance Regime," *U.S.-China Economic and Security Review Commission*, May 1, 2020; Paul Nantulya, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 4; Joshua Eisenman and Eric Heginbotham, "China's Relations with Africa, Latin America, and the Middle East," in David Shambaugh, ed., *China & the World*, Oxford University Press, 2020, 303; *Herald*, "Groundbreaking Ceremony of Julius Nyerere Leadership School Held," July 17, 2018.

†In July 2019, the following African states signed a letter to the UN Human Rights Council publicly supporting China's Xinjiang policies: Algeria, Angola, Burkina Faso, Burundi, Cameroon, Comoros, the Republic of the Congo, the Democratic Republic of the Congo, Egypt, Eritrea, Gabon, Nigeria, Somalia, South Sudan, Sudan, Togo, and Zimbabwe. Subsequent signers included Djibouti, Equatorial Guinea, Mozambique, Uganda, and Zambia. In October 2020, 21 African states signed on to a statement offered by Cuba supporting China's Xinjiang policies at the UN General Assembly. Countries that did not support Beijing's policies in the 2019 public letter but supported them at the UN General Assembly in 2020 include Central African Republic, Guinea, Guinea-Bissau, Madagascar, Morocco, and Tanzania. Countries that supported China's policies in

statement issued at the "Extraordinary China-Africa Summit on Solidarity against COVID-19" held in June, 13 African leaders* as well as the AU Commission chairperson used the forum to declare their support for some of Beijing's controversial positions, such as its Taiwan policy.[66] The statement also lauded the leadership of World Health Organization Director-General Tedros Adhanom Ghebreyesus in battling the novel coronavirus (COVID-19) pandemic and issued calls for lifting international sanctions against Sudan and Zimbabwe.[67] In another example, a majority of African countries have issued statements in support of Beijing's maritime claims in the South China Sea, key elements of which have been found to be illegal by a tribunal under the Permanent Court of Arbitration in The Hague.†[68] (See Addendum I for more on African countries supporting Beijing's controversial international positions.)

Beijing has also used its influence to win African votes at the UN in support of key Chinese foreign policy priorities. Currently, the 54 internationally recognized African countries represent roughly one-quarter of UN member states and votes in the General Assembly. Beijing views support from these countries as vital to advancing its geopolitical objectives.[69] As Ambassador Shinn noted in his testimony, compared to other international fora "the United Nations General Assembly… and the UN Security Council… offer more effective forums [for China] to solicit African support."[70] A study conducted by AidData, a research lab at William & Mary that collects aid and development assistance data, notes there is strong correlation between Chinese aid disbursements and African countries voting in support of China at the UN.[71] In 2017 and 2018, China introduced resolutions for the first time to revise human rights and governance norms by inserting new language into UN texts.‡ Both resolutions,

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the 2019 letter but did not support them at the UN General Assembly in 2020 include Algeria, Burkina Faso, the Democratic Republic of the Congo, Nigeria, Somalia, Djibouti, and Zambia. Catherine Putz, "2020 Edition: Which Countries Are For or Against China's Xinjiang Policies?," *Diplomat*, October 9, 2020; Catherine Putz, "Which Countries Are For or Against China's Xinjiang Policies?" *Diplomat*, July 15, 2019; Joshua Eisenman and David H. Shinn, "Evolving Principles and Guiding Concepts: How China Gains African Support for Its Core National Interests," *Orbis* 64:2 (2020): 271–288; Aggrey Mutambo, "China Seeks Support from Africa on Uyghur Policy," *Daily Nation*, October 13, 2019.

*Leaders from the following countries attended the virtual summit: China, South Africa, Senegal, Egypt, the Democratic Republic of the Congo, Algeria, Gabon, Kenya, Mali, Niger, Nigeria, Rwanda, Zimbabwe, and Ethiopia. The AU Commission was also represented. *Xinhua*, "Full Text: Joint Statement of the Extraordinary China-Africa Summit on Solidarity against COVID-19," June 18, 2020.

†Thirty-nine African countries have openly supported China's position in the South China Sea disputes. For a list of these countries, see Wang Wen and Chen Xiaochen, "Who Supports China in the South China Sea and Why," *Diplomat*, July 27, 2016.

‡In 2017, China offered its first independent resolution at the UN Human Rights Council on "the contribution of development to the enjoyment of human rights." This resolution suggested that respect for human rights depends on "people-centered development" as opposed to being inherent to human dignity regardless of a country's development level. It also included language on the importance of the "community of common human destiny" and "win-win outcomes." In 2018, China offered a second independent resolution at the UN Human Rights Council on "promoting mutually beneficial cooperation in the field of human rights." This resolution reflected Beijing's insistence that constructive dialogue and capacity building should be the primary tools for promoting human rights at the UN. In practice, this would mean traditional resolutions that target specific countries for human rights abuses should be discarded in favor of softer mechanisms like the Universal Periodic Review, a state-led peer review process. It also reemphasized the "community of common human destiny." Paul Nantulya, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 2; Ted Piccone, "China's Long Game on Human Rights at the United Nations," *Brookings Institution*, September 2018, 9–11; UN Human Rights Council, "Resolution HRC/37/L.36, Promoting Mutually Beneficial Cooperation in the Field of Human Rights, HRC/37/L.36," March 19, 2018; UN Human Rights Council, "Resolution HRC/35/L.33/

which the United States opposed, passed with near-unanimous African support.[72] China's cultivation of African support at the UN dates back to at least 2005, when Beijing enlisted African support to block Tokyo's bid for a seat on an expanded UN Security Council.[73]

African support has proven particularly important in helping China attain leadership positions in key UN bodies. Chinese officials lead four out of the 15 UN specialized agencies, holding more positions than any other member country.* In June 2019, Qu Dongyu, China's vice minister of agriculture and rural affairs, was elected to lead the UN Food and Agriculture Organization (which is responsible for shaping global agriculture and food security policies) despite strong U.S. opposition to his candidacy.[74] African support for Mr. Qu was critical. Before the vote, Chinese diplomats reportedly met with Ugandan president Yoweri Museveni and pledged to invest at least $25 million in new economic projects in the country in exchange for Uganda backing Mr. Qu.[75] In March 2019, a Cameroonian candidate for the position who was backed by the AU dropped out of the race after State Councilor Yang Jiechi announced that Beijing would cancel roughly $78 million in debt Cameroon owed to China.[76] The timing of the announcement suggested a linkage between China's debt forgiveness and Cameroon's candidate dropping out of the race.[77] According to the South China Morning Post, Beijing was able to use its financial power to leverage support from African states to secure enough votes for Mr. Qu.[78] (See Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom," for further discussion of China's pursuit of UN leadership positions.)

Beijing Relies on African Support to Isolate Taipei

The Chinese government has used its political influence in Africa to further its global campaign to isolate Taiwan on the international stage. As Ms. Sun asserted, one of the Chinese government's key aspirations on the continent is to end Taiwan's diplomatic presence in Africa.† [79] Since 2016, Beijing has successfully convinced two of Taipei's former diplomatic allies in Africa, São Tomé and Príncipe and Burkina Faso, to recognize Beijing.[80] In 1971, the year Beijing gained control of China's seat at the UN from Taipei, 20 African countries still had diplomatic relations with Taipei.[81] According to Shin Kawashima, professor at the University of Tokyo, Chinese promises of political and economic support create "domestic pressure for [African states] to establish diplomatic relations with China so that they too can benefit from the economic largesse."[82]

Rev.1, The Contribution of Development to the Enjoyment of All Human Rights, A/HRC/35/L.33/Rev.1," June 20, 2017.

*Chinese nationals lead the Food and Agriculture Organization, International Civil Aviation Organization, International Telecommunication Union, and UN Industrial Development Organization. U.S.-China Economic and Security Review Commission, *PRC Representation in International Organizations*, April 2020, 3–4.

†In July 2020, Taiwan made initial moves to establish ties with Somaliland, an African state that is not recognized by most in the international community. Taiwan set up a liaison office in Somaliland in August, with Somaliland following suit by setting up an office in Taiwan in September. *France24*, "Somaliland Launches Representative Office in Taiwan," September 9, 2020.

Beijing Relies on African Support to Isolate Taipei—*Continued*

China also seeks to limit the unofficial relations countries maintain with Taipei. In January 2017 during a visit by Foreign Minister Wang Yi, Nigeria's foreign minister announced that the Nigerian government had told Taipei to move its representative office from Abuja, the capital, to Lagos.[83] China has even leveraged its influence in Africa to undermine Taiwan's sovereignty and independent legal system. In 2016, at the request of Chinese diplomats, the Kenyan government decided to deport Taiwan citizens suspected of fraud to China instead of Taiwan, over the firm protests of Taipei.[84] (See Chapter 4, "Taiwan," for further discussion of this issue.)

Beijing Faces New Diplomatic Challenges

The ongoing COVID-19 pandemic has presented new challenges for Beijing's diplomatic efforts in Africa and may alter China's relationships and image on the continent. In April 2020, African leaders spoke out and complained to the Chinese government in unusually frank terms about the reported mistreatment of Africans living in China, including actions taken by local government officials and businesses that forced the evictions of some Africans living in Chinese hotels and prevented Africans from entering restaurants and shops.[85] These actions were ostensibly taken to stop the spread of COVID-19.[86] The AU as well as many African countries that have often been supporters of Beijing—such as Ghana, Kenya, Nigeria, South Africa, and Uganda—had expressed alarm at this development. The governments of Ghana and Nigeria, for instance, summoned the Chinese ambassadors in their countries to voice their displeasure with this apparent racially based discrimination.[87] Additionally, a group of South Africans living in China petitioned the South African Human Rights Commission to repatriate them to South Africa due to alleged abuses they suffered in China.*[88]

The Chinese government encountered a further diplomatic setback in May when African countries opted not to support Beijing at the World Health Organization. Despite Beijing's strong opposition to a draft resolution proposed by Australia calling for an independent inquiry into COVID-19, the UN's African Group—consisting of all 54 internationally recognized African states—signed onto Canberra's initiative.[89] In August, Kenya moved to ban the importation of some personal protective equipment from China used to combat COVID-19, citing quality issues. According to Ambassador Shinn, although the ban will not significantly impact Sino-Kenyan relations, the concern over the quality of Chinese-made personal protective equipment is a "common theme heard throughout Africa."[90] Seeking to shore up China's reputation after global criticism of its handling of the pandemic and concerns over the quality of its medical equip-

*The South Africans who petitioned the South African Human Rights Commission complained about instances of racism, arrests by the Chinese police, and halts on payments for their jobs. Peter Fabricius, "South Africans Stuck in China Ask Human Rights Commission to Help Them Get Home," *Daily Maverick*, May 27, 2020.

ment, General Secretary Xi claimed in August that African countries will receive priority access to a Chinese-produced COVID-19 vaccine.*[91]

Beijing Intervenes in Africa's Domestic Politics to Further Its Interests

To promote its authoritarian political model in Africa and protect its interests on the continent, China has at times aggressively interfered in African domestic politics and sovereignty. In these cases, Beijing's actions have been in stark contrast to its public proclamation of noninterference in other countries' internal affairs.[92] China's political interference in Africa has almost always been carried out to counter African pushback to Chinese influence and support elites sympathetic to China's governance model. Its tactics have included meddling in African countries' elections and threatening to cut off relations with governments that oppose China's policies.

One key approach Beijing has adopted to shore up parties sympathetic to China is interference in African elections. In the leadup to the 2018 presidential elections in Sierra Leone, opposition news sources reported China provided "material and financial assistance" to the incumbent pro-China All People's Congress (APC) party.[93] Prior to the election, Chinese nationals campaigned on behalf of the APC in full APC party uniform, and during the election APC campaigners openly admitted to "pledging allegiance" to Beijing.[94] Under APC President Ernest Koroma, whose tenure as leader of Sierra Leone lasted from 2007 to 2018, Chinese investment in the country expanded dramatically to nearly $6 billion, while a Chinese construction firm built the APC headquarters.†[95] Despite China's apparent interference in the presidential election, the APC narrowly lost to the main opposition party.[96]

Beijing also interfered in the 2006 Zambian presidential election to counter pushback against Chinese influence. In the run-up to the election, the Chinese ambassador to Zambia openly threatened to cut off ties with the country if it elected Michael Sata, who ran on a platform that was highly critical of the Chinese government.[97] Mr. Sata lost the 2006 election but went on to win the 2011 election.

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*The Chinese government has also said it will give priority access for a COVID-19 vaccine to countries and regions of strategic interest, such as the Philippines, Cambodia, Myanmar, Laos, Thailand, Vietnam, Pakistan, Malaysia, and countries in Latin America and the Caribbean, in a likely attempt to improve its global standing. Some analysts have speculated that Beijing will seek to use its COVID-19 vaccine to enlist support for its broader foreign policy goals, such as China's claims in the South China Sea. Takashi Nakano, "Malaysia Promised Priority Access to China's COVID Vaccine," *Nikkei Asian Review*, October 14, 2020; China Ministry of Foreign Affairs, "Foreign Ministry Spokesperson Wang Wenbin's Regular Press Conference on July 28, 2020," July 28, 2020; *CGTN*, "China to Prioritize Mekong Countries for COVID-19 Vaccine," August 24, 2020; Karol Suarez, "China Offers $1 Billion Loan to Latin America and the Caribbean for Access to Its COVID-19 Vaccine," *CNN*, July 23, 2020; Diego Oré, "Mexico Says China Plans $1 Billion Loan to Ease Latam Access to Virus Vaccine," *Reuters*, July 22, 2020; China's Foreign Ministry, "Foreign Ministry Spokesperson Hosts Regular Press Conference on July 24, 2020" (2020年7月24日外交部发言人王文斌主持例行记者会), July 24, 2020. Translation; Saeed Shah, "China to Supply Coronavirus Vaccine to Pakistan," *Wall Street Journal*, August 13, 2020; Chao Deng, "China Seeks to Use Access to Covid-19 Vaccines for Diplomacy," *Wall Street Journal*, August 17, 2020.

†Under President Ernest Koroma, a Chinese company was supposed to build the new Mamamah International Airport for $400 million, despite the World Bank and International Monetary Fund criticizing the idea due to the heavy debt burden it would create. Sierra Leone canceled the project in October 2018 after the main opposition party won the 2018 presidential election. *BBC News*, "Mamamah Airport: Sierra Leone Cancels China-Funded Project," October 10, 2018; David Rogers, "Will China Still Fund Sierra Leone's Fancy New International Airport?" *Global Construction Review*, January 25, 2016.

Once in office, Mr. Sata adopted a more nuanced approach to his relations with Beijing. At times he was an avid supporter of Chinese investment in the country and used the bilateral relationship to strengthen his position domestically.[98]

In perhaps the most striking example of the Chinese government directly interfering in the internal affairs of another country, Beijing appears to have approved of a military-led coup d'état in Zimbabwe in 2017. By doing so, China allowed the repressive ruling party, the Zimbabwe African National Union—Patriotic Front, to maintain its control over the country, squashing democratic movements in the process.* From 2016 to 2017, mass demonstrations occurred against longtime ruler Robert Mugabe, with many prodemocracy groups backing or taking part in the protests.[99] One week before the coup that ultimately overthrew Mr. Mugabe and installed a new regime under President Emmerson Mnangagwa, General Constantino Chiwenga, President Mnangagwa's close ally, visited Beijing in what the Chinese Foreign Ministry dubbed a "normal military exchange."[100] Given the timing of General Chiwenga's visit and the fact that Beijing has deep ties to President Mnangagwa and General Chiwenga's political faction, the sequence of events suggests Beijing gave its blessing of the coup, ensuring pro-China factions retained control of the country.[101] Beijing has officially denied any involvement in the coup.[102]

Shaping Narratives and Perceptions

Beijing is seeking to shape narratives and influence the perceptions of China in African countries by gaining influence or control over African media. China is not only actively promoting its model of state-directed journalism but also seeking ownership stakes in major media outlets. The media environment in many African countries is underdeveloped, increasing the possibility of the Chinese government monopolizing news to export a Chinese worldview.[103] As part of its efforts to shape Africa's media landscape, China trains African journalists and promotes coordination between Chinese and African national broadcasting agencies and private broadcasters.[104]

Beijing's Concerted Effort to Penetrate African Media

Chinese state-owned media has established a strong presence in every key media market in Africa. Nairobi, Kenya, hosts Xinhua's largest overseas bureau, with 150 journalists and 400 staff, and is estimated to distribute 1,800 stories monthly across the conti-

*Historically, Zimbabwe has been one of China's closest partners in Africa. China backed then guerilla leader Robert Mugabe in his struggle against both Soviet- and Western-backed forces in the Rhodesian Bush War from 1964 to 1979, which culminated in the establishment of an independent Zimbabwe under the leadership of Mr. Mugabe and his party, the left-wing Zimbabwe African National Union—Patriotic Front. The Chinese government then diplomatically shielded the Zimbabwe African National Union—Patriotic Front regime—one of Africa's most repressive—and provided it with vital economic support. Fearing an apparent collapse of the regime as a result of the 2016–2017 protests, then Vice President and current President Mnangagwa led a coup that ultimately overthrew Mr. Mugabe in 2017. Jevans Nyabiage, "China's Foreign Minister Wang Yi Backs Call to Lift Sanctions on Zimbabwe," *South China Morning Post*, January 13, 2020; *Standard*, "Masses March against Mugabe," November 19, 2017; *BBC*, "Zimbabwe Crowds Rejoice as They Demand End to Mugabe Rule," November 18, 2017; *Zambian Observer*, "Former Zimbabwe VP Mnangagwa Begins Exile in China after Mugabe Accused Him of Witchcraft," November 8, 2017; Joseph Cotterill, "China Denies Reports It Was Forewarned of Zimbabwe Army Takeover," *Financial Times*, November 20, 2017; China Ministry of Foreign Affairs, *Foreign Ministry Spokesperson Geng Shuang's Regular Press Conference on November 15, 2017*, November 15, 2017; Anthony Lake, *The "Tar Baby" Option: American Policy toward Southern Rhodesia*, Columbia University Press, 1976, 32.

nent.[105] These stories are also available for free or with an inexpensive subscription service through other Chinese platforms such as *China Daily* and China Radio International, as well as StarTimes, a nominally private Chinese firm with deep ties to the CCP.*[106] Xinhua also has a news exchange agreement with Kenya's Nation Media Group, the largest media organization in East and Central Africa with 28 million social media followers, 11.3 million monthly page views, and 90,000 newspapers† in circulation daily.[107] China Global Television Network and *China Daily's* Africa operations are also headquartered in Nairobi.[108] The Chinese government employs its state-owned media in Africa in a way not dissimilar to the way Russia uses RT, its state-backed television network, in Europe and in the United States: to find fractures in independent media and fill them with alternative narratives.[109]

In recent years, Chinese entities have bought stakes in African media companies to influence the content produced. As Ms. Sun argued in her testimony, "Chinese ownership of African media companies has offered Beijing direct channels of influence over the content, tone, and preferences of the media. And Beijing has used these channels."[110] In one case, South Africa's influential Independent Media, in which Chinese entities hold a 20 percent stake, engaged in activities that have led to media censorship of journalists working at the outlet.[111] For instance, in 2018, after publishing an article critical of Beijing's mass detentions of Uyghurs and other Muslim ethnic groups in China's western Xinjiang region, an Independent Media columnist had his column removed.[112]

Additionally, African news organizations increasingly publish Chinese-produced editorial content while offering no indication that the content was produced by a Chinese state-run media outlet.[113] For example, in November 2019 the Kenyan Broadcasting Corporation passed off as locally generated content a story lauding China's efforts to "alleviate poverty" in Xinjiang, without giving any indication of the involvement of Chinese state media.[114] African journalists have also published pieces in Chinese state-owned media promoting China's model of governance. In May 2020, Mark Kapchanga, senior economics editor at Kenya's popular *Standard* newspaper, published an opinion piece in a Chinese state-owned media outlet lauding China's response to COVID-19 and criticizing multiparty democracy in Africa.[115]

China's leading role in modernizing African media from analog to digital technology has given Beijing added influence over the continent's media space.‡ Key to this transition is the "10,000 Villages"

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*StarTimes is only nominally a private firm. It is the only company with authorization from China's Ministry of Commerce to operate in foreign countries' radio and TV industries. China's Export-Import Bank has provided the company with hundreds of millions of dollars in loans to enter the African market. StarTimes describes itself as having "cordial relations with its parent state." The company was founded in 1988 by Pang Xinxing, who worked in the CCP's Propaganda Department from 1975 to 1984 and maintains close ties with the central government. Jenni Marsh, "How China Is Slowly Expanding Its Power in Africa, One TV Set at a Time," *CNN Business*, July 24, 2019; Tsinghua University, "Pang Xinxing, Chairman of Star Times Group: Star Star's Overseas Development Strategy and Business Model," (四达时代集团董事长庞新星：四达海外发展战略及商业模式), May 13, 2010. Translation. *http://www.sem.tsinghua.edu.cn/tzggcn/TZ_37988.html*.

†This figure refers to all newspapers in circulation under Kenya's Nation Media Group. Paul Nantulya, Research Associate, Africa Center for Strategic Studies, National Defense University, interview with Commission staff, July 31, 2020.

‡This objective was prioritized in China's 2015 white paper. According to the white paper, China "will continue to promote the digitization of radio and TV broadcasting in Africa, provide related financing, technical support and personnel training, and encourage Chinese and African

program announced by General Secretary Xi at the 2015 FOCAC summit. The program aims to provide digital satellite television to rural communities in 24 sub-Saharan countries.[116] As of January 2020, Beijing claims it has completed equipment installation in over 80 percent of the communities participating in the program.[117] StarTimes is the sole contractor for the project.[118] As of September 2018, StarTimes is available to 20 million users in more than 30 African countries.[119] The fact that the company generally does not feature Western programming on its platform, offers inexpensive access to Chinese television, and is the sole contractor for the 10,000 Villages program makes it a vital soft-power mechanism for Beijing.*

The Chinese government routinely sponsors African journalists and media figures to travel to China for training in Beijing's priorities and worldview.[120] One such initiative, the China-Africa Press Center, launched in 2014, grants African journalists all-expenses-paid trips to China for training.†[121] African journalists who have attended training in China have been found to incorporate Chinese talking points into their home news outlets. As Reporters Without Borders notes, a group of Zambian journalists who attended training in China later published a piece praising Beijing's media governance model and arguing that Zambia should learn from China's experience.[122] David Bandurski, codirector of the China Media Project, an independent research program in partnership with the University of Hong Kong, notes that the goal of this training is not only to improve China's image abroad but also to get "control of the narrative and legitimization of the [Communist] Party's power and governance."[123] Mr. Bandurski adds that China's efforts to legitimize the CCP abroad might also create a shift in international journalistic norms.[124]

Beijing Exports Techno-Authoritarianism

Beijing is actively promoting its model of techno-authoritarianism, or political control facilitated by repressive internet governance and intrusive technologies, to Africa. China's dominance of Africa's telecommunications market has created conditions for authoritarian leaders on the continent to further institutionalize their repressive

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enterprises to engage in joint venture cooperation." *Xinhua*, "Full Text: China's Second Africa Policy Paper," December 5, 2015.

*Some of StarTimes' deals have come under scrutiny. For example, as part of a deal to transition Zambia's migration from analog to digital technology, Zambia's state broadcaster formed a joint venture with StarTimes after securing a $273 million loan from the Export-Import Bank of China. According to David Shullman, senior advisor at the International Republican Institute, the joint venture, which violated Zambian competition laws, would allow Chinese entities to effectively control the national broadcasting service. David Shullman, "Chinese Malign Influence and the Corrosion of Democracy: An Assessment of Chinese Interference in Thirteen Key Countries," *International Republican Institute*, 2019, 36; Li Xia, "Zambia Describes China-Funded Village Television Project as a Success," *Xinhua*, May 14, 2019; *Xinhua*, "Zambia Hails China's Funds for Digital TV Migration," July 13, 2018.

†Approximately 25–35 journalists typically participate in trainings held by the China-Africa Press Center under the China Public Diplomacy Association each year. The implementing unit is the School of Journalism at Renmin University. More broadly, Beijing is estimated to host about 1,000 media professionals in China for trainings, exchanges, and visits each year. Aubrey Hruby, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May 8, 2020, 9; Yun Sun, senior fellow and codirector of East Asia Program, Stimson Center, interview with Commission staff, April 13, 2020; *Economist*, "China Is Broadening Its Efforts to Win Over African Audiences," October 20, 2018; China Public Diplomacy Association, "African Journalists' 'China Development Research and Media Exchange' Training and Graduation Ceremony Held at the School of Journalism," (非洲记者"中国发展研究与媒体交流"培训结业仪式在新闻学院举行), October 31, 2016. Translation. *http://www.chinapda.org.cn/chn/xhdt/t1413160.htm*.

inclinations through internet control and digitally enabled surveillance technologies. In contrast to the democratic multistakeholder internet model, Beijing markets to African governments the concept of "internet sovereignty" in which each country has the right to control its domestic internet space.[125] According to Adrian Shahbaz, research director for technology and democracy at Freedom House, "Chinese authorities are selling to local politicians not only products for 'controlling' their societies, but also a vision of how to build a prosperous and stable state without having to devolve power to the citizenry."[126]

A number of countries are emulating China's approach to internet governance. For example, Brian Mushimba, Zambia's minister in charge of transport and communications, has invoked a "China way" for internet governance, which includes threats to ban Google and Facebook, allegedly to combat online disinformation.[127] As part of these efforts, Zambia is moving to enact legislation on cybercrime and cybersecurity that would make posting online information deemed to harm national security punishable by jail time.[128] At least several Zambians have already been sent to prison on charges of defamation for criticizing President Edgar Lungu in social media posts.[129] Civil society organizations such as the Media Institute of Southern Africa Zambia and Bloggers of Zambia have criticized the government's cybersecurity plans.[130] Nigeria, Tanzania, Uganda, and Zimbabwe have also sought to adopt aspects of Beijing's model for internet governance.[131]

Chinese telecommunications companies have provided autocratic regimes direct assistance in suppressing opposition figures. According to senior Zambian security officials, technicians from Huawei helped the government access the phones and Facebook pages of a group of bloggers running a key opposition website that had repeatedly criticized President Lungu.[132] At least two Huawei experts based in a cybersurveillance unit of Zambia's telecoms regulator were in constant contact with police units dispatched to arrest the bloggers.[133] China has similarly supported President Museveni, now in his 33rd year as Uganda's ruler, in maintaining power by employing Chinese technology to crack down on dissent. In August 2019, the Wall Street Journal reported that in 2018, senior Ugandan intelligence officials enlisted Huawei technicians to assist them in penetrating the digital communications of Bobi Wine—an opposition member of parliament who is running against President Museveni in 2021—which led to the arrest of Mr. Wine and dozens of his supporters.*[134]

Beijing is also contributing to the growth of digitally enabled authoritarianism in Africa through the sale of advanced surveillance technologies. These efforts include Beijing's promotion of the "Digital Silk Road"—a subset of BRI—through which China has greatly expanded the sale of digital technology to the continent. (For more on China's expansion into Africa's e-commerce market and digital economy, see "The Digital Silk Road in Africa" later in this section.)

*Mr. Wine has been arrested a number of times by the Museveni government. He was most recently released from police custody in January 2020. Mr. Wine has continued to campaign for the 2021 elections. Denis Edema, "Police Disperse Bobi Wine supporters in Jinja," *Daily Monitor*, July 11, 2020; Rufaro Samanga, "Bobi Wine Released from Police Custody Following Arrest," *OkayAfrica*, January 7, 2020.

Steven Feldstein, nonresident fellow at the Carnegie Endowment for International Peace, noted in his testimony before the Commission that 12 African countries currently use Chinese companies to supply their advanced surveillance technologies.[135] There are a number of legitimate applications for these technologies, including those used in smart city projects* such as managing traffic congestion, directing emergency vehicles, and fostering sustainable energy use.[136]

There are also examples of governments abusing these systems. In Uganda, for instance, President Museveni signed a $126 million deal with Huawei for a smart city surveillance technology project, part of which is focused on building a new digital surveillance unit for the police force and installing hundreds more street cameras in the capital, Kampala.[137] Ugandan opposition lawmakers have criticized the project for its lack of transparency and potential security risks, with one saying, "There appears to be a policy to hand over the country's entire communications infrastructure to the Chinese.... It's unwise given our concerns about spying and creating backdoor channels."[138] Chinese companies have also provided advanced surveillance technologies to Zimbabwe, a country with which Western firms generally do not do business due to international sanctions.[139] As Mr. Feldstein argued, these Chinese firms are "directly propping up an oppressive government [in Zimbabwe] that willingly and violently subdues its population."[140]

Some Africans have expressed alarm that data gathered by Chinese technology companies for African governments may be shared with Beijing. As Mr. Feldstein noted in his testimony, this worry over data privacy is a concern in some African states, particularly in democratic countries such as Botswana, Ghana, Mauritius, and South Africa.[141] There is already at least one example of a country possibly sharing with the Chinese government data gathered by a Chinese technology company. In 2018, the Zimbabwean government signed an agreement with CloudWalk Technology, a Guangzhou-based firm, to build a national facial recognition database and monitoring system.[142] Under the deal, Zimbabwe would send biometric data on millions of its citizens to China to assist in the development of facial recognition algorithms—an arrangement that had no input from the Zimbabwean people.[143] The Australian Strategic Policy Institute describes this deal as a form of "data colonialism."[144]

China's Economic Activity in Africa: Building Africa's Infrastructure while Controlling Its Resources

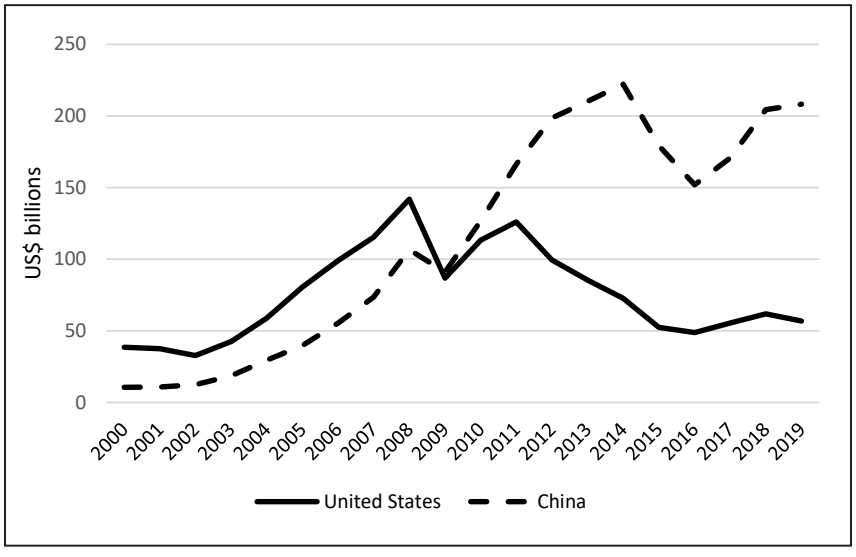
China's economic activity across Africa represents a small but growing segment of China's overall economic activity abroad. While China's trade with and investment across Africa has typically been defined by

*Smart cities use connected technologies including cameras, sensors, and GPS devices to collect a wide variety of data for urban management applications ranging from moderating traffic flow to policing and crime prevention. Smart city surveillance technology refers to advanced surveillance technology that can be used in smart cities, including cameras equipped with artificial intelligence applications such as facial recognition. Safe city systems provide immediate solutions for platforms to integrate and manage various surveillance tools. Nine African countries use safe city systems provided by Chinese firms: Botswana, Cote d'Ivoire, Ghana, Kenya, Mauritius, Morocco, South Africa, Uganda, and Zambia. Steven Feldstein, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May 8, 2020, 5–6; Steven Feldstein, nonresident fellow, Carnegie Endowment for International Peace, interview with Commission staff, April 17, 2020; Steven Feldstein, "The Global Expansion of AI Surveillance," *Carnegie Endowment for International Peace*, September 17, 2019; Adam Segal, "When China Rules the World," *Foreign Affairs*, September/October 2018.

infrastructure and commodities, Africa's growing digital economy has provided new avenues for economic engagement, particularly as Beijing seeks to increase its technological influence through its Digital Silk Road development initiative. China is Africa's largest trading partner, having surpassed the United States in 2009.[145] In 2000, the year of the first FOCAC summit, China-Africa trade was $10.6 billion, with China exporting $5.1 billion and importing $5.5 billion.[146] By 2018, bilateral trade expanded to $204.3 billion, with China exporting $105.7 billion and importing $98.7 billion.[147]

China is also a significant source of foreign direct investment (FDI) into Africa, with its cumulative FDI totaling $46 billion in 2018, the fifth-largest amount of investment in Africa that year.[148] The United States ranked fourth, with $48 billion of cumulative investment in 2018.[149] The acceleration in China's investment is notable: Chinese FDI grew by 44 percent between 2014 and 2018, in contrast with a 30 percent fall in U.S. FDI over the same period.[150] As a result of the COVID-19 pandemic, however, economic activity between China and Africa has seen a pronounced slowdown in 2020, with bilateral trade in the first half of the year falling to $82.4 billion, down 19.3 percent compared with 2019.[151]

Figure 2: U.S. and Chinese Bilateral Goods Trade with Africa, 2000–2019



Note: Figures include total goods exports and imports. U.S. and Chinese aggregations of African trade data may include minor differences in trade partners.
Source: China General Administration of Customs via CEIC Database; U.S. Census Bureau, *Trade in Goods with Africa*.

Lending constitutes an important part of China's economic relations with Africa.* According to Johns Hopkins University's School of Advanced

*While China is Africa's largest bilateral lender, the United States is by far the largest provider of aid (i.e., financial assistance that does not require repayment). Between 2013 and 2018, U.S. aid to Africa totaled over $72 billion; by contrast, China's foreign aid expenditures worldwide totaled $16.8 billion over the same period. United States Agency of International Development, *Foreign Aid Explorer*; SAIS China Africa Research Initiative, "Data: Chinese Foreign Aid."

International Studies (SAIS) China Africa Research Initiative (CARI), Chinese loans to Africa between 2000 and 2017 totaled more than $145 billion, with financing coming primarily from the Export-Import Bank of China (China EXIM Bank) and China Development Bank, two of China's policy banks.[152] A 2018 report by the Jubilee Debt Campaign, an international organization focused on debt alleviation for the world's poorest countries, stated that bilateral debt from Chinese lenders accounts for 24 percent of Africa's external debt, compared to 32 percent from global private sector lenders (excluding China), 16 percent from the World Bank, 19 percent from the International Monetary Fund (IMF) and other multilateral institutions, and 10 percent from Paris Club governments.*[153] At the 2018 FOCAC summit, General Secretary Xi encouraged Chinese companies to invest no less than $10 billion on the continent from 2018 to 2021 and pledged $60 billion in financing.†[154]

While traditional sectors such as infrastructure and commodities dominate China's economic engagement with Africa, Chinese manufacturing firms also have a growing presence in Africa. According to a 2017 report by McKinsey, Chinese firms produce 12 percent of Africa's manufacturing output.[155] Chinese investors, drawn by lower labor costs and an abundance of raw materials, have funded the construction of free trade zones and industrial parks in Africa.[156] Chinese firms have also shipped goods through these zones in Africa in order to gain advantage of preferential trade policies toward African countries, a process known as transshipment.[157] (For more on Chinese transshipment through African countries, see the textbox "Chinese Firms Benefit from the U.S. African Growth and Opportunity Act" in this section). As of 2018, 45 free trade zones and industrial parks affiliated with China are located in 16 African countries.‡

Some African countries have sought Chinese manufacturing investment as a means of advancing domestic industrialization. For example, as of 2020, Ethiopia, which has set a goal of becoming Africa's leading manufacturing hub by 2025, has used Chinese investment, construction, and technology to build 12 of its industrial parks, with plans for three more.[158] Chinese manufacturing investment, however, does not always translate to benefits for the domestic manufacturing industries. A 2020 study by SAIS CARI examining Chinese manufacturing investment in Nigeria, for instance, found low levels of skill and technology transfer from Chinese to Nigerian firms. The study concluded Nigeria's experience "raises questions over the efficacy of special economic zones in spurring clustering and economic spillovers and reinforces the need for adequate logistics and proper management, both of which have been a struggle in Chinese-established industrial zones."[159]

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*The Paris Club is a group of officials from 22 major lending countries; it includes the United States but not China. Paris Club, "Permanent Members."

†China's $60 billion financing pledge includes a combination of aid, loans, credit, and special funding. Christian Shepherd and Ben Blanchard, "China's Xi Offers Another $60 Billion to Africa, but Says No to Vanity Projects," *Reuters*, September 3, 2019.

‡The African countries with free trade zones or industrial parks are Algeria, Egypt, Ethiopia, Djibouti, Kenya, Mauritius, Mauritania, Mozambique, Nigeria, Sierra Leone, South Africa, Sudan, Tanzania, Uganda, Zambia, and Zimbabwe. Li Humei et al., "Information Dataset of China's Overseas Industrial Parks from 1992 to 2018" (1992–2018年中国境外产业园区信息数据集), *Science Data Bank*, 2019. Translation. *http://www.csdata.org/p/318/*; Emily de La Bruyère and Nathan Picarsic, "Two Markets, Two Resources: China's Africa Engagement in Context," Horizon Advisory (prepared for the U.S.-China Economic and Security Review Commission), November 2020, 78–79.

Chinese Firms Benefit from the U.S. African Growth and Opportunity Act

Chinese manufacturing firms operating in Africa have benefitted from preferential U.S. trade policies toward African countries, such as the African Growth and Opportunity Act (AGOA), a U.S. law providing manufacturers from eligible African countries tariff-free access to the United States for certain products, most notably textiles. A 2012 study from the University of Oxford's Center for the Study of African Economies analyzed apparel exports from AGOA countries to the United States in 1996–2008, when Chinese textile exports to the United States were subject to quotas.* The study found a significant share of apparel exports from AGOA countries during this period were originally produced in China and transshipped through Africa.† For example, according to the study as much as 64 percent of U.S. textile imports from Botswana and 55 percent of U.S. textile exports from Uganda were originally made in China.[160]

After the expiration of the majority of quotas on Chinese textiles in 2005, the practice of transshipment through AGOA countries declined significantly.[161] Nevertheless, the extent to which China, rather than Africa, benefits from AGOA has remained a topic of controversy on the continent.‡ In 2016, Tito Mboweni, now South Africa's minister of finance, criticized China's use of AGOA, saying, "Chinese entrepreneurs benefited from [AGOA]… [but] very few African entrepreneurs benefited. For our governments to build many shell factories and literally hand them over to Chinese entrepreneurs is actually an embarrassment for all of us."[162] Moreover, recent trade tensions between the United States and China, including U.S. restrictions on certain products made with forced labor in Xinjiang, raise the possibility that Chinese manufacturers could begin transshipment through AGOA countries again.[163]

Beijing Extends Control over African Resources

China is the world's largest importer of oil, natural gas, and coal. Since the mid-1990s, African energy and minerals have been a large component of those energy imports, making these resources an increasingly important part of China's economic ties with many African countries.[164] In 2019, 81.2 percent of all Chinese imports from

*Quotas on Chinese textiles expired at the end of 2008. Lorenzo Rotunno, Pierre-Louis Vézina, and Zheng Wang, "The Rise and Fall of (Chinese) African Exports," *University of Oxford Center for the Study of African Economies*, August 2012, 9.

†Shipping goods through an intermediary country in order to avoid trade barriers is known as transshipment. Transshipment is typically impermissible under trade agreements, which generally contain rules of origin setting forth criteria for how much processing must occur in a given country for a good to be deemed to originate from that country. AGOA, however, contains waivers on rules of origin for textiles for many African countries, making transshipment of Chinese goods legally permissible. Lorenzo Rotunno, Pierre-Louis Vézina, and Zheng Wang, "The Rise and Fall of (Chinese) African Exports," *University of Oxford Center for the Study of African Economies*, August 2012, 2.

‡Unlike many trade agreements, AGOA does not include rules of origin for many countries, which set forth criteria for how much processing must occur in a given country for a good to be deemed to originate from that country for purposes of determining tariffs. As a result, businesses in AGOA countries can source goods from China and reexport them to the United States. David Thomas, "Does AGOA Unfairly Benefit Chinese Firms?" *African Business*, February 13, 2017.

Africa were oil, ores, and precious metals.[165] In 2018, Africa supplied more than 25 percent of China's oil and gas imports, making it China's second-largest supplier after the Middle East.[166] Africa is also China's biggest source of other key minerals. In 2018, 72 percent of China's imports of base metals including tungsten, cobalt, magnesium, and titanium came from Africa.[167]

Beijing's acquisition of African commodities goes beyond open-market purchases. It also seeks to gain control of these commodities at the source in line with the strategy articulated in the 1990s under the construct of "two markets, two resources."[168] In 2003, Yao Guimei, Africa researcher at the Chinese Academy of Social Sciences, called the development of African mineral resources "a major strategy to solve the safety and long-term stable supply of China's mineral resources under the guidance of the Central Government's principle of 'using Two Resources and opening Two Markets.'"[169] Instead of relying on open-market purchases of commodities from Africa, Yao said, "[i]t is a better policy to go to African countries for exploration, to establish independent mining companies, and to gradually set up our own global mineral resources supply guarantee system."[170]

"Two Markets, Two Resources": Beijing's Plan to Control Foreign Commodities

Due to China's high dependence on imports of natural resources, Chinese policymakers have long sought not only access to but also control over commodities produced in foreign countries. This desire for control over foreign commodities has manifested in Beijing's "two resources, two markets" initiative, which emphasizes investment in foreign commodities. At the Third Plenary meeting of the 14th Party Congress in 1993, the CCP defined China's foreign economic agenda as fully using domestic and international markets, as well as the resources of both, in order to meet China's commodity needs.[171] Beijing has also discussed the importance of "two markets and two resources" in framing the BRI. In 2016, China's then Minister of Commerce Gao Hucheng stated in a speech about BRI that China needs to "better take advantage of the two markets and two resources."[172]

By investing abroad, Beijing ensures that China has steady access to critical commodities as well as greater control over the global supply chain of these commodities. This affords Beijing not only a degree of pricing power for commodities but also the potential to restrict access to other producers and consumers of these commodities. As Emily de La Bruyère of Horizon Advisory noted in her testimony before the Commission, Beijing's "two markets, two resources" strategy represents "one-sided integration. It promises asymmetric leverage over a globalized system, the ability to obtain without sharing and shape without being shaped."[173]

China's first large-scale investment in African commodities was in oil in 1997, when the China National Petroleum Corporation took a 40 percent stake in the Greater Nile Petroleum Company, a Sudanese company. Since 1997, 63 percent of Sudan's crude petroleum exports have gone to China.[174] China has continued to make signif-

icant investments in the oil industries of various African countries. Between 2005 and 2017, Chinese FDI to African oil and gas projects totaled $20.6 billion.[175] Niger was the largest recipient of Chinese oil FDI, with $4.9 billion of investment; other countries with substantial FDI investment include Angola, Mozambique, Uganda, and Nigeria.[176] China continues to place a special emphasis on investment in African oil. According to estimates, Africa will be the top destination for FDI from China's national oil companies through 2023, with an estimated $15 billion in investment.*[177]

Aside from oil, China has invested heavily in mineral commodities, most notably cobalt. Crucial to the manufacturing of products such as electric vehicle batteries and jet aircraft, cobalt has seen accelerating global demand as adoption of these technologies grows.[178] In 2017, China imported 98 percent of all cobalt it refined, mostly from the Democratic Republic of the Congo (DRC), which produced more than two-thirds of cobalt mined globally.[179] To help manage this import dependency, China has been taking direct stakes in cobalt mines. As of 2017, eight of the 14 largest cobalt mining companies in the DRC—accounting for nearly half the country's output—were Chinese-owned.†[180]

China has also invested in African platinum, a necessary component for manufacturing catalytic converters that reduce automobile emissions.[181] In 2015, China's Zijin Mining Group Company completed its acquisition of NKWE Platinum Limited, which holds assets in South Africa's Bushveld Complex, a vast geological formation that contains the world's largest known reserves of platinum group metals.[182] China has ownership stakes in other African mineral operations as well, including manganese ore, ferrochrome, bauxite, and copper ore.[183] According to analysis by the United States Geological Service, China's ownership stake in African commodities operations provides Beijing with potential leverage over other countries that depend on African commodities, including the United States, which is highly dependent on African imports of commodities such as cobalt, tantalum, and platinum group metals.[184]

Working Conditions at Chinese-Owned Commodities Firms in Africa Cause Controversy

African and foreign observers have criticized Chinese-run firms in Africa's mining sector over their treatment of African workers. While controversy over China's labor practices is not limited to the commodities sector, the inherently dangerous nature of mining operations has increased scrutiny over labor conditions in Chinese-owned or -operated mines. These practices have at times been enabled by lax enforcement and outright corruption

*According to data and analytics firm GlobalData, this investment is the fourth highest planned in the region between 2019 and 2023, following investments from multinational oil companies BP, Royal Dutch Shell, and Eni. GlobalData, "China's NOCs to Be Fourth Highest Upstream Investors in Africa over Next Five Years, Says GlobalData," June 19, 2019.

†When China's overseas cobalt ownership is taken into account, China's net import dependence for cobalt falls from 97 percent to 68 percent, according to analysis by the United States Geological Survey. China's ownership of foreign commodities production lowers the country's import dependence because it has control over those commodities at the source to the extent of its ownership share; therefore, while those commodities are imports, they are not subject to the same supply risks. Andrew L. Gulley, Erin A. McCullough, and Kim B. Shedd, "China's Domestic and Foreign Influence in the Global Cobalt Supply Chain," *Resources Policy* 62 (2019): 317–323.

Working Conditions at Chinese-Owned Commodities Firms in Africa Cause Controversy—*Continued*

in African countries.[185] In 2011, Human Rights Watch found that Chinese-run mines had far worse working conditions than other foreign-owned copper mines in Zambia, including poor ventilation, long working hours, and a lack of personal protective equipment.[186] Other reviews of China's labor practices in Africa have found that China is not an outlier among mining companies operating in Africa. For instance, a 2019 study by SAIS CARI examining violence against African mining workers in the DRC, South Africa, and Zambia found that Chinese-owned mines had fewer incidents of violence than mines owned by South African and United Kingdom (UK) companies.[187]

Chinese-owned firms continue to receive criticism over their treatment of African workers, however. In April 2019, employees of a Chinese-owned lime plant in Zimbabwe accused the firm's Chinese management of underpaying workers, failing to provide personal protective equipment, and physically and verbally attacking workers.[188] In June 2020, Zhang Xuelin, the Chinese owner of a coal mine in Zimbabwe, was charged with attempted murder after shooting two local workers during a wage dispute.[189] The Chinese Embassy in Zimbabwe issued a statement expressing concern but called the shooting an "isolated incident."[190] The Zimbabwe Environmental Law Association, a public interest group based in Zimbabwe, characterized the shooting, however, as "part of a systematic and widespread pattern of labor rights violations by Chinese companies and investors in the extractive sector."[191]

In addition to FDI, China has also gained steady access to commodities across Africa by providing infrastructure loans to African countries under a structure that requires in-kind payments in commodities, also known as resource-backed loans. China has used this method of financing so frequently with Angola that it has been termed the "Angola model." In the mid-2000s, China had identified Angola as a potential source for oil, but Angola's infrastructure was in severe disrepair following a decades-long civil war that ended in 2002. Beijing offered to meet much of Angola's infrastructure needs by sending Chinese construction companies to complete the jobs in exchange for oil shipments instead of cash.*[192] Angola's arrangement with China remains the most prominent example of the resource-backed loan model in Africa, with $24 billion worth of such loans as of 2016.†[193] At least nine other African countries, howev-

*According to Transparency International, a nongovernmental organization that studies global corruption, Angola is among the most corrupt countries in the world, ranking 146 out of 198 countries in 2019. Isabel dos Santos, daughter of former president José Eduardo dos Santos, has been charged with embezzling $1 billion during her tenure as chairwoman of state oil company Sonangol. Assets recovered by Angolan prosecutors included properties owned by the Hong Kong-based China International Fund. Candido Mendes, "Angola Seizes Properties Held by China International Fund," *Bloomberg*, February 11, 2020; *BBC*, "Isabel dos Santos: Africa's Richest Woman Accused of Fraud," January 23, 2020; Transparency International, "Corruption Perceptions Index."

†A review of Angola's infrastructure investments from 2013–2016 by Chatham House, a UK nongovernmental organization focusing on international affairs, found that despite abundant financing, Angola's infrastructure development has been largely ineffective due to factors such

er, have entered into resource-backed loan agreements with China, most notably the Republic of the Congo ($5.1 billion as of 2016), the DRC ($3.5 billion as of 2016), and Guinea (which contracted a $20 billion loan in 2017 backed by its bauxite production).*[194]

Infrastructure Financing

Lack of adequate infrastructure remains a key economic challenge for Africa. According to a 2019 estimate by the African Development Bank, Africa's annual infrastructure needs are between $130 billion and $170 billion, but current funding falls short by between $68 billion and $108 billion per year.[195] Although most observers agree that China is the largest bilateral financier of infrastructure in Africa, lack of comprehensive data and consistent metrics makes a definitive assessment challenging. According to the Infrastructure Consortium for Africa, a data agency associated with the African Development Bank, China committed $25.7 billion to African infrastructure projects in 2018, while the United States committed $297 million.†[196] According to Deloitte, between 2018 and 2019 China financed 20.4 percent and built 31 percent of construction projects in Africa.‡ Over the same period, the United States and international development finance institutions together financed 10.2 percent of projects, and U.S. companies constructed 2.9 percent of projects.[197] Infrastructure constitutes a significant majority of China's overall lending to Africa: according to SAIS CARI, of the $105 billion in Chinese lending to Africa from 2012 to 2017, more than three-quarters was for mining, agriculture, power, transportation, and water.[198]

In contrast to loans from multilateral institutions, Chinese loans are notable for not including a competitive bidding process. As Scott Morris of the Center for Global Development noted in his testimony before the Commission, infrastructure loans from entities such as the World Bank include standards for "international, competitive bidding, sometimes with preferences for local firms" in order to guard against potential corruption and achieve a high-quality project at the lowest cost.[199] By contrast, Chinese infrastructure loans typically come with a particular Chinese construction firm in mind and have "little evidence of, or process for, competitive bidding arrangements even among Chinese firms, let alone on a global basis."[200] This lending practice, which Mr. Morris refers to as "tied" financing, raises the risk of corruption, inflated project costs, and lower quality.[201]

Tied financing also excludes foreign bidders from competing for Chinese-funded infrastructure projects. China's dominance in construction is not solely due to its tied financing. Chinese firms have

as "insufficient capacity, a lack of transparency, low levels of skilled labor, corruption, and unbalanced planning." Søren Kirk Jensen, "Angola's Infrastructure Ambitions through Booms and Busts: Policy, Governance, and Reform," *Chatham House*, September 2018, 1.

*As of 2016, the following African countries have taken out resource-backed loans from China: Angola, Chad, the Democratic Republic of the Congo, Ghana, Guinea, Niger, the Republic of the Congo, South Sudan, Sudan, and Zimbabwe. David Mihalyi, Aisha Adam, and Jyhjong Hwang, "Resource-Backed Loans: Pitfalls and Potential," *Natural Resource Governance Institute*, February 2020, 7.

†The numbers for the United States do not take into account U.S. support for multilateral lending institutions such as the World Bank and the African Development Bank. Infrastructure Consortium for Africa, "Infrastructure Financing Trends in Africa – 2017." 84.

‡The Deloitte report tracked construction projects valued at $50 million or above. Deloitte, "Africa Construction Trends Report," 2019.

benefitted from significant government subsidies, allowing them to submit lower bids for many construction projects.[202] According to Aubrey Hruby, senior fellow at the Atlantic Council's Africa Center, Chinese firms have won 42 percent by value of all World Bank open-bid contracts with bids that are often 40 percent less expensive than competitor firms.[203] Nevertheless, tied financing presents an additional significant obstacle to non-Chinese firms. As Ms. Hruby noted, "The opaque nature of [Chinese infrastructure deals] creates a data gap, making it difficult to assess the scale of competitive disadvantage faced by U.S. companies in African markets," but given China's tied lending practices, U.S. companies "will continue to struggle to compete with the Chinese for large infrastructure projects for the foreseeable future."[204]

China's investments and loans afford it the opportunity to exercise control over African infrastructure. China's investment in African ports highlights the extent of this control. According to a 2019 study by the Center for Strategic and International Studies, 46 existing or planned port projects in sub-Saharan Africa are funded, built, or operated by Chinese enterprises.[205] Of these 46 port projects, China has constructed 41 of the ports, has provided financing for 27, and has operational control of 11.* One of these ports, the Port of Djibouti, is already a dual-use military-civil facility, and several other civilian ports have the potential for military use by the People's Liberation Army (PLA).[206] (For more on the dual use of ports, see Chapter 3, Section 2, "China's Growing Power Projection and Expeditionary Capabilities.")

Concerns over China's Role in Africa's Growing Debt

While China plays an important role in helping Africa meet its infrastructure needs, its lending practices remain controversial. The World Bank and IMF have cautioned that Africa's rapidly rising debt is unsustainable and have pointed to China's opaque lending practices as a particular source of concern.[207] Because China's government does not publish official data on its overseas lending, the exact amount of Africa's debt is unclear, but by any account it is substantial and growing. According to a 2019 working paper by the National Bureau of Economic Research, fully half of Chinese lending to developing countries is not reported to the World Bank or IMF.[208] The study found that the top 50 recipients of Chinese lending—a group that includes 24 African countries—owe an average of 40 percent of their external debt to China as of 2017.[209] Moreover, 13 African countries owe the equivalent of at least 10 percent of their gross domestic product to China, according to the study.†

According to Rhodium Group's 2019 analysis of Chinese debt renegotiations, none of the 22 publicly disclosed instances of debt renegotiation with African nations resulted in asset seizures, with outcomes instead including refinancing, write-offs, deferments, and

*The study defines "operation" of ports as ports where Chinese entities own more than a 50 percent equity share or have been contractually granted the right to operate the facilities or ports. Judd Devermont et al., "Assessing the Risks of Chinese Investments in Sub-Saharan African Ports," *Center for Strategic & International Studies*, June 4, 2019.

†The countries are Djibouti, the Republic of the Congo, Niger, Zambia, Ethiopia, Angola, Mozambique, Zimbabwe, South Sudan, Kenya, Sierra Leone, Cameroon, and Uganda. Sebastian Horn, Carmen M. Reinhart, and Christoph Trebsch, "China's Overseas Lending," *National Bureau of Economic Research*, May 2020, 15.

withholding of further lending.[210] The Rhodium Group analysis also found that the Hambantota port in Sri Lanka remains the only confirmed instance of an asset seizure related to Chinese infrastructure loans.*[211]

In 2020, most countries in Africa suffered several shocks that threaten to derail their economic growth and exacerbate ongoing debt problems. According to the World Bank, the worldwide economic slowdown caused by the COVID-19 pandemic threatens to cause the first recession in sub-Saharan Africa in 25 years, with economic contraction estimated between -2.1 percent and -5.1 percent this year.[212] This recession exacerbates an ongoing agricultural disaster in East Africa, where the worst locust infestation in 70 years has devastated crops in Ethiopia, Kenya, Somalia, Eritrea, and Djibouti, jeopardizing agricultural production and food security in these countries.[213] Amid these economic shocks, calls for African debt relief have increased, particularly with regard to China, whose status as the largest single lender to the continent makes its participation in African debt relief efforts critical.[214]

In the wake of the economic slowdown caused by COVID-19, Beijing has made several public commitments to debt relief and financial assistance. In April, G20 members, including China, agreed to a Debt Service Suspension Initiative (DSSI) that will suspend debt payments for 73 eligible low- and lower middle-income countries through the end of 2020. In October, the G20 announced the DSSI would be extended through the end of June 2021.[215] Forty-one African countries are eligible for DSSI; as of October, 29 African countries are participating in the initiative. Of the debt due from countries participating in the DSSI, 70 percent ($7.2 billion) is owed to China.[216] In October, Zhao Lijian, spokesman for China's Ministry of Foreign Affairs, announced that China EXIM Bank had signed deals with 11 African countries under the DSSI and that China would forgive loans for 15 African countries set to mature at the end of 2020.[217] Mr. Zhao also stated non-official creditors had reached deals with some African countries under the DSSI. Mr. Zhao did not disclose the names of the countries or the terms of the deals, though Angola, the Republic of the Congo, Djibouti, Ethiopia, Mozambique, Kenya, and Zambia have reportedly engaged in debt restructuring negotiations with the Chinese government.[218]

Officials from other creditor countries have criticized China for its lack of transparency in the DSSI as well as for excluding China Development Bank loans from the initiative. In September, G7 finance ministers issued a statement following a conference on debt relief initiatives that expressed regret over "the decision by some countries to classify large state-owned, government-controlled financial institutions as commercial lenders and not as official bilateral creditors, without providing comparable treatment nor transparency"—a thinly veiled criticism of the Chinese government.[219] Fol-

*In October 2020, the government of Sri Lanka was in negotiations for a $500 billion loan from the China Development Bank, the second tranche in a $1.2 billion syndicated loan from the institution. The government of Sri Lanka, which is seeking to avoid defaulting on foreign debts, chose the Chinese lender over approaching the IMF. Nivard Cabraal, Sri Lanka's Minister of Money and Capital Market and State Enterprise Reforms, said approaching the IMF would be a "danger signal." Marwaan Macan-Markar, "Sri Lanka Turns to China Rather Than IMF to Avoid Default," *Nikkei Asian Review*, October 12, 2020; *Yahoo News*, "Sri Lanka Looking Forward to USD 1bn Currency Swap with India to Boost Foreign Reserves," October 1, 2020.

lowing the conference, Japanese Finance Minister Taro Aso offered more pointed criticism, calling China's participation in the DSSI "totally insufficient" and saying the G7 "must apply further pressure on China."[220] World Bank President David Malpass has also criticized China's lack of participation in the DSSI. During a speech on debt relief in October, Mr. Malpass singled out "the rapid growth of new official lenders, especially several of China's well-capitalized creditors," which "have expanded their portfolios dramatically and are not fully participating in the debt rescheduling processes that were developed to soften previous waves of debt."[221] Mr. Malpass had earlier said the inclusion of China Development Bank loans in the DSSI was "important to make the initiative work."[222]

Some African countries, including Nigeria, Ghana, and Kenya, have so far declined to participate in the DSSI, likely due to concerns that doing so could lead to a credit downgrade and jeopardize their access to international capital markets.[223] Some African countries have also expressed reluctance to accept the G20's conditions for suspension of debt payments, which include full disclosure of public sector debt and a prohibition on accepting most new nonconcessional debt.[224] The Chinese government has been unwilling to report publicly on the amounts, durations, and rates of its loans to developing countries—disclosures that are viewed as an important part of sustainable lending by institutions such as the World Bank and the IMF.[225] Therefore, China may continue its traditional approach of dealing with debt relief on a bilateral basis, an idea that has already found some support in Africa.* According to Mr. Morris, while "Chinese officials might want to approach each of these countries on a case-by-case basis, wrapping debt restructurings in the traditional cloak of foreign policy, there is no precedent for China or any other government to address a systemic crisis in this way."[226]

If debt relief occurs but does not include adequate contributions from Beijing, other creditor countries risk bailing out China's irresponsible lending practices. Some African governments have reported that Chinese government officials have cited loan provisions calling for the transfer of collateral to Beijing for debt forgiveness. Senior Zambian government officials have stated that they may transfer ownership of the country's third-largest copper mine to Beijing in order to receive debt relief.[227] Additionally, two Chinese loans to Uganda—one to upgrade an airport and another to build a power plant—contain asset-forfeiture provisions in the event of a default.[228] These reports have given rise to further claims by African commentators that China is engaging in debt-trap diplomacy.[229]

The Digital Silk Road in Africa

While infrastructure investments continue to play a dominant role in China-Africa economic relations, China has made increasing inroads into Africa's digital economy, particularly Africa's mobile

*Kenya's Treasury Secretary Ukur Yatani Kanacho said in May that Kenya will negotiate bilaterally with its creditors, including China. Discussions stalled in July as the Kenyan government reportedly decided to participate in the DSSI; however, as of October, Kenya is not a participant. Jevans Nyabiage, "All Eyes on China as Africa Spurns G20 Debt Relief Plan," *South China Morning Post*, May 26, 2020; Eric Olander, "Kenya-China Debt Relief Talks Stall," *China-Africa Project*, July 10, 2020; World Bank, "COVID 19: Debt Service Suspension Initiative."

phone handset market.* Shenzhen-based Transsion controls 64 percent of the African feature phone market and leads the smartphone market with a 36 percent market share.†[230] Chinese companies also have dominated the efforts to build Africa's telecommunications infrastructure: Huawei and ZTE have built more than 40 3G networks in over 30 African countries, and Huawei has built roughly 70 percent of Africa's 4G networks.[231] This expansion into Africa was facilitated by generous loans from China's policy banks: Huawei received $30 billion in loans from China Development Bank, while ZTE received $15 billion from China Development Bank and nearly $4 billion from China EXIM Bank.[232] While 5G remains in its earliest rollout stages in Africa, Huawei has already established a role in building the continent's 5G networks and has signed an agreement with the AU to increase 5G networks.[233]

In constructing African telecommunications infrastructure, Chinese firms have achieved unusually high market dominance. Ethiopia's national telecommunications network, for instance, was constructed largely by ZTE, and was described by ZTE's then CEO Zhang Zhenhui as "the world's only project in which a national telecom network is built by a sole equipment supplier."[234] This dominance positions Chinese companies to set standards for emerging technologies such as 5G on the continent.[235] (For more on the Chinese government's efforts to influence technical standards worldwide, see Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom.")

China's presence in Africa's digital economy affords Beijing another way to leverage economic ties for other purposes. Beijing's access to Africa's digitized data creates security risks for African countries and organizations. In 2018, French newspaper *Le Monde* reported that the AU headquarters in Addis Ababa, which was constructed by a Chinese company and had servers installed by Huawei, had been routinely hacked and had its data transferred to a server in Shanghai.[236] An investigation of the building also found that listening devices had been installed.[237] China's Foreign Ministry and the AU both denied the allegations.[238]

According to a May 2020 report by the Heritage Foundation, the risk of Chinese government surveillance extends far beyond the AU headquarters, as China has built at least 186 governmental buildings in Africa, constructed 14 intragovernmental telecommunication networks, and donated computer equipment to at least 35 African governments.[239] African governments are aware of the security risk, and some have attempted to mitigate the risk of hacking. A Zambian government official in charge of the country's national data center, which was built by Huawei, stated, "Once someone's built you a home, you change the locks. That's what we did."[240] According to U.S. intelligence officials as well as officials from the UK, Japan,

*As Ms. Hruby noted in her testimony, e-commerce and digital economy are two related but distinct concepts. The Organization for Economic Cooperation and Development defines e-commerce as "the sale or purchase of goods or services conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders." The digital economy has no agreed-upon definition but can include all activities that use digitized data, including telecommunications.

†A feature phone is a mobile phone that lacks features of smartphones. Feature phones remain popular in Africa due to their relative affordability and long-lasting batteries, which are helpful in countries with unreliable power supplies.

and Germany, however, countries cannot safely guard against the threats posed by Huawei-built computer systems.[241]

Africa's e-commerce market, though small by global standards ($5.7 billion in 2017), has enormous growth potential, with the world's fastest-growing mobile market as well as the fastest-growing tech startup ecosystem.[242] Chinese companies are increasingly paying attention to business opportunities offered by Africa's digital economy, but have not yet established significant e-commerce operations on the continent. According to testimony from Ms. Hruby, Africa's e-commerce market remains dominated by Jumia, a European-founded startup based in Africa, as well as by local African firms.[243]

Over the past several years, Africa's e-commerce has seen increasing participation by Chinese firms in other capital flows such as venture capital. Africa's venture capital market is small by global standards but raised $1.3 billion in 2019, an 84.6 percent increase over the amount it raised in 2018.[244] In 2017, Chinese-owned internet browser Opera announced plans to invest $100 million in Africa's digital economy, with $30–40 million earmarked for the Nigerian market.[245] In 2018, Alibaba founder Jack Ma announced the Netrepreneur Prize, a $10 million fund for entrepreneurs in Africa's digital economy.*[246] Financial services are currently a particularly popular sector for Chinese investment. In 2019, Opay, a Chinese-owned mobile payments platform focused on Africa, raised $170 million in two rounds of financing that included Chinese investors.[247]

China's Expanding Security Footprint in Africa

Beijing uses its military activities and influence in African countries to support and reinforce its political goals and economic interests. At the same time, China has taken advantage of its economic influence to establish and expand its military presence on the continent. Beijing is successfully using this multidimensional approach to expand its influence in Africa's security domain while minimizing its visible military presence, excepting its military units deployed as part of UN peacekeeping operations (PKOs). China has increased its political influence on the continent by facilitating ideological education for African militaries that promotes regime or party control of the military. Beijing is also attempting to establish itself as a security partner of choice for African countries by participating in joint exercises and humanitarian operations and exporting arms to many African countries regardless of their political system. China has employed its own military assets, as well as security assistance from African partners, to protect Chinese companies, critical infrastructure, and resources in countries where it has significant economic interests.

China's growing political and economic influence in Africa provides it with important leverage for expanding its military presence on the continent. China's first naval base was established in Djibouti in 2017, a country in which Beijing holds significant influence due

*The inaugural Netpreneur Prize Initiative competition occurred in November 2019. Ten thousand applicants entered, with ten finalists receiving a share of $1 million in total award money. *Business Wire*, "$1 Million Awarded to African Entrepreneurs in Grand Finale of the Jack Ma Foundation Africa Netpreneur Prize Initiative," November 17, 2019.

to the high degree of indebtedness to China. Beijing also has over 2,000 troops deployed to African countries on UN PKOs,* many of which are located in countries where China has significant economic interests. The Chinese government has shown an apparent willingness to leverage its influence in the UN PKO system to ensure these interests are protected. Additionally, the PLA Navy conducts regular patrols off the Horn of Africa, an area that encompasses trade routes whose protection is crucial for Beijing's energy needs. The PLA Navy has also made initial forays up Africa's west coast into the Atlantic Ocean where one of China's top economic partners, Angola, is located.[248] Furthermore, the PLA Navy has participated in combined exercises with key African partners, such as Egypt and South Africa.[249]

Goals of China's Security Presence in Africa

Beijing aims to strengthen its ties with African security partners by bolstering security cooperation, such as military aid and security assistance programs, to address regional security challenges and become the security partner of choice for countries across Africa. China also leverages security engagement to protect economic investments and improve its expeditionary capabilities. The Chinese government's 2015 Africa white paper provides insight into how Beijing uses its diplomatic relations and military assistance to build stronger ties with African security partners.[250] Military exchanges, technological cooperation, joint military training and exercises, intelligence sharing, and capacity building are identified as key areas of engagement between China and African partners to address security challenges.[251]

The Chinese government has also increased security cooperation by investing in new security assistance initiatives. The investment positions Beijing to play a leading role in addressing security challenges that allow it to garner international and domestic support for its security initiatives, address threats that pose a risk to Chinese economic assets, and strengthen its military posture on the continent. In 2015, General Secretary Xi announced China would provide $100 million in security assistance to the AU† over a five-year period to support the African Standby Force and the African Capacity for Immediate Response to Crisis.‡[252] Beijing committed

*As of August 31, 2020, approximately 83 percent of Chinese peacekeepers are deployed to UN PKOs in Africa. Out of a total of 2,102 personnel (including troops, staff officers, experts, and police) deployed to UN PKOs across Africa, China currently has 1,072 personnel in South Sudan (UNMISS), 426 personnel in Mali (MINUSMA), 367 personnel in Darfur (UNAMID), 226 personnel in the DRC (MONUSCO), 2 personnel in the Central African Republic (MINUSCA), and 9 personnel (experts only) deployed to Western Sahara (MINURSO). Bangladesh, Ethiopia, and Rwanda are the top contributors to UN PKOs globally and are also significant contributors to key UN PKOs in Africa. Bangladesh currently deploys more personnel to South Sudan, Mali, Western Sahara, the DRC, and the Central African Republic than China does. Ethiopia currently deploys more personnel to South Sudan and Darfur than China does. Rwanda currently deploys more personnel to South Sudan, Darfur, and the Central African Republic than China does. United Nations Peacekeeping, "Troop and Police Contributors."

†In fiscal year 2019 alone, the United States allocated over $400 million in security assistance to sub-Saharan Africa through Title 22 programs administered through the State Department. These programs include Peacekeeping Operations; International Narcotics Control and Law; Nonproliferation, Antiterrorism, Demining, and Related Programs Enforcement; International Military Education and Training; and Foreign Military Financing. See Tomas F. Husted et al., "U.S. Assistance to Sub-Saharan Africa: An Overview," *Congressional Research Service*, May 20, 2020.

‡The African Standby Force is an intercontinental peacekeeping entity that was established by the AU in 2003. The African Standby Force is composed of five regional brigades comprising military and civilian personnel who are tasked with responding to humanitarian crises. The AU

to additional security assistance on the continent during the 2018 FOCAC summit, when it pledged to launch 50 security assistance programs to pursue China's interests under BRI and to support UN peacekeeping, antipiracy, and counterterrorism efforts.[253] During the summit, African representatives expressed support for China's escort missions in the Gulf of Aden and also encouraged China's participation in antipiracy missions in the Gulf of Guinea.

African counterterrorism engagement involves protecting "major domestic economic projects… [and] the safety of Chinese nationals, companies, and projects."[254] In 2019, China hosted its second China-Africa defense forum,* with 100 senior representatives from the defense departments of 50 African countries and the AU in attendance.[255] At the event, African military officials voiced support for furthering China-Africa security cooperation. Cameroon's Defense Minister Beti Assomo called on China and African countries to "step up win-win cooperation and build a closer China-Africa community of shared future," echoing language used by Chinese officials.[256]

While Beijing's security activities on the continent are neither as extensive as its political and economic efforts nor representative of the level of PLA activity found in East Asia, Beijing has clearly signaled a commitment to broadening its security presence in the region. As Joshua Meservey, senior policy analyst at the Heritage Foundation, noted in his testimony before the Commission, China's ability to integrate its political, economic, and security levers of influence is a "distinguishing feature of China's engagement strategy for Africa," which it has used to legitimize the CCP by garnering international prestige, gaining domestic support, securing citizens and economic assets on the African continent, and improving the PLA's capacity to carry out expeditionary operations.[257] Although China's security footprint in Africa remains relatively small, its security activities have furthered its political, economic, and military objectives on the continent.

Strengthening Security Ties for Political Gain

A primary avenue for China to increase its military presence and influence in Africa is its training and exercises with African partners. Beijing's security cooperation with African countries is in step with party-to-party trainings. African officers attend PLA political schools, where they receive ideological education along with senior civilian officials. Beijing prioritizes security partnerships with militaries governed by former national liberation movements because similar models of governance between Beijing and these countries provide an opportunity to build strong ideological ties based on a shared authoritarian political culture.[258] Beijing, however, also seeks to build partnerships with countries that do not share ideological similarities with the CCP, such as Kenya, Senegal, and Botswana. These countries are of geostrategic importance to Beijing's initiatives, although military engagement between Beijing and these countries is less frequent.[259] According to Mr. Nantulya, the PLA

established the African Capacity for Immediate Response to Crisis in 2013 as a temporary standby force until the African Standby Force reaches full operational capacity.

*The first defense forum, the China-Africa Defense and Security Forum, was held in June 2018. The second forum was held in 2019 under a different name: the China-Africa Peace and Security Forum.

also engages with militaries in countries that have been "frozen out of the international system" through international sanctions due to human rights abuses, such as Eritrea and Burundi, with the aim of gaining economic and political benefits, including port access in Eritrea and support from Burundi at the UN.[260]

Beijing facilitates and funds professional military education (PME) in basic skills or support functions and provides ideological education for African officers. According to Mr. Nantulya, African officers believe U.S. PME is superior to Chinese PME because it is internationally recognized at the senior level and is considered more "refined" and "crucial" for career advancement.[261] African militaries, however, value Chinese military education for the training of non-commissioned officers and junior and mid-level officers, as well as for technical training in subjects such as engineering, technology, and mechanics.[262] China regularly hosts African military officials in Beijing, facilitating training in military management and counterterrorism.[263] Beijing also invites several hundred African military professionals to visit and study at Chinese military institutions annually.[264] For example, during the 2019 China-Africa defense forum, African military officials visited China's Special Police College, where People's Armed Police forces train for counterterrorism operations.[265] Additionally, China is increasing its engagement through combined military exercises and drills with African countries.*

This military-to-military cooperation strengthens China's security partnerships with African countries, which helps China in its effort to become a preferred security partner in Africa. In April 2019, Egypt hosted the PLA Navy and its Russian counterpart in a training exercise simulating PLA Navy collaboration with Egypt on antipiracy operations in the Red Sea and broader Horn of Africa region. The five-day mission involved six Russian frigates and three Chinese guided-missile frigates.[266] In November 2019, South Africa hosted China and Russia for combined naval exercises with the purpose of encouraging "interoperability" and strengthening relations between the navies.[267]

Beijing also prioritizes security engagement as a method for promoting its governance model in Africa. During the Cold War period, Beijing facilitated educational exchanges for African officers in Chinese military institutions and sent instructors to national liberation movement political and ideological schools in Africa, training African military officers in ideological education that characterized the military as an instrument of the ruling political party.[268]

Beijing continues to incorporate ideological training in its security engagement with African partners today, influencing civil-military

*Like the United States, China incorporates exercises, equipment instruction, and professional education into its security partnerships with African countries. The United States conducts more frequent bilateral and multilateral exercises with African partners than China does. The United States conducts two annual training exercises and seven joint and regional exercises with countries such as Egypt, Morocco, Algeria, Tunisia, Libya, Mauritania, Senegal, Somalia, Djibouti, Mauritius, Mozambique, Tanzania, Seychelles, Kenya, Madagascar, Comoros, Benin, Burkina Faso, Cameroon, Chad, Cape Verde, Cote d'Ivoire, Ghana, Guinea, Mali, Nigeria, Togo, Niger, Ethiopia, and Liberia. In contrast, in 2019 China conducted only two military exercises in Africa, with a total of 15 military exercises from 2002 to 2019. See National Defense University Center for the Study of Chinese Military Affairs, "Chinese Military Diplomacy Database Version 3.0," June 22, 2010; Judd Devermont, response to questions for the record for U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May 8, 2020, 227; David Vergun, "DOD Supports African Partner Nations in Multiple Ways," *U.S. Department of Defense*, May 1, 2020; U.S. Africa Command, *Exercises*.

relations in countries like Uganda, Tanzania, and South Sudan. In Uganda, for example, the chief political commissar, a senior officer in the Uganda People's Defense Force, supervises political commissars and leads ideological education efforts for each military unit to "propagate the spirit of nationalism" and ensure regime control of the military.[269] The CCP's International Department is funding Tanzania's Julius Nyerere Leadership School, a former training base for liberation movements, which will train approximately 400 civilian and military leaders and cadres from Tanzania, South Africa, Mozambique, Angola, Namibia, and Zimbabwe annually.[270] South Sudan's Office of the Deputy Chief of Staff for Moral Orientation is modeled after the PLA Political Work Department, and its mission is to teach Sudan People's Liberation Movement ideology to South Sudanese forces.[271] Since 2011, the office has trained 4,100 personnel and leaders in China's ideological schools, where they are taught that the ruling regime exercises absolute control over the military and thus that the military is an instrument of the regime.[272]

China's Growing Involvement in Africa's Arms Market

Arms exports have been another key feature of China-Africa security cooperation, bolstering China's image as a partner of choice. Beijing's willingness to sell arms to authoritarian governments and countries under international sanctions, its flexible financing terms,* and the low cost of Chinese-manufactured weapons make China a preferred military partner for some countries. Chinese arms exports to Africa have grown significantly over the years, increasing by 55 percent from 2008–2012 to 2013–2017.[273] China's share of total African arms imports increased from 8.4 percent to 17 percent during the same period.[274] China now ranks second only to Russia as the largest exporter of arms to sub-Saharan Africa. China's share of total African arms imports has decreased slightly since 2017, however, accounting for 13 percent of Africa's total arms imports as of 2019.[275]

The types of weaponry China sells are diverse, as are the recipients of these arms. North Africa is a top destination for Chinese arms, taking in 49 percent of China's export flows to the continent, while East Africa constitutes 21 percent of Chinese weapons exports to Africa.[276] From 2014 to 2018, China exported military equipment to 26 African countries, including armored vehicles to the Central African Republic; Y-12 military transport aircraft to Mali; and Red Arrow HJ-9A antitank guided missiles to Rwanda, the only known foreign destination for this type of antitank missile.[277] China has also provided armed drones, satellite imagery, and intelligence to the Nigerian government—where China has invested heavily in the oil sector—to aid in the fight against terrorist group Boko Haram.[278] Additionally, China has sold Morocco and Sudan the AR-2 and WS-2 multilaunch rocket systems, respectively.[279] Chinese arms manufacturers are able to provide these weapons at low cost, allowing China to undercut competitors in the small arms and light weapons

*Beijing provides soft loans and rescheduling options, particularly for heavy weaponry, including tanks and combat aircraft. Beijing has also allegedly supplied arms to countries in exchange for commodities, such as copper from Zambia and aluminum from Zimbabwe. See Paul Nantulya, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May 8, 2020, 5.

market, as well as the heavy weapons market, for which it provides loans and loan rescheduling options.[280] Chinese defense firms are also invested in building up Africa's indigenous defense industries, engaging in partnerships and joint ventures in Angola, Ethiopia, Sudan, South Sudan, and Zimbabwe, among other countries.[281]

Beijing sells arms to African countries without regard for their form of government or human rights standards. China has sold arms to internationally sanctioned countries facing scrutiny for human rights abuses, including South Sudan.[282] In one notable example, China's largest arms manufacturer sold $20 million in antitank missiles, guided launchers, grenade launchers, automatic rifles, and ammunition to South Sudan's government despite Beijing's promise to halt arms sales because of human rights abuses committed by the South Sudanese military.[283] Chinese arms have also been used during conflicts in the DRC, Cote d'Ivoire, Sudan, and Somalia.[284]

Chinese companies have also played a part in building national security information technology infrastructure for African countries. In his testimony before the Commission, Judd Devermont, director of the Africa program at the Center for Strategic and International Studies, stated that Chinese tech company ZTE has played a part in supporting sensitive information technology networks for African forces.[285] In 2011, China financed an independent secured mobile network for Tanzanian defense forces, a project aimed at decreasing communication costs and increasing connectivity between Tanzania defense forces for better information sharing.[286]

Building an Image of a Responsible Global Power

Beijing has also used the PLA's presence in Africa to emphasize China's role in global public health. Most recently, the PLA Navy delivered personal protective equipment to the South African National Defense Force as a part of its efforts to assist countries impacted by COVID-19.[287] In 2018, the PLA conducted drills in Cameroon, Gabon, Ghana, and Nigeria and its medical units trained with counterparts in Ethiopia, Sierra Leone, Sudan, and Zambia to enhance medical readiness. Beginning in 2014, Beijing deployed the PLA to assist West African countries affected by the Ebola virus epidemic, sending approximately 500 PLA personnel to Sierra Leone and Liberia to deliver medical assistance in China's largest medical overseas assistance operation.*[288] According to Jennifer Bouey, Tang Chair in China policy studies at the RAND Corporation, China's response to the Ebola outbreak was an effort to improve Beijing's "damaged public health image" after the government mishandled the 2002–2003 severe acute respiratory syndrome (SARS) outbreak in China.[289]

*According to the U.S.-China Economic and Security Review Commission's report, *The Chinese Military's Role in Overseas Humanitarian Assistance and Disaster Relief*, "U.S. military efforts [in West Africa during the Ebola virus epidemic] involved the deployment of more than 2,300 personnel who built 11 facilities for treatment of patients, formed six mobile laboratories for testing of patient samples, trained health care workers, and provided airlift for medical materials and personnel using several types of aircraft. The British military deployed around 900 personnel to build treatment centers, train and treat local medical workers and staff, and provide security." See Matthew Southerland, "The Chinese Military's Role in Overseas Humanitarian Assistance and Disaster Relief: Contributions and Concerns," *U.S.-China Economic and Security Review Commission*, July 11, 2019.

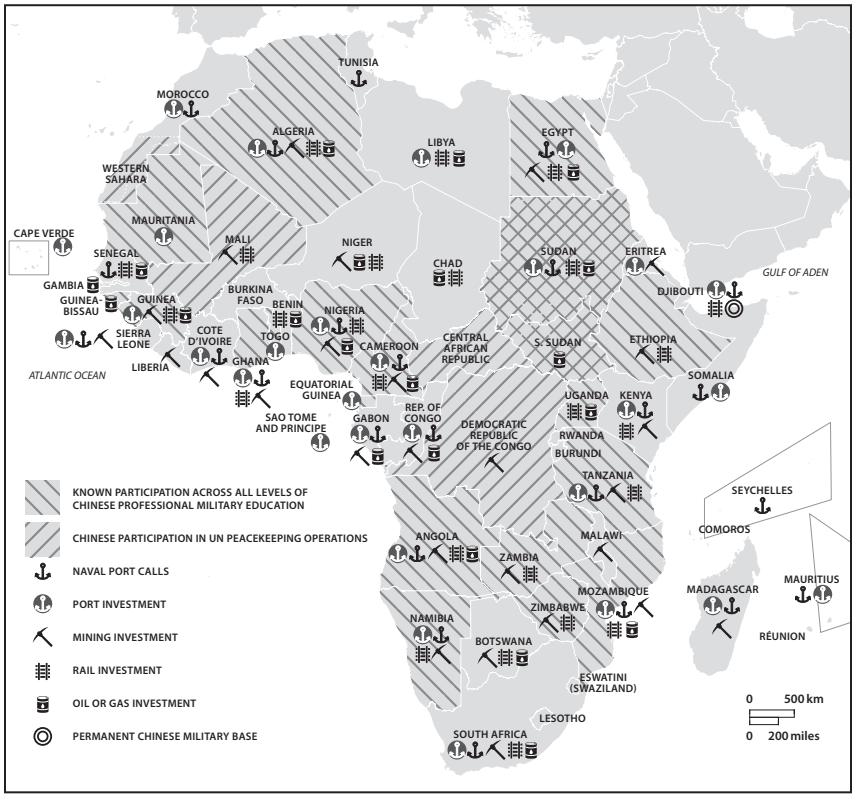
China is a significant contributor of troops to UN PKOs and is the second-largest financier of these missions, behind the United States.[290] Although Chinese media emphasizes that "strengthening the UN and multilateralism, acting as a responsible country, and sharing common concerns of maintaining global peace and security" is the intent of China's peacekeeping efforts, these operations also serve to protect Chinese economic interests in conflict zones and provide an opportunity for Chinese troops to gain operational experience deploying and sustaining forces on missions abroad that may translate to other force projection or combat needs of the PLA.[291] In September 2020, Beijing released its first white paper on UN PKOs, which advocated "contributing Chinese wisdom and sharing experience" to these missions, an indication of China's desire to take a leading role in the UN PKO system.[292] The white paper also claims that host countries should "independently choose social systems and development paths based on their national conditions," implying that Beijing's authoritarian model is superior to democratic governance in countries suffering from civil conflict.[293]

Using Security Forces to Protect Economic Interests

A second key driver of China's increasing security presence in Africa is its desire to protect its economic investments across the continent. China combines traditional force projection, such as deployments by the PLA Navy, with an array of alternative security arrangements to protect these interests. This multitiered approach to addressing security threats on the continent allows China to advance its economic interests without deploying PLA forces in certain situations where a more visible PLA presence would receive pushback from local communities. As Mr. Nantulya stated, "Beijing has favored a 'soft approach'… to avoid an overt military presence, in part to downplay the strategic dimensions of China's engagement and avoid generating suspicion among Africans. China also fears that a muscular posture might trigger more deployments into Africa by its competitors like the U.S., UK and France, potentially undermining its influence."[294]

The Chinese government has accordingly allocated resources to strengthen its security presence to protect Chinese national and commercial assets. Incidents that have led to an increased Chinese military presence on the continent include Libya's civil war, leading to the evacuation of over 30,000 Chinese nationals in 2011, the killing of Chinese peacekeepers in Mali and South Sudan, and the threat of Boko Haram in Nigeria.[295]

Figure 3: China's Economic and Security Activities in Africa



Note: Investment includes projects that are built, planned, and in negotiation.
Source: Various.[296]

China Leverages Its Influence in the UN Peacekeeping System to Advance Its Economic Goals

Most of China's major peacekeeper contributions in Africa have been in countries where it has significant economic interests.[297] For example, China has a large peacekeeping presence in the DRC, where China Molybdenum, a Chinese mining company, has an 80 percent stake in one of the world's largest cobalt mines and the largest copper mining operation in the DRC.[298] Beijing has also deployed combat troops and peacekeepers to Mali, a BRI participant that has received Chinese development assistance for critical infrastructure projects.[299] Moreover, in at least one case, Beijing has worked through the UN to update key guidelines to secure its economic interests, and Chinese state media and security personnel have documented China's interest in using peacekeeping forces to directly protect Chinese investments.

A key instance where the Chinese government seems to have used its political influence in the UN to advance its economic objectives is South Sudan. China currently has 1,072 peacekeeping personnel deployed in South Sudan and the China National Petroleum Cor-

poration controls a 40 percent stake—the largest of any stakeholder—in a consortium that extracts South Sudan's oil.[300] In 2012, the Chinese government dispatched its first combat unit to the continent to support the UN Mission in South Sudan (UNMISS).[301] After civil war broke out in the country in 2013, Beijing played a significant role in increasing the UNMISS authorized troop strength and modifying UNMISS's mandate to include a broader interpretation of the UN's nonintervention policy.[302] In this expanded mandate, Beijing successfully lobbied for a provision to include the protection of workers on oil installations.[303] Although the provision initially encountered resistance from officials in the UN Department of Peacekeeping Operations, who argued the change would undermine the UN's neutrality and place peacekeepers on the side of the South Sudanese government and the oil industry, the mandate expansion was ultimately adopted unanimously by the UN Security Council in 2014.*[304] According to Mr. Meservey, the new mandate "effectively aligned" peacekeepers with the South Sudanese government and the country's oil sector, and by extension, Beijing's economic interests.[305] A year after the mandate was expanded, Beijing deployed 700 PLA combat troops to support the peacekeeping mission.[306]

Chinese state media and security personnel have documented China's interest in using peacekeeping forces to directly protect Chinese investments. According to a 2018 article in the *Journal of the Chinese People's Armed Police Force Academy*,† Chinese peacekeepers participating in UN Mission in Liberia, whose mandate completed in 2018, should "use the patrol time to increase patrols of Chinese-funded enterprises and Chinese-inhabited areas… and ensure the safety of Chinese people and Chinese funded enterprises in Liberia."[307] Chinese state media have also referred to direct cooperation between Chinese peacekeepers and economic actors, lauding cooperation between Chinese peacekeeping forces and a Chinese SOE building a highway project in Liberia in 2018.[308]

Beijing Uses Private Military Contractors and African Partners to Protect Its Economic Assets

To protect assets in the region, China has increasingly relied on private military contractors since the launch of BRI in 2013, as well as African military partners. There are over 3,000 demobilized PLA and People's Armed Police officers employed in Angola, Ethiopia, Ghana, Nigeria, Somalia, South Sudan, Sudan, Zambia, and Zimba-

*To garner support for expanding the mandate, Beijing had purportedly promised in closed-door negotiations that it would provide additional peacekeeping troops to South Sudan in exchange for the provision's adoption. Beijing initially only wanted to deploy its peacekeepers to the key oil-producing provinces, but ultimately agreed to deploy peacekeepers to other areas of the country. Other members of the UN Security Council ultimately backed the provision, arguing that attacks on South Sudan's oil sector threatened to undermine the country's economy. Colum Lynch, "U.N. Peacekeepers to Protect China's Oil Interests in South Sudan," *Foreign Policy*, June 16, 2014.

†The article was written by Wang Honghai and Kong Weiliang of the Department of Peacekeeping Training at the People's Armed Police Force Academy. According to Joel Wuthnow, senior research fellow at the National Defense University, the paramilitary People's Armed Police "has emerged as a partner of choice for foreign governments in areas such as counterterrorism and peacekeeping training, in addition to its longstanding role as contributors to United Nations peacekeeping missions." Joel Wuthnow, "China's Other Army: The People's Armed Police in an Era of Reform," *China Strategic Perspectives* 14 (April 2019): 3; Wang Honghai and Kong Weiliang, "Liberia's National Security Situation and the Security Response Strategy of the Chinese Peacekeeping Police in Liberia" (利比里亚国家安全形势现状与中国驻利维和警队安全应对策略), *Journal of the Chinese People's Armed Police Force Academy*, 2018. Translation.

bwe.[309] In South Sudan and the Central African Republic, countries heavily impacted by civil wars, Chinese company DeWe established private security facilities to protect Chinese companies located in these countries.[310] In South Sudan, the China National Petroleum Corporation has also hired private security contractors to protect employees and commercial assets, in addition to deploying a PLA unit to protect civilians, installations, and oil fields under UN auspices.[311]

African partners have also assisted Beijing with asset protection. For example, in 2018 the Kenyan government sent a cohort of police officers to China to train in railway security as a part of an effort to enhance protection of the Standard Gauge Railway, a major BRI project.[312] After Burkina Faso's decision to sever diplomatic relations with Taiwan in 2018, the PLA began developing ties with Burkina Faso's military, and the two countries' security cooperation will likely involve training in counterterrorism and infrastructure protection, two key Chinese priorities in the Sahel.*[313] Finally, in 2018 the Ugandan government began using its national military to protect Chinese companies in the country that were impacted by a string of robberies.[314]

An Expanding Military Footprint

Beijing has deployed PLA troops to African countries for purely military purposes, leveraging its growing political and economic influence to secure basing rights and gain experience deploying combat units overseas. China's establishment of a permanent base in Djibouti† in 2017 improves its ability to deploy and sustain troops in Africa and sets the precedent for it to take advantage of economic leverage over other African countries to push for additional military bases on the continent.[315] Meanwhile, Beijing's deployment of combat troops in support of UN PKOs has allowed the PLA to gain important operational experience overseas. (See Chapter 3, Section 2, "China's Growing Power Projection and Expeditionary Capabilities," for further discussion on China's power projection capabilities.)

China's Djibouti Base and the Potential for Future Basing

Should China establish additional military bases in Africa, it is likely to do so by employing political and economic leverage in a manner similar to Beijing's establishment of its Djibouti base. China's deep diplomatic and economic ties with Djibouti were factors that played a part in the Djiboutian government's decision to allow China to build the base. Beijing's ability to leverage its influence in Djibouti could allow it to gain control of the Doraleh Container Terminal at the Port of Djibouti, which could pose a security problem for Washington given that most supplies for the U.S. base in Djibouti come through the Doraleh Container Terminal.[316] China's

*The Sahel falls below the Sahara Desert and stretches across parts of Senegal, Mauritania, Mali, Burkina Faso, Algeria, Niger, Cameroon, Nigeria, Central African Republic, Chad, Sudan, South Sudan, Eritrea, and Ethiopia.

†Djibouti owes a significant amount of debt to China, equivalent to 75 percent of its gross domestic product. China is also a leading financier of Djibouti's infrastructure, wrapping investment deals and infrastructure projects into the agreement for its military base. The extensive political and economic leverage Beijing held over Djibouti was a critical factor that allowed China to stand up the base. Joshua Meservey, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Strategic Aims in Africa*, May 8, 2020, 6.

Djibouti base is located approximately six miles from the U.S. base in Djibouti, which presents unique security risks for U.S. forces. As Janes argues in a contracted research report for the Commission, the proximity of the Chinese base creates the "potential for disruption and observation of U.S. military operations and personnel in Djibouti."[317] The report further notes that China's position in Djibouti could allow it to gather intelligence on U.S. military capabilities and operations.[318] The report also outlines tools of leverage that Beijing may employ over a country to establish additional bases, including the presence of major BRI investments, debt to China, a history of hosting the PLA Navy for port calls, and geopolitical support for Beijing.[319]

Mr. Meservey predicts that China is "setting the conditions for establishing [additional military bases in Africa] in the medium to long-term," although it is unlikely to do so in the short term.[320] Countries that are economically important to China, are strategically located near key sea lines of communication, and have friendly relations with China are potential candidates.[321] According to Mr. Meservey, potential locations with these characteristics include Angola, Comoros, Eritrea, Namibia, South Africa, Tanzania, and Zambia.*[322] China has shown interest in projecting power into key areas of the Atlantic Ocean, making investments in ports like Walvis Bay in Namibia, a country with which it has strong diplomatic and economic ties.[323]

Implications for the United States

China's engagement with African countries reflects Beijing's attempts to promote its one-party, authoritarian model of governance as an alternative to the liberal international order. Taken together, the 54 countries in Africa are home to the world's youngest and fastest-growing populations and boast dynamic economies, a growing middle class, and an increasing footprint in global affairs.† Therefore, the degree to which China succeeds in advancing its model in Africa will have significant consequences for U.S. political, economic, and military interests on the continent.

If the CCP is able to popularize its authoritarian model on the continent, Africa will become less open, less dynamic, and less democratic, limiting the ability of the United States to build sustained political and economic partnerships with African countries. China's approach could also constrain development on the continent, adversely impacting U.S. objectives of fostering stability and sustainable growth in Africa. Moreover, China's engagement in Africa carries implications beyond the continent as Beijing attempts to apply its approach to Africa to other regions in the world, such as Latin America and the Caribbean.

China's political engagement in Africa is often diametrically opposed to U.S. goals and actions. Where the United States seeks to

*According to the U.S. Department of Defense, Beijing has probably already made overtures to Namibia to set up a base. The department also concludes that China has likely considered Kenya, Seychelles, Tanzania, and Angola as locations for a future base. U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China*, 2020, 129.

†According to a 2019 Brookings Institution analysis, 60 percent of Africa's population is under the age of 25 and by 2050, one-third of the world's youth population will be in sub-Saharan Africa. Fred Dews, "Charts of the Week: Africa's Changing Demographics," *Brookings Institution*, January 18, 2019.

support good governance and strengthen democratic institutions in politically fragile countries, China often bolsters authoritarian regimes and fosters corruption on the continent. The Chinese government's willingness to provide economic assistance and security aid to countries under international sanctions for human rights abuses further jeopardizes freedom and civil liberties on the continent.

Beijing also leverages its assistance to garner African support to promote its diplomatic priorities on the global stage, diminishing the impact of U.S. diplomacy in African countries and at the UN. China's growing diplomatic influence has already been seen in the widespread African backing for China's ongoing persecution of Muslim minority ethnic groups in Xinjiang and support for the CCP's repression of Hong Kong's prodemocracy movement. As Beijing increases its influence in Africa, it will likely be able to continue to rely on African countries to secure key international leadership positions over candidates supported by the United States and its allies and advance other diplomatic goals that run counter to U.S. interests.*[324]

China has leveraged its manufacturing and export capacity to carve out a central role in Africa's growing markets, often to the exclusion of U.S. firms. Beijing has been particularly successful in establishing dominance in Africa's telecommunications sector, which depends on Chinese equipment and services for internet connectivity.[325] The early entry of Chinese firms Huawei and ZTE into Africa's telecommunications sector, aided by generous subsidies from the Chinese government, has helped Chinese companies gain an advantage over competitors in the market. As Beijing steps up its technological and political engagement, there is also a risk that African countries will adopt new Chinese technical standards, ensuring long-term economic dominance for Chinese firms at the expense of U.S. firms. Equally important, adoption of Chinese technology and standards by African countries could entrench China's model of techno-authoritarianism and diminish U.S. influence on the continent.

China's economic engagement has helped bring much-needed infrastructure to Africa, but it also threatens progress achieved by the United States and partner countries and institutions in fostering self-sufficiency and a fair economic environment on the continent. Beijing's projects often exclude U.S. and other non-Chinese firms from participation, which not only denies U.S. companies economic opportunity, but also ensures Beijing is able to conduct these projects in a noncompetitive and opaque manner. Moreover, Chinese projects often lack sound economic rationale, robust environmental impact assessments, and protection for workers' rights, and they may promote local corruption.

Beijing has benefitted from U.S. efforts to foster sustainable economic development in Africa, while itself contributing little to these efforts. The Chinese government's practice of funding projects with

*There are multiple upcoming international leadership contests over the next two years, including the International Civil Aviation Organization (2021), the UN Industrial Development Organization (2021), the Universal Postal Union (2020), the UN Conference on Trade and Development (2021), and the Comprehensive Nuclear Test Ban Treaty Organization (2021). China already maintains leadership over the International Civil Aviation Organization and the UN Industrial Development Organization. For more details on China's UN leadership positions, see Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom." Brett D. Schaefer, "6 Upcoming UN Elections That Could Impact U.S. Interests," *Heritage Foundation*, March 31, 2020.

opaque loans has contributed to a mounting debt problem in Africa. Beijing continues to avoid a transparent multilateral discussion of debt relief with African countries, which may mean the United States and other responsible lenders shoulder an undue part of the burden associated with African debt, essentially bailing out the Chinese government's irresponsible lending practices.

In addition to debt relief, Beijing may also benefit from other U.S. economic policies in Africa. Chinese firms have already taken advantage of AGOA to bypass U.S. quotas on Chinese textiles. As trade tensions and scrutiny over China's forced labor in Xinjiang lead to greater U.S. restrictions on Chinese imports, Chinese companies may start transshipping goods through African countries. This risk may become more pronounced as the United States considers further trade agreements with African countries, including the one with Kenya. If these agreements do not contain robust country-of-origin rules, China may further profit from U.S. trade policies intended to strengthen U.S.-Africa commercial ties.

Beijing's expanding military presence creates challenges for U.S. security interests on the continent. The proximity of China's military base to the U.S. base in Djibouti, in addition to China's growing presence in African ports, enhances Beijing's ability to gather intelligence on U.S. forces operating across the continent. As the United States remains the top financial contributor to UN PKOs, Washington risks unwittingly subsidizing Beijing's subversion of these important UN missions.[326] China's willingness to sell weapons to countries under U.S. and international sanctions, including Sudan and South Sudan, also undermines U.S. efforts to address human rights violations and could further destabilize civil conflicts across the continent.

Further, China's substantial investment in Africa's civilian ports could lead to dual-use arrangements or the establishment of additional military bases that would allow Beijing to increase its naval presence around the continent. While China's ability to challenge the United States militarily in and around Africa is currently limited, an expanded Chinese military presence in Africa in the future, such as by permanently basing warships in Djibouti or West Africa, could allow the PLA to impede the movement of the U.S. Navy in the western Indian Ocean and even the southern Atlantic.

Beijing employs a multidimensional and sustained Africa strategy, supported by high-level focus emanating from the most senior levels of the Chinese government. Nevertheless, despite China's deepening influence in Africa, the United States retains many important advantages in African countries. Not least among these is continued widespread support for the United States and democratic governance across Africa. According to a 2020 survey* measuring African views of the United States and China conducted across 18 African countries, the U.S. model was respondents' most-preferred model of governance, although China's model ranked a close sec-

**Afrobarometer* is a pan-African, independent, nonpartisan research network that measures African attitudes on economic, political, and social matters. In its 2020 survey, 32 percent of survey respondents preferred the U.S. model and 23 percent preferred China's model. Fifty-nine percent of survey respondents rated China as a "somewhat" or "very" positive influence in their country, whereas 58 percent said the United States was a "somewhat" or "very" positive influence in their country. Edem Selormey, "Africans' Perceptions about China: A Sneak Peek from 18 Countries," *Afrobarometer*, September 3, 2020.

ond.[327] A similar survey conducted in 2019 showed that three-quarters of respondents preferred regular, open, and honest elections to choose their national leaders—a preference directly in contrast to what Beijing seeks to export to African countries.[328]

The U.S.-China competition in the African context is a long-term contest in which African governments seek to increase economic and security cooperation with both the United States and China and use one country against the other to derive the most benefits for themselves. It does not represent a zero-sum competition, and some aspects of China's engagement in Africa are not intrinsically harmful to the United States. If Washington, however, fails to devote significant attention to Africa, recognize African countries' diverse national interests, and actively offer an attractive alternative to China's model, it risks more African leaders and populations turning toward Beijing. This would be an outcome with dire consequences for the future of open markets and democratic government, not just in Africa but around the globe.

Addendum I: African Diplomatic Support for China's Controversial International Positions

Country	Publicly Supported China's Xinjiang Policy*	Publicly Supported China's Conduct in the South China Sea†	Publicly Supported China's Positions on Hong Kong‡	Recipient of International Debt Relief§
Algeria	X	X		
Angola		X		
Benin		X		X
Botswana				
Burkina Faso	X			X
Burundi	X	X	X	X
Cameroon	X	X	X	X
Cape Verde				
Central African Republic	X	X	X	X
Chad	X			X
Comoros	X	X		X
Republic of the Congo	X	X	X	X
Democratic Republic of the Congo	X	X		X
Côte d'Ivoire				X
Djibouti	X	X	X	
Egypt	X	X	X	
Equatorial Guinea	X		X	
Eritrea	X	X	X	
Eswatini				

*"Publicly Supported China's Xinjiang Policy" refers to African countries that signed a letter in July 2019 publicly declaring their support for China's Xinjiang policies, as well as subsequent signers, countries that supported Beijing via other individual or joint statements, and countries that supported China's Xinjiang polices at the 2020 UN General Assembly.

†"Publicly Supported China's Conduct in the South China Sea" refers to African countries that declared their support for China's conduct in the South China Sea via official statements and declarations.

‡"Publicly Supported China's Positions on Hong Kong" refers to African countries that supported Beijing's suppression of the 2019 Hong Kong prodemocracy protests as well as states that declared their support for China's 2020 Hong Kong national security law via individual or joint statements and countries that supported China's position on Hong Kong at the 2020 UN General Assembly.

§"Recipient of International Debt Relief" refers to African countries that received debt relief under the Highly Indebted Poor Country Initiative led by the World Bank, the International Monetary Fund, and other creditors.

Addendum I: African Diplomatic Support for China's Controversial International Positions—*Continued*

Country	Publicly Supported China's Xinjiang Policy	Publicly Supported China's Conduct in the South China Sea	Publicly Supported China's Positions on Hong Kong	Recipient of International Debt Relief
Ethiopia		X		X
Gabon	X	X	X	
The Gambia		X	X	X
Ghana				X
Guinea	X	X	X	X
Guinea-Bissau	X	X	X	X
Kenya		X		
Lesotho		X	X	
Liberia		X		X
Libya		X		
Madagascar	X	X	X	X
Malawi		X		X
Mali		X		X
Mauritania	X	X	X	X
Mauritius				
Morocco	X	X	X	
Mozambique	X	X	X	X
Namibia				
Niger	X	X	X	X
Nigeria	X			
Rwanda				X
São Tomé and Príncipe				X
Senegal		X		X
Seychelles				
Sierra Leone	X	X	X	X
Somalia	X	X	X	X
South Africa		X		
South Sudan	X		X	

Addendum I: African Diplomatic Support for China's Controversial International Positions—*Continued*

Country	Publicly Supported China's Xinjiang Policy	Publicly Supported China's Conduct in the South China Sea	Publicly Supported China's Positions on Hong Kong	Recipient of International Debt Relief
Sudan	X	X	X	
Tanzania	X	X	X	X
Togo	X	X	X	X
Tunisia		X		
Uganda	X	X	X	X
Zambia	X	X	X	X
Zimbabwe	X	X	X	

Source: Various.[329]

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CHAPTER 2

U.S.-CHINA ECONOMIC AND TRADE RELATIONS

SECTION 1: YEAR IN REVIEW: ECONOMICS AND TRADE

Key Findings

- China's gross domestic product (GDP) contracted 6.8 percent the first quarter of 2020, marking the worst quarterly performance since 1992 and the first contraction since the Mao era. Responding to the economic shock, China's government reverted to past practices, exacerbating enduring structural problems within China's economy. Massive state-led investment and other policy choices have benefitted state-owned enterprises (SOEs) at the expense of households and small business and risk increasing global overcapacity, inequality, and debt buildup.
- U.S.-China tensions continued to escalate over trade and national security concerns. The U.S. Department of Commerce tightened restrictions on Huawei and added over 100 China-based entries to the Entity List for a range of activities, including illicitly providing U.S. technology to China's military, aiding in the repression of China's ethnic Uyghur minority, and constructing artificial islands in the South China Sea. The U.S. Department of Homeland Security also blocked Chinese imports from factories and companies suspected of using forced labor, primarily in China's Xinjiang Uyghur Autonomous Region. Chinese leaders have threatened retaliatory treatment and redoubled efforts to secure technological self-sufficiency.
- Continuing trade tensions and shortages related to the spread of the novel coronavirus (COVID-19) pandemic revealed key supply chain vulnerabilities, prompting the United States and its allies to accelerate their reassessment of dependence on China for critical inputs and finished goods. As 2020 comes to a close, U.S. companies continue to weigh their sourcing options and consider what degree of reliance on concentrated production in China is acceptable.
- Despite mounting tensions between the United States and China, the two countries reached a Phase One trade agreement in January. In the agreement, China once again committed to ensuring technology transfer occurred on a voluntary basis, providing stronger intellectual property (IP) protection, allowing greater market access for U.S. financial services, reducing

nontariff barriers to trade for U.S. agricultural products, and reaching specific purchase targets of U.S. exports, though by August 2020 China was on track to import only one third of the aggregate target for the year. Remaining long-term challenges, including Chinese government subsidies, local content requirements, and continuing market access restrictions in other sectors were deferred to future rounds of negotiation.

- The Chinese government's decision to allow greater foreign investment in its financial sector coincides with an urgent domestic demand for capital, as China's banking sector faces an unsustainable debt burden. Favoritism for local corporations, lack of transparency, and weak regulatory and accounting practices place U.S. assets and investors, including pension funds, at substantial risk.

Introduction

The Chinese Communist Party's (CCP) mismanagement and concealment of the COVID-19 outbreak fueled the global pandemic and contributed to a massive shock to the global economy in 2020. After China's GDP contracted 6.8 percent in the first quarter, its economy showed signs of an uneven recovery beginning in the second quarter, resuming operation as many other economies closed nonessential businesses to halt the spread of COVID-19. China's policy response favored state-led investment with large SOEs receiving preferential access to capital over small- and medium-sized enterprises (SMEs).* It also failed to support Chinese households and reinvigorate consumer confidence except among China's wealthy, calling into question the sustainability of China's stimulus-driven rebound. As the rest of the world grapples with the economic fallout from the pandemic, the potential collapse in demand for Chinese exports will likely undermine the tentative resurgence of China's manufacturing sector. At the same time, U.S. businesses and policymakers are reconsidering an acceptable degree and nature of interdependence with China, as COVID-19 exacerbated trade frictions and highlighted vulnerabilities in supply chains.

This section examines key developments in U.S.-China bilateral trade and economic tensions, as well as China's domestic economic developments and rebalancing. For Chinese policymakers' views of U.S.-China competition, see Chapter 1, Section 1, "A Global Contest for Power and Influence: China's Views of Strategic Competition with the United States." China's roles in international organizations and in shaping international standards are reviewed in Chapter 1,

*The Chinese government sets criteria distinguishing micro-, small-, and medium-sized enterprises on an sector-by-sector basis according to operating revenue, number of employees, total assets, and other factors. These criteria vary significantly within and across sectors. For example, in the retail sector, firms with fewer than 10 employees are micro-sized enterprises; 10–50 employees are small-sized enterprises; and more than 50 employees are medium-sized enterprises. Contrastingly, in the industrial sector, firms with fewer than 20 employees are micro-sized enterprises; 20–300 employees are small-sized enterprises; and more than 300 employees are medium-sized enterprises. Though definitionally fluid, these smaller companies are important to China's economic health. According to Chinese state media, "private enterprises dominated by small, medium, and micro enterprises" account for 60 percent of GDP, 80 percent of urban employment, and half of national tax revenue. *People's Daily*, "Support Medium, Small, and Micro Enterprises to Overcome the Pandemic (支持中小微企业克服疫情影响)," June 8, 2020. Translation; State Council of the People's Republic of China, *Notice on Issuing the Classification Standards for Small and Medium-sized Enterprises (*关于印发中小企业划型标准规定的通知), June 18, 2011. Translation.

Section 2, "The China Model: Return of the Middle Kingdom." For analysis of China's banking system, financial opening, and debt challenges, see Chapter 2, Section 2, "Vulnerabilities in China's Financial System and Risks for the United States." China's response to COVID-19, challenges in its healthcare system, and pursuit of biotech leadership are discussed in Chapter 2, Section 3, "U.S.-China Links in Healthcare and Biotechnology."

China's Economy Backslides toward Investment-Led Model

China is concluding 2020 in a more precarious economic position than it began the year, as both the immediate economic shock from the COVID-19 pandemic and uneven recovery have exacerbated enduring structural problems in the economy. Following a 6.8 percent GDP contraction in the first quarter of 2020, the government abandoned an official growth target for the first time in decades, publicly stressing employment and stability as priorities at the expense of growth. In practice, however, the government replayed a familiar strategy of state-led investment to spur quick recovery in the industrial sector, but did little to shore up the social safety net. Sustained by large fiscal transfers, local governments have become even more beholden to the central government, undercutting a key priority to separate municipal and central government debt at the outset of General Secretary of the CCP Xi Jinping's administration.

While China's GDP growth rebounded to 3.2 percent in the second quarter, the stimulus-driven recovery has been lopsided at best.[1] A massive digital infrastructure construction plan disproportionately benefiting large SOEs and national champions underscores the Chinese government's perennial shortfall in supporting dynamic smaller firms and continues a trend of using major private technology companies to fulfill policy objectives. Meanwhile, consumer confidence has remained weak for all but the wealthiest households even as growth revived, highlighting rising inequality and obstacles to transitioning from an investment-led to a consumption-driven growth model. Although official statistics suggest China was the first among major economies to recover, sustaining this recovery will be challenging as long as both domestic and external demand remain weak.

COVID-19 Shock Causes Contraction Followed by Uneven Recovery

The initial shock caused by the outbreak and strict lockdown in China's major cities between February and March* impacted every sector of the economy, with declines in consumption and manufacturing output particularly deep.[2] The industrial sector contracted 9.6 percent year-on-year in the first quarter of 2020, compared to 3.2 percent for agriculture and 5.2 percent for services.†[3] In a

*Many factories reopened sooner but at limited capacity. Wuhan, the epicenter of the virus, was locked down for over ten weeks. Raymond Zhong and Vivian Wang, "China Ends Wuhan Lockdown, but Normal Life Is a Distant Dream," *New York Times*, April 17, 2020; Keith Bradsher, "Slowed by the Coronavirus, China Inc. Struggles to Reopen," *New York Times*, February 17, 2020.

†In Chinese official statistics, the primary sector is restricted to agriculture, forestry, animal husbandry, and fishing and does not include extractive industries, which are counted as part of the secondary or industrial sector. The industrial sector includes extractives, manufacturing, construction, and utilities. The tertiary, or services sector, includes wholesale and retail, logistics (transportation, shipping, and storage), catering and accommodation, financial services, and information technology services. China National Bureau of Statistics via CEIC; China National

sharp reversal of first quarter trends, the industrial sector led GDP growth in the second quarter, increasing 4.7 percent year-on-year, while China's agricultural sector grew at 3.3 percent and services rebounded more modestly, growing only 1.9 percent.[4] The composition of China's recovery suggests it is driven principally by state-led investment and reflects acute limits in China's transition to a market-oriented economy.

A collapse in manufacturing activity and in-person services led the contraction. As factories closed throughout the country, supply disruptions caused a 10.2 percent drop in manufacturing output.[5] This compounded the Chinese economy's challenges, as much of the global economy remained strong during the first quarter, but new export orders could not be fulfilled while factories were closed. By the time manufacturing activity recovered in the second quarter, external demand had decreased considerably. Though contributing less to the quarterly contraction, the drop in face-to-face transactions was even more acute than the downturn in manufacturing, with hospitality declining 35.3 percent and transportation declining 14 percent.[6] Corporate revenues and investment were hit hard across the board, but private sector firms, which include more SMEs and the majority of China's factories, fared worse than SOEs.[7]

The sudden production stoppage caused a wave of job losses. Unemployment statistics are politically sensitive for the CCP. China's officially reported urban unemployment has stayed at roughly 4 percent for decades* and fluctuated in a far narrower range than most economies experience in the course of a normal business cycle.[8] Nevertheless, in February 2020 the official unemployment rate rose to 6.2 percent—a clear effort by the government to acknowledge the economic reality, if not to disclose the full extent of the damage.[9] By contrast, the brokerage firm Zhongtai Securities estimated unemployed workers "may have already exceeded 70 million"† in late April, indicating an unemployment rate of 20.5 percent, a figure quickly retracted after gaining attention online.[10]

The workers most vulnerable to the economic shock from COVID-19 were also those least likely to have access to unemployment benefits and other social insurance, exacerbating wealth inequality.[11] China's migrant laborers, estimated at 291 million at the end of 2019, or more than a third of China's workforce, tend to be employed in manufacturing, construction, and other low-wage positions.[12] These positions were far more likely to be cut during the downturn and often do not provide unemployment benefits.[13] Even where migrant workers may have access to social welfare provided by the local governments of their rural hometowns,‡ these benefits may be inacces-

Bureau of Statistics, *Rules Differentiating Three Types of Industry*《三次产业划分规定》, October 2013. Translation.

*A 2015 National Bureau of Economic Research working paper estimated that China's unemployment rate was more than twice reported statistics between 2002 and 2009, following a period of mass layoffs. Laurent Belsie, "Official Statistics Understate Chinese Unemployment Rate," *National Bureau of Economics Research Digest* (October 2015).

†As a testament to the continuing political salience of unemployment figures, on May 1 *Caixin* business magazine reported that Zhongtai Securities removed their research chief from his post after this analysis was published and then scrubbed by online censors. *Caixin*, "Zhongtai Securities Removes Research Chief after Controversial Report," May 1, 2020.

‡An internal passport system dating from 1958 divides Chinese citizens into "rural" or "urban" residents and limits their ability to access social services to their hometown, essentially creating two classes of citizen. Transferring one's residence between locales is possible, but larger, more

sible unless they return to their hometowns, forfeiting the ability to find new work where they currently live. In addition, the quality of rural public services is far below that available in cities.[14]

Industrial production and construction drove an uneven recovery. Spurred by the government stimulus and other policy support, China's economy rebounded sharply but unevenly beginning in the second quarter, reopening as many other countries imposed restrictions on nonessential business. Industrial output and infrastructure and property construction returned to pre-pandemic levels, while households and private firms continued to bear the brunt of the economic shock. Public expenditure for infrastructure projects contributed to a 7.8 percent increase in construction and a 9.9 percent increase in investment by SOEs, driving the industrial rebound.[15] By contrast, private sector investment fell 7.1 percent in the second quarter, reflecting a poor outlook for the health of China's market economy. Compared to state sector investment that is driven by policy priorities and more likely to be funded by government investment, private sector companies cater more to consumer goods and services, so private sector investment serves as a bellwether for future consumer demand.[16]

Consumer sentiment remained weak, except among wealthy households. Despite the overall rebound in GDP growth, consumption indicators for the second quarter remained weak. Retail sales contracted by 3.9 percent year-on-year in the second quarter of 2020 compared to a 7.6 percent decline the previous quarter.[17] Imports contracted 9.7 percent, though they showed signs of rebounding toward the end of the quarter.[18] Where consumption did rebound, it suggested wealthy households were benefitting far more from the recovery, widening China's already acute wealth gap. Auto sales increased after a two-year decline, with luxury car sales growing more than 25 percent in May and June 2020 over the same period in 2019.[19] The Financial Times reported that more than 12 luxury brands reported double-digit revenue growth in the second quarter.[20] At the same time, survey data showed contraction in income and spending among middle- and low-income households.[21]

Food Shortage Threat Looms as Floods and African Swine Fever Drive Prices Higher

Chinese agricultural commodity prices soared in the summer of 2020, owing to crop loss from record flooding and pests,* a resurgence of the African Swine Fever outbreak,† and decreased agri-

developed cities with the most employment opportunities have very strict requirements designed only to let highly qualified white-collar workers transfer while excluding manual laborers.

*For additional discussion of the impact of flooding on China's agriculture sector, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, August 6, 2020, 13–14.

†African Swine Fever is a highly contagious virus that is deadly for domestic and wild hogs but does not infect humans. Hogs first tested positive in China in northeastern Liaoning Province in August 2018, and the disease had been identified in all of China's provinces by April 2019, causing a 12.5 percent decline in the country's hog population and driving pork prices up 40 percent in the first half of 2019. For an assessment of the impact of African Swine Fever in 2019, see Sean O'Connor, "China's African Swine Flu Outbreak: Implications for U.S. Food Safety and Trade," *U.S.-China Economic and Security Review Commission*, May 15, 2019.

Food Shortage Threat Looms as Floods and African Swine Fever Drive Prices Higher—*Continued*

cultural imports.* Chief among staple foods impacted were pork and corn. In August 2020, the U.S. Department of Agriculture's (USDA) Foreign Agricultural Service forecasted China's pork production would drop to a low of 38 million tons for 2020, a 29 percent decrease from pre-African Swine Fever levels of 53 million tons in 2017.[22] China's output of corn, the country's largest crop by weight and cultivated area,† could face a deficit of 30 million tons, or 10 percent of the total 2020 crop during the fall harvest, following floods that submerged nearly 20 percent of China's arable land, an uptick in pests, and pockets of drought in China's fertile northeastern provinces.[23]

Food cost inflation reached 10.2 percent year-on-year in July, decreasing to 8.8 percent in August as produce price increases remained in double digits with continued floods.[24] As of 2010, 35 percent of urban households' consumption in China went toward food, versus 45 percent for rural households.[25] Increased meal costs are especially burdensome for China's lower income households, already the most likely to be impacted by the economic downturn.[26]

Chinese officials have attempted to downplay the seriousness of looming shortages while acting to minimize food waste and bolster dwindling supplies.[27] In August 2020, General Secretary Xi initiated a national campaign to eliminate food waste, leading to restaurants offering half portions or fining diners for leaving too much food uneaten.[28] China's central government and local governments have also auctioned off frozen pork from public reserves at steep discounts to supplement production and cool rising prices. Chinese nationalist tabloid *Global Times* published claims the country also has surplus grain stockpiles that could cover up to a year of annual output. Other sources, however, reported that China's corn reserves may have spoiled, and frozen pork reserves are depleted after interventions to bolster domestic supply.[29]

China Abandons GDP Target but Not Growth Model

After shutting down the economy to contain the spread of COVID-19, Beijing acted swiftly to resume operations and stimulate recovery.[30] When China's annual legislative session, the so-called

*Supply chain disruptions from COVID-19 also halted some of China's agricultural imports during the spring of 2020, particularly as some of China's rice suppliers restricted grain exports amid their own fears of food shortages. In other cases, China's limited agriculture imports were self-imposed. For example, Chinese officials banned beef imports from Australia's four largest processors and imposed steep tariffs on Australian barley in May 2020, after Australian officials called for an independent inquiry into the origins of COVID-19. Khanh Vu, "Vietnam's Ban on Rice Exports Still in Force, Government May Set Limit: Traders," *Reuters*, March 30, 2020; Kirsty Needham and Colin Packham, "China Halts Beef Imports from Four Australian Firms As COVID-19 Spat Sours Trade," *Reuters*, May 12, 2020.

†Rice is the largest by yield, but requires far less cultivated area to achieve the same yield as corn. Shaobing Peng et al., "China Cereals," *Global Yield Gap Atlas*.

"two meetings,"* convened in May† to determine policy priorities for 2020, the government revised economic policy to focus on employment and overall stability over topline growth, abandoning the GDP target for the first time in decades. It also announced an expansive fiscal stimulus package (see Addendum I for details), the centerpiece of which is $1.4 trillion in planned digital infrastructure construction over the next five years with a clear goal of improving China's global technological leadership.[31] Benefits for small, medium, and micro enterprises, such as tax cuts and loan forbearance, amounted to $560 billion (renminbi [RMB] 4 trillion).[32] On paper, this stimulus is the same size in nominal terms as the fiscal component of Beijing's stimulus in response to the 2008 financial crisis, but the entirety of the 2008 stimulus consisted of government outlays and was supplemented with an even greater monetary stimulus. In contrast, tax and fee cuts in the 2020 government response do not directly provide SMEs with capital.[33]

Faced with decreased export demand and continued tensions with the United States, China's leadership also embraced a further turn toward self-reliance, hoping to reorient the country's export sector toward meeting domestic consumption. Meanwhile, the CCP continued to strengthen political control over the private sector, leveraging technology behemoths to execute planned infrastructure projects. In September 2020 the CCP published a plan to strengthen oversight of Chinese entrepreneurs and private enterprises through the United Front Work Department.‡ The document outlines steps for private firms to advance CCP economic goals and to deepen a corporate culture of self-censorship and deference to Xi Jinping Thought.§[34]

"Dual Circulation" Economic Strategy Prioritizes Self-Sufficiency

The "dual circulation"¶ economic strategy, first articulated at a Politburo meeting in May 2020, represents the latest attempt by the Chinese government to strengthen China's economic resil-

*Each year, China's government convenes an annual plenary session called the "two meetings" (*lianghui*) consisting of a lower legislative body called the National People's Congress (NPC) and a higher advisory body called the Chinese People's Political Consultative Conference. The NPC theoretically oversees the State Council and its subordinate government ministries and agencies, but in practice it serves as a rubber stamp legislature for policy directed by the CCP. Most of China's legislative drafting process is conducted throughout the year by a subset of legislators called the NPC Standing Committee. *NPC Observer*, "About: The NPC and the Blog," October 2017; Fu Long and Li Boshi, "Explainer: How Do the NPC and Its Standing Committee Legislate? (图解：全国人大及其常委会如何立法？)," *People's Daily Online*, October 21, 2014. Translation.

†The two meetings are normally held at the beginning of March but were postponed in 2020 due to COVID-19. Ken Moritsugu, "China Sets Date for 'Two Sessions' in Latest Move toward Post-COVID Normal," *Diplomat*, April 30, 2020.

‡The United Front Work Department is a CCP body charged with extending the Party's influence and control over non-Party organizations both domestically and abroad to advance CCP policy objectives. For more on the United Front Work Department, see Alexander Bowe, "China's Overseas United Front Work: Background and Implications for the United States," *U.S.-China Economic and Security Review Commission*, August 24, 2018.

§For more on the plan, *Opinions on Strengthening the United Front Work of the Private Economy in a New Era*, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, October 7, 2020, 9–10.

¶In the late 1980s, Chinese researcher Wang Jiang described China's export-led growth strategy as "great international circulation." The "dual circulation" plays on this description of China's economic model by separating the international economy (external circulation) from China's domestic economy (internal circulation) and proposing to rebalance from prioritizing international economic integration toward domestic economic resilience. "Circulation" (循环) is also translated as "circle" or "cycle." Yu Yongding, "Decoding China's 'Dual Circulation' Strategy," *Project Syndicate*, September 29, 2020.

"Dual Circulation" Economic Strategy Prioritizes Self-Sufficiency—*Continued*

ience by reducing dependence on the global economy.[35] Chinese leaders believe the country can no longer rely on external trade and investment to drive growth, given a weakened global economy, hostile international environment, and potential realignment of supply chains. Under the "dual circulation" strategy, China aims to reorient its manufacturing sector toward fulfilling domestic demand, rather than producing for export. It will continue to seek out and draw on international resources, capital, technology, and talent but avoid overreliance on global economic integration. The strategy's emphasis on manufacturing suggests an even deeper role for industrial policy and less importance placed on strengthening the services sector. This marks a potentially significant change, as China's government has previously announced its intent to foster the services sector as it transitions to consumption-driven growth.[36]

As with the COVID-19 response, the "dual circulation" concept encapsulates existing trends rather than a new direction. Chinese economists have long recognized the need for China to reduce dependence on investment as a source of growth, as returns on investment have declined substantially since the mid-2000s, necessitating higher levels of debt to achieve the same level of growth. Self-reliance has also been central to a statist and mercantilist turn in Chinese economic goals since shortly after China joined the WTO (for more information about China's economic strategy, see Chapter 1, Section 1, "A Global Contest for Power and Influence: China's View of Strategic Competition with the United States"). The "dual circulation" strategy nonetheless came to dominate policymaking discourse by the beginning of the third quarter, though policy continued to support investment-led growth rather than a turn toward consumption. As the government sets the direction for the 14th Five-Year Plan in a plenary session to be held October 26–29, 2020, the strategy will likely guide China's major policy objectives through 2025.[37]

Focus on Employment Stability Elevates State Sector over Private Employers

According to the government work report* introduced by Chinese Premier Li Keqiang, abandoning the GDP growth target would allow the government to focus on economic stability and people's livelihood. The work report and several preceding State Council meetings encapsulated the government's priorities in the economic frameworks of "six stabilities" and "six ensures," which both stress stabilizing employment (see "'Six Stabilities' and 'Six Ensures' Frameworks Supplant GDP Target" later in the section).[38] The emphasis on employment was also reflected in the work report's structure.

*The government work report is the Chinese government's highly political annual summary of its reported accomplishments and statement of goals and priorities for the next year, and sometimes beyond. National People's Congress of the People's Republic of China, *Government Work Report: The Republic's Growth Record* (政府工作报告：共和国成长记录), March 4, 2013. Translation.

Where normally report goals begin with growth targets followed by inflation targets,* the first economic goals listed in the 2020 work report were to create nine million new urban jobs and achieve a registered urban unemployment rate of 5.5 percent.[39] Nonetheless, policies to stabilize employment have focused far more on forestalling corporate bankruptcies than strengthening social welfare provision, reflecting a deep preference for supporting production over consumption by China's economic planners.[40]

In treating firms as guarantors of employment, Chinese government policy in 2020 harkens to China's earlier "planned economy" model, in which a larger proportion of the economy consisted of SOEs providing their employees "cradle to the grave" benefits. SOEs, however, employ relatively few people. Small, medium, and micro enterprises, which are overwhelmingly private, employed 233 million workers in 2018, accounting for 79.4 percent of enterprise employment in China, and are far more vulnerable to economic shocks than SOEs, which weathered the COVID-19 outbreak with relative ease.[41] State support for firms is also more likely to benefit SOEs than private SMEs. According to reporting from the Chinese financial newspaper *Securities Times*, Chinese banks are still unwilling to lend to SMEs because of internal risk controls and shareholders' oversight, despite extensive pressure from banking regulators to increase lending to private firms.[42] Other policy support measures, particularly infrastructure construction and similar deficit spending programs, likewise tend to favor SOEs that have more capacity and connections to bid on and fulfill these projects.[43]

"Six Stabilities" and "Six Ensures" Frameworks Supplant GDP Target

Rather than anchor macroeconomic policy in a GDP growth target, China's 2020 government work report focused on two distinct but related economic frameworks. The "six ensures"† framework, introduced in response to COVID-19 during an April 2020 Politburo meeting, encompasses guaranteeing employment, basic individual livelihoods, survival of market participants (i.e., preventing bankruptcies), food and energy security, supply chain stability, and "local government functions."[44] The last element includes provision of basic social services, such as public transportation, medical care, and utilities, which is the responsibility of municipal governments in China.[45] The "six stabilities" framework was initially introduced at a Politburo meeting in 2018 as an expansionary policy to counter the effects of trade tensions with the United States and slowing domestic growth.[46] It also promotes stable employment, as well as stable financial markets, trade, domestic and foreign investment, and market expectations.[47]

Notably, the two frameworks focus on reducing volatility by maintaining employment and limiting corporate bankruptcies, rather than shoring up the social safety net or providing stimulus

*The 2019 report also broke from this trend, listing employment goals ahead of inflation targets but after the GDP growth target. Li Keqiang, "Full Text of the 2019 Government Work Report (2019年政府工作报告全文)," *State Council of the People's Republic of China*, March 5, 2019. Translation.

†Some sources alternately translate "ensures" (保) as "guarantees."

"Six Stabilities" and "Six Ensures" Frameworks Supplant GDP Target—*Continued*

to households to increase consumption.[48] Both aim to integrate separate economic policy levers, such as monetary or fiscal policies, in balancing multiple macroeconomic goals. The emphasis on coordinated policy outcomes is important political signaling to Chinese officials, as distinct government agencies and local governments often operate in bureaucratic silos and overtly compete for resources.[49]

Consequences of a Lopsided Recovery

Though the extent of the government stimulus package marks a step change from fiscal support in previous years, the raft of policies mostly extended existing policy trends, and with them, perpetuated existing structural inequalities in China's economy. Foremost, the government continued to lean on fiscal policy and shied away from broad monetary stimulus, hoping to avoid exacerbating systemic risks from China's substantial corporate debt buildup. China's debt-to-GDP ratio still increased to 283 percent by the end of the second quarter, from 260 percent a year earlier, even as some analysts suggest comparatively modest stimulus by the Chinese government may fall short of what is needed to create enduring recovery.[50] Whether or not China's recovery proves sustainable, the net impact of the policy response has delayed a shift toward consumption-driven growth, contributed to further entrenchment of the state sector, and deepened enduring risks China's unbalanced growth model presents to global economic stability.

Neglecting social welfare widens the wealth gap, impeding transition to a consumption-driven economy. A weak social safety net and lower job security compound income disparities between China's urban residents and migrant laborers, as the latter are more likely to engage in "precautionary savings" to meet emergency costs.[51] In testimony before the Commission, Dexter Roberts, nonresident senior fellow at the Atlantic Council, argued this pattern is at the root of China's inability to increase consumption-led growth.[52]

Investment in real estate further exacerbates China's urban-rural wealth gap, especially as many buyers already own at least one home.[53] Because property is perceived as a safe haven for investors compared to China's turbulent stock market and other risky alternatives, real estate transactions soared following the reopening of the economy and were spurred by government stimulus.[54] Of the 70 cities China's National Bureau of Statistics tracks to gauge the real estate market, 61 reported increasing housing prices in June.[55] The previous month, resale prices shot up 12 percent year-on-year in Shenzhen, one of China's most expensive residential markets.[56] Local regulators intervened to curb purchases in an attempt to cool rising prices in July.*[57]

*These interventions included restricting home purchases to individuals with a Shenzhen residency permit who had paid local taxes or social security contributions (China's social security fund is heavily dependent on local government revenues) for three years, and closing a loophole

Investment without consumption compounds overcapacity. Spurred by property construction and state-led infrastructure investment, including in digital connectivity, China's stimulus risks generating excess production where supply far exceeds demand. This could compound China's overcapacity problems, creating a glut of primary materials, industrial machinery, and information and communications technology in a manner similar to distortions created in solar and wind energy technologies, high-speed rail, and real estate in the wake of the 2008 global financial crisis. At the time, investment in real estate and high-speed rail kept the economy surging but did not generate genuine market demand, creating excess capacity in construction materials such as glass, cement, and steel that China dumped on world markets.

The current recovery follows a similar pattern, with a sharp increase in production of heavy machinery used in construction, such as excavation equipment, as well as record steel output in May and June of 2020.[58] For digital infrastructure, China's planned 5G network will expand coverage from 50 cities at the end of 2019 to 300 by the end of 2020* but may create tremendous excess capacity in telecommunications equipment along the way, leading Chinese firms to export telecommunications equipment at artificially low prices (see "Digital Infrastructure Investment Aims to Leapfrog United States" later in the section).[59] Aside from undermining the commercial competitiveness of U.S. and other countries' firms, dumping excess capacity on global markets reduces input prices, potentially causing a deflationary spiral. As businesses slim down to address lower revenues from decreasing prices, lack of demand in China and abroad would increase unemployment.

Stimulus adds to debt risk and asset bubbles. By focusing on fiscal rather than monetary stimulus, policymakers hoped to avoid repeating the rampant speculation, wasted investment, and ballooning corporate debt that followed China's response to the global financial crisis in 2008.[60] This approach has been partially successful at containing total debt growth, but still increases systemic financial risk. Tax cuts erode local governments' revenue, which had already deteriorated following tax cuts in 2019 and business shutdowns in the first quarter of 2020, in turn impeding their ability to meet servicing costs on several trillion dollars in debt.† The central government offset this revenue shortfall by nearly doubling the amount of debt local governments can issue to fund projects to $529.7 billion (RMB 3.75 trillion) and directly transferring $282.5 billion (RMB 2

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where couples were getting divorced so they could legally qualify as two separate households and acquire more speculative properties. Lusha Zhang and Ryan Woo, "China's Shenzhen Tightens Home Purchase Curbs as Prices Spike," *Reuters*, July 15, 2020; Sidney Leng, "China's Social Security Fund Is Being Propped Up by Local Government Subsidies, but for How Long," *South China Morning Post*, August 25, 2020.

*By comparison, 5G was available in parts of 59 U.S. cities at the end of May 2020. Christian de Looper, "Where Is 5G Available? Our 5G Network Map Has the Details," *Digital Trends*, May 22, 2020.

†There is no agreed-upon measure for the total stock of local government debt, a large portion of which is not even officially recognized. The Ministry of Finance tallied official local government debt at 20 percent of GDP at the end of 2018. A Standard and Poor's report from 2018 estimated that when accounting for hidden debt, government debt may have reached 60 percent of GDP in 2017. Fran Wang, "Caixin Explains: How and Why China's Local Government Debt Got So Big," *Caixin*, April 16, 2019; Chi Lo, "Demystifying China's Local Government Debt," *BNP Paribas Asset Management*, December 20, 2019; "China's Hidden Subnational Debts Suggest More LGFV Defaults Are Likely," *S&P Global Ratings*, October 15, 2018, 1.

trillion) to city- and county-level governments.* While China's 3.6 percent central government deficit is not particularly large compared to many developed economies' response to the crisis,† China's central government implicitly or explicitly guarantees the debt of local governments and SOEs.‡ Continually running a deficit will constrain the central government's capacity to address potential crises from high corporate and local government leverage, growing household debt, and a large, mostly unrecognized portfolio of nonperforming loans in the banking sector.[61] (For further discussion on financial risks in China's economy, see Chapter 2, Section 2, "Vulnerabilities in China's Financial System and Risks for the United States.")

Digital Infrastructure Investment Aims to Leapfrog United States

At the May 2020 annual legislative session (the "two meetings"), Premier Li announced plans for a $1.4 trillion (RMB 10 trillion) investment in digital or "new" infrastructure through 2025, expected to generate an additional $2.4 trillion (RMB 17.1 trillion) in related investments.[62] The scope of the planned construction is broad, with calls to expedite 5G network deployment as well as broad technology fields like artificial intelligence and industrial internet.[63] The package subsumes a number of existing initiatives, including $25 billion in 5G base station construction announced by China's three major telecommunications operators§ and Alibaba's $28 billion three-year cloud infrastructure road map announced in April 2020.[64]

To Beijing, the digital infrastructure push is important both for economic recovery and for strengthening China's technological foundation, particularly in competition with the United States. By establishing a solid lead over the United States in deployment of foundational technologies such as 5G, Chinese economic planners believe they can foster new downstream applications dependent on the high connection speeds, including autonomous vehicles, many smart cities technologies,¶ and advanced manufacturing capabilities that would also surpass U.S. capabilities.[65] Even as much of the country was in lockdown due to COVID-19, China's major telecommunications operators accelerated construction of

*Unless noted otherwise, this section uses the following exchange rate throughout: $1 = RMB 7.08.

†By comparison, the United States' 12-month budget deficit reached 14 percent in June 2020, following passage of a $3.5 trillion stimulus package in March that included issuance of the $2 trillion economic impact payment. Exceeding just 3 percent represents an important threshold for Chinese policymakers. China's central government increased the budget deficit from 2.6 to 2.8 in 2019. Kate Davidson, "Coronavirus Spending Pushes U.S. Budget Deficit to $3 Trillion for 12 Months through June," *Wall Street Journal*, July 13, 2020; Yawen Chen and Ryan Woo, "China Says Higher 2019 Budget Deficit Will Spur Growth, Won't Open Floodgates," *Reuters*, March 6, 2019.

‡Creditors to local Chinese governments assume China's central government will back any debt issued by cities and provinces. In this system, a default by a local Chinese government could cause creditors to other local governments to worry about the safety of their loans and potentially spark a financial crisis. By contrast, in the United States the federal government is not liable for debt incurred by municipal governments. Detroit's bankruptcy in 2013 had no impact on perceptions of U.S. sovereign debt capacity or the integrity of the U.S. financial system.

§These include China Mobile, China Unicom, and China Telecom.

¶Smart cities systems employ networked technologies like cameras, sensors, and location devices to collect a wide variety of data for urban management, including traffic flow, energy usage, and crime. See Katherine Atha et al., "China's Smart Cities Development," *SOSi's Special Programs Division* (prepared for the U.S.-China Economic and Security Review Commission), April 29, 2020.

Digital Infrastructure Investment Aims to Leapfrog United States—*Continued*

5G base stations throughout the country.[66] Similarly, state-owned semiconductor manufacturer Yangtze Memory Technologies continued operation of a large factory in Wuhan, the epicenter of the virus.[67] Several analysts see the comprehensive technological infrastructure package as aimed at fulfilling objectives in Beijing's 2015 industrial policy Made in China 2025, which seeks to reduce China's dependence on foreign technology and establish Chinese firms at the leading edge of ten critical sectors.[68] New infrastructure plans from local governments also tie into China's ambitions to dominate artificial intelligence applications by creating data centers and data-sharing platforms for private firms to access urban data. A pilot project in Shanghai offers 34 billion data points to over 60,000 SMEs.[69]

U.S.-China Trade Tensions Continue to Escalate

U.S.-China bilateral tensions continued to escalate in 2020 as both countries took steps to mitigate risks presented by their close economic relationship. Following the Section 301 investigation by the Office of the U.S. Trade Representative (USTR), which documented the Chinese government's pursuit of U.S. advanced technology, the U.S. government took a series of unilateral measures to counter the Chinese government's actions.* As part of this effort, in 2020 U.S. policymakers moved to halt the flow of U.S. advanced technology to Chinese companies that pose a national security threat, including Huawei, as well as to government entities and companies involved in human rights abuses in the Xinjiang Autonomous Region. By September 2020, a total of 108 Chinese entities had been added to the Entity List.† U.S. regulatory actions also focused on restricting U.S. transactions with Chinese firms, including purchases from enti-

*The Section 301 report is the latest in a long series of U.S. government investigations of China's technology development ambitions. U.S. government entities documented Beijing's state-sponsored pursuit of U.S. technologies as early as 1987, when the Office of Technology Assessment published a report documenting technology transfer to China. U.S. Congress Office of Technology Assessment, *Technology Transfer to China*, July 1987.

†The Entity List (Supplement No. 4 to part 744) identifies entities reasonably believed to be involved, or that pose a significant risk of being or becoming involved, in activities contrary to the national security or foreign policy interests of the United States. The 108 total figure includes affiliate entities. Counted entities include 24 entities involved in militarization and island-building in the South China Sea added on August 26, 38 Huawei affiliates added on August 17, 11 entities implicated in human rights abuses and genetic analysis for surveillance on July 20, nine entities implicated in human rights abuses and digital surveillance in Xinjiang added on May 22, 24 entities aiding and procuring items for the Chinese military added on May 22, and two entities that procured goods on behalf of another listed entity added on March 16. U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department Adds 24 Chinese Companies to the Entity List for Helping Build Military Islands in the South China Sea*, August 26, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department Further Restricts Huawei Access to U.S. Technology and Adds Another 38 Affiliates to the Entity List*, August 17, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department Adds Eleven Chinese Entities Implicated in Human Rights Abuses in Xinjiang to the Entity List*, July 20, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department to Add Nine Chinese Entities Related to Human Rights Abuses in the Xinjiang Uighur Autonomous Region to the Entity List*, May 22, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department to Add Two Dozen Chinese Companies with Ties to WMD and Military Activities to the Entity List*, May 22, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Addition of Entities to the Entity List, and Revision of Entry on the Entity List*, *Federal Register* 85:51 (March 16, 2020).

ties allegedly using forced labor. Key developments are summarized below:

- *Executive orders against TikTok and WeChat:* On August 14, the Trump Administration issued an executive order giving TikTok's parent company, ByteDance, 90 days to divest its U.S. subsidiary.[70] This order followed two others issued on August 6 that initially required U.S. companies to desist from transactions with Bytedance and TikTok, as well as Chinese social media and messaging application WeChat, on September 20.[71] In its orders, the Trump Administration stated that these mobile applications allow the CCP access to location data and other personal information stored on U.S. citizens' phones.[72] The executive orders also noted the apps reportedly censor content and could be used to conduct disinformation campaigns in line with the CCP's political narrative.[73] WeChat obtained a nationwide injunction against implementing the order against it. TikTok similarly earned a preliminary injunction enabling it to avoid the restrictions just before they would have taken effect.[74] Court filings addressing other restrictions that go into effect on the 90-day TikTok sale deadline, November 12, are pending.[75]
- *Final regulations to implement the Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA), issued in February 2020:* FIRRMA broadened the remit of the U.S. interagency investment screening body, the Committee on Foreign Investment in the United States (CFIUS). Following a year-long pilot program, the final FIRRMA regulations created a mandatory filing requirement for certain transactions and expanded the kinds of technologies and types of transactions subject to review. Among other updates, under new regulations, CFIUS may review noncontrolling investments into U.S. critical technologies and infrastructure, or into companies collecting sensitive data on U.S. citizens.[76]
- *Pentagon lists companies connected with the Chinese government and military:* In June 2020, the Pentagon released a list of 20 companies representing "entities owned by, controlled by, or affiliated with China's government, military, or defense industry."* While the list creates no immediate obligation on these companies' corporate partners, its release is intended to inform the private sector and academia of the risk of engagement with these parties. This list was first requested in the Defense Authorization Act of 1999; however, it was only produced for the first time in 2020.[77]

*These 20 companies include: Aviation Industry Corporation of China (AVIC), China Aerospace Science and Technology Corporation (CASC), China Aerospace Science and Industry Corporation (CASIC), China Electronics Technology Group Corporation (CETC), China South Industries Group Corporation (CSGC), China Shipbuilding Industry Corporation (CSIC), China State Shipbuilding Industry Corporation (CSSC), China North Industries Group Corporation (Norinco Group), Hangzhou Hikvision Digital Technology Co., Ltd., (Hikvision), Huawei, Inspur Group, Aero Engine Corporation of China, China Railway Construction Corporation (CRCC), CRRC Corp., Panda Electronics Group, Dawning Information Industry Co. (Sugon), China Mobile Communications Group, China General Nuclear Power Corp., China National Nuclear Corp., and China Telecommunications Corp. Anthony Capaccio and Jenny Leonard, "Pentagon Names 20 Chinese Firms It Says Are Military-Controlled," *Bloomberg*, June 24, 2020; Bethany Allen-Ebrahimian and Zach Dorfman, "Defense Department Produces List of Chinese Military-Linked Companies," *Axios*, June 24, 2020.

- *New U.S. Department of Commerce Bureau of Industry and Security (BIS) rules closing loopholes for Huawei:* In mid-August, BIS issued a new rule closing loopholes that allowed Huawei access to U.S. technologies through sales by non-U.S. companies and manufacturers abroad.[78] Nikkei Asian Review reported Huawei's smartphone business* could be hard hit by this most recent rule, which covers even more commonly available chips.[79] In May, a BIS rule tightened restrictions on U.S. semiconductor exports to Huawei and its affiliates by subjecting foreign-manufactured technologies to export controls if produced by controlled software, technology, or equipment and sent to Huawei affiliates on the Entity List.[80] Entity List export controls previously exempted items manufactured outside of the United States that did not contain enough U.S.-origin content to meet a specified BIS threshold.† In late April, two other BIS rules imposed further restrictions on exports of U.S.-controlled technologies to China by expanding the definition of "military end use" to refer to the full product lifecycle and ending an exemption allowing civilian access to controlled technologies without a license.‡ The rules address concerns that China's program of military-civil fusion§ could lead to U.S. technology exports ostensibly for civilian end use, ultimately aiding China's military capabilities.[81]
- *BIS Entity List additions of Chinese companies engaging in surveillance, employing forced labor in Xinjiang, and island-building in the South China Sea:* In October 2019, June 2020, and July 2020, BIS added a total of 28 Chinese companies to the Entity List for employing forced labor and developing products, including technologies like facial recognition and genetic analysis, used to monitor and control the primarily Muslim minority population in Xinjiang.¶ In August 2020, another 24 companies

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*Huawei's consumer electronics business accounted for 54.4 percent of its sales revenue in 2019. Huawei, "Huawei Releases its 2019 Annual Report," March 31, 2020.

†This threshold is known as a de minimis rule. If controlled technologies' share of an item's value is beneath a de minimis percentage, a foreign-produced item is not subject to BIS export controls under the Entity List. Michael E. Leiter and Daniel Gerkin, "Commerce Department's New Export-Related Restrictions Inhibit Semiconductor Design by and Manufacturing for Huawei," *Skadden, Arps, Slate, Meagher & Flom L.L.P.*, May 18, 2020.

‡For more information on new BIS regulations, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, May 6, 2020, 4–5.

§China's policy of military-civil fusion aims to facilitate transfers between the defense and civilian sectors to improve the sophistication of China's military technology. It also aims to drive economic innovation and growth and prepare for societal mobilization to support military objectives. For more on the policy background and implications for the United States, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 2, "Emerging Technologies and Military-Civil Fusion: Artificial Intelligence, New Materials, and New Energy," in *2019 Annual Report*, November 2019.

¶On October 9, 2019, eight companies were added: Dahua Technology, Hikvision, iFlyTek, Megvii Technology, SenseTime, Xiamen Meiya Pico Information Co., Yitu Technologies, and Yixin Science and Technology. On June 5, 2020, nine entities were added: Ministry of Public Security's Institute of Forensic Science, Aksu Huafu Textiles Co., CloudWalk Technology, FiberHome Technologies Group and the subsidiary Nanjing FiberHome Starrysky Communication Development, NetPosa and the subsidiary SenseNets, Intellifusion, and IS'Vision. On July 22, 2020, 11 companies were added: Beijing Liuhe BGI, Changji Esquel Textile Co. Ltd., Hefei Bitland Information Technology Co. Ltd., Hefei Meiling Co. Ltd., Hetian Haolin Hair Accessories Co. Ltd., Hetian Taida Apparel Co., Ltd., KTK Group, Nanchang O-Film Tech, Nanjing Synergy Textiles Co. Ltd., Tanyuan Technology Co. Ltd., and Xinjiang Silk Road BGI. U.S. Department of Commerce Bureau of Industry and Security, "Addition of Certain Entities to the Entity List; Revision of Existing Entries on the Entity List," *Federal Register*, 85:141 (July 22, 2020); U.S. Department of Commerce Bureau of Industry and Security, "Addition of Certain Entities to the Entity List; Revisions of Existing Entries on the Entity List," *Federal Register*, 85:109 (June 5, 2020); U.S. Department

were added for their role in island-building in the South China Sea.[82]

- *U.S. government procurement restrictions:* The 2019 National Defense Authorization Act (NDAA) Section 889, implemented in August 2020, restricts U.S. government procurement from five Chinese companies,* either directly or indirectly through purchasing equipment relying on those companies' components. It also prohibits federal contractors from using such equipment.[83]
- *Import blocks on Chinese items made using forced labor:* On September 14, 2020, U.S. Customs and Border Patrol (CBP) announced Withhold Release Orders† against five Chinese entities allegedly using forced labor.[84] Four of the five entities are based in the Xinjiang Uyghur Autonomous Region: three companies and a so-called "vocational skills education and training center," a euphemistic term used by the Chinese government to describe internment camps.[85] Another Withhold Release Order targets computer products made by a firm based in China's eastern Anhui Province.[86]

In light of U.S. policy actions and deepening U.S.-China frictions, Beijing has taken or considered retaliatory action. This retaliation has not precisely matched U.S. measures, in part because Chinese companies may rely heavily on U.S. technology inputs in their supply chains. Retaliatory action has included:

- *Export Control Law:* In late December 2019, the National People's Congress (NPC) Standing Committee published a draft export control law to unify and consolidate existing export control lists. Lester Ross, Kenneth Zhou, and Tingting Liu of the law firm WilmerHale assessed the law was drafted "at least in part to give China statutory authority to counter U.S. export control measures targeting China."[87] Similar to the U.S. export control regime, the law would allow Beijing to prohibit exports of sensitive technologies to specific end users and locations.[88] One key difference: Chinese export lists may also contain strategic resources like rare earth minerals, which would enable the Chinese government to disrupt global supply chains.[89] U.S. export controls under the Department of Commerce are limited to advanced technologies identified as dual-use for both civilian and military purposes and do not include raw materials. In moving to restrict commodity exports, China's export controls could function as a tool of economic coercion.‡

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of Commerce Bureau of Industry and Security, "Addition of Certain Entities to the Entity List," *Federal Register*, 84:196 (October 9, 2019).

*The companies are Huawei, ZTE, Hytera, Hikvision, and Dahua Technology. National Defense Industrial Association, "Section 889."

†Withhold Release Orders require detaining imports from an entity that is, according to CBP information, reasonably but not conclusively shown to be producing goods using forced labor. If importers can demonstrate (e.g., through a supply chain audit) that the goods were not made with forced labor, then CBP will release the imports; however, if CBP establishes the goods were made with forced labor, it will seize the goods. U.S. Customs and Border Patrol Commercial Enforcement Division, *Fact Sheet: Forced Labor Enforcement, Withhold Release Orders, Findings, and Detention Procedures.*

‡China, which produces more than 80 percent of rare earth elements globally, has previously restricted rare earth exports. In 2010, China blocked rare earth element exports to Japan following Japan's detention of a Chinese fishing trawler. The trawler had collided with a Japanese

- *Unreliable Entity List:* In late 2019, China's Ministry of Commerce reported it was developing an "Unreliable Entity List" targeting foreign companies, groups, and individuals who harm the interests of Chinese companies.[90] To that end, Chinese government officials have reportedly studied Chinese companies' reliance on U.S. suppliers.* Though few details are available, the Chinese government raised the specter of the list several times as 2020 unfolded. In September 2020, the Chinese government finally released the details of how the list will be implemented, allowing the blacklisting of any foreign entity found to be "endangering national sovereignty, security or development interests of China."[91] Additional details have not yet been released.

COVID-19 Upheaval Prompts Supply Chain Reassessment

U.S. imports from China had already begun to decline in 2019 due to ongoing trade tensions, the implementation of tariffs, and relocation of production to other countries as Chinese wages increased. By the end of 2019, the drop in U.S. imports from China had caused the U.S. trade deficit in goods to fall for the first time in six years, from a peak of $419 billion in 2018 to $345.2 billion, a decline of 17.6 percent (see Figure 1).[92]

In early 2020, this downward trend sharpened due to the outbreak of COVID-19, though bilateral trade began to recover in mid-2020. U.S. imports from China fell steeply as lockdowns were instituted first in China and then internationally to prevent the spread of COVID-19. In China, the government's imposition of restrictions on movement and production stoppages caused disarray in global shipping. The sharp decline in export volume led ship operators to dramatically cut capacity. Marine data company Alphaliner estimated that a record 2 million containers of shipping capacity were idled in late February 2020, greater than the 1.5 million estimated to be idled in 2009 at the height of the financial crisis.[93] For comparison, in 2019 Chinese ports had processed about 715,000 containers per day, or roughly 30 percent of global container traffic.[94] Container traffic had returned to pre-COVID-19 levels by fall 2020, with data from eight of China's major ports showing a 4 percent year-on-year increase in volume in late September.[95]

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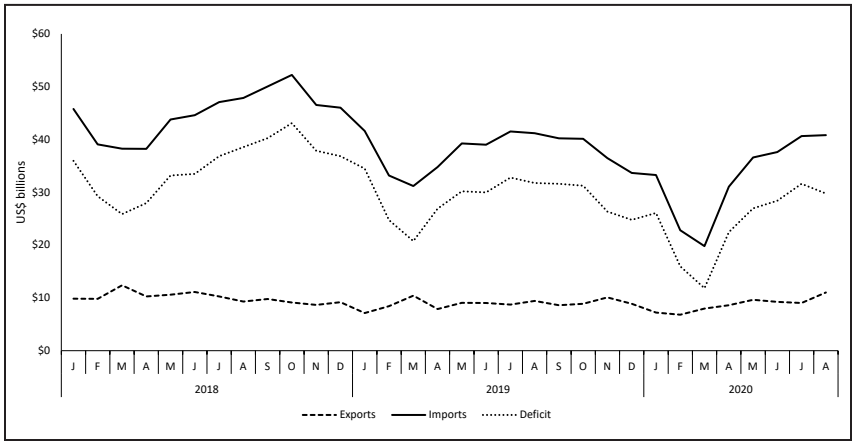
coast guard patrol boat near the Senkaku Islands. The United States, Japan, Mexico, and the EU brought a successful WTO case to challenge China's use of export controls as unfairly monopolizing key inputs for electric car batteries, wind turbines, and other clean energy technologies. Jamie Smyth, "Industry Needs a Rare Earths Supply Chain Outside China," *Financial Times*, July 27, 2020; *Reuters*, "China Loses Appeal of WTO Ruling on Exports of Rare Earths," August 7, 2014; Tom Miles and Krista Hughes, "China Loses Trade Dispute over Rare Earth Exports," *Reuters*, March 26, 2014; Keith Bradsher, "Amid Tension, China Blocks Vital Exports to Japan," *New York Times*, September 22, 2010.

*Ministries reportedly involved in polling companies include the National Development and Reform Commission, the Ministry of Industry and Information Technology, and the Ministry of Commerce. Yoko Kubota, "China Studying Tech Companies' Exposure to U.S. Suppliers," *Wall Street Journal*, August 29, 2019.

Figure 1: U.S. Bilateral Trade with China, January 2018–August 2020



Source: U.S. Census Bureau, *Trade in Goods with China*, October 6, 2020.

As precautionary lockdowns lifted in China and product shipments began to pick up, Chinese exporters faced a demand shock as the virus began to spread in the United States, choking off domestic consumption. U.S. consumer spending suffered year-on-year declines of 4.7 percent in March, 16.5 percent in April, 9.6 percent in May, and 4.6 percent in June after slow but steady growth through 2018 and 2019.[96] This hit to consumer spending ricocheted back to China in the form of a drop in U.S. demand for Chinese exports. As of June, the U.S. bilateral trade deficit in goods with China stood at $131.7 billion year-to-date, a drop of about 21 percent over 2019.[97] While in 2019 Chinese exporters were able to mitigate the fall in U.S. demand by selling to Southeast Asian and European markets, in 2020 the international spread of COVID-19 may limit the effectiveness of this strategy. Chinese trade data in early 2020 showed a marked slowdown, though mid-year data began to indicate recovery.*

U.S. Supply Chain Dependence on Chinese Medical Supplies and Pharmaceuticals

The COVID-19 outbreak exposed U.S. dependence on imports from China for a variety of products, most critically personal protective equipment (PPE) and certain pharmaceuticals. Research by the Congressional Research Service illustrated this dependence: in 2019, China accounted for over 15 percent of imports of medical ventilators and over 70 percent of imports of medical protective articles like masks.[98] Beyond medical equipment, the United States also relies on China for imports of both finished

*The COVID-19 epidemic strained China's international trade in the first quarter of 2020, with exports tumbling 13.3 percent and imports declining a more modest 3 percent as the virus shuttered factories and kept consumers at home. By June, however, exports and imports began to rise, signaling a preliminary recovery in demand both in China and abroad. Exports rose 0.5 percent year-on-year while imports expanded 2.7 percent in the same period. Sharon Chen et al., "China Posts Surprise Trade Gains as Economies Try to Reopen," *Bloomberg*, July 13, 2020; Max J. Zenglein and Maximilian Karnfelt, "MERICS Economic Indicators Q1 2020: China's Economy in the Corona Crisis: A Historic Fall," *Mercator Institute for China Studies*, May 2020, 6.

U.S. Supply Chain Dependence on Chinese Medical Supplies and Pharmaceuticals—*Continued*

medicines and active pharmaceutical ingredients (APIs)—inputs for medicines—though the exact quantity of these direct and indirect imports is unknown.

Because China is a major exporter of PPE, medical devices, pharmaceuticals, and APIs, its COVID-19-related production halt and slowdown in those exports contributed to shortages in the United States.* As global demand for PPE skyrocketed, Chinese factories shut down for an extended break over the Lunar New Year to contain the spread of illness, reducing production. Chad Bown, senior fellow at the Peterson Institute for International Economics, estimated that in 2018 about 43 percent of PPE imports internationally came from China, relative to 18 percent of all goods imports.† According to reports by the South China Morning Post, as the global outbreak widened, the Chinese government directed producers to prioritize supplying local demand over exports.[99]

In its 2019 Annual Report to Congress, the Commission highlighted a number of risks to the United States stemming from its dependence on China for medical imports, including shortages, critical data gaps, and product safety concerns.‡ According to the U.S. Food and Drug Administration (FDA), 230 (or 13 percent) of its approved API manufacturing facilities are located in China.[100] In October 2019 testimony before the House Committee on Energy and Commerce's Subcommittee on Health, Janet Woodcock, director of the FDA Center for Drug Evaluation and Research, said the center "cannot determine with any precision . . . the volume of APIs manufactured in China that is entering the U.S. market, either directly or indirectly" through use in medicines manufactured elsewhere.[101] The lack of adequate supply chain data has complicated the task of anticipating serious drug shortages.

In light of rising trade tensions and pandemic-related disruptions, many companies around the world are reassessing their dependence on production networks centralized in China. There is limited timely data to track supply chain movements,§ but anecdotal evidence suggests multinational corporations are broadly considering a combination of strategies. Possible options include remaining in China, developing a "China + 1" model to diversify sourcing across multiple

*According to Dr. Bown, Chinese trade data indicated PPE exports fell by about 15 percent in the first two months of 2020. Chad Bown, "COVID-19: China's Exports of Medical Supplies Provide a Ray of Hope," *Peterson Institute for International Economics*, March 26, 2020; Karen M. Sutter, Andres B. Schwarzenberg, and Michael D. Sutherland, "COVID-19: China Medical Supply Chains and Broader Trade Issues," *Congressional Research Service* R46304, April 6, 2020, 1.

†Dr. Bown also showed China was a major supplier both in aggregate and of specific products, including face shields, mouth-nose-protection equipment, protective garments, gloves, and goggles. Chad Bown, "COVID-19: China's Exports of Medical Supplies Provide a Ray of Hope," *Peterson Institute for International Economics*, March 26, 2020.

‡For more information on regulatory risks to U.S. pharmaceutical imports from China, see Chapter 3, Section 3, "Growing U.S. Reliance on China's Biotech and Pharmaceutical Products," in U.S.-China Economic and Security Review Commission, *2019 Annual Report to Congress*, November 2019, 252–255, 257–261.

§In particular, countries' publicly available foreign direct investment data is published with a two-year lag by the UN Conference on Trade and Development (UNCTAD).

countries, "nearshoring" or "reshoring" production near consumers in the United States and elsewhere, and allowing greater redundancy and buildup of inventory in case of disruption. In an August 2020 report assessing the challenges companies face in supply chain realignment, McKinsey found that an array of factors shape how companies structure their supply chains. These include "specialization, access to consumer markets around the world, long-standing relationships, and economies of scale."*

Remaining in China: Recent surveys by the American Chamber of Commerce (AmCham) in China indicate companies already operating in China may choose to keep at least part of their supply chains based there, though they were also hedging their bets.[102] Of those companies surveyed in April 2020, 39 percent described China as a "top three" investment priority (a slight decrease from 42 percent in 2018), and 20 percent ranked it as the first priority (unchanged from 2018).[103] Notably, 37 percent of respondents reported they did not plan to expand foreign direct investment (FDI) and may in fact decrease it.[104]

Though full-year data for 2020 U.S. FDI in China will not be available until 2021, preliminary data show that in the first five months of 2020, total foreign mergers and acquisitions in China reached $9 billion, relative to $4.4 billion in 2019 and $4.7 billion in 2018.† Thilo Hanemann and Dan Rosen of Rhodium Group attributed this rise in mergers and acquisitions to three factors: the Chinese government's increase in FDI caps leading foreign companies to take control of joint ventures, a growing Chinese middle class, and the improving quality of Chinese technology and industrial assets.[105] In 2019, U.S. FDI in China recovered from lower inflows in 2018. U.S. FDI in China totaled $13.3 billion in 2019 relative to $10.9 billion in 2018, the lowest inflow since 2009.[106] This recovery was seen most in automotive and transportation equipment; basic materials, metals, and minerals; electronics and electrical equipment; energy; and health, pharmaceuticals, and biotech (albeit from a lower base in the case of basic materials, metals and minerals; electronics and electrical equipment; and energy).[107]

As another risk mitigation strategy, companies that rely on long supply chains may build in more redundancy to prevent disruptions. In the McKinsey survey, nearly half of respondents said they would increase their inventory of critical products.[108]

"China + 1" diversification: Even before the COVID-19 outbreak, many companies across a range of industries were already pursuing more geographic diversification as a consequence of mounting U.S.-China trade tensions, rising labor costs in China, and other factors.[109] For example, Apple supplier Foxconn (a Taiwan company) recently moved some iPhone 11 production to a plant in Chennai,

*In total, 60 supply chain executives were interviewed in the McKinsey survey between May 15 and May 22, 2020. Knut Alicke, Richa Gupta, and Vera Trautwein, "Resetting Supply Chains for the Next Normal," *McKinsey Global Institute*, July 2020, 3; Susan Lund et al., "Risk, Resilience, and Rebalancing in Global Value Chains," *McKinsey Global Institute*, August 6, 2020.

†For reference, foreign mergers and acquisitions in China have averaged about $20 billion to $25 billion annually between 2010 and 2020. In 2019, they rose to $35 billion, the highest amount in ten years. Thilo Hanemann and Daniel Rosen, "Who's Buying Whom? COVID-19 and China Cross-Border M&A Trends," *Rhodium Group*, June 18, 2020; Rhodium Group and the National Committee on U.S.-China Relations, "The U.S.-China Investment Hub."

India. Counterpoint Research estimated about 29 percent of Apple's smartphone shipments in India during the first quarter of 2020 came from domestic facilities, decreasing to 17 percent in the second quarter of 2020.[110]

"Nearshoring" or reshoring: Shortages caused by the outbreak of COVID-19 intensified discussions of reshoring production in the United States or nearshoring production closer to consumer markets. According to the McKinsey survey, about 40 percent of respondents stated they intended to nearshore and increase their supplier base to improve resilience.[111] In May 2020, the Taiwan Semiconductor Manufacturing Company announced a $12 billion chip factory in Arizona.[112]

Any supply chain changes may not be apparent in export data yet as the COVID-19 outbreak continued to disrupt export patterns as of August 2020. Eddy Bekkers and Sofia Schroeter, researchers at the WTO's Economic Research and Statistics Division, reported that in the first half of 2019, about $21 billion in U.S. imports diverted from China to Mexico ($6.8 billion), the EU ($6 billion), Taiwan ($4.5 billion), and Vietnam ($2.8 billion), among other locations.* Mexico appeared to benefit temporarily. As U.S. goods imports from China fell throughout 2019, U.S. imports from Mexico rose to $28.3 billion in January 2020 from $25.9 billion in January 2018.[113]

Longstanding U.S.-China Trade Challenges Persist despite Phase One Agreement

In January 2020, nearly two years after the Section 301 investigation report into China's trade practices was released, the U.S. and Chinese governments signed a Phase One agreement. As part of this agreement, China committed to halt forced technology transfer, submit an IP action plan to improve protections, provide greater market access for financial services, reduce nontariff barriers to trade for U.S. agricultural goods, and meet purchase targets for U.S. manufacturing, agricultural, and service exports.

Although the deal was welcomed by many stakeholders, it left unaddressed longstanding distortions introduced by China's economic policies brought up by the Section 301 investigation. Notably, the Section 301 report highlighted the role of government subsidies in facilitating the acquisition of foreign technology. This financial support is coupled with local content requirements and other regulatory nontariff barriers to entry, which can prevent foreign firms from participating in the Chinese market even when their production is based in China.[114] The Chinese government requires "China-unique" technical standards to prevent foreign companies from selling products manufactured according to internationally accepted specifications.[115] In addition, while the Phase One agreement sought to expand market access for financial services and agricultural products, many U.S. industries still face investment barriers in China and are restricted in how they choose to structure their business, forcing them to accept local partners and share IP.[116] (The Chinese

*These amounts can be seen relative to U.S. imports of $218.7 billion from China in the first half of 2019, down from $249.8 billion in the first half of 2018, as reported by the U.S. Census Bureau. Eddy Bekkers and Sofia Schroeter, "An Economic Analysis of the U.S.-China Trade Conflict," *World Trade Organization Economics and Statistics Division*, February 26, 2020, 9.

government's Phase One commitments and compliance status are summarized in Addendum II.)

Technology Transfer

Under the terms of the Phase One agreement, the Chinese and U.S. governments committed to ensure foreign technology transfers and IP licensing would be "based on market terms that are voluntary and reflect mutual agreement," with no "force or pressure" to transfer technology.[117] The agreement stipulated that neither country would "require or pressure" technology transfer "in relation to acquisitions, joint ventures, or other investment transactions" or in "administrative and licensing requirements and processes."[118] These commitments reflected longstanding U.S. concerns that Chinese government entities use investment transactions, licensing and review processes, and other market access restrictions on foreign companies as leverage to pressure or force them into transferring valuable technology or disclosing IP.[119]

Enforcing the Chinese government's Phase One commitment to halt forced technology transfer is challenging, as illustrated by repeated efforts across U.S. administrations to address this issue. Chinese officials first committed not to condition market access on technology transfer in China's Protocol of Accession to the WTO in 2001. In its 2018 Section 301 investigation, the USTR documented ten additional instances between 2010 and 2016 where Chinese officials again pledged to refrain from conditioning U.S. companies' access to the Chinese market on technology transfer.[120]

The Phase One agreement established a dispute resolution mechanism that does not require revealing company-specific or confidential business matters, but companies pressured to transfer technology may fear retaliation and could refuse assistance if their complaint identifies them.[121] In April 2020, the USTR stated it was working with stakeholders to assess any changes in the Chinese government's conduct with regard to forced technology transfer.[122] When the U.S.-China Business Council surveyed its members in May 2020, however, only about 18 percent of respondents reported their companies were likely or very likely to use the platform in the event of a dispute.[123]

IP Protections

In addition to stating it would not "require or pressure" technology transfer, the Chinese government committed to "promulgate an [action plan] to strengthen intellectual property protection" 30 working days after the agreement entered into force.[124] This action plan would outline legal and procedural improvements to "implement its obligations" under the deal on a range of measures: trade secret misappropriation, delayed patent approvals, counterfeit and pirated products, and administrative challenges.[125] Alleged trade secret misappropriation would merit courts granting a preliminary injunction, and criminal penalties could apply if the means of misappropriation included "theft, fraud, [or unlawful] physical or electronic intrusion."[126] In trade secrets cases, the burden of proof would shift to fall to the accused party to argue it did not misappropriate a trade secret.[127] In pharmaceutical patent disputes, China would

establish a nationwide system to notify patent-holders and early resolution measures when other market entrants sought to patent a possibly infringing product.[128] Patent terms would be extended to compensate for unreasonable delays, as foreign patent applicants have encountered an average five- to eight-year delay in approvals processes.[129] Chinese authorities would strengthen counterpiracy and counterfeit enforcement not only against infringing parties, but also against e-commerce platforms with repeated failures to halt the sale of counterfeits.[130]

Chinese authorities also pledged to share information on and take actions to stop the sale of counterfeit medicine, biologics, and other products that pose consumer health and safety risks.[131] IP experts described the IP provisions as the most potentially significant aspect of the agreement, particularly where they concerned enforcement.[132] Prior revisions to China's IP protection regime had, on paper, satisfied many of China's obligations as required by the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights, though enforcement remained largely ineffectual across a number of areas addressed in the agreement.[133]

Observers noted that recently drafted or enacted legal changes appeared to address China's Phase One IP commitments, albeit in a piecemeal fashion. In April 2020, the China National Intellectual Property Administration (CNIPA, formerly the State Intellectual Property Office) issued the 2020–2021 Implementation Plan for the "Opinions on Strengthening the Protection of IP," released in November 2019.[134] In a joint letter, 41 U.S. trade associations described this plan as the anticipated IP Action Plan China had committed to release, stating the plan made progress toward protecting trade secrets, combating counterfeit products, and enhancing trademark and copyright protections.[135]

Some longtime observers cautioned that the plan's release through CNIPA could weaken its implementation, as CNIPA is a division housed in the State Administration for Market Regulation, "a considerably lower level of government authority" relative to a separate agency.[136] Other observers noted China's lawmakers introduced or passed many legal revisions to the country's IP regulations before the agreement's conclusion, though Phase One negotiations and other long-running bilateral discussions on IP protection may have given Chinese negotiators a prior understanding of U.S. requests.[137]

Agricultural Nontariff Barriers to Trade

The Chinese and U.S. governments affirmed they would not apply agricultural and food safety measures "in a manner which would constitute a disguised restriction on international trade."[138] If implemented, China's commitments could lower nontariff barriers to trade in food and agricultural products, such as "overly burdensome licensing or inspection or registration or multiple layers of scientific review."[139] Commitments targeted specific categories of agricultural products, including bioengineered agricultural products, which have faced delays of up to seven years before being approved for import by Chinese regulators.[140]

According to the agreement, the Chinese government would accept certain U.S. risk assessments for beef products (e.g., for bovine spon-

giform encephalopathy, or mad cow disease) and allow for regional risk assessments in poultry products (e.g., for avian influenza).[141] The USDA estimated that these and other regulatory changes could increase beef exports to China by $1 billion.[142] Other commitments included recognizing certain standards and classifications of infant formula and dairy products;* accepting U.S. reviews and certifications of seafood;† reducing protocols and inspections on distillers' dried grains; allowing quotas on grains like wheat, rice, and corn to be filled; and reducing delays in biotechnology approvals.‡[143]

As commitments spanned a range of sectors, implementation has likewise been segmented across those sectors. In mid-May, the USDA said China had updated its lists of U.S. facilities eligible to export beef, pork, poultry, seafood, dairy, and infant formula.[144] China and the United States signed a regionalization agreement that would allow U.S. poultry exports to continue from certain regions in the event avian influenza is detected in another part of the United States.[145] Age restrictions on beef were also removed, which the USDA said allowed beef exporters access for nearly all beef products "for the first time since 2003."[146]

Experts cautioned that gains from the removal of nontariff barriers were not irreversible, as China could "come up with some brand new regulatory process or registration or new way of implementing a food safety law" and "put us back at square one."[147] For agricultural biotechnology products in particular, trade association Biotechnology Innovation Organization noted that while China has promised to expedite the approval process for new products, it is unclear if it will impose preliminary hurdles to accepting new products for review.[148] China's approvals process for biotechnology agricultural products has been asynchronous, with reviews delayed until after new products have been first approved in another market, an outlier among other national regulators. Biotechnology Innovation Organization estimates resultant delays have prevented nearly $15 billion in sales.[149]

Goods and Services Purchase Agreements

As part of the agreement, China pledged ambitious increases in its purchases of particular U.S. "manufactured goods, agricultural goods, energy products, and services," whereby purchase amounts "exceed the corresponding 2017 baseline amount by no less than $200 billion."[150] Specifically, between 2020 and 2021, China committed to purchase an extra $77.7 billion in manufactured goods, $52.4 billion in energy, $32 billion in agricultural goods, and $37.9 billion in services.[151] The agreement identified specific products and services in each category that count toward these targets in a detailed annex.[152] According to Dr. Bown, the purchase commitments require China to increase its purchases of selected goods to $142.7 billion in 2020, and goods and services combined to an estimated $210.9

*For instance, China shall "recognize the U.S. dairy-safety system as providing at least the same level of protection as China's dairy-safety system."

†For instance, China shall allow imports of "aquatic product facilities considered to be in good regulatory standing by the FDA and also registered by the [General Administration of Customs of China]."

‡For instance, "China shall significantly reduce, to no more than 24 months, the average amount of time" between a company's submission and the final regulatory decision on biotechnology approvals.

billion in U.S. exports in 2020 and $257.5 billion in 2021.*[153] As of August 2020, however, China had imported $47.6 billion in covered goods, 50 percent of what China would have had to purchase on a prorated basis to be on track, or just 33 percent of the total target goods purchases from the United States for 2020.[154]

When these targets were announced, observers questioned the Chinese government's ability to meet them, a concern exacerbated by the outbreak of COVID-19. U.S. exports to China in 2021 would have to be 92 percent higher than they were in 2017 to meet the terms of the deal.[155] The Phase One agreement text does not require China to increase U.S. purchases by the same amount each month; however, low purchases thus far indicate Chinese purchases will need to accelerate to meet the total end-of-year goal for 2020. The business community has urged the Chinese government to increase purchases to preserve the agreement, with little result. A letter from 41 business associations, led by the U.S. Chamber of Commerce, urged both sides to "redouble efforts" to implement the agreement.[156] In an interview, U.S.-China Business Council President Craig Allen said the council was "somewhat alarmed" that purchases had fallen well below the agreed-upon level.[157]

U.S. Trade Representative Robert Lighthizer stated in Senate testimony in mid-June 2020 that "we have made it clear that China needs to find a way to satisfy all of its purchases commitments under the Phase One agreement" and that the USTR discusses "concerns with our Chinese counterparts as they arise."[158] As these are annual commitments, however, the USTR cannot "assess definitively" whether China has met purchase targets until the end of 2020.[159]

Chinese Government Subsidies Remain Unaddressed

The Phase One agreement did not address longstanding bilateral economic challenges highlighted by the Section 301 investigation, most notably extensive Chinese government subsidies.[160] According to economist Nicholas Lardy, China dedicates about 3 percent of its GDP to direct and indirect corporate subsidies, financial support that allows companies to price goods below market and still remain in business.[161] Consequently, these subsidies generate significant overcapacity, placing downward pressure on prices worldwide and hindering fair competition. Production in China continues to exceed demand in many sectors, from steel (China accounted for 51.8 percent of global crude steel production as of June 2018), to solar photovoltaic cells (China accounted for 73 percent of global cell production and 72 percent of global module production in 2018), to electric vehicles (China had 487 electric vehicle manufacturers as of July 2018).[162]

Chinese government subsidies often target strategic and emerging technologies the Chinese government has flagged as industrial policy priorities. In testimony before the Commission, Barry Naughton, Sokwanlok Chair of Chinese International Affairs at

*These figures are calculated from a 2017 baseline of $134.2 billion estimated by Dr. Bown. The USTR never lists an aggregated 2017 baseline purchase figure in the text of the agreement. According to Dr. Bown, about $51.6 billion in U.S. exports to China in 2017 are not covered by this agreement. Chad Bown, "Unappreciated Hazards of the U.S.-China Phase One Deal," *Peterson Institute for International Economics*, January 21, 2020.

Chinese Government Subsidies Remain Unaddressed—*Continued*

the University of California San Diego, highlighted "massive" funds that operate like U.S. venture capital firms, designed to invest in such priority technologies.[163] Dr. Naughton indicated the planned aggregate scope of all such funds exceeded $1.5 trillion, with the six largest funds alone accounting for $249 billion, though not all the funds have been raised or deployed.[164]

The Trump Administration has described the Phase One agreement as the first in a sequence, with subsequent negotiations addressing outstanding challenges not covered in the Phase One agreement. It is unclear when those negotiations might begin.[165]

Market Access Commitments for U.S. Financial Services

The Chinese and U.S. governments requested that each country "ensure fair, effective, and nondiscriminatory participation in its market for services and services suppliers."[166] To this end, China made a series of affirmations that could increase market access for U.S. financial service providers, another long-awaited development. These affirmations include loosening particular restrictions on investment, reducing specific regulatory requirement thresholds,* and expediting review processes for license applications in the banking, credits ratings, electronic payments, asset management, insurance, and securities industries.[167] China agreed to allow wholly U.S.-owned credit ratings agencies to rate Chinese domestic bonds and remove foreign ownership caps, licensing requirements, and other barriers from U.S. life, pension, and health insurance companies seeking to enter the market.[168] China also pledged to expedite regulatory determinations on long-pending applications from U.S. electronic payment services, including "any license application of Mastercard, Visa, and American Express."†

Implementation of these commitments is visible in incremental regulatory approvals of U.S. financial service companies' expanded operations and investment in China, which began in early 2020. In late January, ratings agency Standard & Poor's received approval to begin rating local Chinese bonds.[169] The China Securities Regulatory Commission approved Goldman Sachs and Morgan Stanley to hold a majority stake in their mainland securities businesses, allowing the banks to increase stakes in their respective joint ventures from 33 and 49 percent, respectively, to 51 percent in March 2020.[170] The securities regulator also allowed JPMorgan to take full control of its futures business in June.[171] The People's Bank of China approved Mastercard and American Express to process transactions in RMB in February and June, respectively, allowing their Chinese joint ventures to begin operating.[172]

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*For instance, to provide securities investment services, a U.S. "parent company's overseas assets shall be taken into consideration" to meet "applicable asset requirements," as opposed to meeting asset requirements by solely counting the subsidiary's assets within China.

†For instance, in electronic payments, "no later than one month after a U.S. service supplier" has completed preparations to provide services, China shall make a "determination with respect to [its] application… within 90 working days." Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, 4–1 to 4–4.

The approval of credit card companies illustrated the degree to which Chinese government's pledges on financial market access simply renewed prior unkept promises.* Despite commitments made upon its WTO accession in 2001,† China's financial markets have remained relatively closed. As of June 2018, foreign-funded banking institutions held just 1.7 percent of assets in China, relative to 3 percent in Asia and 10 percent in the United States and other Organization for Economic Cooperation and Development (OECD) countries.[173]

Looking at the downside, rather than upholding longstanding promises, the Chinese government's commitments on market access for financial services align with the government's plans to encourage more financial flows into China, driven by profound domestic need for foreign capital. As a note by financial data provider Refinitiv said, China's financial opening is a "one-way ticket" that "does nothing to increase flows of capital out of China."[174] This financial opening is carefully calibrated to allow Chinese financial regulators to retain control over capital flows and allocation in China. Greater flows of foreign capital into China mean Phase One agreement commitments may present increased risks to U.S. investors if they lead to increased U.S. investment into opaque or risky assets. (For more information on China's financial opening, see Chapter 2, Section 2, "Vulnerabilities in China's Financial System and Risks for the United States.")

Risks of Greater Financial Integration with China

While they may present substantial commercial opportunities for U.S. firms and investors, China's commitments to open its financial sector to foreign investment and competition are by no means synonymous with liberalizing the sector. Though China's government is finally fulfilling unmet obligations of China's WTO accession protocol years behind schedule, this opening serves the Chinese government's interest, as China's undercapitalized banks are eager to offload distressed assets and bolster their balance sheets with fresh capital. Increased foreign investment may furnish the inefficient and mismanaged financial sector with foreign capital, thus subsidizing the Chinese government's trade-distorting practices. Furthermore, the Chinese government's continued intervention in the financial system and restrictions on cross-border capital flows could expose systemically important U.S. financial institutions to operating risks, political risk, and competition with local rivals on unfair terms. Greater U.S. financial integration also exposes U.S. investors to all of the risks associated with China's domestic business environment and securities markets, including poor governance and accounting standards, weak regulatory oversight, frequent political intervention, and volatile market dynamics.

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*Opening to foreign credit card companies had been broadly anticipated as one of China's WTO commitments when it acceded in 2001. This opening never occurred, and the United States filed and won a WTO case against China regarding these market access restrictions. Despite these actions, U.S. credit card companies only received permission to establish a credit card network in late 2018. Jeanne Whalen and Gerry Shih, "Beijing's Blockade of U.S. Credit Card Companies May Finally End — Now that Chinese Companies Dominate," *Washington Post*, January 20, 2019.

†Under its 2001 WTO accession protocol, China promised to remove market access restrictions for foreign financial institutions, committing to a five-year phase-in for banking services and assuring foreign insurers they would be permitted to set up wholly owned life insurance companies by 2006.

Chinese Financial Regulators Are Eager for Foreign Capital and Expertise

Relaxed restrictions on foreign capital inflows come as Chinese policymakers are eager to attract foreign investment to recapitalize the heavily indebted banking sector and offset slowing domestic investment and industrial output growth. A fresh infusion of foreign capital may allow Chinese banks to roll over delinquent loans and keep perennially loss-making enterprises afloat rather than pushing through much-needed reforms to address systemic financial risks.* China's financial regulators are particularly eager to encourage foreign financial institutions to enter China's distressed debt market, as the country continues a multiyear effort to reduce high inventories of nonperforming corporate loans. Among the first concrete moves following the Phase One agreement, Beijing's local financial regulator allowed U.S. private equity firm Oaktree Capital Management to register as the first foreign provincial-level asset management company.† [175]

Beyond bailing out the banking sector, Chinese policymakers are eager to bring foreign expertise to improve the sophistication of China's financial services. Allowing foreign fund managers to invest in key areas like Chinese pension funds could foster China's nascent pension management market and reverse a trend of low returns on retirement savings—a critical need as China faces declining labor force participation and likely pension fund shortfalls.[176]

U.S. Financial Services Firms and Investors Face Operating and Political Risks

Chinese leaders view their control over the financial system as central to the planned economy, with capital flows channeled toward realizing government objectives. Continued ability to manage tight capital controls is fundamental to China's currency regime, while providing cheap credit for SOEs is critical to China's industrial policy, energy security, foreign engagement, and other CCP priorities. Even where there is genuine intent to reduce credit risk and improve transparency within China's business environment, Chinese regulators are often politically powerless to impose financial discipline on major SOEs, as officials often pressure banks to grant them favorable interest rates and even loan forbearance.[177] Entering China's financial sector, U.S. financial institutions face all the same risk that previous waves of U.S. multinational enterprises faced and more. Furthermore, the systemic importance of these institutions magnifies the United States' exposure to these firms' decisions and setbacks in their Chinese operations. Specific risks to U.S. firms and investors are detailed below.

China's government uses market access as political leverage. Opening China's financial services and markets to foreign investment creates another chokepoint the CCP can use to retaliate

*Foreign investment would increase Chinese banks' total equity, meaning they would have a greater ratio of assets to liabilities and could take on further debt or continue to extend the loan terms of delinquent borrowers, often politically connected SOEs.

†First established in 1999 to clean up major Chinese banks' balance sheets after the East Asian Financial Crisis and prepare them for foreign stock listings, asset management companies buy and dispose of banks' nonperforming loans, recapitalizing the banks and attempting to recoup value from the distressed assets. Barry Naughton, *The Chinese Economy: Transitions and Growth* (MIT Press, 2007), 462–463.

for political stances it does not like. For instance, on January 2, 2020, China temporarily suspended new listings on the Shanghai-London Stock Connect,* allegedly in response to the United Kingdom's stance on the Hong Kong protests.[178] The China Securities Regulatory Commission initially declined to comment, then denied reports of the suspension and claimed the Connect was operating normally, despite a delayed listing by a Chinese company.[179]

Allowing foreign investment does not mean quick market entry. Removing legal restrictions to foreign participation in China's financial services market is no guarantee U.S. companies will gain quick access. Financial regulators may impose many additional licensing requirements and license application processing times can stretch for years, incentivizing foreign firms to expedite market entry through costly domestic acquisitions. PayPal first applied for a payments license in China in 2011. It was finally able to obtain approval to conduct online payments in September 2019 by acquiring a 70 percent stake in domestic competitor GoPay.† [180] Moreover, regulation can be highly fragmented for similar financial activities. For instance, foreign firms investing in domestic asset managers face different ownership restrictions and are regulated by different agencies depending on whether they are investing in the asset management business of a securities firm or a bank.[181]

Foreign financial institutions will not compete on equal footing. In some financial services, new access for foreign participants may come too late, as decades-long restrictions have allowed Chinese companies to completely corner the market.[182] For instance, China's life insurance market,‡ which totaled $313 billion in insurance premiums during 2018, is an attractive market prospect, but foreign joint ventures do not have the distribution network of local competitors and have not grown as quickly.[183] Point-of-sale retail payments are an even more extreme case. Foreign credit card companies were denied entry into the Chinese market for years, while local incumbent UnionPay maintained a monopoly on card networks.[184] American Express was finally granted a license in November 2018§ and approved to start operations in June 2020.[185] By then, however, mobile payment applications Alipay and WeChat Pay had grown to displace card network transactions, claiming more than 90 percent of the $27 trillion mobile payments market in 2018.[186] The apps operate on a wholly different

*The Shanghai-London Stock Connect, launched in June 2019, allows Chinese companies listed in Shanghai to raise capital overseas and allows foreign companies to list in mainland China. London Stock Exchange Group, "Shanghai-London Stock Connect."

†Terms of the deal, which was completed on December 19, 2019, have not been disclosed. The only other foreign online payments license holder, German fintech group Wirecard AG, similarly bought its way into China's market in November 2019 by acquiring an 80 percent stake in Beijing-based AllScore Payment Services for up to $81 million. Sarah Perez, "PayPal Completes GoPay Acquisition Allowing the Payments Platform to Enter China," *TechCrunch*, December 19, 2019; Huang Dazhi, "Third Party Payments Industry Changes from 2017 to 2019 (从2017到2019第三方支付行业之变)," *Sina Finance*, December 7, 2019. Translation; Jan-Patrick Barnert and Eyk Henning, "Germany's Wirecard Buys Chinese Payments Provider AllScore," *Bloomberg*, November 5, 2019.

‡As a market classification, life insurance is distinct from property and casualty insurance and also includes annuities and health insurance.

§Chinese regulators officially ended UnionPay's monopoly in 2015. *Bloomberg News*, "AmEx Moves Closer to Entering China's $27 Trillion Market," January 8, 2020.

business model,* vastly reducing U.S. credit card companies' ability to compete effectively in China.

Turbulent markets, poor transparency, and weak regulation place U.S. investors' assets at risk. Portfolio investment in China's securities market entails substantial risks of which U.S. investors may not be fully aware. Foremost, China's equities markets are highly volatile, driven by short-term speculative investment, and rife with insider trading.[187] China's fixed-income markets likewise do not accurately price risk or reflect underlying fundamentals, as government guarantees to bond issuers have artificially lowered the default rate and Chinese credit rating agencies systematically inflate bond ratings.†[188] These distortions are compounded by frequent government intervention to stabilize financial markets, further obfuscating securities' true risks. To reduce volatility, Chinese regulators have imposed a standing 10 percent cap on intraday price swings for individual equities and also dispatched a "national team" of brokerages to buy large tranches of stocks during market downturns.[189]

Beyond risky market dynamics, disclosures do not provide sufficient transparency into a company's financial health and operating risks due to weak accounting practices, governance standards, and regulatory enforcement.[190] Moreover, the prevalence of passive investment management products, such as index funds, also obscures potential investments in corporations that may be advancing objectives contrary to U.S. national security interests.[191] (For further analysis of risks of investing China's securities markets, see Chapter 2, Section 2, "Vulnerabilities in China's Financial System and Risks for the United States.")

*In the United States, card networks like American Express, Visa, and MasterCard make money from interest payments on credit and interchange fees, a small percentage of each transaction usually paid by merchants. Chinese consumers prefer debit transactions, and Alipay and WeChat Pay offer many payments free of charge or with a fraction of a percent charge to the customer. Aaron Klein, "Is China's New Payment System the Future?" *Brookings*, June 2019, 15–16.

†Credit ratings help investors differentiate between bonds with higher credit risks (those assigned a lower credit rating) and lower credit risk (those assigned a higher credit rating). Investment-grade bonds with the safest credit rating are rated as AAA, while those with the lowest credit rating are rated as C. Fifty-four percent of Chinese corporate bonds were rated AAA at the end of 2018, compared to 6 percent of U.S. corporate bonds. Nina Boyarchenko and Or Shachar, "What's in A(AA) Credit Rating?" *Liberty Street Economics*, January 8, 2020; Marlene Amstad and Zhiguo He, "Chinese Bond Markets and Interbank Market," in *The Handbook of China's Financial System*, 28–29.

Addendum I: Stimulus Measures Announced at the 2020 NPC

Type of Stimulus	Amount	Primary Beneficiary
Budget deficit increase	From 2.8 percent of GDP for 2019, or $389.8 billion (RMB 2.76 trillion), to 3.6 percent of GDP for 2020, or $531 billion (RMB 3.76 trillion).	The increase funds a special transfer to local governments.
Special treasury bonds	$141.2 billion (RMB 1 trillion)	The bonds fund a special transfer to local governments.
Special transfer mechanism	$282.5 billion (RMB 2 trillion), paid directly to city- and county-level governments rather than to provincial governments for disbursement to subordinate governments.	Local governments
Local government debt issuance quota increase	$529.7 billion (RMB 3.75 trillion) for "special purpose bonds" tied to revenue from specific projects or funds rather than used to finance general government operation. This is an increase of $226 billion (RMB 1.6 trillion) from 2019.	Local governments, although ultimately these funds will be used to pay for infrastructure and other projects.
Tax and fee cuts, lower interest rates, utility cost reductions, paying firms' unemployment insurance	$565 billion (RMB 4 trillion), which is the same size in nominal terms as the fiscal component of Beijing's massive stimulus in response to the global financial crisis.	SMEs
Lending quotas, loan forbearance, and other monetary and credit policy	China's six largest commercial banks must increase lending to SMEs by 40 percent in 2020. Loan forbearance for SMEs extended from June 2020 to March 2021.	SMEs
Digital infrastructure investment	$423.7 billion (RMB 3 trillion) in 2020 and reportedly $1.4 trillion over the next five years in infrastructure, as well as $339 trillion (RMB 2.4 trillion) in related investments.	Large, mostly state-owned firms

Source: Various.[192]

Addendum II: Beijing's Phase One Deal Commitments

Phase One Commitment	Commitment Target	Interim Result	Outstanding Concerns
Purchase Targets	Beijing committed to increase purchases of U.S. goods by at least $200 billion over 2017 levels over two years: $76.7 billion in 2020 and $123.3 billion in 2021.	As of early May, U.S. imports stood at less than half the average monthly purchase target. Trade data provider Panjiva reported China had fallen $21.2 billion behind schedule in the first quarter of 2020, as Chinese companies imported little during the COVID-19 outbreak.[193]	Beijing leveraged SOEs for some of the purchases, raising concerns that it is using the agreement to strengthen government actors in the economy.
Address IP Violations	The agreement included changes to address longstanding concerns over China's administration of the IP lifecycle: patenting, licensing, and civil and criminal enforcement. The agreement required China to establish an action plan to deter IP theft and counterfeiting, as well as to enforce court judgments. Other IP provisions aim to create a level playing field for foreign firms and ensure stronger IP protection in valuable markets such as pharmaceuticals.	On April 20, 2020, CNIPA released a 2020–2021 plan to implement guidance on strengthening IP protection.	China legal expert Mark Cohen noted that while the CNIPA guidance appears to reflect the Phase One agreement in its timetables and delegation of responsibility, CNIPA is administratively subordinate to the State Administration of Market Regulation and may lack the authority to implement the plan.[194]
Eliminate Forced Technology Transfer	The agreement prohibits Beijing from conditioning market access on transfer of technology—reiterating a commitment Beijing made in its 2001 WTO accession protocol—and directing overseas investment with the explicit aim of acquiring technology to fulfill industrial policy goals.[195]	The agreement includes no monitoring guidelines, enforcement mechanisms, deadlines, or targets.	The agreement lacks metrics to evaluate Beijing's compliance. Chinese law already prohibits conditioning regulatory approvals on technology transfer, but requests continue. U.S. companies are reluctant to come forward in cases of forced technology transfer for fear of reprisal.

Addendum II: Beijing's Phase One Deal Commitments—*Continued*

Phase One Commitment	Commitment Target	Interim Result	Outstanding Concerns
Liberalize Financial Services	Beijing agreed to remove investment restrictions, reduce regulation, and review pending license applications of U.S. companies in its domestic banking, credit rating, electronic payments, asset management, insurance, and securities industries.	Beijing committed to allow U.S. credit ratings agencies to acquire majority ownership in existing joint ventures and review U.S. companies' applications for credit rating services for onshore securities. This step repeated a promise Beijing made as part of the U.S.-China 100-day action plan in April 2017.	Many of Beijing's financial services commitments are restatements or minor improvements on pledges in progress.
Increase Agricultural Market Access	Beijing agreed to permit the import of beef, pork, and processed meat that passes inspection by the U.S. FDA Food Safety and Inspection Service. Beijing also committed to reduce the review and approval period for genetically modified products to "no more than 24 months," down from the prior approval period of five to seven years.	According to former trade negotiator Darci Vetter, provisions on U.S. meat, poultry, and specialty dairy products appeared promising in terms of increasing market access. The deal text also pledged to reduce burdensome registration, licensing, and bureaucratic processes for U.S. agricultural exporters.[196]	Trade association BIO expressed continuing concerns regarding U.S. biotech developers' lengthy wait for product approvals, as Chinese regulators will not begin the approvals process until U.S. regulators have completed their review.[197]

Source: Compiled by Commission staff.

ENDNOTES FOR SECTION 1

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SECTION 2: VULNERABILITIES IN CHINA'S FINANCIAL SYSTEM AND RISKS FOR THE UNITED STATES

Key Findings

- China's formal financial system is dominated by state-owned banks, whose position has been strengthened in the wake of the novel coronavirus (COVID-19) pandemic in 2020. These banks favor state-owned enterprises (SOEs) and privileged companies, leaving other Chinese companies starved for capital. Between 2008 and 2016, a large and unwieldy shadow banking sector emerged to fill this gap, leading to a proliferation of risky financial products and rising leverage across China's financial sector.
- In 2016, Beijing launched a financial de-risking campaign to rein in shadow banking activity and clean up the financial sector. This campaign choked off small private companies' access to financing. The COVID-19 pandemic has further deteriorated the financial health of these companies, forcing the government to ease its regulatory tightening and prioritize economic stability over financial de-risking. With such vulnerabilities remaining unaddressed, investors in China's capital markets are increasingly exposed to structural problems in China's financial system.
- As Beijing strategically opens its financial sector to secure foreign capital and global investment indices shift asset allocations toward Chinese securities, U.S. investors' exposure to the unique and significant risks accumulated in China's capital markets rises. These risks center around the opacity of China's financial system and Beijing's interference in market activity to advance its political objectives.
- Increased financial exposure to China threatens to undermine U.S. efforts to defend against China's unfair economic practices and protect U.S. policy interests. Several Chinese companies included in global investment indices are subject to U.S. export controls but not investment restrictions. This mismatch enables problematic Chinese companies to continue raising U.S. capital and reduces the strength with which the United States can defend against companies that threaten national security.
- While China's leadership speaks of developing more dynamic capital markets, liberalizing interest rates, and imposing market discipline on the banking sector, these ambitions are tempered by a low tolerance for market instability and a strong bias in favor of state-owned companies to maintain economic growth and safeguard employment.

- After years of unbridled lending, China's financial system is facing mounting problems. Local governments have recorded significant revenue shortfalls, banks remain undercapitalized, and an aging population threatens persistent current account deficits. The Chinese government seeks to attract large volumes of new foreign investment to meet these capital shortfalls. These circumstances provide the key context for the entry of foreign capital and expertise into the country's financial system.
- Beijing continues to deny U.S. audit regulators full visibility into the financials of U.S.-listed Chinese companies in line with U.S. accounting standards. These evasions from effective regulation and oversight, together with U.S.-listed Chinese companies' complex ownership structures, deprive U.S. investors of both full transparency and the opportunity for legal redress in cases of accounting fraud, eroding the integrity of U.S. capital markets.
- The COVID-19 pandemic has exacerbated key risks in China's already strained financial system. Although a full accounting of economic damage is still underway, China's first economic contraction in four decades will make it more difficult to tackle the country's debt burden, resolve nonperforming loans (NPLs), and efficiently allocate capital.
- Beijing's imposition of the national security law in Hong Kong has accelerated the territory's assimilation into China's national governance system, which could erode its status as a global financial hub. As the Chinese government calibrates financial opening, it may lean more on Hong Kong to raise foreign capital and serve Chinese companies and continue to rely on the territory as an extension of mainland capital markets.

Recommendations

The Commission recommends:

- Congress enact legislation establishing a China Economic Data Coordination Center (CEDCC) at the Bureau of Economic Analysis at the U.S. Department of Commerce. The Center would be mandated to collect and synthesize official and unofficial Chinese economic data on developments in China's financial markets and U.S. exposure to risks and vulnerabilities in China's financial system, including:
  - Data on baseline economic statistics (e.g., gross domestic product [GDP]) and other indicators of economic health;
  - Data on national and local government debt;
  - Data on nonperforming loan amounts;
  - Data on the composition of shadow banking assets;
  - Data on the composition of China's foreign exchange reserves; and
  - Data on bank loan interest rates.
- Congress request that the Administration prepare a report on the research and development activities of the affiliates of U.S. multinational enterprises operating in China and the implica-

tions of such activities for U.S. production, employment, and the economy.

Introduction

The Chinese government's urgent drive to raise and deploy new capital is precipitated by the many challenges its economy faces after a decade of unprecedented credit expansion following the 2008 financial crisis. According to the Bank for International Settlements, China's total debt ballooned from $6.5 trillion at the end of 2008 to $36.8 trillion at the end of 2019, equivalent to 258.7 percent of GDP.*[1] By the second quarter of 2020, the World Bank reported China's debt-to-GDP ratio rose to an even higher 283 percent.[2] Much of this debt was created by bank lending, with many bank loans backed by opaque, high-risk assets. The rapid accumulation of this risky debt outpaced China's economic output, which expanded only $9.7 trillion from 2008 to 2019, leading to a slew of unproductive investment and waste in the financial system.†[3] Even before the COVID-19 outbreak strained banks' balance sheets, Beijing was already grappling with how to manage the fallout of this excess and the subsequent capital stresses on the financial system. These include an enormous debt burden, an undercapitalized banking system, high levels of nonperforming assets, and a drawdown on national savings as China's population ages.

Recent moves to open China's financial market reflect a calculated strategy by the Chinese government to draw in foreign capital to address some of these challenges. This managed financial opening is in turn exposing U.S. and other foreign investors to heightened risks and systemic vulnerabilities unique to China, where the government's opaque political structure and intrusive regulatory state erode market independence. Of particular concern is the rising inclusion of Chinese securities in global investment indices. These securities range from equity shares issued by companies whose operations threaten U.S. national security to sovereign bonds that may fund SOE bailouts. The passive investment management style of investment indices, whose composition and operation are lightly regulated in the United States, may lead U.S. investors to indirectly finance Beijing's industrial planning priorities or otherwise assume investment risks they cannot fully assess or price.

This section evaluates the challenges China's financial system faces in creating and allocating capital as China's economic growth slows. It also explores the risks associated with investing in Chinese securities as their inclusion in global investment indices grows. Finally, the section reviews U.S. regulatory capabilities to manage risks to U.S. investors and policy interests from rising exposure to China's capital markets. The section is based on the Commission's January 2020 hearing on "China's Quest for Capital: Motivations, Methods, and Implications," briefings and consultations with experts and U.S. officials, and open source research and analysis.

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*By comparison, the United States' total debt reached $54 trillion in the fourth quarter of 2019, equivalent to 253.7 percent of GDP. Bank for International Settlements, "Credit to the Non-Financial Sector," September 14, 2020.

†These figures are reported as nominal values, and unless otherwise noted this section uses nominal values throughout.

Structural Overview of China's Financial System

China's distorted financial system is defined by centralized control and pervasive interference by the government and Chinese Communist Party (CCP). Large state-owned banks own more than half of total banking sector assets and channel low-cost funds to firms privileged by the state. China's capital markets more readily serve large and often state-supported firms. Onerous listing requirements prevent smaller firms from raising capital in China's stock markets and bond markets remain state-dominated and rife with already heavily indebted issuers.

Though the government is taking steps to address some of these inefficiencies in China's financial system, it continues to prioritize industrial planning and stability at the cost of accountability to investors and market independence. This excessively interventionist management of the economy injects distortions into China's financial system. These distortions have come into stark relief as regulators embark on a cleanup of the banking sector and unearth systemic problems caused by a decade of quickly accumulated debt. Policymakers are now struggling to manage public expectations that the government will always be there to bail out struggling banks or companies. Limited access to financing for small- and medium-sized enterprises (SMEs), as well as a drawdown of national savings* as China's population ages, place further strain on China's financial system.

Estimating the Unknown in China's Financial System

The reliability of the Chinese government's official financial data, including the true extent of NPLs, shadow banking assets, government debt, and composition of foreign exchange reserves, has long been in question. The CCP falsifies or obscures the official economic statistics it reports or withholds information entirely to control public impressions of its management of the economy. In addition, data on other components of China's financial system, such as interest rates charged on loans to SOEs versus SMEs, is fragmentary, requiring consultation of disparate official and unofficial sources to arrive at estimates sufficiently credible to inform meaningful analysis. This section accordingly supplements official figures reported by the Chinese government with data independently collected by other analysts, where available, to enable the fullest possible assessment of China's financial system and its allocation of capital to different actors in China's economy.

Banks Dominate, Capital Markets Languish

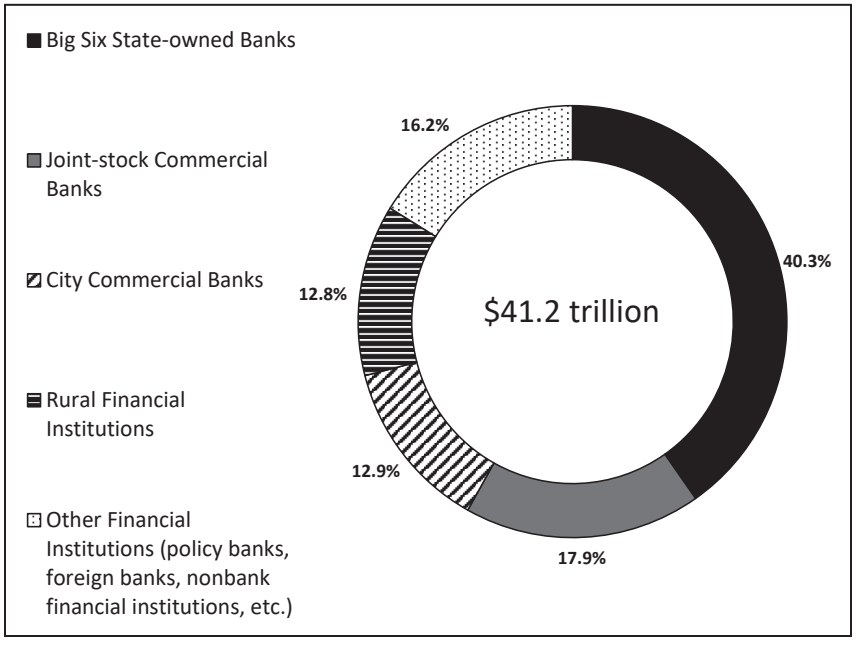
Banks play an outsized role in China's financial system, and the Chinese government exerts pervasive influence across the full spectrum of China's banking sector.† This is most visible through the

*National saving is the sum of private household savings and government savings. International Monetary Fund, "Saving, Investment, Financial Integration, and the Balance of Payments," December 1989.

†China's banking sector comprises more than 4,000 commercial banks, though the six largest state-owned banks (Industrial and Commercial Bank of China, China Construction Bank, Bank of China, Agricultural Bank of China, Postal Savings Bank of China, and the Bank of Commu-

"Big Six" state-owned banks, which together hold 40.3 percent of banking assets.*[4] Local governments also shape the lending practices deployed by subnational banks at the provincial and lower levels.[5] This preponderance of the state in China's banking system instills a lending bias toward SOEs. Though China's SMEs can still borrow from the banks, they do so at a higher cost: some analysts estimate the average interest rate on loans to private firms is 3 percentage points higher than that for SOEs.[6] Large banks with national operating licenses hold the bulk of commercial bank assets (see Figure 1).[7]

Figure 1: Chinese Bank Assets by Type, December 2019



Source: China Banking and Insurance Regulatory Commission via CEIC database.

nications) hold 40.3 percent, or $16.6 trillion, of all commercial bank assets. These are followed by 12 national joint-stock banks, which, while not wholly state owned, are often subject to state influence because the government has a strategic or controlling interest through state-owned investment or holding companies. These are followed by a multitude of regional banking institutions with various ownership structures, including 134 city commercial banks, around 1,400 rural commercial banks, and thousands of rural credit cooperatives. For more on the composition of China's banking sector, see Virgilio Bisio, "China's Banking Sector Risks and Implications for the United States," *U.S.-China Economic and Security Review Commission*, May 26, 2020, 4–5.

*Banking assets are resources formed by transactions conducted by commercial banks, including loans, investments (securities investment, cash assets investment, fixed assets investment), leasing, and foreign exchange trading, among others. Chinese banks have also historically derived significant funding from household deposits, though a steady decline in household savings rates since 2010 has placed further stress on bank balance sheets. Zhiguo He, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Quest for Capital: Motivations, Methods, and Implications*, January 23, 2020, 6; Guofeng Sun, "Banking Institutions and Banking Regulations," (draft) in Marlene Amstad, Guofeng Sun, and Wei Xiong, eds., *The Handbook of China's Financial System*, forthcoming Princeton University Press, 2020, 5; Longmei Zhang et al., "China's High Savings: Drivers, Prospects, and Policies," *International Monetary Fund*, December 11, 2018, 10–11.

Since state firms already have easy access to financing, companies raise comparatively little money in China's stock market. In 2019, China's stock market accounted for only 2.9 percent of aggregate financing.[8] The development of China's stock market is hindered by stringent listing requirements* with which politically connected state firms can more easily comply.[9] China's government, as opposed to the market, also continues to influence the decisions of all issuers in China's stock market, regardless of their ownership. The September 2018 listing guidelines issued by the China Securities Regulatory Commission (CSRC), for example, require all publicly traded Chinese firms to set up CCP cells within their leadership structures.†[10]

China's Evolving Bond Markets Serve the State First

Bonds are an important source of direct financing for state-affiliated companies and an economic stimulus tool for Beijing. Developments in 2020 suggest the Chinese government is prioritizing the attraction of foreign capital into China's state-dominated‡ bond markets ahead of other policy changes that would strengthen private enterprises' ability to participate in them. For example, in July 2020 China's financial authorities announced the interbank and exchange-traded bond markets would be unified§ to "further facilitate

*China's stock market has historically featured high thresholds on earnings and cash flow requirements for companies seeking to list. For example, prior to stock market reforms undertaken in 2020, a company needed to demonstrate in its initial public offering (IPO) application to the CSRC that it had generated positive earnings in the past three consecutive years with accumulated earnings in excess of renminbi (RMB) 30 million. These tight requirements explain why some Chinese companies, particularly in the startup and technology sectors, choose to list in overseas markets such as the United States. According to one study, had JD.com tried to list in China rather than on Nasdaq in May 2014, it would have had to show profits in 2011, 2012, and 2013, and a small loss that occurred in 2012 would have made it impossible to list in China. Franklin Allen et al., "The Development of the Chinese Stock Market," (draft) in Marlene Amstad, Guofeng Sun, and Wei Xiong, eds., *The Handbook of China's Financial System*, forthcoming Princeton University Press, 2020, 18.

†While it has long been presumed that all Chinese companies feature CCP organizations in their leadership structures, the updated listing guidelines issued in 2018 appear to be the first codification of such a requirement with respect to publicly listed companies. Specifically, Article 5 of the guidelines states that "organizations of the Communist Party of China should be established in a listed company in accordance with the Company Law." The Company Law (last updated in 2013) was ambiguous on this point and did not indicate that listed companies specifically should feature such organizations, instead stipulating in its Article 19 that "in a company, an organization of the Communist Party of China shall be established to carry out the activities of the Party in accordance with the charter of the Communist Party of China." The Company Law's Section 5 on "Special Provisions on the Organizational Structure of Listed Companies" makes no reference to requirements for CCP cells. China Securities Regulatory Commission, *Announcement No. 29 "Government Standards for Listed Companies"* (第29号公告《上市公司治理准则》), September 30, 2018. Translation. *http://www.csrc.gov.cn/pub/zjhpublic/zjh/201809/t20180930_344906.htm*; China Securities Regulatory Commission, *Company Law of the People's Republic of China (Chairman's Order No. 8, as Amended on December 28, 2013)* (中华人民共和国公司法（主席令第8号，2013年12月28日修正）), December 28, 2013. Translation. *http://www.csrc.gov.cn/pub/shenzhen/xxfw/tzzsyd/ssgs/zh/zhxx/201409/t20140918_260530.htm*.

‡Most bonds traded in China's fixed-income markets are issued by state-affiliated entities, such as state-owned banks, local government financing vehicles (LGFVs), and SOEs. LGFVs are economic entities established by China's local governments to finance government invested projects, typically infrastructure and real estate development projects. Because local governments are barred from borrowing directly from banks, they use LGFVs to borrow money to finance projects. Marlene Amstad and Zhiguo He, "China's Bond and Interbank Market," (draft) in Marlene Amstad, Guofeng Sun, and Wei Xiong, eds., *The Handbook of China's Financial System*, forthcoming Princeton University Press, 2020, 6; Kate Jacquet, "The Evolution of China's Bond Market," *Seafarer Funds*, March 2019, 12.

§Bonds in China were previously traded in two distinct markets: the over-the-counter interbank market and the Shanghai and Shenzhen stock exchanges. The interbank market is the more consequential of the two, with about 89 percent of total bonds outstanding traded on it in 2018. Marlene Amstad and Zhiguo He, "China's Bond and Interbank Market," (draft) in Marlene Amstad, Guofeng Sun, and Wei Xiong, eds., *The Handbook of China's Financial System*, forthcoming Princeton University Press, 2020, 3.

bond investors" and ease trading, clearance, and settlement procedures.[11] The measures reduce the complexity of trading procedures for China's bond market, further attracting foreign investors.[12]

Chinese bond issuance has grown rapidly in recent years and the onshore bond market more than doubled in size from $6.4 trillion (renminbi [RMB] 45.4 trillion) at the end of 2015 to $13.3 trillion (RMB 94.2 trillion) in June 2020.*[13] Despite this growth, China's bond market remains relatively illiquid. For example, in 2018 Chinese treasury bonds and policy bank bonds had turnover ratios† of 1.3 percent and 3.6 percent, respectively, compared to 10 percent for U.S. treasuries the same year.[14] Local government bonds, and particularly special purpose bonds that are backed by a specific project or group of projects, have also become an increasingly important fiscal stimulus tool over the last several years.[15] Since 2017, the State Council has continually increased the annual quota for special purpose bonds and resorted to frontloading issuances from the 2019 and 2020 quotas to prop up economic growth.[16] By the first week of July 2020, the entire $529.7 billion (RMB 3.75 trillion) special purpose bond quota—a $226 billion (RMB 1.6 trillion) increase over the previous year's quota—had already been allocated.[17]

China's Credit Ratings Ecosystem Obscures Debt Risks for Investors

While China possesses a full credit ratings ecosystem, systematic ratings inflation by Chinese ratings agencies compromises the integrity of credit rating in China, obfuscates debt risk, and may ultimately harm overseas investors exposed to China's fixed income markets. Ratings inflation by Chinese ratings agencies is visible in a clustering of scores at the top of the ratings spectrum. At the end of 2018, 96 percent of nonfinancial bonds carried a rating of AA or above.‡[18] Moreover, according to one study's sample of investment-grade bonds, foreign credit ratings agencies on average rate bonds by the same Chinese issuer a staggering six to seven grades lower than mainland Chinese ratings agencies.[19]

The inflation of credit ratings partially stems from the disproportionate representation of state-owned companies in the bond market. For example, in 2019, private companies accounted for only 7.7 percent of total corporate bond issuance.[20] The high concentration of SOEs in the bond market inflates the ratings distribution because investors assume state-sector borrowers enjoy government support and therefore present a lower credit risk.[21] At the same time, China Banking and Insurance Regulatory Commission (CBIRC) rules also require banks and insurance companies to invest only in bonds rated AA or higher.[22] Combined with

*Unless noted otherwise, this section uses the following exchange rate throughout: $1 = RMB 7.08.

†A bond's turnover ratio measures its liquidity by dividing the total number of bonds traded over a period by the number of bonds outstanding in the same period. It indicates the frequency at which outstanding issues have been traded in the market. Bank for International Settlements, "Fixed Income Market Liquidity," January 2016, 9.

‡Credit ratings help investors differentiate between bonds with higher credit risks (those assigned a lower credit rating) and lower credit risk (those assigned a higher credit rating). Investment-grade bonds with the safest credit rating are rated as AAA, while those with the lowest credit rating are rated as BBB or BAA, depending on which global rating agency's scale is being used. Nina Boyarchenko and Or Shachar, "What's in A(AA) Credit Rating?" *Liberty Street Economics*, January 8, 2020.

China's Credit Ratings Ecosystem Obscures Debt Risks for Investors—*Continued*

the fact that banks are dominant participants in China's bond market, holding 56.2 percent of corporate bonds and 86.1 percent of local government bonds at the end of 2019, this makes AA the de facto lowest investable bond grade (the international equivalent would be a BBB rating).[23]

The entry of foreign ratings agencies into China's bond market, which began with the entry of S&P into China's ratings market in the first half of 2019, potentially represents an opportunity for Beijing to overhaul the ratings ecosystem and encourage foreign investment in the bond market.[24] This opportunity is contingent, however, upon the Chinese government allowing foreign ratings agencies access to financial statements and information in order to issue objective assessments of Chinese entities' creditworthiness. Foreign ratings agencies may also feel pressure to provide higher ratings in order to gain market share as Chinese companies seek the highest rating possible.[25] In testimony before the Commission, David Loevinger, managing director at asset management firm TCW, said it remains "an open question" whether foreign ratings agencies will be able to issue objective ratings and "call it like they see it" in China's financial markets.[26] Even if foreign ratings agencies are permitted to apply fair and impartial standards, they must contend with potential accounting irregularities that are not always detected or disclosed by auditors.

Shadow Banking Crackdown Eases

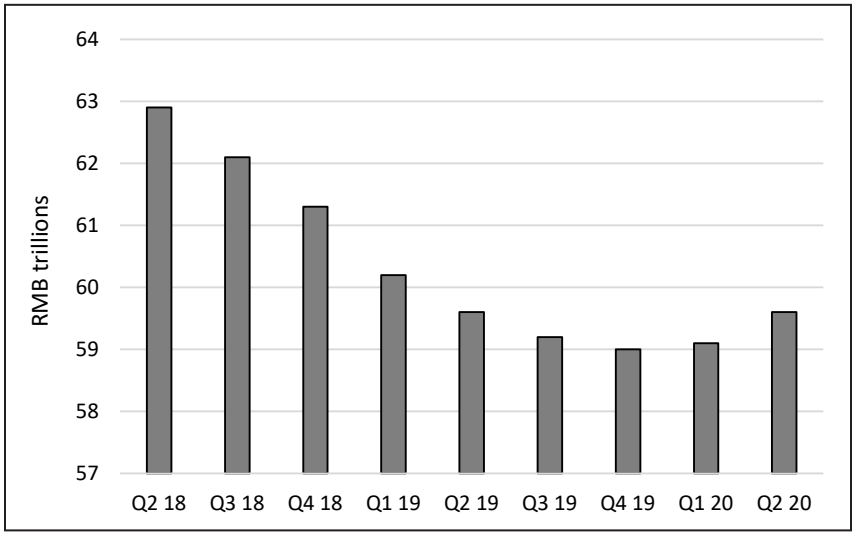
Outside of formal banking channels, China's financial institutions perform a variety of credit intermediation functions known as shadow banking.* In the decade following the global financial crisis, shadow banking grew rapidly and new instruments for risky lending proliferated. Concerned about the stability of the financial system, regulators launched a campaign to rein in shadow banking activities in late 2016 as part of a broader financial cleanup. These regulatory efforts succeeded in reversing the growth of shadow banking. Although shadow banking activity is, by design, difficult to measure, Moody's estimates that total shadow assets contracted from $9.1 trillion (RMB 64.5 trillion) at the end of 2016 to $8.3 trillion (RMB 59 trillion) at the end of 2019.[27]

Shadow banking serves as an especially important channel of credit provision to small private companies whose ability to access financing was disproportionately squeezed by the regulatory tightening, weighing on economic growth. Therefore, amid slowing economic

*Shadow banking is lending that occurs outside the formal banking sector and is therefore not subject to the same prudential regulations as bank lending. Examples of shadow banking components include trust loans, entrusted loans, peer-to-peer lending, wealth management products, certain kinds of asset management plans, and structured deposits. For more background on China's shadow banking sector, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 1, "Year in Review: Economics and Trade," in *2017 Annual Report to Congress*, November 2017, 49–50; U.S.-China Economic and Security Review Commission, Chapter 1, Section 3, "Governance and Accountability in China's Financial System," in *2013 Annual Report to Congress*, November 2013, 113–152.

growth in 2019 and the COVID-19 pandemic in 2020, regulators eased pressure on shadow banking and allowed certain subcategories of shadow banking activity to make a modest recovery.[28] This easing is visible in the slowing pace of shadow banking contraction (see Figure 2) as well as in a significant uptick in nonbank financing captured by survey data from China Beige Book.[29]

Figure 2: China's Total Shadow Banking Assets, Q2 2018–Q2 2020



Note: The U.S. dollar value of shadow banking assets in the second quarter of 2020 was $8.8 trillion.
Source: Various.[30]

Despite this easing, China's shadow banking sector potentially faces significant disruption as China's already slowing economy is further undercut by the COVID-19 outbreak. For example, over the course of 2019, the value of outstanding trust assets* with disclosed repayment risks† increased 159.7 percent from $31.4 billion (RMB 222.2 billion) at the end of 2018 to $81.5 billion (RMB 577 billion) a year later.[31] This number is expected to continue rising as anoth-

*In contrast to trust companies in the United States whose primary business is to act as a fiduciary in the administration of assets that belong to a person or corporation, Chinese trust companies' business is devoted to the provisioning of nonstandard credit (i.e., risky lending to corporate borrowers that prudential rules prevent banks from lending to directly). Chinese trust companies cooperate closely with banks to channel the proceeds of bank-issued wealth management products into trust products, thereby gaining access to retail depositors who could not normally afford to invest in trust products. Chinese trust companies' main function, therefore, is to perform bank-style credit intermediation but with a lower regulatory compliance threshold. Chinese trust companies' assets thus include risky, high-yield products backed by loans that are sold to banks, institutional investors, and wealthy individuals. According to one former executive of a Chinese securities company, these pyramid-like products are essentially "bank loans with an investment wrapper [provided by a trust company, securities company, or fund management company] around them to allow them to be booked as investments." Charlie Zhu et al., "Key Part of China's Shadow Banking Faces Doubling of Defaults," *Bloomberg*, April 14, 2020; Jason Bedford and May Yan, "Shining a Light on Shadow Banking: The Trust Sector Leads the Way on Easing in Shadow Banking," *UBS*, March 26, 2019, 3–6.

†The China Trustee Association provides no definition of what qualifies a particular asset as "at risk" or how this may differ from the more widely used "nonperforming asset" designation. The figure likely only counts assets that have exhibited obvious problems (e.g., they have defaulted). Allen Feng and Logan Wright, "The Shadow Iceberg," *Rhodium Group China Markets Research*, May 19, 2020, 4.

er $762.7 billion (RMB 5.4 trillion) in trust products comes due in 2020.[32]

Challenges in China's Financial System and Beijing's Policy Responses

The fourfold expansion of China's financial system after the global financial crisis helped China avoid a recession, but it also amplified preexisting structural distortions in the way financial resources are allocated and led to the accumulation of significant risks on financial institutions' balance sheets. Diffusing these risks increasingly requires new capital formation, which China's financial system is poorly positioned to provide efficiently. With China recording its first economic contraction in decades in the first quarter of 2020, a growing list of local governments, SMEs, and struggling banks need to be bailed out or recapitalized. Meanwhile, China's balance of payments position is deteriorating amid looming demographic challenges. Addressing these challenges without exacerbating China's debt burden is a major obstacle for policymakers and a key factor driving Beijing to view foreign investors as part of the solution.

Government Interference and Implicit Guarantees

Despite repeated promises to allow the market a greater role in guiding the economy, China's leaders continue to prize economic and employment stability and control ahead of market independence. Beijing has therefore intervened wherever it has deemed necessary to prevent bankruptcies, defaults, and financial losses. The government has thereby fostered an expectation that it will effectively bail out any financial institution or state-owned company that is in danger of default.[33] This unacknowledged assurance of government support is often called an "implicit guarantee."[34]

Implicit guarantees have led creditors, investors, and the Chinese public more generally to base their assessment of any particular company or financial institution's ability to repay debt not on its actual fundamentals, but rather on the strength of the government's appetite and capacity for intervention.[35] After the global financial crisis, implicit guarantees were a key ingredient for China's rapid debt buildup because they incentivized local governments and companies to binge on cheap credit to bolster flagging growth and push through local projects that otherwise would have been difficult to finance. Banks and other financial institutions, meanwhile, could take advantage of loose monetary policy conditions to churn out large volumes of "risk free" loans.

Attempts to Break the Implicit Guarantee Flounder

Financial regulators are aware of the distortive effect implicit guarantees have on credit allocation and have made tentative attempts to begin rolling them back amid a broader financial cleanup campaign that began in late 2016. But doing so requires regulators to successfully navigate creditor jitters by seeking to punish risk-taking behavior only where it is least disruptive to overall financial markets. Regulators have made moderate attempts to roll back the implicit guarantee in two areas: the banking sector and the corporate bond market.

Implicit Guarantees in the Banking Sector

Before 2019, Beijing's attempts to roll back the implicit guarantee in the banking sector failed completely.[36] The May 2019 government takeover of Baoshang Bank was the first credit event in more than two decades that significantly altered banks' approach to risk. Financial regulators underestimated the severity of the market reaction to their Baoshang experiment, however, leading them to backtrack in their treatment of subsequent bank failures. This has produced an ambiguous set of outcomes, the long-term implications of which remain unclear.

On May 24, 2019, the CBIRC announced it would take direct control over Baoshang Bank through a one-year receivership.* Two days later, the People's Bank of China (PBOC) announced it would force interbank creditors with exposures in excess of $7.1 million (RMB 50 million) to accept losses up to 30 percent.† Although the PBOC tried to present Baoshang as an isolated case, a number of other regional banks faced similar challenges. Therefore, Chinese interbank markets reacted by hiking the premium on short-term loans to banks with similar risk profiles. This is visible in the significant interest rate spread that suddenly appeared in the Negotiable Certificate of Deposit (NCD)‡ market following the Baoshang takeover (see Figure 3). After Baoshang, banks with credit ratings below AAA experienced a significant funding squeeze.§

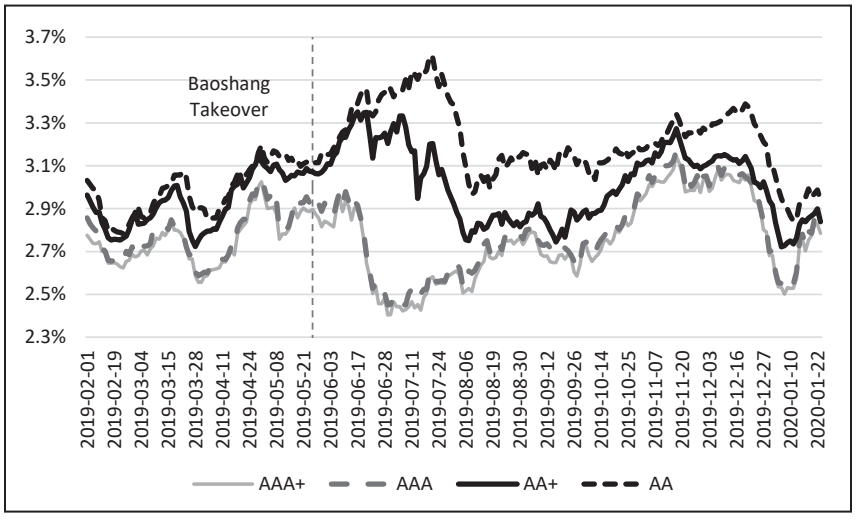
*Though the PBOC announced on May 23, 2020, that it would extend the receivership by six months due to the COVID-19 pandemic, much of the business, assets, and liabilities of Baoshang had already been transferred to Mengshang Bank, a new commercial bank established by China's financial authorities in April to take over Baoshang's operations in Inner Mongolia. The PBOC then announced on August 6 that Baoshang Bank would file for bankruptcy and liquidate its few remaining assets. People's Bank of China, *Q2 2020 Monetary Policy Report* (2020年第二季度中国货币政策执行报告), August 6, 2020. Translation. *http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4068117/index.html?mc_cid=0198e26f62&mc_eid=8f4114a201*; People's Bank of China, *Announcement on the Extended Takeover Period of Baoshang Bank* (关于延长包商银行股份有限公司接管期限的公告), May 23, 2020. Translation. *http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4027513/index.html*; Brenda Goh, "China's Central Bank Extends Control of Baoshang Bank by Six Months," *Reuters*, May 23, 2020; Wu Hongyuran and Timmy Shen, "Baoshang Bank Reborn as New Lender Takes Over," *Caixin*, April 16, 2020.

†For a detailed discussion of the Baoshang Bank bailout, see Virgilio Bisio, "China's Banking Sector Risks and Implications for the United States," *U.S.-China Economic and Security Review Commission*, May 26, 2020, 11–13; U.S.-China Economic and Security Review Commission, Chapter 1, Section 1, "Year in Review: Economics and Trade," in *2019 Annual Report to Congress*, November 2019, 60–61.

‡Negotiable certificates of deposit are a commonly used instrument for high-volume, short-term borrowing in interbank markets. From 2013 (when NCDs were introduced in China) to 2018 the volume of annual NCD issuance grew rapidly from $153.5 billion (RMB 950 billion) to $770.3 billion (RMB 5.3 trillion). Regional banks became especially reliant on these and other interbank funding sources. According to Chinese media reports, Baoshang's interbank liabilities accounted for about 44 percent of its total liabilities before the bailout, a significant portion of which were in NCDs. Yang Jiao, "City Commercials Banks' Sickness of Reliance on Interbank Markets Continues, Regulators Focus on Liquidity Risks at Small and Medium Banks" (城商行同业依赖症不减，监管关注中小银行流动性风险), *Yicai*, May 27, 2019. Translation. *https://www.yicai.com/news/100203059.html*; Yin Ruizhe and Li Yuze, "Will the Baoshang Bank Incident Shock Credit Markets?" (包商银行事件会冲击信用债市场吗?), *China Merchants Securities*, May 26, 2019. Translation. *http://www.newone.com.cn/research/read/2312214*; People's Bank of China, China Banking and Insurance Regulatory Commission, China Central Depository and Clearing Company, and Shanghai Clearing House via CEIC database.

§Prior to the bailout, Baoshang Bank was rated AA+. Ryan Woo and Cheng Leng, "Takeover of Little-Known Baoshang Casts Doubt over Other Small Chinese Banks," *Reuters*, May 30, 2019.

Figure 3: Three-Month NCD Yields by Credit Rating, February 2019–January 2020



Source: China National Interbank Funding Center.

The spread on funding costs between different banks did not return to pre-Baoshang bailout levels until the fourth quarter of 2019. By this time, Beijing had bailed out several other banks at no cost to creditors. In total, six banks have received government assistance in the year and a half since Baoshang, with no creditors suffering losses (for a list complete through September 2020, see Addendum I: Chinese Government Interventions into Financially Distressed Banks, 2019–2020). The long-term implications of government actions in these bailouts are highly ambiguous. In one sense, subsequent bank rescues have restored some of the confidence in the implicit guarantee that was shaken by Baoshang. At the same time, city commercial banks have clearly internalized some of the lessons from the Baoshang bailout and have since displayed less appetite for risk, as demonstrated by reduced asset growth. Between May and December 2019, asset growth at city commercial banks slowed from 12.4 percent year-on-year to 8.5 percent.[37] This occurred at a time of accelerating asset growth for large state-owned banks and national joint-stock banks.[38] The year 2019 also saw the first annual contraction in NCD issuance since the PBOC first approved the instrument's use in 2013.[39]

Implicit Guarantees in the Corporate Bond Market

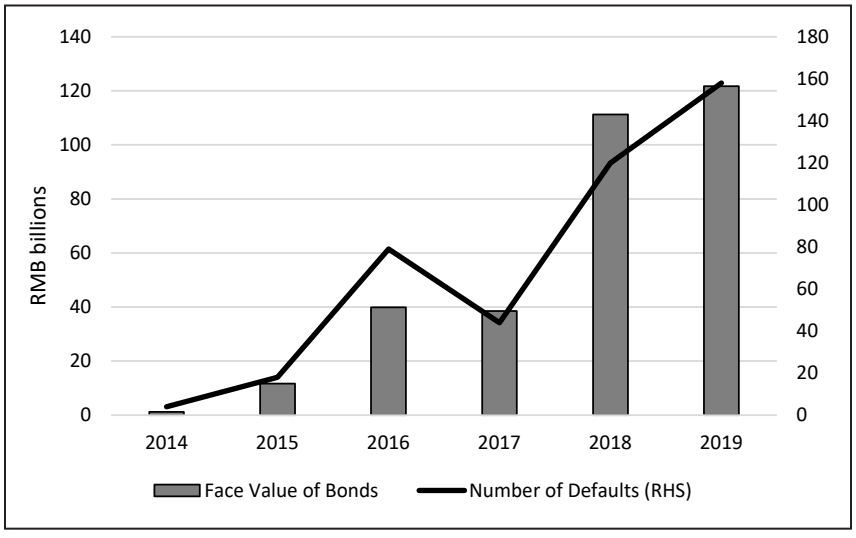
Another arena where Beijing is relaxing the implicit guarantee is the corporate bond market. In 2019, China saw a record number of bond defaults (see Figure 4), including several high-profile credit events. For example, in December, Tewoo Group, a large state-owned commodities company based in Tianjin, became the first SOE to default on dollar-denominated debt in more than two decades.*[40] The

*Officially estimated at $1.1 trillion as of March 2020, China's total dollar-denominated foreign obligations are relatively small compared to China's overall debt, which the Bank for Internation-

same month, Inner Mongolia-based Hohhot Economic and Technological Development Zone Investment Development Group nearly became the first local government financing vehicle (LGFV) to default when it missed a payment on a privately issued bond.[41] Analysts expect defaults to rise further in 2020, with $918.1 billion (RMB 6.5 trillion) in payments coming due for Chinese corporate bond issuers.[42]

Chinese regulators have aided borrowers in using a variety of creative techniques to avoid technical defaults, roll over debt, and extend repayment periods.[43] This has not eased repayment risks but rather merely reduced headline default numbers. For example, 16 Chinese companies rated by Fitch Ratings defaulted on onshore bonds with a principal value of $7.4 billion (RMB 52.5 billion) in the first six months of 2020, a decline from 35 companies involving $10.3 billion (RMB 72.7 billion) in defaults in the same period in 2019.[44] Repayment risks remain heightened as the economic impact of COVID-19 has compounded the strain on corporate finances.

Figure 4: Chinese Interbank Bond Market Defaults, 2014–2019



Source: Various.[45]

Though rising corporate bond defaults are partially an indication of Beijing's increased tolerance for credit events as it seeks to loosen the implicit guarantee, the composition of defaulting borrowers

al Settlements estimates at $37.8 trillion, including public, corporate, and household debt. The significance of China's dollar-denominated debt is greater than this number suggests. Because dollar bonds are an important source of foreign currency for some Chinese companies, the Chinese government will typically assist borrowers, especially if they are SOEs, to avoid default. Therefore, the Tewoo Group default represents a notable reduction in the Chinese government's fiscal capacity to maintain stability in the financial system. China State Administration of Foreign Exchange, *National Foreign Exchange Management Bureau Publishes First Quarter Foreign Debt Statistics* (国家外汇管理局公布2020年3月末中国全口径外债数据), June 24, 2020. Translation. *http://m.safe.gov.cn/safe/2020/0624/16501.html*; Bank for International Settlements, "Credit to the Non-Financial Sector," September 14, 2020; *Bloomberg*, "China's Dollar Bond Pain Shows the Limits of State Intervention," April 7, 2020; Alexandra Stevenson, "China's Companies Binged on Debt. Now They Can't Pay the Bill," *New York Times*, December 12, 2019.

suggests the state remains reluctant to let SOEs fail.[46] For example, private companies issued just 7.7 percent of onshore corporate bonds in 2019 but accounted for 80 percent of defaults that same year.[47]

Beijing Seeks to Resolve Uneven Financing Environment

An unintended consequence of Beijing's financial de-risking campaign that began in late 2016 was that small private companies were disproportionately affected.[48] Due to the implicit guarantee and continuing government influence of interest rates, banks prefer to lend to large SOEs, which, even if not profitable, are much less likely to default than small private companies. Beijing has sought to address the private sector's funding challenges from multiple angles. The years 2019 and 2020 saw some progress on capital market reforms intended to loosen banks' grip on the economy, though these reforms have focused on equity rather than bond financing. At the same time, Beijing instructed banks to step up their lending to small businesses and eased monetary policy to encourage them to do so. The PBOC engaged in incremental capital market reforms and limited interest rate reforms to further improve its ability to guide credit allocation.

China's Corporate Landscape: SOEs, Private Companies, and the Question of Control

China's so-called private companies play an instrumental role in the economy, accounting for 60 percent of GDP, 80 percent of urban employment, and 90 percent of new job creation.[49] Though these ostensibly private companies occupy important roles in China's economy, they also respond to both market and nonmarket incentives and therefore do not necessarily operate in the same way as private companies in the United States. Many have intimate links to the Party and government, receive preferential access to financing and subsidies, and sometimes align their commercial operations with CCP objectives. For example, as COVID-19's global spread accelerated in March 2020, large private companies like Huawei and Alibaba dispatched personal protective equipment (PPE) to countries where the Party seeks to expand its influence or cultivate new markets.*

In September, the CCP moved to further strengthen its leadership and control over the private sector by extending the work of the United Front Work Department† further into the business community. According to the *Opinions on Strengthening the United Front Work of the Private Economy in the New Era*, the United

*Huawei donated 800,000 face masks to the Netherlands in mid-March 2020. The Netherlands is slated to auction its 5G network buildout in 2020, suggesting Huawei's efforts are politically motivated. Separately, the Jack Ma Foundation, founded by former executive chairman of e-commerce giant Alibaba, promised to send PPE to all 54 African nations, where the Chinese government seeks to deepen its political influence and expand economic engagement. David Hutt, "China's 'Mask Diplomacy' in Pandemic-Hit Europe Stirs Unease," *Nikkei Asian Review*, March 25, 2020; Samuel Gebre, "China Expands Medical Aid to Africa with First Ethiopia Shipment," *Bloomberg*, March 22, 2020.

†The United Front Work Department is a Chinese government entity charged with extending the CCP's influence and control over non-Party organizations both domestically and abroad to advance CCP policy objectives. For more on the United Front Work Department, see Alexander Bowe, "China's Overseas United Front Work: Background and Implications for the United States," *U.S.-China Economic and Security Review Commission*, August 24, 2018.

China's Corporate Landscape: SOEs, Private Companies, and the Question of Control—*Continued*

Front's work with the private sector is "an important way to realize the Party's leadership over the private economy."[50] The policy correspondingly calls for improving coordination between private enterprises and the government and strengthening Party-building activities in private enterprises, among other things.[51] Some of these enterprises may be raising capital on U.S. exchanges. Separately, recent research reveals privatized SOEs "enjoy lower interest rates, larger loan facilities, and more subsidies" than private companies that were never state owned.[52] In addition to links between the government and individual companies, there are also structural factors that muddy the state-private distinction. The Chinese government's expansive influence over Chinese firms creates what analysts have referred to as a "national strategic buyer" problem, whereby decisions made by Chinese companies—be they nominally private or state owned—may be guided by national security or industrial policy objectives.[53]

Development of China's Stock Market Outpaces Bond Market

Beijing is taking gradual steps to further develop its capital markets and achieve its twin ambitions of encouraging Chinese companies to list at home rather than abroad, drawing in ever greater amounts of foreign capital to alleviate debt pressures. In 2019 and 2020, regulators adopted measures to enhance the attractiveness of the domestic stock market to encourage Chinese companies to list in the Mainland. A key plank of this effort was the establishment of a Nasdaq-style Science and Technology Board on the Shanghai Stock Exchange, known as the STAR Market, with the Chinese government keen to incentivize China's high-tech and most profitable companies to list in China rather than in Hong Kong (such as Tencent) or New York (such as Alibaba and Baidu).[54]

While the STAR Market focuses narrowly on attracting high-tech companies that align with national development priorities, its eased listing provisions are being extended to China's other stock exchanges in a "step-by-step" fashion through amendments to the country's Securities Law.[55] The revised law went into effect in March 2020 and calls for the registration-based initial public offering (IPO) system, first piloted on the high-tech board, to apply across all Chinese exchanges.*[56] In addition, the minimum business requirement for a company to qualify for a new listing is lowered to "being capable of business operations" from the previously more stringent "capable of sustained profitability,"[57] technically enabling money-losing startup companies to list.

In June 2020, the CSRC finalized rules extending the registration-based IPO system to Shenzhen's ChiNext Board, a trading venue for tech startups on the Shenzhen Stock Exchange.[58] A first batch of 18 technology startups debuted on the board under the

*Revisions to the Securities Law are closely modeled on reforms piloted on the Science and Technology Board. Terence Foo and Zhang Hong, "New Tech Board and Registration-Based IPO System Officially Launched in China," *Clifford Chance*, 2019.

revamped system on August 24, with stocks surging 200 percent on average.[59] Unlike the registration-based IPO system piloted on the STAR Market, the changes to the ChiNext Board apply to secondary offerings and acquisition and merger deals involving a far wider array of companies.[60] The measures could result in a wave of IPOs and secondary offerings on the Shenzhen Stock Exchange, which has featured fewer offerings than the Shanghai Stock Exchange since the STAR Market's debut there. These measures could also heighten competition between the two exchanges as they pursue listings from Chinese technology startups.

Beijing has tried to foster more dynamic domestic bond markets by encouraging participation beyond state-owned banks, LGFVs, SOEs, and other government-affiliated entities that have dominated bond issuance.[61] Initially, only SOEs and companies listed on Chinese exchanges were allowed to issue bonds, though the CSRC updated its regulatory framework in 2015 to allow bond issuance by both listed and unlisted companies.[62] Though access has been eased, private enterprises still face difficulty issuing bonds and have to pay higher interest rates than SOEs on similarly rated bonds.[63] Additionally, banks hold the majority of bonds in domestic fixed income markets and trade them infrequently. This makes the bonds little more than disguised bank loans and reduces market liquidity.[64]

Beijing Leans on Banks to Boost Private Sector Lending

In March 2019, facing a significant slowdown in the pace of economic growth, Beijing ordered banks to increase their lending to small and micro enterprises, in this case defined* as those with a credit line of less than $1.4 million (RMB 10 million), by 30 percent in 2019.[65] For 2020, the government has demanded that the six largest banks increase lending to such enterprises by 40 percent.†[66]

To boost liquidity in the banking system, the PBOC has also made several cuts to both the benchmark interest rate and the reserve requirement ratio (RRR), or the percentage of deposits banks must keep in reserve either as cash in their vaults or deposited with the central bank. Over the past two years, the PBOC has cut the

*The Chinese government sets criteria distinguishing micro-, small-, and medium-sized enterprises on a sector-by-sector basis according to operating revenue, number of employees, total assets, and other factors. These criteria vary significantly within and across sectors. For example, in the retail sector, firms with fewer than 10 employees are micro-sized enterprises, 10–50 employees are small-sized enterprises, and more than 50 employees are medium-sized enterprises. Contrastingly, in the industrial sector, firms with fewer than 20 employees are micro-sized enterprises, 20–300 employees are small-sized enterprises, and more than 300 employees are medium-sized enterprises. Though definitionally fluid, these smaller companies are important to China's economic health. According to Chinese state media, "Private enterprises dominated by small, medium, and micro enterprises" account for 60 percent of GDP, 80 percent of urban employment, and half of national tax revenue. *People's Daily*, "Support Medium, Small, and Micro Enterprises to Overcome the Pandemic" (支持中小微企业克服疫情影响), June 8, 2020. Translation. *http://paper.people.com.cn/rmrb/html/2020-06/08/nw.D110000renmrb_20200608_3-05.htm*; State Council of the People's Republic of China, *Notice on Issuing the Classification Standards for Small and Medium-sized Enterprises* (关于印发中小企业划型标准规定的通知), June 18, 2011. Translation. *http://www.gov.cn/zwgk/2011-07/04/content_1898747.htm*.

†The shift to a target that only applies to the six major state-owned banks may reflect the fact that the Big Six undercut other banks by offering cheaper loans in order to meet their targets. Liu Meng, "Policy Continues to Support Small and Micro Enterprises, Last Year Inclusive Lending by the Six Major Banks Exceeded RMB 3 Trillion" (政策持续加持小微企业 六大行去年普惠小微贷超3万亿元), *Securities Daily*, April 1, 2020. Translation. *http://www.zqrb.cn/finance/hongguanjingji/2020-04-01/A1585662956388.html*; Sun Yu, "China Boosts Lending to Small Businesses despite Risk," *Financial Times*, December 29, 2019; Wu Hongyuran and Timmy Shen, "Banks Go to War to Meet Beijing's Goal of Lowering Rates for Small Businesses," *Caixin*, May 16, 2019.

RRR nine times, from 13.1 percent in September 2018 to 9.4 percent in April 2020.[67] The central bank also began cutting lending rates in the second half of 2019. Between November 2019 and April 2020, the PBOC cut the rate on its Medium-Term Lending Facility (MLF)* three times, from 3.15 percent to 2.95 percent.[68] The Loan Prime Rate (LPR), which is not directly set by the PBOC but is linked to the MLF, has also fallen from 4.25 percent in August 2019 to 3.85 percent in May 2020.[69]

Modifying China's Interest Rate System

In 2019, China's central bank adjusted its interest rate regime, ostensibly in an effort to drive bank lending rates to become more market determined.† In August 2019, the PBOC revamped the way it determines the LPR in a bid to place it at the center of China's interest rate regime. The LPR is a nominally market-determined reference rate based on the average of the rates offered by ten large commercial banks to their best customers.[70] The PBOC now also considers quotations from eight additional commercial banks in addition to the existing ten, including two foreign banks‡ and two online banks. The notice announcing the reform also directed the 18 participating banks to submit quotations in terms of their spread over the MLF rather than the benchmark rate.[71] Following this change, the PBOC announced in December 2019 that banks must begin pricing floating interest rate loans§ according to the new LPR by January 1, 2020.[72] It also ordered banks to reprice more than $21.5 trillion (RMB 152 trillion) of preexisting loans according to the LPR by March 2020.[73]

Although the stated aim of the 2019 LPR reforms was to give greater weight to the market in setting interest rates, analysts disagree about factors contributing to the decision. One factor, cited by the PBOC itself as a secondary motivation, was to reduce borrowing costs for SMEs in the short term.[74] This is because the MLF interest rate (3.3 percent) was significantly lower than the benchmark rate (4.35 percent) at the time the change took effect.[75] But observers have proposed other motivations as well. In testimony before the Commission, Zhiguo He, financial markets expert and professor of finance at the University of Chicago Booth School of Business, argued the LPR reform was largely aimed at improving monetary policy transmission to the real economy by removing the opportunity for banks to collude by coordinating

*Alongside reverse repurchase agreements and the Standard Lending Facility, the MLF is a monetary policy tool the PBOC uses to increase liquidity in the banking system. As the name suggests, the MLF consists of PBOC loans to the banking sector of a medium-term maturity (i.e., between three months and one year). *Bloomberg*, "China's Evolving Toolkit to Manage Monetary Policy," June 7, 2019.

†For an overview of how the PBOC manages interest rates, see Virgilio Bisio, "China's Banking Sector Risks and Implications for the United States," *U.S.-China Economic and Security Review Commission*, May 26, 2020, 7.

‡The two foreign banks are Standard Chartered, a British multinational banking firm, and Citigroup, a U.S. financial services firm. China National Interbank Funding Center, "LPR Quotation Member Banks" (LPR报价行成员). Translation. *http://www.chinamoney.com.cn/chinese/bklpr/*.

§A floating interest rate—as opposed to a fixed interest rate—is one that fluctuates according to the market as represented by an index. Previously, floating interest rate loans were indexed against the benchmark lending rate. Kevin Yao, "China to Switch Benchmark for Floating-Rate Loans to Lower Funding Costs," *Reuters*, December 27, 2019; Financial Industry Regulation Authority, "Can You 'Float' with Rate Hikes? 6 Things to Know about Floating-Rate Loan Funds."

Modifying China's Interest Rate System—*Continued*

the interest rates they report.[76] Because the banks must quote a spread over the MLF, an instrument directly set by the PBOC through open market operations,* the PBOC can simply cut the MLF to bring down borrowing costs regardless of whether the LPR reporting banks have colluded.[77] Carl Walter, former chief operating officer of JPMorgan China, described the reform less favorably as a way of "preventing banks from charging high interest rates in a nominally market-based environment."[78]

Although lending quotas, RRR cuts, and interest rate cuts have spurred lending to small companies (the government claims a 25 percent increase in 2019), this may be fueling the creation of NPLs rather than generating productive investment.[79] The NPL ratio of small and micro enterprises is significantly higher than the national average: officially 3.3 percent compared to 1.9 percent, though the actual numbers are likely much higher for both categories.[80] Before the COVID-19 pandemic, many of the strongest-performing small businesses declined loans due to the lack of profitable investment opportunities.

Debt Burden Spurs Disposals of NPLs

The corollary to China's massive financial expansion after the global financial crisis was rapid debt accumulation. Between the end of 2008 and the second quarter of 2020, China's debt burden† grew from 139 percent of GDP to 283 percent of GDP—a scale and speed unprecedented in modern history.[81] A risk related to China's debt buildup was the undercounting of NPLs on bank balance sheets. Officially, China's NPL ratio was only 1.9 percent in the fourth quarter of 2019, but this number significantly understates the true extent of NPLs.[82]

Historically, banks have used a variety of methods to disguise NPLs on their balance sheets and thereby avoid complying with loan-loss provisioning requirements (currently set between 120 percent and 150 percent of NPLs), which would constrain their lending capacity.[83] One method was to use accounting discretion to classify loans more than 90 days overdue as "overdue but not impaired."[84] Another common practice was to collaborate with nonbank financial institutions such as trust companies or securities brokerages to move loans off balance sheet and repackage them as investment products, which carry lower risk weightings and thus require less capital provisioning.[85] Such understating of NPLs is obvious when comparing the official NPL numbers banks report with annual NPL disposal numbers published by the CBIRC. For example, in 2018 Chinese banks reported disposing of more NPLs ($283.2 billion)

*Open Market Operations (OMO) refer to when a central bank buys or sells securities to qualified banks on the open market to influence the money supply. In China, OMO also comprises other lending facilities such as the MLF. Since the MLF is simply a loan from the PBOC to a major bank, the PBOC can set the interest rate on the loan.

†The largest component of China's debt profile is corporate debt, which stood at 159.1 percent of GDP in the first quarter of 2020. Government debt was 58.2 percent of GDP and household debt was 57.2 percent of GDP. Bank for International Settlements, "Credit to the Non-Financial Sector," September 14, 2020.

than they supposedly had on their balance sheets at the beginning of the year ($242.2 billion).[86]

The high volume of unrecognized NPLs means China's banks are effectively undercapitalized, holding insufficient capital to cover foreseeable repayment risks associated with their risky loans. As Dinny McMahon, former *Wall Street Journal* reporter and expert on China's debt issues, testified before the Commission, if banks recognized these NPLs for what they actually are they "would have to immediately raise huge amounts of capital, all at once, and at fire sale prices."[87] The tightening of NPL disclosure requirements in 2018 and 2019 threatened to precipitate just such a crisis for many undercapitalized banks, spurring them to accelerate NPL disposals.[88] Chinese banks, with the assistance of the central and local governments, are addressing their NPL problem in four main ways:

- *Asset Management Companies:* Asset Management Companies (AMCs) specialize in acquiring NPLs and either extracting value from them or reselling them on secondary markets to both domestic and foreign investors.* China's first four AMCs were established in 1999 amid an earlier government bailout of big banks, and they continue to operate today.[89] In 2013, China began piloting regional AMCs to augment the NPL disposal capacity of the four central AMCs. Regional AMCs quickly became major players in the NPL disposal business and proliferated from an initial batch of five to a total of 61 companies by the end of 2018 as provinces clamored to establish their own.[90] For banks looking to offload large volumes of NPLs quickly, selling them to AMCs at a discount from face value remains the primary disposal method available, but China's NPL problem is too large to be resolved by the use of AMCs alone. In fact, a brief speculative bubble that emerged around rising NPL disposals in 2017 quickly proved unsustainable and crashed NPL prices when it burst in early 2018.[91]
- *Securitization:* Since 2016, Beijing has piloted an NPL securitization program, permitting select Chinese banks to sell asset-backed securities with NPLs as the underlying assets. In November 2019, Chinese media reported that financial regulators would allow additional domestic banks, the four national AMCs, and Standard Chartered Bank to participate in the pilot.[92] Although the volume of securitized NPLs remains small—as of December 2019 the cumulative value was $9.7 billion (RMB 68.7 billion)—financial regulators clearly envision them playing a supporting role in NPL disposal.[93]
- *Foreign investors:* The Phase One U.S.-China trade agreement signed in January 2020 allows U.S. distressed asset managers to apply for licenses to establish provincial-level

*Municipal financial authorities in Shanghai have approved the establishment of two wholly foreign-owned AMCs since 2017. Unlike national AMCs, these foreign AMCs cannot purchase NPLs directly from Chinese banks and financial institutions and must instead purchase them through secondary market transactions. Such wholly foreign-owned AMCs that only participate in China's secondary NPL markets are commonly referred to as "non-licensed" AMCs. See Richard Mazzochi et al., "China's NPL and ABS Markets: A Guide to Foreign Investors and Financiers," *King & Wood Mallesons*, April 2019, 4.

AMCs within China and to acquire NPLs directly from Chinese banks.[94] As foreign distressed debt investors previously could only acquire Chinese NPLs on secondary markets, this part of the agreement potentially opens up a significant new channel through which Chinese banks can dispose of NPLs.[95] Los Angeles-based Oaktree Capital Management subsequently became the first U.S. company to set up a wholly owned unit in Beijing.*[96] At a press briefing in March 2020, CBIRC chief risk officer Xiao Yuanqi suggested the agreement could lead to greater numbers of foreign AMCs establishing themselves in China.[97] While this development was welcomed by U.S. distressed asset investors, it contains additional risks. For example, when Chinese banks sell securitized NPLs, they typically act as both underwriter and debt servicing agent. This creates a conflict of interest. Underwriting banks, which often securitize their own NPLs, have both better information than foreign investors on what the loans are worth and an incentive to price them below market rates. When the securitized NPL then outperforms, the underwriting bank receives almost all of the benefit through performance fees and commission income.[98]

- *Loan forbearance:* The COVID-19 pandemic has exacerbated banks' NPL problem by eroding borrowers' financial positions and damaging their ability to repay loans. In a May 2020 interview, PBOC Governor Yi Gang admitted that banks could face a "large increase" in their NPL ratios and elevated "disposal pressure."†[99] The government responded by declaring a moratorium on NPL recognition and forcing banks to exercise forbearance for certain types of businesses, primarily small, medium, and micro enterprises that are at risk of closing permanently. In March 2020, the CBIRC ordered banks to extend repayment periods for small businesses to June 30, 2020, and allowed them to postpone NPL recognition until after that date.[100] In May 2020, Beijing extended loan repayment for these companies until the end of March 2021.[101] These measures allow banks to temporarily delay addressing rising NPL ratios that would otherwise force banks into an asset fire sale and threaten the stability of the banking sector.

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*Oaktree Capital Management will only initially be able to operate as a licensed, wholly foreign-owned AMC in Beijing municipality. According to Article 4.5(2) of the Phase One agreement, the Chinese government will allow U.S. financial services firms to apply for AMC licenses permitting the acquisition of NPLs directly from Chinese banks beginning with provincial licenses. Beijing Local Financial Supervision and Administration, *Oaktree Capital's Subsidiary Established in Beijing* (橡树资本子公司落户北京), February 18, 2020. Translation. *http://jrj.beijing.gov.cn/jrgzdt/202002/t20200218_1654159.html*; Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, 4–3.

†In an August 2020 interview with state-run news outlet Xinhua, CBIRC Chairman Guo Shuqing estimated China's banks will need to dispose of $480.2 billion (RMB 3.4 trillion) in 2020, up 47.8 percent from the $324.9 billion (RMB 2.3 trillion) disposed of in 2019. *Xinhua*, "Fully Support the Economic and Social Recovery and Firmly Adhere to the Bottom Line of Risk—Interview with PBOC Party Secretary and CBIRC Chairman Guo Shuqing" (全力支持经济社会恢复发展 牢牢守住风险底线——访中国人民银行党委书记、中国银保监会主席郭树清), August 13, 2020.

Narrowing Current Account Surplus and Demographic Challenges

China has long maintained a current account* surplus, but it has trended downward over the past decade as China's historically high national savings rate has weakened and investment has moderated. A weaker national savings rate, due in part to an aging population, has decreased the savings-investment gap, with savings declining at a faster pace than investment.[102] Analysts note that an uptick in households' consumption of goods and services, particularly outbound tourism, has further contributed to the decline in household savings.[103] For example, according to World Bank estimates, Chinese tourists spent $277.3 billion on outbound travel in 2018, a nine-fold increase from $29.8 billion in 2007.[104] Together, these factors have contributed to the narrowing gap between China's national savings and investment and dragged China's current account surplus down from a peak of 10 percent of GDP in 2007 to a deficit of $28.3 billion (or 1.1 percent of GDP) in the first half of 2018.†[105] Though China is expected to register a current account surplus in 2020 due to a sharp decline in outbound tourism flows as a result of the COVID-19 pandemic, economists maintain that a structural shift toward a persistent current account deficit is likely over the coming decade.[106]

The International Monetary Fund anticipates the downward trend in China's national savings will continue as China's population ages. Household savings, which account for roughly half of national savings, are expected to decline by 6 percentage points by 2030 as fewer workers rely on their savings to support more retirees.[107] According to UN forecasts, by 2045 China's working-age population will drop to 54.4 percent of China's total population (compared to 65 percent today), while the country's population over 60 will grow to 31.4 percent of the total population (compared to 17.4 percent today).[108] A 2019 report from the Chinese Academy of Social Sciences warned China's declining birth rate—a legacy of the "one-child policy"—and simultaneous increase in life expectancy will exacerbate these trends, leading the country's national pension fund‡ to become in-

*The current account balance refers to the balance of trade plus net (investment) income from abroad and net transfer payments. The current account is one half of the balance of payments; the other half is the capital account. Economists often refer to the current account as the difference between savings and investment because this is arithmetically equivalent.

†China first recorded full-year and half-year current account deficits in 1993 and 1998, respectively. State Administration of Foreign Exchange via CEIC database.

‡China features a multilayered pension system. The first layer consists of several public pension schemes, some mandatory (Basic Old Age Insurance and Public Employee Pension) and some voluntary (Urban Resident Pension and New Rural Resident Pension). These schemes provide basic social security to all residents when they retire, regardless of whether they were employed. At the end of 2019, these public pension schemes had more than 967 million participants, accounting for 69.2 percent of China's total population. In aggregate, these schemes paid out $734.5 billion (RMB 5.2 trillion) to 123.1 million retirees that same year, with monthly payments averaging $487.71 (RMB 3,453) per retiree. These aggregate numbers likely mask regional disparities and inequality in pension benefit payments to urban versus rural residents. Differing wage and income levels across China's provinces between these cohorts create divergences in their voluntary contributions, while variations in local governments' fiscal revenues can limit the ability of poorer provincial governments to contribute to pension funds. Orange Wang, "China's Ageing Rural Peasants Labor into Their Twilight Years as Pensions 'Cover Only Oil and Salt,'" *South China Morning Post*, August 22, 2020; China's Ministry of Human Resources and Social Security, *2019 Statistical Bulletin on Human Resources and Social Security Development* (2019 年度人力资源和社会保障 事业发展统计公报 中华人民共和国人力资源和社会保障部), June 6, 2020, 5. Translation. *http://www.mohrss.gov.cn/SYrlzyhshbzb/zwgk/szrs/tjgb/202006/W020200608534647988832.pdf*; Hanming Fang and Jin Feng, "The Chinese Pension System," (draft) in Marlene Amstad, Guofeng Sun, and Wei Xiong, eds., *The Handbook of China's Financial System*, forthcoming Princ-

solvent by 2035.[109] Fiscal stimulus measures enacted by Beijing to help companies weather the COVID-19 outbreak included a government pledge to reduce or exempt companies across the country from pension contributions.[110] The lower contributions will lead to even faster depletion of the national pension fund.

The strain of demographic pressures* on national savings and government coffers, together with mounting prospects for persistent current account deficits, is pushing the Chinese government to look abroad for capital. Analysts at Morgan Stanley estimate China will need at least $210 billion of net foreign capital inflows per year through 2030 to finance the country's emerging current account deficit.[111] To facilitate these inflows, the Chinese government is expanding foreign investor access to its capital markets. In testimony before the Commission, Mr. Loevinger stated that financial opening seeks to: (1) address the drawdown on national savings as China's population ages and (2) offset dwindling foreign direct investment flows and increases in China's outbound investment to stabilize the country's balance of payments more broadly.[112] Derek Scissors, resident scholar at the American Enterprise Institute, added that these dynamics will prompt Chinese officials to attract and draw in U.S. capital "for years to come."[113]

Risks of China's Integration with Global Financial Markets

Though the Chinese government long limited foreign access to its financial markets, capital stress, together with ambitions to internationalize China's financial markets and improve the competitiveness of domestic financial services firms, has led Beijing to implement market opening measures gradually in recent years. As a result, the global economy's exposure to risks in China's financial system is rising. These risks center around China's opaque political structure, faulty or misleading data reporting, and systemic problems ailing its financial system. Furthermore, they expose overseas investors to vulnerabilities in China's economy. Of added concern to the United States is that increased flows of U.S. investment dollars to Chinese entities contradict concurrent U.S. policy objectives vis-à-vis China.

China's Financial Opening

Financial opening has been accelerating in China in recent years. At the April 2018 Boao Forum for Asia, General Secretary of the CCP Xi Jinping and PBOC Governor Yi announced the Chinese government would deliver on long-overdue pledges first made when China joined the WTO in 2001 to open China's financial sector to

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eton University Press, 2020, 3–5; Sonali Jain Chandra et al., "Inequality in China—Trends, Drivers, and Policy Remedies," *International Monetary Fund*, June 2018, 11.

*A rapidly aging population in China, compounded with a steadily shrinking workforce, will complicate China's growth prospects in the future. While China's large and relatively cheap labor force has underpinned the country's economic growth to date, growth moving forward will need to be generated from capital services and productivity improvements. The Chinese government has tried in recent years to counter these demographic trends by easing enforcement of the "one child" policy in 2013 and then raising the limit to two children for all families in 2016, but China's birth rate has continued to decline. In 2018, the total number of births fell to 15.2 million, a drop of nearly 12 percent nationally from 2017. Steven Lee Myers, Jin Wu, and Claire Fu, "China's Looming Crisis: A Shrinking Population," *New York Times*, January 17, 2020; Andrew Polk, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on U.S.-China Relations in 2019: A Year in Review*, September 4, 2019, 10.

foreign competition.[114] Since then, Beijing has taken several steps to (1) increase market access in the banking, securities, and insurance industries; (2) grant foreign institutions equal treatment in credit and payment sectors; and (3) open the domestic bond market to foreign investors.[115] (For more on China's financial opening and related commitments made as part of the U.S.-China Phase One trade agreement, see Chapter 2, Section 1, "Year in Review: Economics and Trade.")

Beijing's strategic financial opening efforts are more tightly integrating Chinese securities with global financial markets. This is most visible in the growing inclusion of Chinese securities in several key global investment indices, against which an estimated $7.8 trillion in assets under management are currently benchmarked.*[116] (For a more detailed review of these inclusions, see Addendum II: Global Investment Index Providers' Inclusion Schedules for Chinese Securities.) China's government has carefully calibrated market opening to secure these inclusions and facilitate foreign capital inflows to support its ailing economy.

Before index inclusions, foreign investors' primary channels for accessing China's financial markets were the Stock and Bond Connect† programs, which, according to Logan Wright of Rhodium Group, enabled net foreign inflows of approximately $26.2 billion in 2016 and $48.5 billion in 2017.[117] In April 2018, the CSRC raised the daily northbound quota (the value that individual Hong Kong and overseas investors can trade in Chinese securities through Hong Kong) for the Stock Connect program from $1.8 billion to $7.2 billion.[118] This led to the inclusion of A-shares‡ into several benchmark MSCI and FTSE Russell indices in 2018–2020.[119]

The Chinese government has also endeavored to remove lingering obstacles to similar inclusions into global fixed income indices. In September 2018, regulators rolled out Delivery versus Payment (DvP) settlement§ for the Bond Connect, removing a key source of risk for foreign investors.[120] Two months later, China's State Taxation Administration announced that foreign bond investors would enjoy a three-year exemption from corporate and value-added taxes.[121] Collectively, these policy shifts addressed concerns around

*This estimate does not include the estimated $3 trillion in assets under management benchmarked against the FTSE Russell World Government Bond Index, as FTSE Russell's inclusion of Chinese government bonds is not scheduled to begin until October 2021. FTSE Russell, "FTSE Russell Announces Results of Country Classification Review for Fixed Income and Equities," September 24, 2020; Bobby Lien and David Sunner, "Liberalization of China's Portfolio Flows and the Renminbi," *Reserve Bank of Australia Bulletin*, September 19, 2019.

†The Stock and Bond Connect programs, launched in 2014 and 2017, respectively, enable overseas investors with accounts in Hong Kong to trade stocks and bonds on the Shanghai and Shenzhen exchanges. UBS, "China Fixed Income: What is Bond Connect?" June 8, 2020; Goldman Sachs, "The Stock Connect," December 2016.

‡A-shares are RMB-denominated securities of companies incorporated in China that trade on either the Shanghai or Shenzhen stock exchanges. A-share trading is restricted to Chinese residents, and foreigners can only access the A-shares market through special investment programs such as the Qualified Foreign Institutional Investor program and the Stock Connect programs. A-shares are distinct from other Chinese share classes such as H-shares (shares in Chinese incorporated companies listed on the Hong Kong Stock Exchange), trading of which is not restricted to Chinese residents. FTSE Russell, "Guide to Chinese Share Classes," May 2019.

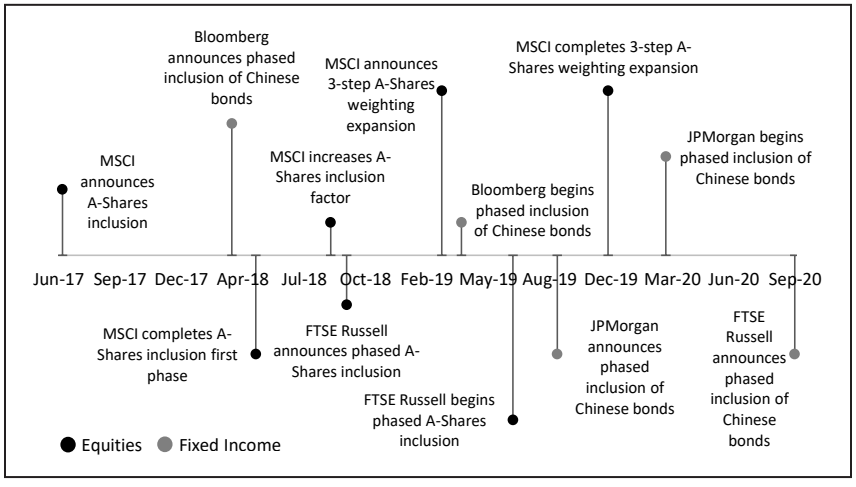
§DvP is a securities industry settlement method that guarantees the transfer of securities only happens after payment has been made. It stipulates that the buyer's cash payment for a security must be made prior to or at the same time as the delivery of the security. The process is meant to reduce the risk that securities could be delivered without payment or that payments could be made without the delivery of securities. Kate Jacquet, "The Evolution of China's Bond Market," *Seafarer Funds*, March 2019, 9, 28.

investor confidence and market accessibility that were raised by Bloomberg and other index providers, resulting in a wave of inclusions of Chinese securities over the last two years.[122]

Index Inclusions Increase Foreign Holdings of Chinese Securities

Five major index providers have announced or begun implementing inclusions of Chinese securities into key global indices (see Figure 5).*

Figure 5: Timeline of Chinese Securities' Inclusion into Global Investment Indices, June 2017–September 2020

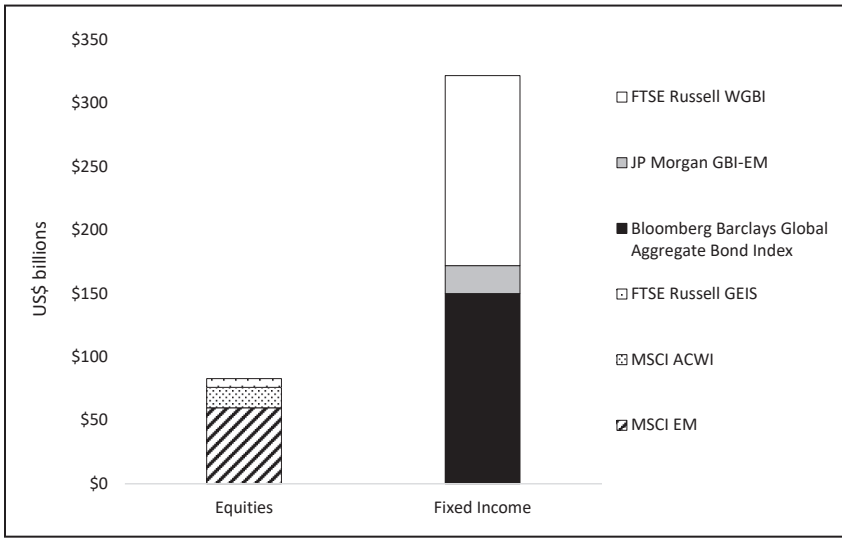


Source: Created by Commission staff.

Index providers have opted for a phased inclusion approach toward Chinese securities, which enables them to monitor the replicability of the index with each increase to the weighting of Chinese securities and adjust as necessary.[123] These inclusions are projected to lead to an estimated $400 billion in new foreign portfolio investment flowing into China over the next two to three years across equity and fixed income securities (see Figure 6).[124]

*The rising inclusion of Chinese securities in global investment indices coincides with a shift in the asset management industry from active to passive investment strategies. In an active investment strategy, individual investors or portfolio managers buy or sell individual stocks. Such an investment approach requires individual investors or the managers overseeing their portfolios to closely follow market activity and particulars of specific companies. Contrastingly, in a passive investment strategy, investors instead invest in an index fund whose composition of stocks and bonds reflects a market benchmark, such as the S&P 500. This allows the index fund to track the performance of a group of companies, demanding less scrutiny and research by investors and portfolio managers. Investment index providers develop an array of investment benchmarks against which a passive investor's portfolio can be tracked. Kenechukwu E. Anadu et al., "The Shift from Active to Passive Investing: Potential Risks to Financial Stability?" *Federal Reserve Bank of Boston*, 2018.

Figure 6: Estimated Foreign Portfolio Investment Inflows to China from Index Inclusion of Chinese Securities



Source: Various.[125]

Key Risks of Rising U.S. Investor Exposure to Chinese Securities

Lack of Transparency

China's opaque political structure and systemic problems in its economy heighten the risks posed by investing in Chinese stocks and bonds. The Chinese government's perennial focus on maintaining financial stability and its corresponding propensity toward market intervention inhibit price signals and limit transparency.[126] Forms of this intervention in China's stock market include 10 percent daily price move limits, short-sale restrictions, trading suspensions, IPO suspensions, and the deployment of a "national team" of securities brokerages to buy or sell stocks and stabilize the market's value.[127]

Poor corporate governance standards of many Chinese issuers, which file misleading corporate financial disclosures, compound these risks and undermine efficiency in China's financial markets as investors cannot accurately ascertain the value of securities. According to testimony from Brian McCarthy, chief strategist at investment advisory firm Macrolens, another example of this market inefficiency can be found in the wide difference between share prices for separate stocks issued by Chinese firms in Shanghai and Hong Kong, a price gap called the "A-to-H valuation premium."[128] On average, for companies that have dual-listed shares in Shanghai and Hong Kong, the A-shares traded in Shanghai are priced 20 percent higher than H-shares of the same company sold in Hong Kong.[129] According to Michael Pettis, expert on China's financial markets, this persistent valuation gap is likely attributable to bouts of speculative investing in which exuberant and inexperienced Chinese retail investors buy stocks based on government signaling and stated

policy priorities.[130] The finding suggests pricing of onshore Chinese equities may be informed more by political undercurrents than market fundamentals.

In testimony before the Commission, witnesses debated whether the risks present in China's financial markets are unique to China or are also visible in other emerging markets. According to Gabriel Wildau, senior vice president at Teneo Holdings, the risks associated with investing in China are typical of emerging market risks generally.[131] He also noted those who trade in Chinese and other emerging markets are usually sophisticated individual or institutional investors with sufficient trading experience and expertise to anticipate and mitigate emerging market risks.[132] Some investors and pension funds in the United States, however, are likely to be increasingly exposed to these risks as their investments are placed in funds that replicate investment indices, which include Chinese securities. Additionally, as Mr. McCarthy observed, other emerging markets do not possess the same global economic heft and expanding financial links with U.S. and global capital markets as China.[133] Mr. Loevinger added that foreign investors' ability to move funds out of China may come into question should markets come under stress and regulators impose trading restrictions, as occurred in the 2015 Chinese stock market rout.[134]

Unwitting Support for Problematic Chinese Companies

The passive investment management style associated with index funds can preclude investors from being fully aware of the constituent securities in which they are investing, raising the risk that they may unintentionally provide material support to Beijing's industrial policy goals or problematic companies. For example, several constituent A-shares in the MSCI All Country World Index (ACWI) are subsidiaries of state-owned defense conglomerate Aviation Industry Corporation of China, which has advanced China's military-civil fusion strategy* through the acquisition of aerospace and engineering firms in the United States and Europe.[135]

Investors may also be inadvertently supporting companies whose operations are antithetical to U.S. national security and foreign policy interests. In testimony before the Commission, Nazak Nikakhtar, assistant secretary for industry and analysis at the U.S. Department of Commerce, noted that several Chinese companies on the department's Entity List are also included in the MSCI ACWI Index against which the Thrift Savings Plan's (TSP)† International Stock Fund ("I Fund") is scheduled to be tracked.‡[136] These companies include iFlytek, Zhejiang Dahua, and Hikvision Technology. These

*For more on the Chinese government's military-civil fusion strategy, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 2 "Emerging Technologies and Military-Civil Fusion—Artificial Intelligence, New Materials, and New Energy," in *2019 Annual Report to Congress*, November 2019, 205–247.

†The TSP is a retirement savings and investment plan for U.S. federal government employees and members of the uniformed services.

‡The TSP I Fund currently invests in a stock index fund that replicates the MSCI EAFE (Europe, Australasia, Far East) Index. In November 2017, the Federal Retirement Thrift Investment Board (FRTIB), which administers the TSP, decided to replace the MSCI EAFE Index benchmark with the MSCI ACWI Index benchmark at a future date. On May 13, 2020, the FRTIB announced it would defer action on the I Fund transition to the MSCI ACWI Index indefinitely at the urging of the Trump Administration. Federal Retirement Thrift Investment Board, "Federal Retirement Thrift Investment Board Defers Action on I Fund Transition," May 13, 2020.

electronics and software firms were placed on the department's Entity List in October 2019 because they supplied surveillance technology deployed in Beijing's repressive campaign of mass detention and surveillance of Muslim minority groups.[137] A-shares of these same firms are also included in the FTSE Global Equity Index Series (GEIS).[138]

The placement of selected Chinese firms on the Entity List has not prevented their inclusion in investment indices, which are lightly regulated.* In a briefing to the Commission, staff from the U.S. Securities and Exchange Commission (SEC) noted that while the SEC has no statutory authority over index providers, it does require investment funds that track indices to disclose principal risks related to investments that comprise the index,† which may include risks related to valuation, liquidity, and political risks.[139] In testimony to the Commission, Dr. Scissors warned such lack of oversight undermines simultaneous U.S. policy objectives to defend against unfair economic practices of China's state-supported firms.[140]

Selected Risks and U.S. Policy Concerns Associated with U.S.-Listed Chinese Companies

Opaque Ownership

In addition to index inclusions, many Chinese firms choose to raise capital from foreign investors directly by issuing stock on foreign exchanges, particularly in the United States. As of October 2, 2020, there were 217 Chinese companies listed on the three largest U.S. exchanges‡ with a total market capitalization of $2.2 trillion.[141] The murky ownership of these firms, together with their noncompliance

*Though the International Organization of Securities Commissions, an international body that convenes global securities regulators to develop and implement standards for securities regulation, published guidelines in 2013 on appropriate disclosure of investment index construction methodologies, these guidelines are not legally binding. This dynamic has led some experts to argue that "index providers have become actors that exercise growing private authority as they steer investment through the indices they create and maintain." The U.S. Securities and Exchange Commission does not regulate the content of stock market indices. Johannes Petry et al., "Steering Capital: The Growing Private Authority of Index Providers in the Age of Passive Asset Management," *Review of International Political Economy*, December 10, 2019, 19; International Organization of Securities Commissions, "Principles for Financial Benchmarks," July 2013; U.S. Securities and Exchange Commission, *Market Indices*, updated October 15, 2012.

†Language in such disclosures is standardized and may not sufficiently specify the risks unique to Chinese securities and those from other emerging markets featured in the index-tracking fund. For example, KraneShares, which provides a suite of China-focused exchange traded funds (ETFs) to investors, offers a "KraneShares MSCI All China Index ETF" that tracks the price performance of the MSCI China All Shares Index. In its risk disclosure for the ETF, KraneShares states that "[i]nvesting involves risk, including possible loss of principal. There can be no assurance that a Fund will achieve its stated objectives. The Funds are subject to political, social or economic instability within China which may cause decline in value. Fluctuations in currency of foreign countries may have an adverse effect to domestic currency values. Emerging markets involve heightened risk related to the same factors as well as increase volatility and lower trading volume." Separately, emerging market investment firm Seafarer Funds offers a "Seafarer Overseas Value Fund," an ETF that tracks the MSCI Emerging Markets Total Return Index. Its risk disclosure states that "[a]n investment in the Funds involves risk, including possible loss of principal. International investing involves additional risks, including social and political instability, market and currency volatility, market illiquidity, and reduced regulation. Emerging markets are often more volatile than developed markets, and investing in emerging markets involves greater risks. Fixed income investments are subject to additional risks, including but not limited to interest rate, credit, and inflation risks. Value investments are subject to the risk that their intrinsic value may not be recognized by the broad market. An investment in the Funds should be considered a long-term investment." KraneShares, "KraneShares MSCI All China Index ETF Fact Sheet," September 30, 2020. *https://kraneshares.com/resources/factsheet/2020_09_30_kall_factsheet.pdf;* Seafarer Funds, "Seafarer Overseas Value Fund," June 30, 2020. *https://www.seafarerfunds.com/documents/ovl-factsheet.pdf.*

‡The three largest exchanges include the Nasdaq, New York Stock Exchange (NYSE), and NYSE American (formerly the American Stock Exchange, or AMEX).

with disclosure standards governing U.S. capital markets and U.S. regulators' impeded oversight of them, create an array of political, regulatory, and economic risks for U.S. investors.

Concerns regarding opaque ownership are further heightened by some Chinese companies' use of a complex variable interest entity (VIE) structure* to list in the United States. U.S.-listed Chinese firms most attractive to investors operate in high-growth sectors such as e-commerce and telecommunications. Because these sectors are deemed sensitive by the Chinese government, direct foreign ownership in them is restricted. Chinese firms thus use VIE structures to circumnavigate these restrictions and raise capital in overseas financial markets. These structures create effective foreign ownership of the company through an abstract mix of legal contracts and equity ownership while still loosely complying with Chinese foreign ownership laws. Investors' attempts to enforce contractual arrangements or seek redress often fail for two primary reasons: (1) U.S. regulators lack jurisdiction over the locations where Chinese companies utilizing a VIE structure tend to be domiciled and (2) Chinese regulators do not recognize the legality of the VIE structure.[142]

Insufficient Disclosure and Oversight Challenges

The SEC and Public Company Accounting Oversight Board (PCAOB)† oversee disclosures, reporting, and audits of public companies listed on U.S. exchanges. U.S.-listed Chinese companies pose unique challenges to this oversight. Specifically, Chinese authorities block the PCAOB from reviewing the audits of U.S.-listed Chinese companies on national security grounds.[143] Despite nearly a decade‡ of negotiations with their Chinese counterparts, the SEC and PCAOB issued a joint statement in April 2020 affirming that the issue remains unresolved.[144] In the statement, the regulators warned that investors should consider the risks associated with lack of PCAOB access to audit reports and added that issuers should clearly disclose such risks to investors.[145] Article 177 of China's updated Securities Law also stipulates that overseas audit regulators are not allowed to conduct investigations within China.[146]

An example of the problems arising from the PCAOB's lack of visibility into U.S.-listed Chinese companies' financial statements is the case of Luckin Coffee, formerly listed on Nasdaq. Luckin Coffee's IPO on Nasdaq in May 2019 raised $650 million, and the company's market value peaked at $12 billion in January 2020 following the sale of another $865 million of stock and debt.[147] On April 2, 2020, the company announced its chief operating officer had fabricated

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*For a thorough overview of the risks associated with VIE structures, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 1, "U.S.-China Commercial Relations," in *2019 Annual Report to Congress*, November 2019, 175–179; Kevin Rosier, "The Risks of China's Internet Companies on U.S. Stock Exchanges," *U.S.-China Economic and Security Review Commission*, September 12, 2014.

†The PCAOB is a private nonprofit organization created by the Sarbanes-Oxley Act of 2002 to oversee the audits of public companies. It is overseen by the SEC.

‡The SEC, PCAOB, China's Ministry of Finance, and the CSRC began to discuss joint inspections of accountancies undertaking audits for U.S.-listed Chinese companies in 2011. These discussions resulted in a Memorandum of Understanding on enforcement cooperation in 2013, though the PCAOB maintains that Chinese audit regulators' cooperation remains insufficient for the agency to obtain timely access to relevant documents and testimony necessary to inspect the audit papers of U.S.-listed Chinese firms. *Reuters*, "Timeline: U.S., HK Regulators Struggle to Get China Audit Papers," December 20, 2017; Public Company Accounting Oversight Board, "China-Related Access Challenges."

approximately $310 million in sales in 2019.[148] The Luckin Coffee scandal epitomized other deficiencies concerning to the SEC and PCAOB, such as the reporting of low-quality financial information. For example, the company historically reported "store level operating profit" in its financial statements, an alternative earnings measure that ignores firm-level operating costs and therefore obfuscates accurate assessments of cash balances.[149]

The Luckin Coffee episode highlights shortcomings in U.S. law vis-à-vis U.S.-listed Chinese companies. These companies, like all other foreign private issuers (FPIs), are exempt from the higher disclosure and reporting requirements otherwise imposed on domestic issuers. For example, FPIs are exempted from Regulation Fair Disclosure (a rule the SEC adopted in 2000 to stop selective disclosure that can lead to insider trading) and are not required to file audited quarterly reports* with the SEC.[150] The COVID-19 outbreak may reveal other instances of substandard accounting and dubious financing as funding markets tighten.[151] In April 2020, for example, independent financial analysts alleged that video streaming firm iQiyi had inflated its 2019 revenue, leading the SEC to open an investigation into the matter in August.[152]

U.S. Tightens Scrutiny of Chinese Securities

In 2020, the Trump Administration and Congress took preliminary steps to close regulatory loopholes and curtail the flow of financing to Chinese entities whose operations threaten U.S. policy interests. On May 12, 2020, the Trump Administration directed the Federal Retirement Thrift Investment Board to "immediately halt" steps to benchmark the TSP's I Fund to the MSCI ACWI Index.[153] While the Administration's directive will affect U.S. federal employees' retirement accounts, U.S. investment dollars will continue flowing into Chinese assets through other avenues. An array of U.S. private companies' and federal government contractors' defined contribution retirement plans, for example, currently track the MSCI ACWI Index, as do the public employee pension systems for the states of California, Florida, New York, North Carolina, Ohio, and Washington.[154] Experts estimate that all U.S. investors may hold just 2 percent of Chinese stock markets' total market capitalization.[155] Therefore, the restriction of U.S. portfolio investment flows to Chinese companies, whether through public or private sector pension plans, may not meaningfully impact these companies' overall financial position or alter their conduct.

Separately, on July 24, the Presidential Working Group on Financial Markets† released its *Report on Protecting United States Investors from Significant Risks from Chinese Companies*.[156] The report's release followed the unanimous passage in the Senate of the S. 945

*FPIs must still file audited annual reports with the SEC.

†The Presidential Working Group on Financial Markets was originally established by an executive order issued by then President Ronald Reagan with the mandate of investigating the causes of the 1987 stock market crash. It is chaired by the Treasury secretary and includes the chairman of the board of governors of the Federal Reserve System, chairman of the SEC, chairman of the Commodity Futures Trading Commission, or their designees. On June 4, 2020, President Donald Trump directed the group to prepare a report within 60 days detailing recommended approaches to protect U.S. investors from the poor accounting standards of U.S.-listed Chinese companies and other risks. White House, *Memorandum on Protecting United States Investors from Significant Risks from Chinese Companies*, June 4, 2020; National Archives, *Executive Order 12631—Working Group on Financial Markets*, March 18, 1988.

Holding Foreign Companies Accountable Act on May 20.* The report's top recommendation would prohibit Chinese companies from listing on U.S. exchanges after 2022 if their auditors cannot be inspected by the PCAOB, while auditors of new IPOs on U.S. exchanges must be inspectable immediately.† [157] Alternatively, U.S.-listed Chinese companies could provide a "co-audit" from an accounting firm whose records can be inspected by the PCAOB.[158] Under such an approach, a U.S.-based accounting firm could inspect a Chinese company's financial statements alongside the audit performed by its Chinese affiliate.[159] This would theoretically enable the PCAOB to have access to the work papers of the U.S. accounting firm performing the co-audit.[160]

While Treasury Secretary Steven Mnuchin stated in August that this recommendation would be adopted by the SEC, the new rulemaking it requires suggests implementation may take time.‡ Questions also remain around the circumstances under which Chinese audit regulators would allow access to audit work papers, something they have historically denied. China's updated Securities Law also expressly forbids Chinese citizens and companies from complying with overseas securities regulations without the permission of Chinese authorities.[161] Following the report's release, the CSRC called for "dialogue" on the issue of co-audit arrangements, suggesting a resolution to the PCAOB's inability to access U.S.-listed Chinese companies' audit work papers will remain elusive.[162]

The Chinese government took steps in 2020 to encourage Chinese companies listed overseas to issue shares in mainland stock markets as Washington stepped up oversight of Chinese securities. In May, for example, the CSRC lowered the market value threshold for Chinese companies listed overseas to issue shares at home from $28.2 billion (RMB 200 billion) to $2.8 billion (RMB 20 billion).§ [163] Bei-

*The S. 945 Holding Foreign Companies Accountable Act would require foreign companies to be delisted from U.S. exchanges if the PCAOB has been unable to review their audit work papers for three consecutive years, effectively putting Beijing on a timeline to remove its obstruction on the review of audits conducted by accounting firms in China. It would also require U.S.-listed Chinese companies to disclose CCP affiliations of any company executives and whether their articles of incorporation contain any charter of the CCP. Recommendations proposed in the Presidential Working Group on Financial Markets report do not include such provisions regarding the reporting of CCP affiliations. Alexandra Alper, "Trump Advisers Urge Delisting of U.S.-listed Chinese Firms That Fail to Meet Audit Standards," *Reuters*, August 6, 2020; U.S. Department of the Treasury, *President's Working Group on Financial Markets: Report on Protecting U.S. Investors from Significant Risks from Chinese Companies*, July 24, 2020, 3; Holding Foreign Companies Accountable Act, S. 945, May 20, 2020.

†The recommendation is modeled on one of the U.S.-China Economic and Security Review Commission's 2019 recommendations that Congress enact legislation to preclude Chinese companies from issuing securities on U.S. stock exchanges if the PCAOB is denied timely access to the audit work papers relating to the company's operations in China; the company's disclosure procedures are not consistent with best practices on U.S. and European exchanges; the company utilizes a VIE structure; and the company does not comply with Regulation Fair Disclosure, which requires material information to be released to all investors at the same time. See U.S.-China Economic and Security Review Commission, Chapter 3, Section 1, "U.S.-China Commercial Relations," in *2019 Annual Report to Congress*.

‡The proposed measures would require the SEC and U.S. exchanges to engage in lengthy rulemaking processes before taking effect. U.S. exchanges would first need to draft a proposed rule incorporating the SEC's new listing standards. The proposed rule would then need to be reviewed and approved by the SEC before being published in the *Federal Register*. U.S. law requires the SEC to act on the proposed change in 45 days following publication in the *Federal Register*, or up to 90 days if deemed appropriate. Paul Gillis, "President's Working Group," *China Accounting Blog*, August 10, 2020; Demetri Sevastopulo and Kadim Shubber, "Trump Team Outlines Plan to Crack Down on U.S.-Listed Chinese Groups," *Financial Times*, August 7, 2020.

§Previously, only China's large technology firms Alibaba, Baidu, JD.com, NetEase, and Tencent met this criterion. Liu Caiping and Denise Jia, "China Cuts Market Cap Requirement for CDR Issuers," *Caixin*, May 1, 2020.

jing also pushed domestic companies seeking to raise capital abroad to consider markets besides the United States. In mid-May, Reuters cited anonymous sources in reporting that the Chinese government resumed its review of applications from companies seeking to sell global depositary receipts in London via the London Shanghai Stock Connect program.*[164] In 2020, U.S.-listed Chinese companies also looked to issue shares in Hong Kong to lessen risks and broaden their investor base. For example, Baidu, NetEase, and JD.com, all currently listed in the United States, made moves to list in Hong Kong in June.[165]

U.S. Regulatory Process for Delisting Foreign Issuers

The Sarbanes-Oxley Act of 2002 empowers the SEC to delist a company that does not comply with auditor inspection requirements set forth by the PCAOB. If registered auditors do not comply with PCOAB rules, the board can take disciplinary or remedial actions,† including the temporary suspension or permanent revocation of the auditor's registration.[166] In a December 2018 joint statement, the chairmen of the PCAOB and SEC stated that the failure of China-based auditors to allow the inspections could subject those firms to such measures.[167]

The PCAOB's deregistration of an auditor could result in the delisting of foreign issuers using that auditor if they do not have their financial statements audited by a registered accounting firm during the subsequent reporting period. Specifically, SEC rules require that issuers submit regular financial statements audited by a PCAOB-registered accounting firm or risk having their financials deemed "not audited," which results in a designation of "substantially deficient" on their 10-K (or 20-F for foreign issuers) filing.‡[168] These determinations could result in a number of SEC

*At the time of this Report's publication, only three Chinese companies (Huatai Securities, China Pacific Insurance Group, and China Yangtze Power) have made use of the London Stock Connect Program to issue U.S.-dollar-denominated global depositary receipts. In January 2020, a Shanghai Stock Exchange official unexpectedly announced that the program would be suspended. Analysts surmised the Chinese government may have moved to close the program due to London's condemnation of the Chinese government's treatment of a former official at Britain's Hong Kong consulate as prodemocracy protests rocked the city in 2019. London Stock Exchange Group, "Shanghai-London Stock Connect Welcomes China Yangtze Power Co.," September 25, 2020; Zhang Shidong and Daniel Ren, "China to Revive IPOs in London to Hedge against Wall Street's Growing Hostility, amid Options Aplenty for Capital Hungry Firms," *South China Morning Post*, May 19, 2020; Xie Yu, "China Pauses U.K. Listing Project," *Wall Street Journal*, January 2, 2020; Wenxin Fan, "Former U.K. Consulate Employee Says Chinese Secret Police Tortured Him," *Wall Street Journal*, November 21, 2019.

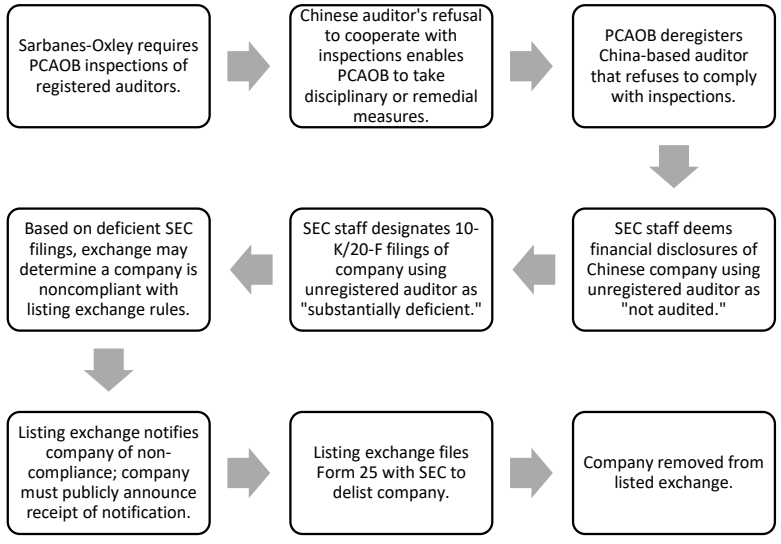
†To date, the PCAOB has refrained from acting against China-based auditors who do not allow the board to inspect their audit work. The only action has come from the SEC, when in 2012 it filed a lawsuit against five Chinese accounting firms (mostly China affiliates of the major "big four" accounting firms, Deloitte, KPMG, EY, and PricewaterhouseCoopers) for refusing to hand over documents connected to investigations of wrongdoing by Chinese companies. One reason for the PCAOB's reticence may be that a number of U.S. multinationals with significant operations in China use Chinese affiliates of the big four accounting firms to conduct their audits, and the PCAOB seeks to avoid harming these firms. Paul Gillis, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on Risks, Rewards, and Results: U.S. Companies in China and Chinese Companies in the United States*, February 28, 2019, 10; Michael Rapoport, "The Chinese Blind Spot in U.S. Companies Financials," *Wall Street Journal*, July 21, 2018; U.S. Securities Exchange Commission, *SEC Charges China Affiliates of Big Four Accounting Firms with Violating U.S. Securities Laws in Refusing to Produce Documents*, December 3, 2012.

‡This determination would affect all companies using the deregistered auditor, including U.S. companies with some operations in China audited by the Chinese auditor. Whether the deregistration of a Chinese auditor by the PCAOB would impact U.S. multinationals' regulatory compliance depends on the extent to which Chinese auditors contribute to the production of their audit reports. For example, EY conducted General Motors Company's 2018 audit, and its China

U.S. Regulatory Process for Delisting Foreign Issuers—*Continued*

staff actions, including suspension of trading or revocation of the registration of companies that submit deficient financial reports. Therefore, if a Chinese firm's auditor were deregistered by the PCAOB, its next submission of audited financials would be non-compliant with both SEC rules and, by extension, the rules of the exchange on which it is listed, which makes the corresponding determination.* To delist the company, the listing exchange would submit Form 25 to the SEC. Ten days following the submission of Form 25, the exchange can strike the company's securities from its listings, and 90 days after the filing the SEC would deregister the company (see Figure 7).[169]

Figure 7: U.S. Regulatory Process for Delisting Foreign Issuers



Source: Created by Commission staff.

Once the SEC and relevant listing exchange have respectively deregistered a company's auditor and delisted its securities, those securities would remain legally owned by investors and tradable

affiliate, Ernst and Young Hua Ming LLP ("Hua Ming"), contributed between 5 percent and 10 percent of the firm's fees and engagement hours. As a result, unless Hua Ming performed the majority of audit work for one of General Motors' China-based subsidiaries, which itself accounts for 20 percent of General Motors' total assets or revenues, General Motors would remain compliant with U.S. regulations even if the PCAOB moved to deregister Hua Ming. China accounting expert and frequent commentator Paul Gillis adds that if the PCAOB were to deregister Chinese auditors, the impact on U.S. multinationals would be limited to a handful of companies whose operations are primarily based in China. Paul Gillis, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on Risks, Rewards, and Results: U.S. Companies in China and Chinese Companies in the United States*, February 28, 2019, 10; Ernst and Young LLP, "General Motors Company Form AP," February 22, 2019, retrieved from Public Company Accounting Oversight Board.

*U.S. exchanges themselves are regulated by the SEC's Division of Trading and Markets.

U.S. Regulatory Process for Delisting Foreign Issuers—*Continued*

in over-the-counter (OTC) markets.*[170] As delisting typically sends a negative market signal about the company's performance, it can significantly reduce the price and liquidity of the company's shares—sometimes to the point of rendering them worthless.[171] The SEC's *Investor Bulletin* warns that in cases where this situation arises from wrongdoing by the company, investors must pursue independent legal action to recover their money.[172]

Implications for the United States

The U.S. government is moving to confront China's unfair economic policies and threats to national security and values. At the same time, U.S. investment ties with China are deepening, with hundreds of billions of U.S. investment dollars flowing to Chinese companies that threaten U.S. policy interests, commit fraud, already receive state support, and respond to nonmarket incentives. The Chinese government is strategically opening its financial sector to secure more of these capital inflows, leading global investment index providers to include a growing number of Chinese securities in their indices. As a result, individual U.S. savers are increasingly likely to own Chinese equities, hold China's sovereign debt in their portfolio, or acquire Chinese NPLs. For the moment, U.S. portfolio inflows into China remain relatively small but are poised to grow significantly, especially if China's economy recovers from the COVID-19 outbreak before the United States and other major economies, making Chinese capital markets more attractive. U.S. investors are also exposed to China's financial assets within U.S. capital markets, with 217 Chinese companies issuing stock directly on U.S. stock exchanges. This rising exposure to China's financial markets poses an array of implications for the United States.

Risks to U.S. Investors: Rising exposure to China's financial system presents unique and significant risks to U.S. investors, savers, and retirees. Because of the opacity surrounding Chinese companies' ownership, operations, and political ties, it is often difficult to ascertain their financial health. In many cases, these companies' actions may also be motivated by nonmarket considerations that conflict with their fiduciary duty to U.S. shareholders. The Chinese government's ability to reach in and control any company's actions, regardless of ownership, creates unavoidable political risk for U.S. investors. Moreover, Beijing's frequent intervention into capital markets and manipulation of market forces to ensure economic stability poses additional regulatory risk. These hazards extend to U.S. capital markets as well. As the recent Luckin Coffee scandal and numerous other past examples demonstrate, the PCAOB's continuing lack of access to Chinese companies' audit papers exposes investors in

*OTC markets are alternative stock markets that exist with a network of broker-dealers and typically have lower regulatory standards than stock exchanges. The two largest OTC markets are the OTC Bulletin Board and OTC Link (formerly known as the Pink Sheets). Brian Wallheimer, "On OTC Markets, Bar for Regulation Lowers Market Quality," *Chicago Booth Review*, September 15, 2016; U.S. Securities and Exchange Commission, *The Over-the-Counter Market*.

the U.S. stock market to potential fraud with little legal recourse to recover losses. The continued inability of the PCAOB to inspect the audit records of U.S.-listed Chinese companies erodes the integrity of U.S. capital markets.

U.S. Foreign Policy Interests: As a strategic competitor to the United States, Beijing's distortive economic practices, disregard for human rights, and rapid military buildup harms U.S. policy interests. Increased U.S. participation in China's financial markets raises the possibility that U.S. investors are inadvertently financing actions the United States otherwise seeks to mitigate and defend against. For example, the MSCI ACWI includes A-shares of several subsidiaries of Chinese state-owned defense conglomerate Aviation Industry Corporation of China, which supports China's military-civil fusion strategy, as well as companies that have supplied surveillance technology used in the repression of Muslim minority groups in Xinjiang. Separately, state-owned bank ICBC, which was directed by Beijing to shore up the Bank of Jinzhou, is included in the FTSE GEIS. Still other companies included in these indices already receive hefty state support, enabling them to unfairly outcompete U.S. companies. Increased U.S investment flows to such companies further distorts the playing field between U.S. firms and their Chinese competitors. There are also gaps in existing U.S. regulations that allow for money to flow to companies that have been found to be in violation of U.S. laws. For example, the inclusion of companies such as iFlytek and Hikvision—currently subject to U.S. export restrictions—into indices widely tracked by U.S. investment funds amounts to one set of rules for exports and another contradictory set of rules for investment.

U.S. Business Interests: Though Beijing is moving to liberalize China's financial sector, its steps are incremental and designed to serve state objectives. For example, Beijing has implemented financial opening commitments outlined in the Phase One agreement on an uneven basis and, in a repeat of past practice, appears poised to empower state-owned banks in an effort to limit new U.S. and other foreign financial firms' participation in China's financial markets. Such actions follow a familiar pattern whereby the Chinese government first welcomes foreign investment in newly opened sectors and then unfairly strengthens domestic firms' ability to compete with foreign firms. Beijing's pursuit of financial opening also seeks to resolve immediate economic difficulties. The entry of U.S. distressed asset investors into China following the Phase One agreement, for example, enables Beijing to exploit foreign capital in cleaning up China's heavily indebted financial system. This pattern of calibrated opening underscores how economic liberalization in China occurs only on Beijing's terms and in service of domestic priorities. Against this backdrop, U.S. financial services firms may never be able to compete on the same basis as their state-backed Chinese competitors.

There is every indication that China's quest for capital will continue. The Chinese government is drawing in foreign money to address persistent and worsening problems ailing its financial system. Local governments shoulder crushing debt and face revenue shortfalls. Banks are undercapitalized and NPLs are on the rise. The econom-

ic impact of COVID-19 threatens to erode the financial position of China's vibrant ecosystem of small, private businesses, which were already credit starved before the pandemic. China has experienced persistent capital outflows since 2014, and increased household and public expenditure on caring for an aging population will erode national savings and push China to attract more funds from overseas to finance its needs. As the Chinese government increasingly turns to foreign investment to shore up its domestic financial system, this could pose risks to a wide range of U.S. stakeholders, raising doubts about whether deeper integration of the U.S. and Chinese financial systems is desirable.

Addendum I: Chinese Government Interventions into Financially Distressed Banks, 2019–2020

Bank Name	Type of State Intervention	Description
Baoshang Bank	Government receivership	In May 2019, the CBIRC took over direct control of Baoshang Bank through a one-year government receivership. The PBOC's announcement of the takeover cited the bank's "serious credit risk" as a justification. Although the PBOC guaranteed deposits and interbank liabilities up to $7.1 million (RMB 50 million), it forced Baoshang's larger creditors to accept losses of up to 30 percent.
Bank of Jilin	Private placement to local government finance departments	In July 2019, the CSRC approved the Bank of Jilin's application for a private placement to the Jilin Provincial Finance Department, Liaoyuan City Finance Bureau, and the Baishan City Finance Bureau. In November 2019, authorities announced that the bank's former chairman was under investigation for graft.
Bank of Jinzhou	Share purchase by national state-owned companies and private share placement	In July 2019, ICBC and two national state-owned AMCs announced they would acquire strategic stakes of between 17 and 25 percent in the Bank of Jinzhou. Two months later, the bank announced it would seek to raise $866 million to rebuild its capital base. In March 2020, the bank announced it would conduct a private share issue to two state-owned companies, raising an additional $1.7 billion for capital replenishment.
Hengfeng Bank	Private placement to national and local state-owned companies	In August 2019, *Shanghai Securities News* reported that state-owned Central Huijin Investment, an arm of China's sovereign wealth fund, would make a strategic investment in Hengfeng Bank. In December 2019, *Caixin* reported that the bank would raise $14.2 billion through a private placement that gives Central Huijin Investment a 54 percent stake and a second buyer, Shandong Financial Asset Management Co., a 32.4 percent stake. The bank's former chairman, Jiang Xiyun, was sentenced to death for graft in December 2019.
Harbin Bank	Share purchase by local state-owned companies	In November 2019, two provincial state-owned companies, Harbin Economic Development and Investment Co. and Heilongjiang Financial Holdings Group Co., purchased a combined 48 percent stake in Harbin Bank from six private shareholders.

Addendum I: Chinese Government Interventions into Financially Distressed Banks, 2019–2020—*Continued*

Bank Name	Type of State Intervention	Description
Chengdu Rural Commercial Bank	Share purchase by local state-owned companies	In December 2019, *Caixin* reported that state-owned Chengdu Xincheng Investment Group would lead the acquisition of Anbang Insurance Group's majority stake in Chengdu Rural Commercial Bank. News that Anbang's stake was for sale followed an announcement that the bank's former chairman was under investigation for graft. The sale was completed in March 2020.
Bank of Gansu	Private placement to existing shareholders	In April 2020, *Caixin* reported that the Gansu provincial government approved a bailout plan for Bank of Gansu through a private share issue. According to the report, the plan also involved special loans from the PBOC and would help the bank offload $1.4 billion in nonperforming assets. Ten days earlier, the bank's share price dropped 43.48 percent in a single day after the bank reported an 85.2 percent drop in profits in 2019.

Source: Various.[173]

Addendum II: Global Investment Index Providers' Inclusion Schedules for Chinese Securities

- **MSCI:** In June 2017, U.S. investment research firm and index provider MSCI announced it would begin including A-shares in its benchmark Emerging Market (EM) Index and All Country World Index (ACWI).[174] The initial inclusion took place in May 2018 and added 230 large cap* A-shares at an inclusion factor† of 2.5 percent.[175] MSCI raised its inclusion factor gradually in a multistage process to its current inclusion factor of 20 percent.[176] As of November 2019, 472 China A-shares represent 4 percent of MSCI's EM Index and 0.5 percent of its ACWI.[177] Applying these weightings to total assets under management currently benchmarked against the two indices generates a projection of $60 billion and $16 billion in inflows, respectively.[178]
- **FTSE Russell (equities):** In September 2018, London Stock Exchange subsidiary and indexing services company FTSE Russell announced it would promote China A-shares to "secondary emerging market status,"‡ a change that made them eligible for inclusion in FTSE Russell's benchmark GEIS.[179] FTSE Russell simultaneously announced plans for an A-shares inclusion in four tranches from June 2019 to June 2020, though the March 2020 inclusion was reduced with outstanding inclusions delayed until June 2020 in light of "implementation risk."[180] Similar to MSCI's phased weighting expansion, each tranche raises the inclusion factor (with the four tranches set at 5 percent, 15 percent, 17.5 percent, and 25 percent, respectively) and increases the number of securities included.[181] FTSE Russell's indices already include a broader set of Chinese equities (1,093 distinct securities as of September 2019) than MSCI because they do not restrict inclusions by size, whereas MSCI only includes large cap and mid cap equities.[182]

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*Large cap, mid cap, and small cap are commonly used classifications that refer to the size of listed companies measured by market capitalization (the number of outstanding shares multiplied by the share price). Although in the United States $10 billion is the typical threshold for a company to be considered large cap, private financial institutions will sometimes use their own definitions. MSCI frequently adjusts its minimum thresholds for classifying securities as small, mid, or large cap, but as of April 2018 it applied a cutoff of $8.6 billion for the large cap classification in emerging markets. Tom Gresham, "What Is the Difference between Large Cap & Small Cap Stocks?" *Zacks*, April 25, 2019; MSCI, "MSCI Global Investable Market Indexes Methodology," May 2018, 21. *https://www.msci.com/eqb/methodology/meth_docs/MSCI_GIMIMethodology_May2018.pdf*.

†The assigned weighting of a security or group of securities within an equities index is in part determined by an "inclusion factor," defined as the proportion of total investable market capitalization included in the index. In the Chinese context, market capitalization is adjusted to account for foreign ownership restrictions. Although the inclusion factor is expressed as a percentage, this should not be confused with the security's weighting within an index (also expressed as a percentage). In other words, an inclusion factor of 20 percent indicates that 20 percent of the relevant security's market capitalization is used for index construction; it does not mean the security will have a 20 percent weighting within the index. FTSE Russell, "China A-Shares Inclusion—Seven Key Points," June 24, 2019; MSCI, "China A Shares Inclusion: Implementation Q&A," July 2018, 6. *https://www.msci.com/documents/1296102/1330218/CNA_Incl_QA.pdf/acc8b584-ccec-4483-958f-fc2f558ddb1a*.

‡FTSE Russell uses a proprietary classification methodology to categorize equities markets across four tiers: developed, advanced emerging, secondary emerging, and frontier. The GEIS (FTSE Russell's main set of global indices) only includes securities from developed, advanced emerging, and secondary emerging markets. FTSE Russell, "FTSE Equity Country Classification Process," September 2019. *https://research.ftserussell.com/products/downloads/FTSE_Equity_Country_Classification_Paper.pdf*; FTSE Russell, "Product Highlights: FTSE Global Equity Index Series." *https://research.ftserussell.com/products/downloads/geis-cut-sheet.pdf*.

- **Bloomberg:** In March 2018, Bloomberg announced it would include RMB-denominated sovereign and policy bank bonds in its Bloomberg Barclays Global Aggregate Index.[183] The inclusion schedule is phased over a 20-month period that began in April 2019. It is expected to result in a 6 percent weighting of Chinese securities within the index with associated projected inflows of $150 billion.[184]
- **JPMorgan:** JPMorgan initiated a ten-month process of adding Chinese government bonds to its Government Bond Index-Emerging Markets (GBI-EM) series in late February 2020 with the view of eventually giving China a 10 percent weight in its Global Diversified Index tracked by funds with an estimated $202 billion under management.[185] The COVID-19 outbreak in China delayed these plans, with the firm announcing it would keep China's weight at 1 percent at the end of March and reassess the inclusion schedule at a later date.[186] JPMorgan estimates that the inclusion of Chinese securities into its GBI-EM index series will lead to inflows of between $22 billion and $24 billion.[187]
- **FTSE Russell (fixed income):** In September 2020, FTSE Russell announced it would add Chinese government bonds to its World Government Bond Index (WGBI).[188] The inclusion schedule is expected to be phased over a 12-month period beginning in October 2021.[189] Analysts anticipate that the inclusion of Chinese government bonds into the FTSE Russell WGBI could lead to $100–$140 billion in potential foreign inflows into Chinese government debt.[190]

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SECTION 3: U.S.-CHINA LINKS IN HEALTHCARE AND BIOTECHNOLOGY

Key Findings

- Longstanding problems in China's public health system, including funding shortfalls and bureaucratic weaknesses, have undermined the country's epidemiological preparedness. These vulnerabilities are compounded by a political atmosphere that silences and punishes healthcare workers who raise concerns about potential disease outbreaks because the Chinese Communist Party (CCP) fears such disclosures could undermine social stability. As a result, the risk of another epidemic in China will remain heightened even as Beijing attempts to improve its public health system in the wake of the novel coronavirus (COVID-19) pandemic.
- Chinese regulators have officially encouraged foreign participation in China's healthcare sector but maintain regulatory barriers that disadvantage foreign firms and hinder free competition. Most notably, Beijing has placed increasingly tight restrictions on foreign firms' ability to access and share healthcare-related data collected in China.
- The Chinese government has made the collection of domestic and foreign healthcare data a national priority and has sought access to U.S. healthcare data through both licit and illicit means. Chinese entities have gained access to U.S. healthcare data through investment in U.S. firms, sales of equipment and services, and partnerships with U.S. universities and hospitals, even as Beijing prevents U.S. entities from gaining reciprocal access to Chinese data. Chinese state-sponsored groups have also obtained U.S. healthcare data and targeted COVID-19 research by hacking U.S. healthcare providers and businesses.
- Through its scientific talent recruitment programs, the Chinese government has systematically targeted the U.S. research community, particularly participants in the biological and medical sciences. Although there are many benefits to research cooperation, Beijing has used financial inducements and other means to encourage foreign researchers to establish shadow laboratories in China that mirror federally funded research conducted in the United States and facilitate the transfer of commercially and medically valuable research to China.
- While China has made significant improvements to its healthcare system, substantial shortfalls remain. In particular, China lacks a long-term care infrastructure for its aging population and its healthcare system is underequipped to handle challenges posed by the rise in chronic disease.

- China's policymakers are making major efforts to improve the quality and affordability of healthcare, prioritizing innovation in technologies and treatments to manage rising chronic disease. Prior to the outbreak of COVID-19, infectious disease monitoring and prevention have received comparatively less attention.

Recommendations

The Commission recommends:

- Congress enact legislation to require ancestry and health testing services to (1) require explicit consent from customers to sell, lease, or rent to any party individual data that are aggregated for the purposes of research; and (2) disclose to customers any parent company or subsidiary relationship.
- Congress establish a new U.S. national laboratory focusing on biotechnology or designate an existing U.S. national laboratory to focus on biotechnology.
- Congress consider establishing a "Manhattan Project"-like effort to ensure that the American public has access to safe and secure supplies of critical lifesaving and life-sustaining drugs and medical equipment, and to ensure that these supplies are available from domestic sources or, where necessary, trusted allies. Such a project would supplement the recommendation the Commission made in its 2019 Annual Report that Congress hold hearings with a view toward enacting legislation requiring the U.S. government to procure medicines only from U.S. production facilities or from facilities that have been certified compliant with U.S. standards.

Introduction

The CCP views its ability to deliver high-quality healthcare as an important pillar of its continuing legitimacy, especially as China's population ages and chronic disease is on the rise. Developing new healthcare technology not only helps China improve its strained healthcare system but also promises significant economic gains—another crucial component of CCP legitimacy. As such, China's government seeks to position China as a global leader in healthcare innovation. Chinese policymakers have set ambitious targets for improvements to the healthcare system and view the development of a strong domestic biotechnology (biotech) sector, a digital health ecosystem, and precision medicine capabilities as key means to achieve these goals. These priorities also align with Beijing's industrial policy goals, and Chinese economic planning documents identify the development of biotech, artificial intelligence (AI), and precision medicine as areas where China wants to move up the value chain.

Beijing's efforts to improve the quality of China's healthcare system should present a range of opportunities for productive U.S.-China engagement. Instead, recent developments in China's healthcare system typify Beijing's asymmetric vision for economic development. Beijing has displayed only a limited willingness to allow foreign competition in its healthcare sector, collaborate on scientific research in an open and fair way, or share crucial public health information; instead, it has prioritized the development of its domestic health-

care sector at any cost. Even as it erects high barriers to foreign entry, Beijing has benefitted from the openness of the U.S. healthcare market and gained access to valuable talent, technology, and data. The CCP has also exploited vulnerabilities in the U.S. scientific research ecosystem to acquire and transfer new biomedical discoveries and innovative treatments. The Chinese government continues to prevent and even punish sharing of vital public health information under the guise of maintaining social stability. The COVID-19 pandemic, which has infected tens of millions of people and sent the global economy into a recession, has demonstrated the worldwide ramifications of Beijing's policy priorities.

This section reviews recent developments in China's domestic healthcare and public health systems, including the vulnerabilities revealed by the COVID-19 pandemic and policy challenges in delivering high-quality healthcare to an aging population. It also describes linkages between the U.S. and Chinese healthcare systems, each country's policies governing access to valuable and sensitive healthcare data, and the risks China's scientific talent recruitment programs pose to federally funded research in the biological and medical sciences. This section is based on the Commission's May 2020 hearing on "China's Evolving Healthcare Ecosystem: Challenges and Opportunities," contracted research, consultations with government officials, industry experts, and academics, and open source research and analysis.

China's Healthcare Aims Tempered by Long-Term Problems

The Chinese government's healthcare policy goals are aimed at building the capacity to meet the growing demand for high-quality healthcare services from China's large and rapidly aging population. Beijing is therefore pursuing a wide range of ambitious goals to spur the transformation of its currently underequipped healthcare system to meet this demand. Beijing is also encouraging investment in emerging-technology-based healthcare solutions such as biomedicine, telehealth, and AI in order to develop precision medicine capabilities that can mitigate the healthcare system's challenges.

Chronic Diseases and Aging Population Strain China's Healthcare System

Over the past decade, China has made significant progress in reducing the burden of diseases and disabilities caused by maternal, neonatal, and communicable conditions. For example, China's infant mortality rate fell from 13.1 percent in 2010 to 5.6 percent in 2019 and the maternal mortality rate fell from 30 deaths per 100 thousand to 18.3 deaths per 100 thousand over the same period.[1] Similarly, incidence rates of common communicable diseases such as viral hepatitis, measles, and malaria have all decreased significantly.[2] As people live longer, however, the burden of chronic disease has risen, becoming a significant focus of Chinese healthcare policy. As of 2018, 270 million people in China were estimated to suffer from hypertension, and 116.4 million lived with diabetes as of 2020.*[3]

*China now has the world's largest population of diabetics, though in percentage terms the burden of the disease is still slightly less than in the United States—10.9 percent of adults in China compared to 13.3 percent in the United States as of 2020. International Diabetes Federation, "IDF Western Pacific Members: China," May 14, 2020; International Diabetes Federation,

A variety of lifestyle and environmental factors, such as smoking and pollution, have also contributed to the rising incidence and lethality of chronic disease. As of 2017, high blood pressure, smoking, high-sodium diets, and particulate matter pollution were the four greatest health risk factors and leading causes of premature death in China.*[4]

China's healthcare system is underequipped to handle the growing burden of chronic disease. It is over-reliant on urban hospitals to provide basic care, and the primary care system, which should play a significant role in chronic disease management, is underutilized. Beijing's healthcare policies have long tried to foster preventative and primary care as the most cost-effective way to provide healthcare services to China's large population.[5] However, primary care physicians, particularly those in rural areas, typically receive less training and are consequently less trusted by patients, who prefer to visit urban hospitals even for relatively minor conditions such as fevers and headaches. Moreover, as Karen Eggleston, Stanford University professor and authority on China's healthcare system, noted in testimony before the Commission, the expansion of healthcare coverage has enabled more patients to self-refer to facilities with a higher quality of care, leading to overcrowding at urban hospitals.[6]

A rapidly aging population poses another significant challenge to China's healthcare system. The UN forecasts 31.4 percent of China's population will be over age 60 by 2045.[7] China's public health system is underprepared to provide long-term care to hundreds of millions of elderly people. This is partly because Chinese citizens are living longer than they used to, giving rise to new demand for long-term care services.† At the same time, the government did little to prepare the healthcare system to care for a large elderly population suffering from chronic conditions.[8] More recently, China's healthcare system has made progress improving healthcare for its aging population. Nevertheless, meeting the healthcare needs of China's aging population remains a serious challenge. According to a national survey conducted in 2015 by China's National Committee on Aging, a government agency, approximately 80 percent of families seeking long-term care in China were unable to meet their needs.[9]

Beijing Seeks to Mitigate Healthcare Capacity Limitations with Digital Health

In order to address the growing healthcare challenges, the Chinese government has announced a series of ambitious reform goals. These measures include the Healthy China 2030 plan, a government initiative that adopts a mixture of general guidelines and quantita-

"IDF North American and Caribbean Members: United States," March 3, 2020; Hu Yiwei, "China's Diabetes Epidemic in Charts," *China Global Television Network*, November 14, 2019.

*According to a 2018 survey conducted by the Chinese Center for Disease Control and Prevention, smoking rates among males remain stubbornly high. Although the overall smoking rate among adults was 26.6 percent, down slightly from 27.7 percent three years earlier, the smoking rate among male adults was 50.5 percent, down from 52.1 percent in 2015. See Chinese Center for Disease Control and Prevention, *Results of the 2018 Survey of Chinese Adult Tobacco Usage—Smoking among Chinese Ages 15+ Is Decreasing* (2018年中国成人烟草调查结果发布--我国15岁及以上人群吸烟率呈下降趋势), May 30, 2019. Translation. *http://webcache.googleusercontent.com/search?q=cache:b-ev_vSkYIkJ:www.chinacdc.cn/yw_9324/201905/t20190530_202932.html+&cd=1&hl=en&ct=clnk&gl=us*.

†China's life expectancy at birth has increased from 69.1 years in 1990 to 76.7 years in 2018, according to World Bank data. World Bank, "Life Expectancy at Birth, Total (Years)—China."

tive targets. Recognizing the transformative potential of emerging healthcare technologies, Beijing is also seeking to leverage advances in AI, genomics, and other fields to augment its healthcare infrastructure and deliver more efficient and cost-effective care.

Beijing's Healthy China 2030 plan was first outlined in a 2016 blueprint and subsequent 2019 action plan released by the State Council. First, the plan establishes five overarching goals: improving health levels and life expectancy, effectively controlling health risk factors, improving the healthcare system and delivery of healthcare services, building out the overall scale of the healthcare system, and improving the healthcare system's governance and oversight.[10] Second, it lays out a set of specific targets to be achieved by 2030, such as raising the average life expectancy to 79 years, reducing smoking rates to less than 20 percent of adults, and reducing deaths from major chronic diseases by 30 percent from 2015 levels (see Addendum I for a list of major targets).[11]

In line with the principles and goals established in Healthy China 2030, the government launched a number of reforms over the past five years to rationalize care and address the capacity challenges in China's healthcare system. For example, in 2015 Beijing began experimenting with mergers of primary care providers and public hospitals into medical consortiums that share resources and information. Policymakers hope these consortiums will result in a tiered care system that will reduce hospital utilization and encourage more people to use the primary care system.[12] To support the expansion of primary care capacity on which these reforms are predicated, the Chinese government is trying to nearly double its share of general practitioners from 2.6 per 10,000 people to 5 per 10,000 people by 2030.[13]

Even as China's primary care medical workforce is expanded, it continues to face capacity challenges, leading the government to also pursue a variety of technological solutions. In April 2018, the State Council announced its "Internet Plus Healthcare" initiative that builds upon both Healthy China 2030 and the government's 2015 Internet Plus plan.* The initiative calls for healthcare providers to integrate digital health technologies into their operations under the guidance of the National Health Commission and National Development and Reform Commission.[14] It also promises government support for tier two and tier three hospitals to develop a variety of digital healthcare and telehealth services, including remote consultations and diagnoses for common and chronic diseases as well as AI-powered diagnostic capabilities.[15]

Even before the announcement of the Internet Plus Healthcare initiative, a handful of technology and financial companies began moving into digital healthcare, positioning themselves to take advantage of commercial opportunities and government policy support. Among these, Chinese tech giant Tencent is the most prolific and had investments in 40 separate healthcare companies as of October 2019.[16] It has led the way in medical imaging technology applications as well as telehealth, both key components of China's digital

*The Internet Plus plan is an effort to integrate the internet, cloud computing, big data, and the internet of things into manufacturing and other traditional industries to drive future economic growth. Charles Clover, "China's Leaders Look to the Net for Growth," *Financial Times*, March 5, 2015.

healthcare industry. In the telemedicine arena, Tencent has backed WeDoctor, an online platform that lets patients receive medical advice from doctors. According to the company's website, the platform has 200 million registered users as well as 7,200 hospitals and 240,000 doctors participating.[17]

A variety of established and emerging competitors have increasingly moved into digital healthcare as well. For example, Good Doctor, a rival to WeDoctor backed by insurance giant Ping An, is partnering with 50 hospitals across China to develop an "internet hospital" model in line with the vision outlined in the State Council's 2018 policy.[18] The company also claimed to have more than 300 million registered users of its online medical consultation platform before the outbreak of COVID-19.[19] Moreover, the COVID-19 pandemic is accelerating the adoption of telemedicine services in China. Good Doctor reported a tenfold increase in the number of new users registering each day in late January and early February.[20] JD Health, which offers similar services to WeDoctor and Good Doctor, saw comparable growth in its userbase during the height of the lockdown in China.[21]

The application of machine learning to medical imaging technology has been a key focus for China's health technology companies. A 2019 white paper released jointly by the Shanghai Jiaotong University AI Research Institute and the Shanghai Hygiene and Heath Development Research Center asserts that while foreign-developed AI healthcare applications have focused mainly on pharmaceutical research and development (R&D), in China healthcare technology companies have gained an edge in AI-enabled imaging diagnostics.[22] Moreover, the use of such technologies is already widespread at top-tier hospitals. According to Chinese media reports, by the end of 2019 nearly all of the top-ranked 500 hospitals in China had adopted AI-enabled imaging diagnostic technologies in at least one care unit, while 48 percent had adopted them in three or more care units.[23]

Newer AI startups are also competing for a share of China's medical imaging market. For example, Deepwise, which was established in 2017 by Baidu cofounder Lei Ming, garnered significant attention during the early months of the COVID-19 outbreak by quickly adapting its existing lung imaging diagnostic system to identify coronavirus cases. By late February 2020, the company's COVID-19 testing system had been deployed in over 100 hospitals, including in Wuhan.[24] Infervision, a competitor, similarly adapted its lung imaging analysis tools to spot COVID-19 cases and by April 2020 had collected 190,000 lung scans from 52 Chinese hospitals.[25]

Beijing Bets Big on Precision Medicine

In a parallel effort that also seeks to capitalize on China's AI ecosystem, Beijing is investing heavily in precision medicine* capabilities, which it views as a means to improve healthcare delivery and help China's domestic pharmaceutical industry move up the value-added chain. In 2015, the Ministry of Science and Technology

*Precision medicine is an approach to disease treatment that considers individual genetic variation as well as the patient's environment and lifestyle, thereby allowing doctors to more thoroughly tailor treatment and prevention plans to an individual patient. The ability to analyze large data sets and predictive capabilities of AI are the foundation of modern precision medicine.

announced that China would invest $8.5 billion (renminbi [RMB] 60 billion) into precision medicine R&D over the next 15 years.*[26] By comparison, the Obama Administration pledged $215 million for a similar U.S. initiative the previous year.[27] According to Beijing's precision medicine plan, $2.8 billion (RMB 20 billion) is to come from government expenditure, while corporations will supply the remaining $5.7 billion (RMB 40 billion).[28]

China's genomic sequencing industry already boasts several major, globally active firms. The largest is BGI, formerly Beijing Genomics Institute, founded in 1999 to contribute to the Human Genome Project.†[29] WuXi NextCODE, another sequencer that also runs an online data platform, raised $200 million in its third round of venture capital fundraising in November 2018 and was the first sequencing facility in China to receive accreditation from the College of American Pathologists to perform molecular diagnostic and genetic testing.[30] Both BGI and WuXi NextCODE have benefited from acquisitions of U.S. firms and are licensed to perform testing in the United States (see "Chinese Firms Prioritize Access to U.S. Healthcare Data" later in this section).[31]

China's 13th Five-Year Plan discusses precision medicine in conjunction with other key technology areas such as semiconductors, robotics, and AI rather than in the context of healthcare policy, suggesting Beijing also views it as an industrial policy priority and potential means to help China's healthcare sector move up the value chain.[32] BGI's role in supplying COVID-19 testing kits to the world is likely to reinforce Beijing's view of precision medicine as a massive commercial opportunity in addition to a healthcare priority.

COVID-19 Exposes Shortcomings in China's Epidemiological Preparedness

The worldwide COVID-19 outbreak has brought unprecedented attention to China's epidemiological preparedness. China's current system for detection and mitigation of communicable diseases dates back to 2002, when China established a Center for Disease Control and Prevention (China CDC). As Jennifer Bouey, senior policy researcher at RAND Corporation, noted in testimony before the Commission, China CDC replaced a fragmented system of Epidemic Prevention Stations across the country that lacked a mechanism for widespread data sharing, preventing China's Ministry of Health from gaining access to important information about the spread of infectious diseases.[33] Soon after the severe acute respiratory syndrome (SARS) outbreak in 2002–2003, the Chinese government restructured China CDC, eventually deciding to model it after the U.S. Centers for Disease Control and Prevention (U.S. CDC) after studying public health models in different countries.[34] During this time, China CDC collaborated with the U.S. CDC on issues such as HIV/AIDS prevention and influenza detection.[35]

The Chinese government also established two separate surveillance systems to monitor outbreaks of unfamiliar diseases. The In-

*Unless noted otherwise, this section uses the following exchange rate throughout: $1 = RMB 7.08.

†The Human Genome Project was an international scientific research project from 1990 to 2003 that successfully mapped all human genes. It was funded by the National Institutes of Health and Department of Energy. Oak Ridge National Laboratory, "History of the Human Genome Project."

fluenza-Like Illness (ILI) monitoring system was created to monitor new strains of influenza.[36] The ILI is connected to China's hospital system and draws on case records from over 500 hospitals in 31 provinces to detect new outbreaks.[37] The second system, the Pneumonia of Unknown Etiology system, monitors patients with pneumonia whose cause cannot be determined. Unlike the ILI system, the Pneumonia of Unknown Etiology system is housed within China CDC and not the national hospital system, and as such does not have automatic access to hospital information systems.[38]

Since the founding of these systems, China has mounted several successful responses to incipient outbreaks of diseases. For example, in 2013, when the H7N9 strain of the avian flu emerged in eastern China, the Chinese government reported the strain to the World Health Organization (WHO) after detecting only three cases and posted the virus's genome on a public database to facilitate research. These efforts helped keep H7N9 largely contained within mainland China, and the Chinese government's efforts received praise from international governments.[39]

Over the past several years, however, observers of China's public health system have voiced concerns about China's ability to handle another pandemic. Harsher domestic laws in China, such as a 2017 law restricting the operation of nongovernmental organizations, made coordination with international health organizations more difficult.[40] China CDC also suffered from a lack of funding and talent recruitment. According to a 2019 report by China CDC, a political emphasis on biomedical innovation resulted in relatively low funding for public health initiatives and negatively affected talent recruitment due to low salary offerings.* The report also found that doctors and public health experts lack channels of communication, such as clinician hotlines or joint conferences between clinicians and public health experts, impeding effective information sharing.[41]

Nevertheless, in the months leading up to the COVID-19 outbreak, Chinese leaders expressed continued confidence in their epidemiological preparedness. In a March 2019 speech, China CDC Director Gao Fu commented on the progress China's public health system had made since the SARS outbreak of 2002–2003, saying, "Viruses like SARS may exist at any time, but incidents like SARS will not occur again."[42] That July, more than 8,200 Chinese health officials participated in a massive online drill simulating an infectious disease scenario held by China CDC, which said the event was the largest training exercise of its kind since the SARS outbreak.[43] Feng Zijian, a China CDC official who helped design the exercise, said if another SARS event occurred, China "would definitely make a huge improvement over 2003."[44]

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*In 2010, China CDC had a staff of approximately 195,000 employees nationwide (147,000 of whom were medical workers). By 2019, this number had fallen to approximately 188,000 employees (140,000 medical workers). National Health Commission of the People's Republic of China, "2019 Statistical Bulletin of China's Health Development" (2019年我国卫生健康事业发展统计公报), June 6, 2020. Translation. *http://webcache.googleusercontent.com/search?q=cache:SDE3GW7XDyoJ:www.nhc.gov.cn/guihuaxxs/s10748/202006/ebfe31f24cc145b198dd730603ec4442.shtml+&cd=1&hl=en&ct=clnk&gl=us*; National Health Commission of the People's Republic of China, "2010 Statistical Bulletin of China's Health Development" (2010年我国卫生事业发展统计公报), April 29, 2011. Translation. *http://webcache.googleusercontent.com/search?q=cache:KCjakd6Ph9IJ:www.nhc.gov.cn/mohwsbwstjxxzx/s7967/201104/51512.shtml+&cd=1&hl=en&ct=clnk&gl=us.*

Beijing's Internal Decision-Making Delayed Response to COVID-19 Outbreak

The COVID-19 outbreak has exposed serious deficiencies in China's epidemiological preparedness. Beijing has exacerbated these deficiencies by prioritizing politics over public health: it considers public health information politically sensitive and punishes those who share it before allowing China's political leaders to manage and shape a message. The suppression of information follows a pattern seen in other infectious disease outbreaks in China, such as SARS in 2002–2003 and, more recently, several cases of the plague in Beijing in November 2019.[45]

The CCP's mismanagement of the crisis and its lack of transparency were major factors in the devastating impact of the global pandemic. These delays had potentially catastrophic consequences: one study by a team of Chinese and U.S. researchers found that by implementing containment strategies three weeks earlier, China could have reduced COVID-19 cases by 95 percent.[46]

Information Control and Censorship Prevent Early Containment of Virus

CCP leaders' obstruction and active suppression of information about the outbreak of the virus occurred at both the local and national levels. Local and central officials acted against research facilities, medical facilities, and individuals attempting to alert the public and the government about the virus, particularly during the early days of the outbreak. By December 27, 2019, Vision Medicals Lab in Wuhan had obtained a partial sequence of the SARS-CoV-2 genome,* but officials from the Hubei Provincial Health Commission, representing Wuhan's provincial-level leadership, ordered the lab to cease testing, destroy all samples, and keep its information a secret.[47] By January 2, Wuhan Institute of Virology coronavirus expert Shi Zhengli had decoded the entire SARS-CoV-2 genome.[48] The following day, however, China's National Health Commission issued a notice forbidding all labs from publishing information about the virus without government authorization and ordering all samples to be destroyed or sent to a central location.[49] China CDC continued to obstruct the publication of Dr. Shi's research while multiple government labs worked to replicate her results, wasting effort that could have been focused on sharing information and arresting the spread.[50] On January 11, a research team in Shanghai preempted the government labs by publishing the genome on an unofficial site, finally releasing genetic information that was in part available on December 27 and could have been fully available by January 2.[51] Still, China CDC shut down the Shanghai laboratory the following day for "rectification," a term often applied to coerced termination of activities or speech that the CCP views as politically unacceptable.[52]

Threats and direct acts of censorship against individuals also prevented knowledge sharing among doctors and the public. Ophthalmologist Li Wenliang, who posted a warning about COVID-19 in a

*The official name of the novel coronavirus responsible for the pandemic is "severe acute respiratory syndrome coronavirus 2," which is abbreviated SARS-CoV-2. COVID-19 is the name of the disease caused by the SARS-CoV-2 virus. World Health Organization, "Naming the Coronavirus Disease (COVID-19) and the Virus That Causes It," 2020.

chat group on December 30, was summoned by the Wuhan Public Security Bureau and forced to sign a letter confessing to "making false comments" that "severely disturbed the social order."[53] Dr. Li, whose death from COVID-19 in February caused an outpouring of grief and anger among the Chinese population, was one of at least eight people threatened by the police early in the outbreak.[54] In some cases, the CCP threatened harsh punishments against people who spoke out about the virus. For example, in China's northeastern Heilongjiang Province, the People's Supreme Court issued a notice in the first week of February that spreading rumors or "subversive" comments about the virus was punishable by 15 years in prison, with five other COVID-19-related crimes being punishable by death.*[55] Citizen journalists who attempted to reveal information about the outbreak on social media also had their posts censored.[56] Research from the University of Toronto suggested WeChat, a popular Chinese social media app, censored at least 516 key word combinations related to the COVID-19 outbreak in the critical early period between January 1 and February 15, and many citizens who reposted information related to the virus had their accounts suspended.[57] Three journalists who wrote about the COVID-19 outbreak in Wuhan disappeared in February. One of the journalists, Li Zehua, resurfaced in April with a video praising the police, leading to speculation among some observers that the video was coerced. The whereabouts of the other two journalists, Chen Qiushi and Fang Bin, remain unknown.[58]

Political Paralysis and Centralized Control Hasten Spread

Local and national authorities also withheld information from the public or from authorities above them, worsening the spread of the virus within China and contributing to a critical delay in releasing news of the outbreak to the international community. By January 5, three state labs had duplicated the efforts of Dr. Shi's lab and sequenced the genome, revealing the similarity of SARS-CoV-2 to the virus responsible for the 2003 SARS outbreak and its likely contagious nature.[59] Nevertheless, Beijing did not share this information with the WHO, which on that same day reported no evidence of significant transmission between humans.[60]

Chinese health authorities did not release the genome until they were preempted by the January 11 leak from Shanghai.[61] Recordings of internal WHO meetings reveal Beijing continued to withhold detailed patient data from the WHO for at least two more weeks after the January 11 publication of the genome, which severely impacted its ability to assess the threat of the new virus.[62] According to a report by the Associated Press, WHO officials were frustrated by the slow pace of information sharing from Beijing throughout January, even as the WHO publicly praised the Chinese government for its "transparency" and response.[63] When China's National Health

*The five crimes punishable by death included the following: (1) harming public safety by deliberately spreading the virus; (2) unauthorized obstruction of checkpoints or traffic; (3) deliberately causing harm through rioting, killing, or destruction of property; (4) production or sale of fake or inferior treatments; and (5) corruption or misappropriation of epidemic control funds or materials for epidemic control. Wang Yuejun and Zhang Yixin, "Maximum the Death Penalty! Heilongjiang Supreme Court Cracks Down on Crimes Related to Prevention and Control of the Epidemic Situation" 《最高死刑！黑龙江高院严打涉疫情防控相关刑事犯罪》, *Xinbei Bao*, February 3, 2020. Translation. *http://www.bjnews.com.cn/news/2020/02/03/683860.html*.

Commission sent its second team of experts to Wuhan on January 8, Wuhan officials withheld evidence of human transmission by failing to inform the visiting experts of the infection of healthcare workers.[64]

Tightly centralized control from Beijing and the CCP's reflexive suppression of potentially destabilizing news added to the bureaucratic paralysis and further prevented an effective public health response. Notably, Chinese government officials refused offers from the U.S. CDC to visit China and assist with the COVID-19 outbreak. In early February, the New York Times reported that for more than a month the U.S. CDC had been offering to send experts to China but had not received a response. According to the report, many U.S. healthcare workers believed the reluctance to accept U.S. assistance came from China's central government.[65] It was only when General Secretary of the CCP Xi Jinping convened a January 25 Politburo Standing Committee meeting on the virus that the Party-state began to mobilize.*[66] The mayor of Wuhan spoke out about the impact of China's top-down leadership structure in late January, claiming he had been powerless to release sensitive information about the virus without authorization from Beijing.[67] A recent weakening of the authority of China CDC also left it unable to issue public warnings or even report directly to the central government,[68] so its decision to raise its emergency level to the second highest on January 6 remained a secret from the public and even from some of its own staff.[69]

Local political considerations took precedence over the public health response, significantly worsening the outbreak as officials' motivation to prevent the spread of bad news during important political meetings pulled the focus away from the outbreak at a crucial moment.[70] The Wuhan Health Commission ceased reporting on the outbreak entirely between January 6 and January 10 in the leadup to Wuhan's two largest political meetings of the year, known as the "two sessions."[71] Wuhan held the first of its "two sessions" between January 12 and January 17, during which time the Wuhan Health Commission's daily briefings reported no new cases.[72] On January 18, the Wuhan Health Commission announced four new cases,[73] but Wuhan officials nonetheless went ahead with a 40,000-family public banquet on January 25 in preparation for the Spring Festival.[74] On the date of the banquet, official statistics reported a total of 45 cases, but an independent estimate by the Imperial College in London suggests that by this point about 1,723 people had already experienced onset symptoms.[75]

Proposed Public Health Reforms Raise Whistleblowing Concerns

In the aftermath of the COVID-19 outbreak, the Chinese government has announced the overhaul of some of its existing public health legislation. In February, China's National People's Congress

*General Secretary Xi failed to mention the virus in his New Year speech on January 23. The Politburo and Politburo Standing Committee also made no mention of the outbreak during their meetings on January 7 and 16. It was not until January 20, when the State Council's Executive Committee met to discuss the return of an inspection team from Wuhan, that General Secretary Xi—who was not even in Beijing at the time—issued emergency guidance. For more, see Minxin Pei, "How Has the Coronavirus Crisis Affected Xi's Power: A Preliminary Assessment," *China Leadership Monitor*, June 1, 2020.

Standing Committee (NPCSC), the government's top legislative body, announced a ban on the consumption of most types of wild animals, which public health experts have identified as a likely source of SARS-CoV-2.[76] While this decision is meant to be temporary, the NPCSC also said it will amend its existing Wild Animal Protection Law and Animal Epidemic Prevention Law.[77] Finally, the NPCSC said it will expedite review of the draft biosecurity law, first reviewed by the body last October.[78] The current draft legislation includes a provision requiring healthcare workers to promptly report cases of infectious diseases.[79] However, Chinese legal and public health experts have voiced concern over the law's provision that reports may not contain "false" information—grounds for punishing Dr. Li for his reports of early COVID-19 cases.[80] These experts said the law should be amended to protect healthcare workers reporting suspected cases of an infectious disease, even if the information later turned out to be inaccurate.[81]

U.S. Firms Face Challenges in China's Healthcare System

As China's healthcare system has grown, U.S. participation in the Chinese healthcare market has increased as well, both in absolute terms and as a proportion of total U.S. healthcare exports. In 2019, U.S. exports of medical devices and equipment to China totaled $3.1 billion, 8.3 percent of total U.S. medical device exports and nearly double the share in 2012.[82] Pharmaceutical products—particularly immunological products such as vaccines—are also a significant U.S. export to China, totaling $5.5 billion in 2019, 8.3 percent of global U.S. pharmaceutical exports.*[83] U.S. foreign direct investment (FDI) in Chinese healthcare has also increased. According to the U.S.-China Investment Hub, a joint research initiative by Rhodium Group and the National Committee on U.S.-China Relations, cumulative U.S. FDI in Chinese healthcare since 2010 is $12.7 billion, 9.7 percent of total U.S. FDI in China.[84] Investment has focused on medical devices and pharmaceuticals, while healthcare services remain a small part of overall investment, accounting for just 7 percent of U.S. healthcare FDI in China since 1990.[85]

Foreign participation in China's healthcare market is, in theory, encouraged by China's government. In 2019, the National Development Reform Commission and the Ministry of Commerce jointly released an updated "national encouragement catalogue" of over 400 industries where foreign investment was officially encouraged, including several medical sectors such as pharmaceutical manufacturing, certain types of medical equipment manufacturing, eldercare facilities, and biomedicine R&D and manufacturing.[86] Industries on the "national encouragement catalogue" receive incentives such as favorable tax treatments, streamlined approval processes, and discounted land prices.[87]

*Although the United States exports pharmaceutical products to China, U.S. imports from China of key pharmaceutical products show a high dependency. For example, China, the world's largest producer of active pharmaceutical ingredients, manufactures the majority of the world's penicillin. The U.S. generic drug industry no longer produces certain critical medicines such as penicillin and doxycycline, and sources the advanced pharmaceutical ingredients for such products from China. For more on U.S. dependence on Chinese pharmaceutical exports and U.S. participation in China's pharmaceutical market, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 3, "Growing U.S. Reliance on China's Biotech and Pharmaceutical Products," in *2019 Annual Report to Congress*, November 2019.

Overall, however, foreign participation in China's healthcare system remains subject to several important restrictions. According to China's 2019 negative list, which outlines sectors in China's economy where foreign investment is prohibited or restricted, foreign investment in healthcare organizations is limited to joint ventures with Chinese entities, with the Chinese entity having at least a 30 percent ownership stake.*[88] Additionally, foreign firms exporting pharmaceutical products or medical devices to China are subject to a lengthy and costly approval process. Foreign firms are also subject to increasingly stringent regulations governing healthcare-related data in China. These restrictions make it more difficult for U.S. firms to compete in China's healthcare industry.[89]

U.S. Medical Devices Face Obstacles in China's Market

The sale of medical devices is one of the most significant avenues for U.S. participation in China's healthcare market.[90] In many respects, the Chinese government has narrowed the regulatory gap between foreign and domestic products over the past few years. For instance, after negotiations with the U.S. Department of Commerce in 2014, the Chinese government agreed to allow foreign companies to receive clinical trial waivers in China if the companies have already conducted multiregion clinical trials that include data from China. This has reduced the necessity of a foreign company to conduct duplicative clinical trials, although subsequent changes to China's regulations have made conducting any clinical trials involving Chinese data a significantly more burdensome process (see "Human Genetic Resource Regulations" below).[91]

Despite progress in narrowing the regulatory gap with Chinese firms, U.S. companies still face a series of obstacles that prevent them from being able to compete in China's healthcare market on an equal footing. China's approval process for foreign medical devices is often the first obstacle to overcome. While most countries have a process for reviewing foreign medical devices, China's process includes particularly burdensome requirements.[92] For instance, imported medical devices must generally be approved in another country before the manufacturer can apply to sell them in China. This is despite the fact that China's National Medical Products Association, the regulatory body responsible for approving devices for sale in the country, conducts a separate review of the medical device application and since 2015 has had a program to inspect foreign medical device manufacturing facilities.[93] According to a March 2020 report by the Office of the U.S. Trade Representative (USTR), China's approval requirements for foreign medical devices can delay market entry up to five years—a significant setback in an industry characterized by a high pace of innovation.[94]

Additionally, Chinese regulators require all medical devices, including software, to conform to China's mandatory national and industry-level standards for medical devices.[95] If a firm has designed its medical product according to a different country's standards, it must redesign its device to conform to Chinese standards, even if

*From 2013 to 2015, pilot programs allowed full foreign ownership of hospitals in certain cities. These laws have been superseded for most foreign investors, although investors from Taiwan, Hong Kong, and Macau may still fully own hospitals. Greg Harris, "Foreign Investment in Chinese Eldercare and Healthcare: Overview," *Winston & Strawn*, June 15, 2018.

the firm can prove the original design is more effective.*[96] According to John Balzano, an attorney whose practice focuses on legal and regulatory issues in China, this restricts the ability of foreign firms to submit more innovative designs to China's medical product market.[97] Moreover, the USTR has found that unlike U.S. standards-setting processes, which are open to foreign input, China's Standardization Law has failed "to establish that standards-setting processes are open to domestic and foreign participants on a non-discriminatory basis."[98]

Under certain circumstances, foreign firms may sell medical devices in China under an expedited approval route. In 2014, Chinese regulators began a program for innovative foreign medical devices, known as the "Green Channel." Under the "Green Channel," foreign firms are given priority in an approval process. However, this process requires that intellectual property rights for the device be registered in China or be licensed to a Chinese partner, even if the product is manufactured abroad.[99] As such, firms using the "Green Channel" must either register the intellectual property in China, a delay that undercuts the usefulness of the "Green Channel," or risk the potential of an unfair licensing agreement that diminishes the long-term value of the firm's intellectual property.[100]

Finally, even when foreign medical devices are approved for sale in China, foreign firms still face an uneven regulatory playing field that favors domestic products. A March 2020 USTR report found that many of China's provincial governments continue to implement medical device procurement plans that include provisions requiring manufacturers to disclose sensitive data, provide subsidies for domestically produced products, and explicitly limit certain types of procurements to domestically produced devices.[101]

Human Genetic Resource Regulations

Some of the most significant restrictions on international firms selling medical devices in China come from China's human genetic resource (HGR) regulations, which state that foreign parties cannot independently collect, store, use, transfer, or export human biospeimens obtained in China.†[102] Instead, the foreign parties must enter into a collaboration with a Chinese partner, and the collaboration must be approved by the Office of Human Genetic Resources Administration (OHGRA), which is part of the Ministry of Science and Technology.[103] The HGR regulations are not specific to medical device or pharmaceutical device approval, but rather apply to all research conducted in China.[104] Clinical trials constitute a large portion of the projects approved under the HGR, however: according to statistics released by the OHGRA, of the 2,385 projects approved in 2018, over 90 percent

*While the United States requires foreign medical devices to conform to domestic standards, applicants may also demonstrate that a proposed medical device is "substantially equivalent" to an approved device in the United States, even if it contains different technical specifications. 21 C.F.R. Section 807.81 (2019).

†The HGR regulations define "human genetic resource" as "genetic material from organs, tissues, and cells, and other genetic material containing human genome and genes." Regulations of the People's Republic of China on the Management of Human Genetic Resources (中华人民共和国人类遗传资源管理条例), Article 2, 2019. Translation. *http://webcache.googleusercontent.com/search?q=cache:7AmTk7LOquAJ:www.gov.cn/zhengce/content/2019-06/10/content_5398829.htm+&cd=1&hl=en&ct=clnk&gl=us.*

were clinical trials to help gain approval for the marketing of pharmaceuticals and medical devices.[105]

While many countries regulate access to citizens' medical data and genetic information, the HGR regulations are significantly more stringent and involve substantially greater procedural hurdles.[106] Foreign scientists have reported that complying with these regulations has led to delays and incomplete data sharing, creating a risk of a slower pace of progress in scientific research.[107] For foreign companies seeking to complete studies in order to sell devices in China, these obstacles have commercial implications as well. According to Mr. Balzano, complying with these regulations adds months to preparations for trials.[108] These trials are necessary for the approval of certain foreign medical devices for sale in China.[109]

The HGR regulations also include a provision governing how the foreign firm and its Chinese counterpart can divide the intellectual property associated with the studies. If any "exploratory research" conducted by the U.S. and Chinese parties under their collaboration leads to any patentable inventions, the patent rights must be shared jointly by the U.S. and Chinese parties.[110] This rule cannot be altered by mutual agreement of the U.S. and Chinese parties, as the OHGRA will not approve research collaborations unless they include this provision. Moreover, the HGR regulations do not define the term "exploratory research," leading to significant ambiguity as to what research falls under the "joint-patent" rule.[111] According to Mr. Balzano, these obstacles hinder negotiations with Chinese partners and the OHGRA as parties attempt to reach an agreement on the types of research subject to the rule. The regulatory hurdles can lead to additional delays of three to four months for research studies in China.[112]

Chinese Firms Prioritize Access to U.S. Healthcare Data

China's government has made collecting healthcare-related data a national priority.[113] In June 2016, the State Council issued the Guiding Opinions on Promoting and Regulating the Development of the Application of Healthcare Big Data, which stated that healthcare big data is a "fundamental, strategic national resource" and formulated plans to develop healthcare data.* While data from individual medical records are unlikely to lead to the development of new medical treatments, aggregating healthcare data across large populations can lead to medical breakthroughs with significant commercial value.[114] Due to the ethnic diversity of the U.S. population, U.S. healthcare data are particularly valuable in this regard.[115] As such, Chinese firms have invested significantly in U.S. healthcare firms, driven in part by government incentives such as government investment funds that target biotech firms.[116]

In some cases, Chinese entities have gained access to U.S. healthcare data by taking equity stakes in U.S. healthcare firms. For instance, in 2013 BGI acquired the U.S. company Complete Genomics, giving BGI access to proprietary sequencing technology in the United

*The State Council publication does not define "big data"; however, in healthcare the term generally refers to the "aggregation of multiple aspects of healthcare-related information covering the full life-cycle of a large constituency of people, covering personal health, medical services, disease control and prevention, food safety, health preservation, among other things." Hogan Lovells, "China to Grow Big on E-Healthcare Data," August 2016.

States.[117] In 2015, WuXi Healthcare Ventures invested in 23andMe, a U.S. company offering genetic tests to consumers. WuXi's interest in 23andMe was driven in large part by 23andMe's proprietary genomic database.[118]

More recently, Chinese FDI in U.S. healthcare has slowed down. According to the U.S.-China Investment Project, a research initiative led by Rhodium Group and the National Committee on U.S.-China Relations, Chinese FDI in U.S. health, pharmaceuticals, and biotech was $443.7 million in 2019, the lowest amount since 2013 and a decrease of more than 80 percent from 2017.[119] Additionally, after the passage of the Foreign Investment Risk Review Modernization Act of 2018, Chinese investment in U.S. healthcare has received greater scrutiny. In 2019, the Committee on Foreign Investment in the United States ordered the Chinese tech firm iCarbonX, which is backed by Tencent, to divest from its 2017 stake in PatientsLikeMe, a U.S. health firm that helps patients identify other patients with similar conditions.[120] Chinese venture capital (VC) investment in U.S. healthcare firms, however, remains robust.[121] The U.S.-China Investment Project reported that Chinese VC investment in U.S. life sciences firms increased 13 percent between 2014–2015 and 2018–2019, more than any other category of VC investment.[122]

Beijing Pursues Biotech Leadership amid a "Biorevolution"

Rapid advances in different sectors of biotech, including DNA sequencing, DNA synthesis, CRISPR (gene editing), synthetic biology, and AI, have led to a "biorevolution" that will play a pivotal role in the economy of the 21st century.[123] According to a 2020 report by McKinsey, over the next ten to 20 years, foreseeable uses of biotech could have an economic impact of up to $4 trillion a year.[124] These advances in biotech not only have significant economic potential but also could solve pressing issues in healthcare, agriculture, materials, and energy. They also carry significant national security implications, including the possible development of more virulent bioweapons.[125] Recognizing the transformational potential of biotech, China's government has aggressively pursued leadership in the sector. In 2010, the Chinese government designated biotech a "strategic emerging industry" and has prioritized state support for the industry in plans such as Made in China 2025.[126] As Tara O'Toole, senior fellow and executive vice president at In-Q-Tel, noted in her testimony before the Commission, while the United States remains the "innovation engine" of biotech, China is making rapid advances, particularly in "translational" research (which converts basic research into products), an area of particular weakness in the U.S. biotech ecosystem.[127]

In addition to investment interests, Chinese companies have been able to gain access to U.S. healthcare data in the course of business with U.S. healthcare entities. For instance, BGI has formed partnerships with a number of U.S. universities, hospital systems, and other organizations to provide them with genomic sequencing services. In many cases, Chinese firms are able to provide services much more affordably than domestic actors, often due to government subsi-

dies.[128] According to a 2019 report prepared for the Commission by Gryphon Scientific, 23 companies associated with China are certified to perform genetic testing in the United States.[129]

In the wake of the COVID-19 outbreak, the United States has further opened up its market to Chinese medical devices that collect U.S. healthcare data. On March 27, 2020, the U.S. Food and Drug Administration (FDA) granted emergency use authorization to BGI Americas, the U.S. subsidiary of BGI, for its test device to detect COVID-19.* This marks the first time the FDA has approved a device manufactured in China.[130] In June 2020, Genetron Health, a Chinese precision medicine company, announced it had also received emergency use authorization from the FDA for its COVID-19 detection kits.[131] By August 2020, BGI had sold more than 35 million COVID-19 test kits to 180 countries, including the United States.[132] Complementing market access for testing devices, Chinese companies are gaining access to global health data by establishing laboratories ostensibly intended to support COVID-19 testing. BGI, for example, has established 58 such laboratories in 18 countries.[133] These labs are providing Chinese researchers with heterogeneous genetic data to serve Chinese ambitions to dominate the biotech market.

In many cases, China's access to U.S. healthcare data is only lightly regulated. Unlike many countries, the United States does not have overarching federal regulations on data protection, and instead has a framework of various state-level data protection laws as well as federal regulations that address the use of data in certain sectors of the U.S. economy.[134] For the healthcare industry, the Health Insurance Portability and Accountability Act (HIPAA) provides legal protection of healthcare data. HIPAA defines protected health information and establishes permitted disclosure of such information. However, HIPAA does not protect healthcare-related information in all cases. Notably, HIPAA does not apply in cases when data are collected purely for research or for nonhealthcare purposes (such as ancestry tests or fitness trackers). It also does not apply in cases where patient data have been anonymized.[135]

Chinese State-Sponsored Hacking Targets U.S. Healthcare Data and Research

In addition to obtaining U.S. healthcare data through legal means, Chinese entities and individuals have been implicated in intellectual property theft, hacking of U.S. companies, and other illicit activities. In May 2019, the U.S. Department of Justice (DOJ) charged Chinese national Wang Fujie and an unnamed accomplice with hacking Anthem and three other unnamed U.S. businesses in 2014 and 2015.† [136] The information breached included social secu-

*BGI Americas received a loan worth between $350,000 and $1 million through the Paycheck Protection Program administered by the Small Business Administration, which is designed to help keep small businesses affected by the COVID-19 pandemic keep employees on their payroll. The extension of a Paycheck Protection Program loan came under scrutiny, particularly because BGI has worked on building a gene bank in Xinjiang. On July 17, BGI Americas announced it had returned the loan, citing U.S. Department of the Treasury guidance stating that the loans were not intended for companies with access to the equity market. Bethany Allen-Ebrahimian, "Chinese Biotech Giant's U.S. Subsidiary Returns PPP Loan after Axios Story," *Axios*, July 20, 2020.

†In April 2015, Premera Blue Cross, a U.S. health insurance company, announced that in 2014 hackers had accessed the company's records dating back to 2002. The information obtained by hackers included longitudinal data, which track health information from individual patients over a period of time and are especially valuable in medical research. Two other large companies affili-

rity numbers, bank account information, clinical information, and insurance claims of 11 million people.[137] The indictment alleged the defendants were members of an "extremely sophisticated hacking group operating in China," though it did not specify whether the group was state affiliated.[138]

Alleged Chinese state-sponsored hacking attempts have also targeted U.S. healthcare research, including the development of COVID-19 treatment. In July 2020, DOJ indicted two Chinese nationals, Li Xiaoyu and Dong Jiazhi, for hacking into computer systems since 2009 and stealing hundreds of millions of dollars from hundreds of victims around the world, including technology and pharmaceutical firms. The indictment alleged the individuals hacked not only for personal profit, but also with the cooperation of China's Ministry of State Security.[139] According to U.S. government officials, earlier in 2020 Li and Dong shifted their focus to firms conducting COVID-19 research.[140] DOJ alleged the individuals most recently attempted to hack several U.S. biotech firms conducting research on COVID-19 vaccines and treatments.[141] The indictment did not specify whether these efforts were successful.

Risks of U.S.-China Biomedical Research Collaboration

The Chinese government views a shortage of top-tier scientific talent as a key bottleneck for its ambitions to become a leader in a variety of industrial technologies, including biotech. To address this gap, Beijing has created a large number of nationally and locally administered talent recruitment programs aimed at attracting both foreign-educated Chinese researchers and leading foreign researchers themselves. The Thousand Talents Program (TTP) and Hundred Talents Program are the most well-known of such talent recruitment programs, but there are many others.[142] China's talent recruitment programs have targeted a broad set of scientific disciplines that align with Beijing's industrial policy priorities. In recent years, these programs have increasingly included biotech, as the sector has come to occupy a more prominent place in China's industrial and healthcare policies. For example, as of mid-2018, 44 percent of TTP recruits specialized in life sciences or medicine.[143]

Through the TTP and other scientific talent recruitment programs, the Chinese government has orchestrated the illicit transfer of data generated through federally funded biomedical healthcare research conducted at U.S. universities. It has also mobilized large numbers of "nontraditional collectors of information" (i.e., graduate students and postdoctoral research fellows) to exploit legal gray zones to bring research discoveries with potential commercial, medical, or military value back to China.[144]

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ated with Blue Cross, Anthem and CareFirst, also announced hacks of their systems in 2015 that exposed the nonmedical data of 79 million and 1.1 million customers, respectively. The attacks on all three companies shared similar characteristics, and U.S. Federal Bureau of Investigation investigators reportedly considered Chinese state-sponsored hackers to be the most likely culprit behind the attacks. Edward You and Keith G. Kozminski, "Biosecurity in the Age of Big Data: A Conversation with the FBI," *Molecular Biology of the Cell* 26:22 (2015): 3894–3897; Matthew Goldstein and Reed Abelson, "Up to 1.1 Million Customers Could Be Affected in Data Breach at Insurer CareFirst," *New York Times*, May 20, 2015.

Chinese Government Influence in Federally Funded Biomedical Research Grants

Chinese talent recruitment programs have targeted grant recipients and individuals involved in the grantmaking process at the U.S. National Institutes of Health (NIH), which is the largest funder of biomedical research in the world.[145] In 2016, the U.S. Federal Bureau of Investigation notified the NIH it was concerned about breaches of confidentiality in its peer review process.[146] Subsequent internal NIH reviews revealed additional concerns, including failure to disclose foreign funding on grant applications and the diversion of NIH-supported research to foreign countries.[147] As of June 2020, the NIH had identified 399 scientists "of possible concern" working in 189 institutions.[148] In 93 percent of cases where the NIH contacted an affiliated institution, China was the source of undisclosed foreign funding.[149] As of June 2020, 54 scientists investigated in the NIH reviews have resigned or lost their jobs as a result of these investigations, which remain ongoing.[150]

In addition to investigating individuals of possible concern, the NIH has used outreach and educational efforts to respond to the challenge posed by Chinese influence. In August 2018, NIH Director Francis Collins sent a letter to grantee organizations highlighting the threat of foreign influence and in June 2019 published a reminder notice about the institute's policies regarding financial conflicts of interest.[151] A special NIH Working Group for Foreign Influences on Research Integrity also recommended in a December 2018 report that the NIH work with other federal agencies to "implement a broad education campaign" about the need to disclose potential financial conflicts of interest.[152] Despite these efforts, the NIH is underequipped to deal with Chinese influence and generally relies either on tipoffs from law enforcement or on grantee institutions themselves to report potential problems.[153] A September 2019 review of NIH policies conducted by the U.S. Office of the Inspector General of the Department of Health and Human Services discovered that the NIH Division of Grants Compliance and Oversight conducted only three reviews of institutions' compliance programs in 2018, compared with 27 reviews in 2013.[154]

The NIH is not the only federal grantmaking agency in the biomedical research domain targeted by Chinese talent recruitment programs. The National Science Foundation faces similar oversight challenges as the NIH in vetting its grantees, and there are a number of public case examples of talent recruitment plan members misappropriating the foundation's research.[155] With both agencies, it is difficult to assess the scope of the problem, as much of what is known about cases of foreign influence remains part of active investigations and therefore is not publicly accessible. However, NIH Director of Extramural Research Michael Lauer has described "a tapestry of incidents" coming to light and expressed concern that the scale of the problem might be "much worse than what we are seeing."[156] Indeed, a growing volume of public case examples has shed light on China's talent recruitment plans and how they operate.

Grant Fraud, Shadow Labs, and Research Theft

A recent string of well-publicized cases has generated significant attention to the issue of foreign influence in federally funded scientific research both within the academic community and among the public more generally. These cases encompass a broad range of potentially problematic activities, some of which are more harmful to the integrity of U.S. research than others. Among the most problematic activities are the outright theft of U.S. research discoveries and the Chinese government's practice of recruiting and compensating foreign researchers to establish shadow laboratories in China that duplicate or otherwise build upon federally funded grant research conducted in the United States. However, participation in Chinese talent recruitment programs is not illegal, and prosecution of those involved typically only occurs when they do not disclose their foreign funding on federal grant applications. This exposes a clear gap in the United States' ability to protect its innovation ecosystem.

The most notable case in the academic community was that of Charles Lieber, a Harvard University chemistry professor and nanoscience researcher who was arrested in January 2020 and later federally indicted on charges of lying to the government about his participation in the TTP and his ties to Wuhan University of Technology.[157] According to the charging documents, Dr. Lieber's Harvard-based research group was the recipient of $15 million in grant money from the NIH and U.S. Department of Defense. Dr. Lieber allegedly failed to disclose either his participation in the TTP as a "One Thousand Talent high level foreign expert" or his appointment as a strategic scientist at Wuhan University of Technology, despite receiving a salary of $50,000 per month and more than $1.5 million in research grants and living expenses related to these positions.[158]

Dr. Lieber's case may illustrate a larger pattern of efforts by the Chinese government to recruit U.S. researchers. The purpose of Dr. Lieber's recruitment by Wuhan University of Technology was likely to duplicate portions of the research he was already conducting with federal money in the field of nanoscience. In other cases, however, no technology has apparently been transferred as a result of U.S. researchers' participation in a talent recruitment program, and the wrongdoing appears confined to grant fraud. In December 2019, the Tampa-based Moffit Cancer Center (Moffit) announced it had accepted the resignation of six cancer researchers, including the center's CEO Alan List and director Thomas Sellers, for conflict-of-interest violations related to their participation in the TTP.[159] Moffit subsequently released a summary of its compliance investigation, which detailed an extensive web of personal relationships that connected the six researchers to the TTP through the center's partnership with a cancer institute and hospital at Tianjin Medical University.[160] The report acknowledges that none of the six researchers' participation in the TTP was against NIH or Moffit rules and says there is no evidence that intellectual property or patient data were compromised. However, the researchers failed to properly and fully disclose their participation in the TTP and their financial interests in China prior to the opening of the investigation.[161]

In some instances, institutions have themselves become liable for failing to disclose their researchers' participation in Chinese tal-

ent recruitment programs. For example, in December 2019 Grand Rapids-based biomedical research and educational organization Van Andel Research Institute (Van Andel) agreed to pay a $5.5 million settlement to resolve DOJ allegations that it made false claims on grant applications for NIH funding.[162] Although Van Andel did not admit to any wrongdoing as part of the settlement, the U.S. government alleged the institute should have been aware of Chinese funding received by two of its researchers, Eric Xu and Jiyan Ma, between 2012 and 2018.[163] It failed to disclose this information on grant applications it submitted to the NIH between 2012 and 2019.[164] Indeed, Van Andel operates a strategic partnership with the Shanghai Institute of Materia Medica, whose website lists Professor Xu as a director of its Key Laboratory for Receptor Research.[165] Moreover, the Chinese version of Professor Xu's bio on the website states that he has been a TTP recruit since 2009, a fact the government alleged Van Andel received a letter about.[166] An April 2019 press release on Van Andel's website also lists several Chinese funding sources alongside three NIH grants as providing support for Professor Xu's successful mapping of a parathyroid hormone receptor that could lead to the development of new osteoporosis and cancer medications.[167]

Although diversion of research by talent recruitment program participants is the primary challenge for federal agencies, there are also cases of outright theft. In December 2019, Zaosong Zheng, a cancer pathology researcher at Beth Israel Deaconess Medical Center, was detained at Boston Logan International Airport after authorities discovered 21 vials containing biological specimens hidden inside a sock in his checked luggage. Dr. Zheng initially lied to federal agents about the contents of his luggage but in a subsequent interview admitted to stealing the specimens from Beth Israel Deaconess Medical Center with the intent of bringing them back to China to conduct further research and publish the results under his own name. Dr. Zheng's grand jury indictment does not allege that he was a TPP participant, but he did receive a stipend of approximately $2,000 per month from the Chinese Scholarship Council, a nonprofit institution affiliated with the People's Republic of China's Ministry of Education that provides scholarships and funding for undergraduate students, graduate students, and postdoctoral fellows studying abroad.[168]

It is notable that in none of these cases were the individuals involved accused of violations based on the fact of their participation in Chinese talent recruitment programs. Instead, the accusations primarily related to their failure to disclose such participation on federal grant applications. It is legal for U.S. researchers—even those who have received federal grant money—to obtain foreign funding, have foreign affiliations, or participate in China's talent recruitment programs.[169] This is intentional, as the ecosystem of federally funded basic scientific research is designed to be open and transparent.[170] However, there is a qualitative difference between Chinese nationals participating in a collaborative investigative process, the results of which are eventually publicized in a transparent manner, and illicitly duplicating that research in China so that its applications can be commercialized and patented by Chinese compa-

nies. Federal investigations have revealed that participation in Chinese talent programs tends to encourage illicit transfer of research data.[171] Because Chinese talent recruitment programs exploit the open and transparent characteristics of federal research grants, regarding Chinese influence as a matter for law enforcement alone severely limits the United States' ability to respond to the transfer and diversion of taxpayer-funded research discoveries.

Implications for the United States

For the Chinese government, meeting the healthcare needs and improving living standards of China's rapidly aging population is a vital part of maintaining its legitimacy. Consequently, it seeks to rapidly improve China's healthcare system, build hospital capacity, improve doctor training, invest in cutting-edge technology, and collect vast troves of medical data. Although improvements in China's healthcare would benefit the global health ecosystem, Beijing has pursued its healthcare ambitions in a way that raises serious concerns for U.S. national security, economics, and public health.

In the immediate term, China's collection of healthcare data through both licit and illicit means presents risks to the privacy of U.S. citizens, millions of whom have already had personal healthcare data exposed in hacking attacks by groups likely associated with the CCP. These privacy risks could also pose challenges to U.S. national security if the Chinese government gains access to sensitive medical information about U.S. policymakers, military personnel, and others, including researchers.[172] While the strategic applications of individuals' healthcare data remain poorly understood, a report prepared in January for the U.S. Office of the Director of National Intelligence stated such information could be used to determine targets for surveillance, manipulation, or extortion.[173]

China's data collection efforts also threaten the future competitiveness of U.S. firms. The lack of reciprocity in data-sharing and the asymmetric nature of China's restrictions on healthcare data provides it with a greater opportunity to develop new medical treatments that the United States, with a less centralized set of data, cannot. These challenges to U.S. innovative capacity are compounded by Chinese policies that often incentivize U.S. firms to turn over R&D discoveries to Chinese partners, thus trading their long-term competitive prospects for market access. Beijing's targeting of U.S. healthcare research, through both legal and illicit means, also gives it an advantage by reducing the costs of R&D conducted in China. Though new innovative medicines and therapies coming out of China could benefit U.S. patients, in the long run U.S. healthcare firms could forfeit their position as global leaders, and the United States could become even more dependent on Chinese firms for new medical treatments.

As the ongoing COVID-19 pandemic demonstrates, Beijing's imposition of strict political controls on its healthcare system can have devastating public health and economic consequences for both the United States and the global community. Had the Chinese government been more willing to share critical information in the early stages of the outbreak, precious time to contain the virus would not have been lost. Instead, Chinese policymakers' preoccupation with

maintaining control resulted in costly delays. In the future, Beijing's impulse to repress public health information could result in disruptions even more severe than COVID-19.[174]

If conducted on an open and reciprocal basis, U.S.-China healthcare exchanges could yield positive results for both countries, leading to the creation and delivery of new treatments and prevention of global health crises. Beijing's current approach suggests, however, it is more interested in dominating the next generation of healthcare technologies and manipulating them for its own narrow benefit.

Addendum I: Healthy China 2030 Plan Major Targets

Campaign	2015 Baseline (if available)	2030 Target
Achieving longer average life expectancy	76.4 years	79.0 years
Popularizing health knowledge	Health literacy level is 10 percent.	Raise Chinese citizens' health literacy level to at least 30 percent.
Improving the healthcare system	1. 2.2 (assistant) doctors per 1,000 people. 2. Personal health expenditure accounts for 29.3 percent of total health expenditure.	1. 4.7 registered nurses per 1,000 people. 2. 3.0 (assistant) doctors per 1,000 people. 3. Personal health expenditure should account for about 25 percent of total health expenditure.
Implementing an innovative medical and health service supply model	N/A	Establish a "three-in-one" model for prevention and control that integrates professional health institutions, specialized hospitals, and primary-level medical and health institutions.
Expanding the healthcare industry	N/A	The size of the healthcare industry should reach $2.3 trillion (RMB 16 trillion).
Strengthening innovation in medical technology	N/A	Bring quality standards for medicine and medical devices completely in line with international standards.
Promoting a healthy environment	1. 76.7 percent of days have acceptable air quality in cities at prefecture level and above. 2. 66 percent of surface water quality is at or better than Class III standards.	1. Continued improvement in the number of acceptable air quality days. 2. Continue to improve drinking water quality and consumer product safety.
Strengthening comprehensive urban and rural health	N/A	1. All rural people will use sanitary toilets. 2. Increase the number of healthy/sanitary cities to 50 percent, with full coverage of provinces and autonomous regions.

Addendum I: Healthy China 2030 Plan Major Targets—*Continued*

Campaign	2015 Baseline (if available)	2030 Target
Improving nutrition and diets	1. Incidence of adult obesity stunting among children five years old or under is 8.1 percent. 2. Average daily salt intake is 10.5 grams. 3. Adult daily fat and oil intake is 42.1 grams. 4. Average daily intake of added sugar is 30 grams. 5. Average daily intake of fruits and vegetables is 296 grams.	1. Reduce the incidence of adult obesity stunting among children five years old or under to less than 5 percent. 2. Reduce average daily salt intake to less than 5 grams. 3. Reduce adult daily fat and oil intake to between 25 and 30 grams. 4. Reduce average daily intake of added sugar to less than 25 grams. 5. Increase average daily intake of fruits and vegetables to more than 500 grams.
Implementing nationwide fitness programs	1. 89.6 percent of the population meet national fitness standards. 2. The proportion of people who engage in regular exercise is 33.9 percent. 3. 360 million people regularly participate in physical exercise.	1. Increase the proportion of the population that meets national fitness standards to 92.17 percent. 2. Increase the proportion of people who engage in regular exercise to at least 40 percent. 3. 530 million people will regularly participate in physical exercise.
Strengthening training for healthy skills	1. 1.6 sports instructors for every 1,000 people. 2. 88 percent of rural villages have sports facilities.	1. Have 2.3 sports instructors for every 1,000 people. 2. Build sports facilities in all remaining rural villages.
Improving the public fitness system	N/A	Build a three-tier system of public sports facilities with 2.3 square meters per capita and a 15-minute fitness circle in urban communities.
Implementing tobacco control	1. The proportion of the population protected by smoke-free regulations is about 10 percent. 2. Percentage of the population over age 15 that smokes is 27.7 percent.	1. Increase the proportion of the population protected by smoke-free regulations to 80 percent. 2. Gradually realize a ban on smoking in public places. 3. Reduce the percentage of smokers over age 15 to 20 percent.
Promoting mental health	1. Chinese citizens' mental health literacy rate is 12 percent. 2. Chinese citizens sleep an average of 6.5 hours per day. 3. China has 2.6 psychiatrists per 100,000 people.	1. Raise Chinese citizens' mental health literacy to 30 percent. 2. Increase the average hours Chinese citizens sleep per day to between 7 and 8. 3. Increase the number of psychiatrists to 4.5 per 100,000 people.

Addendum I: Healthy China 2030 Plan Major Targets—*Continued*

Campaign	2015 Baseline (if available)	2030 Target
Improving women's and children's health	1. Infant mortality rate of 8.1 percent. 2. Maternal mortality rate of 20.1/100,000. 3. Anemia incidence among pregnant women is 17.2 percent. 4. The national prenatal screening rate is 61.1 percent.	1. Reduce the infant mortality rate to 5 percent or lower. 2. Reduce the maternal mortality rate to 12/100,000 or lower. 3. Provide pregnant women with free basic health services. 4. Reduce anemia incidence among pregnant women to under 10 percent. 5. Increase the national prenatal screening rate to more than 80 percent.
Improving family planning service management	Birth gender ratio of 113.5 males for every 100 females.	Achieve naturally balanced gender ratio at birth.
Reducing mortality of children under 5	Child mortality rate of 10.7 percent.	Achieve child mortality rate of 6.0 percent.
Improving health at elementary and middle schools	Proportion of students that meet national student health standards is 31.8 percent.	1. Increase the proportion of students that meet national student health standards to at least 60 percent. 2. More than 25 percent of students nationally are rated "excellent" by national student health standards. 3. Significantly reduce the incidence of new myopia. 4. Students should have at least one hour of sports activity daily. 5. Young people should master more than one sports skill. 6. Complete compliance of school sports facilities. 7. Students participate in sports activities at least three times a week.
Improving dental health	N/A	Fewer than 25 percent of 12-year-old children have cavities.
Improving elderly health	N/A	1. Reduce the incidence of dementia in those aged 65 and older. 2. Increase the percentage of tier 2 hospitals with elderly medicine units to more than 90 percent. 3. Increase the percentage of tier 3 hospitals with convalescence units to more than 90 percent.

Addendum I: Healthy China 2030 Plan Major Targets—*Continued*

Campaign	2015 Baseline (if available)	2030 Target
Preventing early death from major chronic diseases	Major chronic diseases accounted for 19.1 percent of deaths in 2013.	Early deaths from major chronic diseases should be 30 percent below 2015 numbers.
Preventing cardiovascular disease	1. Mortality rate from cardiovascular and cerebrovascular disease of 238.4 per 100,000 people. 2. Blood lipid testing rate for people over 35 years old is 19.4 percent. 3. Knowledge of high blood pressure among those over 30 is 47 percent.	1. Reduce the mortality rate from cardiovascular and cerebrovascular disease to 190.7 per 100,000 or below. 2. Increase the standard management rate for people with high blood pressure to more than 70 percent. 3. Increase blood lipid testing rate for people over 35 to more than 35 percent. 4. Increase knowledge of high blood pressure among those over 30 to at least 65 percent.
Preventing and treating cancer	Overall five-year survival rate for cancer patients is 40.5 percent.	Increase the overall five-year survival rate for cancer patients to at least 46.6 percent.
Preventing chronic respiratory disease	Mortality rate from chronic respiratory diseases in those aged 70 and younger is 10.2 per 100,000.	Reduce the mortality rate from chronic respiratory diseases in those aged 70 and younger to 8.1 per 100,000.
Treating diabetes	1. Standard management rate for diabetes patients is 50 percent. 2. Diabetes knowledge among those over 18 is 36.1 percent.	1. Increase the standard management rate for diabetes patients to at least 70 percent. 2. Increase diabetes knowledge among those over 18 to more than 60 percent.
Preventing infectious disease	36,700 annual schistosomiasis cases.	1. Reduce incidence of hepatitis B among children under age 5 to 0.5 percent. 2. Completely eliminate schistosomiasis.
Promoting road traffic safety	N/A	Reduce road-related deaths per 10,000 vehicles by 30 percent.

Note: Where baseline figures for 2015 are not available, they have been substituted with baseline data from the closest available year.
Source: Various.[175]

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CHAPTER 3

U.S.-CHINA SECURITY, POLITICS, AND FOREIGN AFFAIRS

SECTION 1: YEAR IN REVIEW: SECURITY, POLITICS, AND FOREIGN AFFAIRS

Key Findings

- In 2020, China sought to project an image of confidence and increased efforts to portray itself as a global leader superior to the United States even as it faced an increasing array of challenges at home and abroad. Meanwhile, Chinese Communist Party (CCP) leaders took new steps to silence criticism of the Party and demand praise for its actions both among the Chinese populace and in foreign countries.
- General Secretary of the CCP Xi Jinping continued to emphasize the military dimension of U.S.-China competition, instructing the People's Liberation Army (PLA) for a second year to prepare for a potential military conflict with a "powerful enemy adversary"—a phrase used by the CCP to refer to the United States. The PLA commissioned its first indigenously produced aircraft carrier and the first of a new class of advanced, large displacement destroyers while continuing to struggle with persistent weaknesses in its training and the limited command capabilities of its officer corps.
- The CCP grew more openly confrontational toward the United States and key U.S. allies and partners as Beijing increasingly demonstrated its disregard for international rules, norms, and criticism of its actions. This aggressive approach was typified by Beijing's growing use of economic coercion against countries that took actions Beijing perceived as contrary to its interests.
- Beijing ramped up its multiyear coercion campaign against its neighbors, provoking military or paramilitary standoffs with countries from Japan to India and much of Southeast Asia. Shortly after China's defense minister urged Beijing to use military force to stabilize its periphery, a violent clash on the China-India border in June led to the first loss of life between the two countries since 1975.
- The CCP combined its aggressive actions beyond China's borders with increasing domestic repression. Beijing implemented a draconian security law that ended the political freedoms it had pledged to guarantee to Hong Kong, while new evidence emerged of the CCP's campaign of cultural genocide against the

millions of Uyghurs and Tibetans living under its rule. Concern about its abusive treatment of ethnic Mongolians is also rising.

- The U.S.-China relationship grew increasingly confrontational in 2020 as both governments characterized the other in sharply adversarial terms and unfavorable views toward China among the U.S. public reached a new historic high. The United States took significant new steps to curtail bilateral economic, scientific, and educational exchanges.
- The rapid spread of the novel coronavirus (COVID-19) pandemic from Wuhan across China and beyond its borders revealed a range of systemic flaws in the Chinese governance system. Government authorities' active suppression of information, an overriding emphasis on secrecy and political image, and bureaucratic paralysis combined to severely delay any meaningful policy response. Evidence also emerged that Beijing's official numbers dramatically underreported actual cases.

Introduction

In 2020, Beijing escalated its aggressive pursuit of global leadership status even as it faced a dizzying array of challenges at home and abroad. In a year marked by several critical political, economic, and military milestones, the CCP instead was forced to confront the massive global fallout resulting from the COVID-19 pandemic that originated in Wuhan, China. Rather than emerge chastened from its culpability in the outbreak and spread of the pandemic, Beijing lashed out at its critics, launching a disinformation campaign regarding the virus' origins and casting itself as the country best fit to lead the world from the economic devastation left in the pandemic's wake.

As the world's attention was focused on the pandemic, Beijing ramped up military intimidation of its neighbors while levying economic punishment against countries that criticized its behavior. In a move that sent shockwaves around the region and beyond, Beijing implemented a draconian national security law in Hong Kong terminating the political and security principles of the "one country, two systems" framework that had guided its relationships with Hong Kong and Taiwan. In so doing, Beijing demonstrated its disregard for its international commitments and the demands of the historic prodemocracy protest movement ongoing in Hong Kong, while further damaging its ties to Taiwan. New details continued to emerge regarding the CCP's campaign of forced sterilization, intrusive surveillance, imprisonment, and cultural devastation of China's Uyghur minority population. Some experts argued the CCP's actions and policies in Xinjiang fit the legal definition of genocide.[1] Abuses against China's Tibetan and Mongolian minorities also continued to mount.

Meanwhile, China provoked confrontations with countries around its periphery, including a violent incident on the China-India border that resulted in the first fatal exchange between the two countries in 45 years. Tensions with the United States escalated further as Beijing engaged in rare ad hominem attacks against U.S. leaders and Washington took steps to curtail bilateral economic, scientific, and educational ties. If 2019 marked the end of any expectation that WTO accession and inclusion in the global institutional order would

moderate the CCP's authoritarian politics and liberalize its economy, then 2020 revealed Beijing's global ambition to imprint international institutions and influence regions with the CCP's agenda. The CCP under General Secretary Xi has defined a more confrontational relationship with the United States than at any time since the beginning of U.S.-China détente nearly half a century ago.

This section examines the key developments in China's political decision-making, military posture, and foreign relations in 2020. It begins by examining Beijing's assessment of its security environment as well as the effects on its external behavior of its sweeping actions to stamp out dissent and mobilize domestic nationalist fervor. It then assesses China's progress and continued shortfalls in building the PLA into a combat-ready, "world class" military before characterizing the drivers and consequences of Beijing's increasingly aggressive foreign policy. The section concludes with an examination of actions taken by Washington and Beijing reflecting their increasingly public recognition of their divergent national interests. This section is based on Commission hearings and briefings, discussions with outside experts, and open source research and analysis.

China's Domestic Politics

The year 2020 was significant for the CCP as it prepared for a series of highly consequential political, economic, and military milestones. Most importantly, 2020 was to be a critical year of achievements leading up to the celebration in 2021 of the CCP's "First Centennial" when it would mark 100 years since the founding of the Party in 1921. The Party was also preparing for its 20th National Congress, scheduled to be held in the fall of 2022, which some analysts assess will witness Xi Jinping's reappointment for an unprecedented third full term* as CCP General Secretary and the promotion of a new slate of senior CCP leaders.[2] According to testimony from Andrew Scobell, senior political scientist at the RAND Corporation, China's increased repression at home and confrontational behavior abroad throughout 2020 would likely set a pattern for China's behavior beyond 2020.[3] By unambiguously signaling to potential domestic and foreign adversaries that the CCP would "not tolerate any attempts to undermine the festivities," he argued, Chinese leaders would "prepare the way for smooth sailing in 2021 and 2022."[4]

*Beginning in 1982, the People's Republic of China constitution included a provision limiting the office of the head of state (literally "state chairman," which the CCP translates into English as "president"), now held by Xi Jinping, to a maximum of two consecutive five-year terms. The limit was introduced under the leadership of Deng Xiaoping and intended to prevent a return to the model of lifetime tenure that had existed under Mao Zedong. On March 11, 2018, China's National People's Congress passed an amendment to the constitution repealing the term limit, and on March 17, 2018, it unanimously approved Xi Jinping's reappointment as head of state with no limit on the number of terms he could serve. This change brought the position of head of state into line with China's two other top leadership positions, general secretary of the CCP and chairman of the Central Military Commission, neither of which is subject to a term limit. It also indicated Xi's possible intention to retain his role as CCP general secretary in 2022. Mao Zedong did not face limits on his tenure as the CCP's top leader, but after his death in 1976, no CCP leader has served as general secretary for three full terms. Encyclopedia Britannica, "Mao Zedong," September 5, 2020; Encyclopedia Britannica, "Deng Xiaoping," August 18, 2020; Christopher Bodeen, "Xi Jinping Reappointed China's President with No Term Limits," *Associated Press*, March 17, 2018; James Doubek, "China Removes Presidential Term Limits, Enabling Xi Jinping To Rule Indefinitely," *NPR*, March 11, 2020; Chris Buckley and Adam Wu, "Ending Term Limits for China's Xi Is a Big Deal. Here's Why," *New York Times*, March 10, 2018; *Xinhua*, "Xinhua Online Commentary: "Trinity" Leadership System is a Successful Experience (新华网评：“三位一体”领导体制是成功经验)," March 1, 2018; Encyclopedia Britannica, "Chinese Communist Party," July 18, 2016.

In 2020, the CCP had pledged it would realize the attainment of a "moderately prosperous society," a decades-old development milestone comparable to the rise of the middle class.[5] This prosperity, in turn, provided the foundation for a social compact with the Chinese public in which the CCP claimed legitimacy for its authoritarian, state-managed rule. China was also meant to conclude its 13th Five-Year Plan, achieve victory over extreme poverty, and complete two major military milestones, defined loosely as achieving the general mechanization and reorganization of its armed forces.[6] More symbolically, 2020 signaled the original end date of China's "period of strategic opportunity." This formulation, first proposed by former CCP General Secretary Jiang Zemin in 2002, exhorted China to rapidly develop its economy, political standing, and military power while taking advantage of a positive and improving domestic and international environment.*[7]

The CCP's interest in achieving these milestones was magnified by the outbreak of COVID-19 in Wuhan in late 2019 and its spread throughout China in 2020. Moreover, the global blowback against Beijing as COVID-19 spread beyond China's borders and triggered a global pandemic contributed to the CCP's worsening outlook on its security environment. In a series of speeches at the annual meetings of China's National People's Congress and the Chinese People's Political Consultative Conference, both held in May 2020, Chinese leaders registered alarm over their assessment of the country's worsening security environment. In his annual report to the National People's Congress, Chinese Premier Li Keqiang warned China should expect to face unprecedented challenges "at present and for some time to come."[8]

At the same conference, State Councilor and Defense Minister Wei Fenghe accused the United States of intensifying its "suppression and containment" of China since the COVID-19 outbreak, warning that U.S-China "strategic confrontation [had] entered a period of high risk."[9] In early April, according to Reuters, a report produced by a think tank affiliated with China's Ministry of State Security and shown to top Chinese leaders warned that global anti-China sentiment, led by the United States, was at its highest level since 1989. The report further judged this backlash could increase resistance to China's global economic aims, such as its Belt and Road Initiative (BRI), and even lead to a worst-case scenario of armed confrontation between Washington and Beijing.[10]†

These assessments added to top leaders' pessimistic outlook on China's external security environment prior to the COVID-19 outbreak. In the official report from the fourth plenum of the CCP's 19th Party Congress held in late October 2019, the CCP judged that

*In a speech at the CCP's 16th National Congress in 2002, Jiang noted, "An overview of the situation shows that for our country, the first two decades of the 21st century are a period of important strategic opportunities, which we must seize tightly and which offers bright prospects." In late July 2020, a Politburo meeting readout announced that China would remain in a period of strategic opportunity for some time into the future but that it would face unspecified "new opportunities and challenges." Jiang Zemin, "Build a Well-Off Society in an All-Round Way and Create a New Situation in Building Socialism with Chinese Characteristics," 16th National Congress of the Communist Party of China, Beijing, November 8, 2002; *Xinhua*, "CPC Leaders Analyze Economy, to Convene Central Committee Plenum in October," July 30, 2020.

†It was unclear, based on *Reuters*' accounting of the report, whether Beijing or Washington would initiate such a confrontation. For more, see *Reuters*, "Exclusive: Internal Chinese Report Warns Beijing Faces Tiananmen-Like Global Backlash over Virus," May 4, 2020.

the risks and challenges it faced both at home and abroad were "clearly increasing," requiring Beijing to intensify its "strategic determination" in achieving its domestic and international goals.[11] At an annual diplomatic forum in December 2019, Chinese State Councilor and Foreign Minister Wang Yi described 2019 as a year of growing chaos and intensifying "great power [geopolitical] games."[12] He declared that U.S.-China relations faced challenges unseen since the normalization of diplomatic ties in 1979 while decrying purported U.S. efforts to "needlessly limit and suppress" bilateral economic and science and technology exchanges and internationally vilify China's governance system.[13]

In remarks and speeches published over the past year, General Secretary Xi also emphasized the CCP's concerns over its security environment. In November 2019, following a common practice used by CCP leadership to emphasize key areas of national policy, the influential Party journal *Qiushi (Seeking Truth)* reprinted a 2018 speech by General Secretary Xi highlighting the bright prospects for the CCP's international influence as well as the dangers posed to its rule by China's increasingly challenging external environment and insufficient political determination at home. In the face of "major" and "strategic" problems affecting China's modernization drive, General Secretary Xi called on CCP cadres to deepen their belief in the Party's mission and purpose, without which the CCP might "waver… at the first sign of disturbance or trouble."[14] He repeated similar themes in an address to economists at the Chinese People's Political Consultative Conference in May 2020, noting China was facing "rising geopolitical risks" amid a "more unstable and uncertain world."[15]

Ambitions for Global Leadership Undaunted

Despite the CCP's concerns about risk, it remained undaunted in its efforts to be viewed at home and abroad as a global leader worthy of emulation and deference. In his speech reprinted by *Qiushi* in November, General Secretary Xi argued the success of Beijing's model of "socialism with Chinese characteristics" had significantly brightened the prospects for the global socialist movement following the collapse of the Soviet Union.[16] Continuing this theme, he exhorted CCP cadres to remember their duty to "liberate all of humanity" and serve as the "gravediggers of capitalism."[17] In his December 2019 speech at the annual forum on Chinese diplomacy, Foreign Minister Wang declared that Beijing must propagate China's "way of governance" around the globe to "guide" the world in its "thinking" on historical progress.[18] He asserted Beijing would make new efforts to increase China's international influence and create a global "community of common human destiny," invoking the CCP's term for a new, Sinocentric world order.[19] (For more on Beijing's ambitions to revise the global order, see Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom.")

The CCP continued its efforts to promote its governance system as a successful model for other countries to follow amid the global spread of COVID-19. Meanwhile, Beijing launched a wide-ranging disinformation campaign seeking to blame the United States and others for originating the virus while distracting global attention

from its actual origins in Wuhan. In March, Xinhua published an article describing support from foreign leaders during the pandemic as proof that "the concept of a community of common human destiny [had] penetrated deeply into the hearts of the people" around the world.[20] In a speech in Malaysia in April, Foreign Minister Wang continued on this theme, crediting the CCP's leadership for "fully [bringing] to bear the strengths of [its] system" in responding to the outbreak.[21] He pledged that China would create a "Health Silk Road" by increasing health cooperation with countries participating in Beijing's BRI and described the pandemic as a moment when humankind wrote "a new chapter" in the construction of a "community of common human destiny."[22]

New Party Concerns about Legitimacy

Within China, the COVID-19 outbreak highlighted numerous deep-seated weaknesses in China's rigid governance system, placing new pressure on the CCP's governing legitimacy. Government authorities' active suppression of information, an overriding emphasis on secrecy and political image, and bureaucratic paralysis produced by Beijing's centralization of key governance functions combined to impede initial public identification of the virus and severely delay any meaningful policy response. Labs attempting to release genetic information on the virus, medical professionals who attempted to raise the alarm, and members of the general public who sought to share information were all silenced.[23] Meanwhile, local officials ignored public health precautions during political meetings and misled central authorities on the severity of the outbreak while authorities in Beijing withheld crucial information from the World Health Organization (WHO).[24] The central government also did not mobilize to confront the threat until late January, about a month after the first identification of the virus, ultimately enabling the spread of a pandemic around the world.[25]

As the year progressed, weaknesses in the political system continued to cause trouble and undermine the CCP's desire for a clear victory in the "People's War" against the virus. Authorities continued to underreport cases, and throughout the spring and summer, unexpected outbreaks appeared in Beijing, Xinjiang, China's northeast, and elsewhere that local authorities struggled to control.[26] As one official from China's southern Guangdong Province explained in May, "Local authorities do not have the expertise to fight the epidemic… we just meet to learn from Xi Jinping's speeches…The central government did not give us what we really need for our work."[27] (For more information on Beijing's domestic response to COVID-19, see Chapter 2, Section 3, "U.S.-China Links in Healthcare and Biotechnology.")

Beijing's Doctored Numbers

Independent estimates of the outbreak in China throughout the pandemic provide significant reason to doubt Beijing's official reported number of cases and deaths from COVID-19. The Imperial College in London estimated that while the Wuhan Health Commission reported only 45 cases by January 18, about 1,723 people

Beijing's Doctored Numbers—*Continued*

in the city had already experienced onset symptoms by January 12.[28] This early disparity in numbers likely widened significantly with a wave of outbound travel from Wuhan prior to the Spring Festival holiday that began on January 25. In preparation for the Spring Festival, about 415 million people travel throughout China to visit family in other parts of the country, making it the largest human migration on the planet.[29] An April estimate from the American Enterprise Institute, which took into account Spring Festival travel from Wuhan, placed the number of cases outside of Hubei Province at a staggering 2.9 million*—more than an order of magnitude above the official nationwide total of 82,276—in addition to the cases from the epicenter in Hubei.[30] Between March and July, as case totals grew exponentially in numerous countries around the globe, China's official number inched upward by only about 1,220 per month, reaching an official nationwide total of 84,816 on July 1.[31]

Further anecdotal evidence comes from situations observed on the ground in Wuhan. According to reports from Wuhan residents in late March, when the official death toll in the city was under 3,000 people, the city's seven crematoria nonetheless operated almost around the clock with additional staff sent from around China, giving them the combined capacity to cremate about 2,000 bodies every day.[32] Reporting by Caixin from around this same time reveals that when the total government figure was 2,548 deaths in all of Wuhan, a single funeral home received deliveries of about 2,500 cremation urns on two consecutive days.[33]

Signs of Discontent over CCP's Political System

New signs of popular discontent with the regime emerged in the fallout from the COVID-19 crisis. After news broke in early February of the death of whistleblower doctor Li Wenliang, millions of Chinese citizens tried to bypass censors to post the hashtag #WeWantFreedomOfSpeech.[34] Some echoed language used by Hong Kong's prodemocracy protest movement by creating a list of "five demands,"† including that the Chinese government formally apologize to Li and legally enforce freedom of speech, while others compared the rallying effect of Li's death to the 1989 Tiananmen Square uprising. Within 24 hours of Li's death, his name was the most heavily censored term on Weibo, China's version of Twitter.[35]

Some Chinese citizens also drew parallels between how their government handled the COVID-19 outbreak and the Soviet Union's mismanagement of the Chernobyl nuclear disaster, even arguing the

*Derek Scissors at the American Enterprise Institute began with Chinese state media estimates for the number of people who flew from Wuhan to cities outside of Hubei for the Spring Festival, then applied a low estimated infection rate of 2.3 percent and a low estimate of the number of days the virus could have circulated from infected Wuhan residents before meaningful containment measures were put in place outside of Hubei. After scaling up the result to account for China's population size, he obtained a total estimate of 2.9 million cases outside of Hubei Province as of April 2020. Derek Scissors, "Estimating the True Number of China's COVID-19 Cases," *American Enterprise Institute,* April 7, 2020, 1.

†For more on the demands of the Hong Kong prodemocracy movement, see U.S.-China Economic and Security Review Commission, *2019 Annual Report to Congress*, November 2019, 481–520.

Wuhan government made greater efforts to suppress information than Soviet authorities did.[36] Many channeled their frustrations through references to HBO's 2019 hit show *Chernobyl*. One Weibo user urged Chinese citizens to learn from the show, arguing, "The things that can protect [Chinese people] are not nuclear weapons, aircraft carriers, or things that can land on the moon. Things that protect us are free flow of information and news, and judicial independence."[37] Chinese government censors quickly restricted online access to the show.[38]

Pointed criticism of Beijing's response to the virus also came from prominent dissidents and members of the CCP elite. The most scathing criticism came from Ren Zhiqiang, an outspoken property tycoon and Party member once with deep ties to the upper echelons of the CCP, including Vice President Wang Qishan and top trade negotiator Liu He.[39] In an essay circulated among elite circles in China and abroad, while not explicitly naming General Secretary Xi, Mr. Ren argued the actions of a power-hungry "clown" had exacerbated the pandemic.[40] "I see not an emperor standing there exhibiting his 'new clothes,'" he wrote, "but a clown who stripped naked and insisted on continuing to be an emperor."[41] Mr. Ren disappeared shortly after his essay was circulated on the internet. On July 23, the CCP announced Mr. Ren's expulsion from the Party and seizure of his assets for "serious violations of discipline and law," and in mid-September a Beijing court sentenced him to 18 years in prison for corruption.[42]

Also in July, Xu Zhangrun, a law professor at Tsinghua University, was arrested after publishing an essay earlier in the year in which he claimed the pandemic had "revealed the rotten core of Chinese governance" and called for an open investigation into the CCP's coverup of the outbreak.[43] Mr. Xu, who was already under house arrest at the time of his detention, was reportedly held for six days and fired from his position at Tsinghua University.[44] In May, retired Central Party School professor Cai Xia lambasted General Secretary Xi in an online speech for transforming the CCP into a "political zombie" and its 90 million members into "slaves."[45] She concluded the country must overthrow General Secretary Xi and abandon the CCP's political system, which she judged was beyond repair, to avoid being led down a "dead end to be buried."*[46] In August, the CCP formally expelled Ms. Cai from the Party and terminated her retirement benefits.[47] The former Party professor was accused of "maliciously smear[ing] the image of the party and state leader" and making speeches of an "extraordinarily execrable nature."[48] Ms. Cai is currently in the United States, where she has lived since 2019.[49]

Continuing Concerns over Governance Shortfalls

The unsteady performance of the CCP's governance system amid the COVID-19 outbreak occurred against the backdrop of CCP lead-

*In a possible rejoinder to Ms. Cai's criticism, He Yiting, executive vice president of the Central Party School, penned a commentary published on the front page of *Study Times*, the official newspaper of the school, praising General Secretary Xi and claiming the present state of "socialism with Chinese characteristics" had "written the most wonderful chapter of world socialism in 500 years." William Zheng, "China's Socialism Beats Capitalism, Communist Party Ideology Veteran Says in 'Bid to Shore Up Support,'" *South China Morning Post*, June 16, 2020.

ers' continuing concerns over endemic corruption and bureaucratic ineptitude. In a potential reference to the failures of local government officials to prevent and contain the spread of the virus, in his May report to the National People's Congress Premier Li used new language to criticize government incompetence, decrying officials who "shirk their duties or are incapable of fulfilling them."* [50] He further noted the serious challenges to Chinese governance from "pointless formalities and bureaucracy."[51] In other places, Premier Li repeated nearly verbatim language from his addresses to previous years' sessions of the assembly, pledging to release low-level officials from the "fetters of pointless formalities" while taking "strong steps to address the practice of … bureaucracy, hedonism, and extravagance."[52]

Other authoritative warnings over governance shortcomings suggested previous pledges by Beijing to eradicate CCP corruption and improve governance practices had fallen short. In October 2019, the official report from the 19th Party Congress Fourth Plenum restated earlier promises to build a Party that "dares not, cannot, and does not want to be corrupt."† [53] That same month, *Qiushi* published a speech by General Secretary Xi from January 2018 condemning a litany of corrupt behaviors and governing incompetence among CCP officials.[54] Comparing cadre behavior to the "extreme extravagance" and "shameless debauchery" of officials responsible for the fall of successive imperial Chinese dynasties, he warned that the CCP could meet a similar end if it did not remediate its governance shortfalls.[55]

Shoring Up Ideology in Defense of the Party

Facing growing opposition abroad and fallout from the virus at home, the CCP emphasized the need for martial fervor on the battleground of ideas. Showing further signs of an emerging cult of personality, the *People's Daily* in May 2020 referred to General Secretary Xi as "Supreme Commander," granting him the third of Mao Zedong's four most important titles at the height of the latter's power.‡ [56] In September, the CCP officially designated Xi as the "core" of the Party leadership in an unusual rules change, formalizing his leadership role within the Party to a degree observers described as unprecedented and as further enabling him to hold power indefinitely.[57]

Meanwhile, the CCP increasingly stressed the importance of "Party-building"§ as General Secretary Xi urged cadres in a speech pub-

*This was not the first high-level criticism of local officials' incompetence. In his report to the 19th Party Congress in 2017, General Secretary Xi warned that the CCP must "fully recognize the intensity and severity of the dangers of a lack of drive, incompetence, disengagement from the people, inaction, and corruption" among Party cadres. Xi Jinping, "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era," 19th National Congress of the Communist Party of China, Beijing, October 18, 2017.

†Premier Li notably used this phrase in his 2019 address to the National People's Congress.

‡The other three of Mao Zedong's titles were variations of "Helmsman," "Leader," and "Teacher." Of the four, General Secretary Xi has yet to be called only "Teacher." Chinese state media first gave Xi the titles "Leader" and "Helmsman" in January 2018 and March 2018, respectively. Chris Buckley, "China's New 'Helmsman' Offers a Strident Nationalist Message," *New York Times*, March 20, 2018; Bill Bishop, "'人民领袖' -- The People's 'Leader' Xi Jinping Gets a New Propaganda Title," *Sinocism*, February 11, 2018; Ma Baofeng, "Chairman Mao Zedong's Diplomatic Style (2) A Conversation on Etiquette (139))" (毛泽东主席的外交风度(二)(礼仪漫谈(139))), *People's Daily*, January 18, 2014. Translation.

§Party building, along with armed struggle and United Front work, is one of the three "magic weapons" Mao Zedong described as tools to "storm and shatter" the positions of the Party's ene-

lished in November 2019 to intensify their "theoretical armaments" and maintain faith in the CCP, seeking to wield ideological fervor and conviction in Marxism as a weapon for the Party.[58] In November 2019, *Qiushi* published General Secretary Xi's speech from that July's first-ever CCP Central Committee conference on Party-building work in central Party and state organs.[59] In his speech, he declared the Party was "armed with Marxism" and must "ensure the whole Party is of one mind and walking in lockstep."[60] In his speech published by *Qiushi* in October 2019, General Secretary Xi drew parallels between CCP cadres' lack of ideological conviction and the loss of belief among officials in the Soviet Union and Eastern Bloc countries prior to the Soviet Union's collapse and the fall from power of Communist parties in those countries.[61] To avoid a similar outcome, he urged cadres to "forge bodies of unbreakable adamantine and arm their minds with the scientific theory" of Marxism.[62]

China's neighborhood committees reemerged as a powerful tool of surveillance over the course of the COVID-19 pandemic. Known popularly as "KGB with tiny feet" in the 1990s due to their reputation for spying on residents, these committees are the "lowest level of [civil affairs] government," according to Chinese state media, and have existed in all Chinese cities since the late 1980s.[63] Foreign media and Chinese state media reported that the monitoring and surveillance by committee staff, who are mostly CCP members, assisted in epidemic prevention at the grassroots level.[64] Other observers noted more negative consequences of the committee's activities, such as a competition between localities to implement the most radical quarantine measures.*[65] Even after the initial lockdowns ended, some committees maintained their increased surveillance measures against local residents.[66]

The CCP also took new steps to undermine academic independence and issued new ideological curriculum guidelines, deepening its nationwide campaign to ensure the fealty of Chinese university faculty.[67] In December 2019, Fudan University in Shanghai replaced references to academic independence and freedom of thought in its charter with language about "serving the [CCP's] governance," while Nanjing and Shaanxi universities made similar changes.[68] Fudan students protesting the changes were quickly censored.[69] The CCP also took new steps to exert control over teaching content.[70] In May, the Ministry of Education issued new ideological and political guidelines emphasizing that university curricula must incorporate "Xi Jinping Thought" and focus on "strengthening students' ideological convictions, with love for the Party, country, socialism, people, and collective as the main thread."[71]

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mies. CCP Central Organization Department, *Party-Building Work in Relevant Organs: What It Is, What It Does, and How to Do It* (机关党建工作：是什么、干什么、怎么干), November 26, 2019. Translation.

*Strictness of monitoring varied, but methods included electronic monitoring of location data, manually collecting detailed travel history, constantly checking those entering or exiting communities for travel permits, closely tracking residents' health, and assigning someone to accompany residents on trips to cemeteries. For more, see Brenda Goh, "Lockdown Lifted, Wuhan's Residence Committees Keep Watch," *Reuters*, April 16, 2020; Gerry Shih, "Locked Down in Beijing, I Watched China Beat Back the Coronavirus," *Washington Post*, March 16, 2020; Raymond Zhong and Paul Mozur, "To Tame Coronavirus, Mao-Style Social Control Blankets China," *New York Times*, February 15, 2020.

Global Spread of Chinese Surveillance and Censorship

Beijing's surveillance and censorship extended beyond its borders as popular social media programs became complicit in censorship both within and outside China. In June 2020, the video conferencing platform Zoom, which relies heavily on staff and operations based in China,* shut down several online events commemorating the Tiananmen Square massacre and temporarily suspended the accounts of several U.S.- and Hong Kong-based activists after Beijing informed Zoom that the events violated Chinese law.[72] In response to media criticism of its actions, the company indicated it would continue to censor users inside China while pledging not to let future requests by Beijing affect users based outside of China.[73]

In May, Toronto-based CitizenLab reported that WeChat, the omnipresent social media app owned by Tencent, automatically analyzed content sent between accounts registered on non-Chinese telecommunications carriers.† According to CitizenLab, the program then added any sensitive content to an internal blacklist, resulting in faster censorship of that same content when sent between accounts registered on Chinese telecommunications carriers.[74] Earlier, in October 2019, a German cybersecurity firm revealed the CCP-mandated ideological indoctrination app "Study Xi, Strong Country" gave Chinese authorities "superuser" access to all content on the more than 100 million Android devices carrying the program.‡[75]

New reports also revealed Beijing was using genetic information and electronic surveillance tools to monitor and control ethnic Uyghurs, including in foreign countries, for longer than previously known. In December 2019, the New York Times reported the Chinese government was using genetic data, likely collected without consent, to generate facial images to enhance racial profiling of Uyghurs.[76] To generate these images, authorities leveraged genetic data from all Xinjiang residents between the ages of 12 and 65, which according to Human Rights Watch had been collected since 2017 under the guise of a public health program.[77] China's Ministry of Public Security oversees some of this research, which relies in part on funding from European institutions and technology designed in the United States.[78]

This DNA database is no longer being used to track only Uyghurs, however. According to June 2020 analysis by the Australian Strategic Policy Institute, in 2017 China began using tens of millions of samples from males all over China to build "the world's largest police-run DNA database" in violation of Chinese law and international norms.[79] In another revelation of the sophistication and ex-

*Zoom employs at least 500 staff based in mainland China research and development centers, or approximately 30 percent of its total staff and 70 percent of its staff based outside the United States. The program has routed data through servers in China in the past. Eugene Kim, "Zoom, One of the Most Anticipated Tech IPOs of the Year, Has One Key Profit Driver: Engineers in China," *CNBC*, March 26, 2019; Jordan Novet, "Nancy Pelosi Called Zoom 'A Chinese Entity,' but It's an American Company with an American CEO," April 15, 2020.

†As of May 2020, WeChat had 1.2 billion active monthly users worldwide, with most of them in China. Masha Borak, "WeChat Now Has over 1.2 Billion Users Worldwide," *South China Morning Post*, May 14, 2020.

‡Through this app, Party members and state employees are required to engage in daily study of General Secretary Xi's speeches and other CCP ideological content. For more information, see U.S.-China Economic and Security Review Commission, *2019 Annual Report to Congress*, November 2019, 87.

tent of Beijing's surveillance campaign, in July 2020 mobile security firm Lookout found the Chinese government had used mobile phone malware to spy on Uyghurs as they fled to up to 15 countries since at least 2013, far earlier and at a greater scale than was previously known.[80]

General Secretary Xi Declares the "Organs of Dictatorship" Shall Show "Absolutely No Mercy"

In late 2019, leaked CCP documents concerning the mass concentration of Uyghurs in prison camps in China's western Xinjiang region confirmed top CCP leaders' approval and active encouragement of the program. In November, the New York Times published a trove of internal Party documents revealing details about the camps, including General Secretary Xi's personal role in approving the program and Xinjiang Party Secretary Chen Quanguo's purges of cadres who questioned or hesitated in implementing the campaign.[81] When the campaign began in 2014, according to the documents, General Secretary Xi called on Party officials to use the "organs of dictatorship" to round up members of the Uyghur population and show "absolutely no mercy" toward suspected militants, regardless of internal hesitation or external criticism of the program.[82]

According to a June 2020 Associated Press report, having too many children is a major reason Uyghur women are sent to the camps, and Chinese officials systematically subject them to forced sterilization, abortion, and contraception use.[83] For example, sterilizations in Xinjiang quintupled from below 50 per 100,000 people in 2016 to almost 250 per 100,000 in 2018, compared to a slight decrease for all of China over the same time period.[84] Some experts argue these forced sterilizations fit the international legal definition of genocide since they aim to ultimately reduce the Uyghur population by preventing births.[85] In September 2020, Chinese authorities confirmed such a reduction in births among Uyghurs, acknowledging to CNN that births in Xinjiang dropped by a third in 2018 compared to 2017, although it denied the use of forced sterilization.[86]

Later in November, the International Consortium of Investigative Journalists published another set of internal Chinese cables describing the pervasive surveillance in Xinjiang and the prison camps' integration into a sprawling state-sponsored forced labor network.[87] One manual described "general indoctrination" as a central goal of the repression campaign and detailed techniques for forced indoctrination, maintenance of secrecy, and escape prevention.[88] Among the most concerning of the revelations was Chinese Embassy and consular staff's direct involvement in facilitating the dragnet's detention of Uyghurs, including the intentional targeting of Uyghurs who were citizens of other countries.[89] Chinese consular staff helped collect information on overseas Uyghurs for the Integrated Joint Operations Platform, the computer program used by China's security services as the "cybernetic brain" supporting the Xinjiang surveillance state. This system then uses the information, including that gathered by consular staff on foreign citizens, to generate lists of targets to be further investigated in China or immediately detained upon entering China.[90]

Repression of Ethnic Minorities Escalates in Tibet and Inner Mongolia

Meanwhile, the CCP increased its repression in China's other frontier regions, escalating its attacks on ethnic minorities in Tibet and Inner Mongolia to accelerate the erosion of the unique culture and identity of these groups the Party has long perceived as threats to its rule. In September, Reuters reported that authorities in Tibet had implemented quotas for the mass transfer of Tibetans from rural areas into recently built military-style training centers where they are forced into manual labor in Tibet and other parts of China.[91] The program, which mirrors the Chinese government's attempts in Xinjiang to force Uyghurs into manual labor, is described by independent researcher Adrian Zenz as a "coercive lifestyle change" and "the most clear and targeted attack on traditional Tibetan livelihoods" since the Cultural Revolution.*[92] Earlier, in June, the Chinese government expanded its campaign to "wear away and destroy" ethnic Tibetans' identity by adding the destruction of prayer flags across ethnic Tibetan areas in western China to its restrictions on Tibetan-language education and other repressive policies.[93]

In Inner Mongolia, after Chinese authorities announced in August that nearly all primary school classes would be taught in Mandarin instead of Mongolian, around 300,000 ethnic Mongolian students protested the policy change by refusing to attend fall semester classes, with boycotts continuing through at least mid-September.[94] Several ethnic Mongolians, including a government administrator, committed suicide in protest, while many others engaged in acts of civil disobedience, with parents displaying placards claiming that learning their native language was an "inalienable right" and students shouting, "Mongolian is our mother language! We are Mongolian until death!"[95] The CCP arrested hundreds of ethnic Mongolians in the region for resisting or failing to implement the directive, and by mid-September appeared to have crushed the majority of the protests.[96] Authorities threatened that those continuing the boycott would be denied bank loans for five years, lose access to government subsidies, and be placed on an "untrustworthy persons" list if they did not cease their protests.[97]

Progress and Shortfalls in Building a World-Class Military

The PLA made steady progress toward becoming a world-class military in 2020, a year in which Beijing expected the force to "generally achieve mechanization" and complete the redesign of its military policy system.†[98] As it cut nonurgent government spending by 50 percent due to the economic impact of COVID-19, Beijing increased the PLA's official budget‡ by 6.6 percent while calling on

*During the Cultural Revolution, Red Guards seeking to "eradicate [Tibet's] feudal culture" looted monasteries, destroyed religious artifacts and photographs of the Dalai Lama, and used "struggle sessions" to punish those who refused to denounce friends and relatives as reactionaries. Dan Southerland, "After 50 Years, Tibetans Recall the Cultural Revolution," *Radio Free Asia*, August 9, 2016.

†The "policy system" refers to the PLA's systems managing personnel, budget, salary, welfare, and procurement. See Joel Wuthnow and Phillip C. Saunders, *Chinese Military Reforms in the Age of Xi Jinping: Drivers, Challenges, and Implications*, National Defense University Press, 2017, 50.

‡China's overall military spending outstrips what its government reports in official defense spending. Official figures are plagued with inconsistent reporting and lack the transparency needed for verification. Independent analyses estimate that total Chinese military spending is consistently 30 percent to 70 percent higher than the official defense budget. See China Power

the force to be the "vanguard" combating the pandemic and to make greater efforts to overcome enduring shortfalls in its capabilities.[99]

Growing Power Projection Capabilities

On January 2, General Secretary Xi issued the PLA's annual training mobilization order, reemphasizing language from his 2019 order on preparing for a potential confrontation with the "powerful enemy adversary"—a phrase used to refer to the United States.[100] In a new addition, he also called on the PLA to "dare to prevail over all enemies," potentially signaling heightened anticipation of a conflict with China's neighboring countries.[101] The 2020 order repeated several other themes found in the 2019 order, including emphasizing training in systems confrontation and joint and combined arms operations under hostile conditions.[102]

The PLA Navy made demonstrable capital and training improvements toward these objectives and its goal of becoming a blue-water navy. It commissioned the first of an anticipated eight Type 055 (RENHAI) destroyers, a large displacement multirole surface combatant that boasts the PLA Navy's most advanced stealth characteristics, weapons volume, and weapons range.[103] Tonnage and capability of the Type 055 exceed those of the U.S. Navy's Arleigh Burke-class destroyer, itself already larger and more capable than ships previously designated as cruisers.*[104] Other PLA Navy improvements highlighted new naval aviation capabilities, for example commissioning China's first indigenously built aircraft carrier in December 2019 and deploying it in a series of increasingly complex exercises, including the first known simultaneous exercises for both of China's aircraft carriers.[105] One such exercise featured PLA Navy aviators conducting tactically challenging aerial refueling between warplanes at night.[106]

Additionally, the PLA Navy launched a second Type 075 (YUSHEN) amphibious assault ship, designed to be comparable to the U.S. Navy's America-class assault carrier.[107] It also began procuring equipment for what is likely to be the next-generation Type 076 amphibious assault ship, which may introduce a catapult launch system for carrying jet aircraft.[108] Meanwhile, the PLA Navy Marine Corps demonstrated measured success in its evolution into an expeditionary force by further improving its use of amphibious vehicles in island assaults.[109] In June, China successfully launched the final satellite in its Beidou network, improving the PLA's ability to operate globally using an indigenous positioning, navigation, and timing system rather than relying on the U.S. Global Positioning System.[110] (For more on PLA modernization, see Chapter 3, Section 2, "China's Growing Power Projection and Expeditionary Capabilities.")

Team, "What Does China Really Spend on Its Military?" *Center for Strategic and International Studies*; Shaoguang Wang, "The Military Expenditure of China, 1989–98," in *SIPRI Yearbook 1999: Armaments, Disarmaments and International Security*, 1999, 334–349.

*Modern definitions for destroyers and cruisers—the latter of which are a class of naval combatants typically larger and more capable than destroyers and smaller only than aircraft carriers and battleships—have been inconsistent. The London-based International Institute for Strategic Studies is a representative example, classifying cruisers as warships displacing over 9,750 tons and destroyers as warships displacing between 4,500 and 9,749 tons. China's Type 055 warship is expected to displace approximately 14,000 tons, and the U.S. Department of Defense classifies it as a cruiser. Nonetheless, the PLA classifies the Type 055 as a destroyer, following precedent set by the U.S. Navy's 14,000-ton Zumwalt destroyers, the Japanese Maritime Self-Defense Force's 24,000-ton Izumo-class helicopter destroyers, and the Republic of Korea Navy's 11,000-ton Sejong the Great-class destroyers. Keith Patton. "That's a Destroyer?" *The Navalist*, April 10, 2017.

Continuing Systemic Weaknesses

Alongside its modernization and reorganization efforts, the PLA continued to address operational weaknesses stemming from its basic organization, training practices, and struggle to overcome corruption in its ranks. Early in the year, after many years of experimentation, the PLA Army transitioned its basic combat units from traditional single-arm or single-specialty combat units into combined arms battalions.[111] The PLA Army has yet to train a generation of officers prepared to lead these battalions. In December 2019, for instance, the *PLA Daily* reported that PLA battalions only recently added an adequate number of staff officers to support battalion commanders and that efficient command prior to this addition was "unimaginable."[112] The article also lamented that some commanders neglected to employ supporting capabilities such as PLA Army aviation during training exercises due to their lack of experience in combined arms operations.[113] Similarly, despite detailed policy prescriptions, key logistical issues for a blue-water navy, such as managing corrosion on equipment at sea, remained a significant challenge.[114]

PLA training proved another enduring weakness, as the force frequently approached drills by executing preset plans rather than responding to a developing situation.[115] Over the past year, the PLA's own analysis revealed much of its training to be unsuited for developing combat capabilities, criticizing them as "formalities" or "for show."[116] Some PLA officers complained training evaluations used inflated or ungermane metrics, while other officers exacerbated training challenges by exhibiting limited independent decision-making capabilities out of fear that poor results would draw punishment.[117] In one typical example, the *PLA Daily* reported in February 2020 that a common reason for lack of initiative among the PLA officer corps was officers' perception that "the more we do, the greater our chance of making mistakes."[118] In some cases, the PLA's investigations into its capability shortfalls revealed that core competencies for modern warfare, such as PLA Air Force joint capabilities, were also developed unevenly. For example, a *PLA Daily* report in March described a joint exercise between over 100 elite PLA Army aviation and PLA Air Force troops that revealed ineffective command and limited jointness.[119]

Despite some apparent successes in the PLA's anticorruption efforts, evidence of corruption continued to surface in the force.[120] In his role as chairman of the Central Military Commission, in November 2019 General Secretary Xi called for the cultivation of a "new type of military personnel who are competent, professional and possess both integrity and ability," implying that many current or recent past PLA personnel lack these qualities.[121] That same month, the Central Military Commission issued guidelines stressing the need to "purify" the PLA's "political ecology" to eliminate the lingering influence of former top leaders arrested for corruption.[122]

In January 2020, the Central Military Commission issued trial regulations on military supervision in a further effort to curb corruption, and in June the Politburo passed updated regulations governing CCP control over the PLA.[123] China's Ministry of National Defense noted this was the "first time a comprehensive and

systematic regulation of Party building in the military was specifically made" and attributed the need for the regulations to "many new situations and new challenges" facing Party-army relations.[124] The admission of new challenges facing CCP control over the PLA suggested that significant issues over loyalty and corruption may persist in the force.

Several high-profile accusations of corruption within the PLA and China's defense industrial base over the past year reflected the severity of this issue. In late 2019, two PLA generals and four civilian officials, including Strategic Support Force Deputy Commander Rao Kaixun, were removed from their posts due to "serious violations of discipline," a common euphemism for corruption.[125] In May 2020, Hu Wenming, chairman of the PLA Navy's leading shipbuilder China Shipbuilding Industry Corporation, was also arrested on charges of corruption.[126] The arrest of Hu, who oversaw China's aircraft carrier program, was the latest among multiple corruption charges against high-ranking officials at the organization, including a discipline inspection team leader, a general manager, and two research directors.[127]

Uncertain Progress and Chronic Delays toward 2020 Milestones

The PLA appeared to only partially achieve its major 2020 goals. The CCP set two key goals for the PLA to reach this year: a modernization goal to "basically achieve mechanization"* and a reorganization goal to redesign the PLA's personnel, budget, and procurement systems.† On July 31, in a speech to the Politburo given one day before the 93rd anniversary of the PLA's founding, General Secretary Xi declared that the PLA would achieve its 2020 goals.[128] This projection of confidence was echoed by PLA sources and state media reports.[129]

Despite these claims, other evidence suggested the PLA would not in fact meet its 2020 reorganization goal. In a statement that undermined the claims of success by General Secretary Xi and others, on August 27, a spokesperson for China's Ministry of National Defense admitted the PLA now anticipated completing its military policy system redesign in 2022, two years behind schedule.[130] As Joel Wuthnow, senior research fellow at the National Defense University, testified before the Commission, by its own timeline "the PLA has been consistently behind schedule over the last five years."[131] For example, "reforms to the military educational system, the People's Armed Police, and the reserves were all to have taken place in 2016,

*General Secretary Xi laid out three steps for PLA modernization in his 2017 work report to the CCP's 19th National Congress to be achieved in 2020, 2035, and 2049. The PLA's 2020 goal was to "basically achieve mechanization, make major progress in informationization, and greatly improve its strategic capabilities." The 2035 goal was to "basically complete the modernization of national defense and the military" and its 2049 goal was to "fully transform [the PLA] into world-class forces." See Xi Jinping, "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era," 19th National Congress of the Communist Party of China, Beijing, October 18, 2017, 48.

†In 2013, Chinese leaders declared their intention to reorganize the PLA to address enduring capability gaps. This reorganization would include efforts to "overhaul the military's command structure, update its training and logistics systems, adjust the size and composition of the services, unveil new rules and regulations governing military personnel, and strengthen military-civil cooperation in technological development and other areas." Joel Wuthnow and Phillip C. Saunders, "Chairman Xi Remakes the PLA," in Phillip C. Saunders et al., ed., *Chairman Xi Remakes the PLA*, National Defense University Press, 2019, 2.

but major changes in those areas were not completed until June 2017, 2017–8, and 2020, respectively."[132]

Some evidence also cast doubt on General Secretary Xi's claim regarding the PLA's success in achieving its modernization goal. As recently as 2017, approximately half of the PLA Army's infantry brigades were considered "motorized" and in need of significant modernization before meeting PLA requirements for mechanization.*[133] Furthermore, according to Dr. Wuthnow, the PLA continues to use a significant amount of outdated equipment across each of its services, with such equipment being particularly prevalent in the ground forces, including in units considered to be mechanized.[134] For instance, as of 2020, 40 percent of the PLA Army's main battle tank force dates from the 1960s to the 1980s, with less than 4 percent produced within the last decade.[135] Reflecting the uneven progress toward meeting its 2020 goal, China's defense white paper issued in 2019 stated that the PLA had "yet to complete the task of mechanization."[136] In this context, General Secretary Xi's claim of success may have relied on the caveat in the original 2020 goal language that mechanization was only to be "basically" achieved.

China's New Diplomacy: "For Our Enemies, We Have Shotguns"

In 2020, China's diplomatic corps continued to implement the more assertive vision for Beijing's foreign relations General Secretary Xi called for in 2018.† Amid the COVID-19 pandemic, China's top diplomats used their platform to threaten foreign governments, businesses, private institutions, and elected leaders Beijing saw as opposed to the Chinese government's interests.[137] In November 2019, Foreign Minister Wang emphasized his previous appeals to China's diplomats to display a stronger "fighting spirit."[138] In his December address on China's diplomacy, he stated that Beijing would ensure its "bottom lines are never violated" while warning, "[China] will never accept unilateral sanctions or any acts of bullying."[139] According to testimony before the Commission from Kerry Brown, professor of Chinese Studies at King's College London, while the CCP's strong nationalism is "great for domestic politics… and lies at the heart of the Xi leadership, in terms of [China's] external messaging, it is deeply, and increasingly problematic."[140]

In one notable example of this approach, in November 2019, after the Swedish branch of an international free speech organization gave an award to a Swedish bookseller kidnapped by China in 2015 and Stockholm passed a law calling for a national security review of Huawei in Sweden's 5G rollout, the response from China's diplo-

*Official PLA sources describe modernization as a multi-stage process. "Motorization" describes the PLA's transition toward employing motorized vehicles for equipment transportation and movement of infantry to and on the battlefield. Motorization effectively ended the PLA's widespread use of foot marches and pack animals to move troops and equipment. This stage of modernization precedes "mechanization," which is characterized by more heavily armed and armored vehicles that are typically tracked and include infantry fighting vehicles, tanks, and self-propelled artillery. These vehicles can both move troops to the battlefield and participate more directly in battlefield maneuver. Chinese state media declared the PLA fully motorized and partially mechanized by 1985. Full mechanization has yet to be achieved. See Chen Hui and Chang Ailing, "The Chinese Military's 80-Year Historic Leap" (中国军队80年的历史性跨越), *Xinhua*, July 5, 2008. Translation.

†For more information on the new foreign policy guidelines introduced in 2018—known as "Xi Jinping Thought on Diplomacy of Socialism with Chinese Characteristics for a New Era"—see Chapter 2, Section 1 of U.S.-China Economic and Security Review Commission, *2018 Annual Report to Congress*, November 2018, 161–162.

matic corps was gangster-like. "We treat our friends with fine wine," said China's ambassador to Sweden, "but for our enemies, we have shotguns."* [141] Chinese state media described this attitude as embodying a "Wolf Warrior" ethos, named after the nationalistic film franchise depicting PLA soldiers heroically battling U.S.-led mercenary groups, among other opponents, in Africa and other regions.[142] Putting a fine point on China's new approach, in his response to the potential for U.S. retaliation against Beijing's passing of its Hong Kong national security law, the head of China's Hong Kong and Macau Affairs Office replied, "The era when the Chinese cared what others thought and looked up to others is in the past, never to return."[143]

On August 28, during the first visit to Norway by a Chinese foreign minister in 15 years, Foreign Minister Wang publicly warned Norway against "politicizing the Nobel Peace Prize," indicating that if the prize were awarded to Hong Kong democracy activists Beijing would consider it an attempt to "interfere in China's internal affairs."[144] In his meeting with Norwegian Foreign Minister Ine Eriksen Soreide, Foreign Minister Wang alluded to China's past punishment of Norway over the Nobel Peace Prize, warning that the two countries must "deal with sensitive issues appropriately to avoid the hard-won warming ties being disturbed again."† [145]

The CCP took new steps to deepen the "Party-ification" of the Ministry of Foreign Affairs to ensure its ideological commitment to CCP directives. Reflecting the emphasis on Party loyalty, Qi Yu, a specialist in ideological training with no prior diplomatic experience, was appointed as the Ministry of Foreign Affairs' party secretary in early 2019—an unusual appointment for a post traditionally reserved for a vice foreign minister.[146] In an essay published in December 2019, Mr. Qi called for Chinese diplomats to "firmly counterattack against words and deeds in the international arena that assault the leadership of China's Communist Party and our country's socialist system."[147]

In another sign of the increasing emphasis on enforcing ideological conformity within China's diplomatic apparatus, in July 2020 the CCP inaugurated the Xi Jinping Thought on Diplomacy Research Center. According to the Ministry of Foreign Affairs, the center aims to coordinate nationwide "research, interpretation, and propaganda of Xi Jinping Thought on Diplomacy."[148] At the center's unveiling,

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*This line derives from "My Homeland," a song first recorded in 1959 during the Mao era and widely seen as a paean to patriotism and the PLA.

†Beijing has sought or threatened to punish Norway over the Nobel Peace Prize several times in the past despite the prize being awarded by the Norwegian Nobel Committee and not the Norwegian government. In 1989, when the Committee awarded the prize to the Dalai Lama, Beijing threatened to cut economic ties with Norway if state representatives attended the ceremony. In 2010, Beijing cut off official ties with Norway and halted negotiations on a free trade agreement after the decision to award the prize to Chinese democracy advocate Liu Xiaobo. In the years that followed, Beijing restricted Norway's salmon exports and maintained visa restrictions on Norway well above those for other European states. Relations between the two countries were not normalized until 2016, when Norway issued an apology stating that it "fully respects China's sovereignty and territorial integrity, attaches high importance to China's core interests and major concerns, will not support actions that undermine them, and will do its best to avoid any future damage to bilateral relations." Nobel Prize, "The Norwegian Nobel Committee," October 16, 2020; *Bloomberg News*, "China Warns Norway against Peace Prize for Hong Kong Protesters," August 28, 2020; Sewell Chan, "Norway and China Restore Ties, 6 Years after Nobel Prize Dispute," *New York Times*, December 19, 2016; Richard Milne, "Norway Sees Liu Xiaobo's Nobel Prize Hurt Salmon Exports to China," *Financial Times*, August 15, 2013; Jamil Anderlini and Clare MacCarthy, "China Snubs Norway in Visa Reforms," *Financial Times*, December 6, 2012; *Associated Press*, "China Threatens to Cut Ties with Norway over Nobel Award with AM-Nobels," October 19, 1989.

Foreign Minister Wang claimed that traditional international relations theories were "unable to explain the contemporary world" and that Xi Jinping Thought on Diplomacy had become the sole theory of foreign policy capable of leading "the progress of humanity."[149] He also stressed the need for China to "transform" the global governance system to align more with the CCP's preferences and called on China's diplomatic corps to apply General Secretary Xi's theories to diplomacy with countries around the world, particularly in the Indo-Pacific and Africa.[150] (For more on China's approach to diplomacy with African countries, see Chapter 1, Section 3, "China's Strategic Aims in Africa.")

Against this backdrop, Chinese diplomats grew more aggressive in their approach to diplomacy with the outside world, and particularly with the United States. In a significant break with past practices, China engaged in a slew of ad hominem attacks against U.S. leaders, a level of vitriol rarely seen since the normalization of U.S.-China diplomatic ties in 1979. In April 2020, *People's Daily* personally attacked U.S. Secretary of State Michael Pompeo, stating, "Politicians like Pompeo have only prejudice, hatred, and private interests in their minds."[151] That same month, the director general for the CCP's International Department made a thinly veiled criticism of U.S. President Donald Trump following a remark made by the president about COVID-19.[152]

China's diplomatic apparatus also launched attacks against U.S. allies and partners, even targeting local governments for actions Beijing viewed as contrary to its interests. In July 2020, following the British government's criticism of Beijing's handling of COVID-19 and announcement of a new review of Huawei's participation in the United Kingdom's (UK) 5G rollout, China's ambassador to the country warned that London risked becoming China's "enemy" if it acted against Beijing's interests.[153] The Chinese government also reacted harshly when the mayor of Prague advocated for increased Czech-Taiwan engagement. In response, Beijing canceled a planned tour in China by the Prague Philharmonic Orchestra, and the Chinese Embassy in the Czech Republic threatened Prague that unless it changed its course, "the city's… interests will suffer."[154]

Despite Beijing's public exhortations for more combative diplomacy, some Chinese public figures voiced concern over the strategy's consequences. Shi Yinhong, a professor of international relations at Renmin University of China and a top adviser to China's State Council, argued in May that China's aggressive diplomatic posture would alienate the international community and urged Chinese leaders to revert quickly to a more measured approach to diplomacy, especially in light of worsening ties with the United States.[155] Similarly, Zhu Feng, dean of international relations at Nanjing University, argued China's "Wolf Warrior" diplomacy had worsened tensions between Washington and Beijing.[156]

COVID-19 Outbreak Intensifies Confrontational Diplomacy

The COVID-19 outbreak was a major catalyst in the hardening of China's confrontational approach to diplomacy, as Chinese diplomats made efforts to shift or deflect blame for the pandemic's outbreak while strong-arming China's partners into praising Beijing's

response. When Australia called for an independent investigation into the origins of the outbreak, China's ambassador to the country threatened a boycott of Australia by Chinese tourists, students, and consumers.[157] China followed up on this threat by applying economic coercion at the state level, suspending beef imports, restricting coal imports, and discouraging cotton imports from Australia, imposing punitive tariffs on Australian barley, and warning Chinese students against studying abroad in the country.[158] When the EU sought to release a report on the role of disinformation in the pandemic, repeated protests from Chinese officials eventually led to the removal of a sentence on China's "global disinformation campaign to deflect the blame."*[159]

Meanwhile, China's Ministry of Foreign Affairs forcefully denied that China or the CCP had reason to apologize for its conduct during the outbreak, disdainfully labeling this idea completely baseless and illogical.[160] According to Andrew Small, senior transatlantic fellow at the German Marshall Fund, as a result of its aggressive tactics during the pandemic, Beijing's previous reputation as a source of relative stability dating from the 1997 Asian financial crisis and global financial crisis in 2008 has now been "shredded."[161] In contrast to its prior warnings around a tightly defined list of "core interests," he argued, countries around the world have taken note that Beijing now "threatens the same measures against countries that do not want to include Chinese suppliers in their telecoms infrastructure or that demand an enquiry into the origins of a global pandemic."[162]

Beijing attempted to generate praise for its response to COVID-19 through narrative control and what became known as "mask diplomacy." As early as February 3, General Secretary Xi instructed China's news media to prioritize "public opinion guidance" at home and abroad by publishing positive stories about the CCP's epidemic response.[163] As COVID-19 spread globally, Beijing seized the opportunity to spin a new narrative of China as a reliable partner and a responsible great power.[164] To this end, China staged public demonstrations of largesse through the provision of medical gear, medical teams, and expertise to other countries, covering its actions thoroughly in state media and downplaying donations by other states to China.[165]

Beijing's promotion of these contributions reflected the broader ambitions behind the Chinese government's "Health Silk Road" framework,† which it has used as an attempt to position itself as a global healthcare leader. Beijing also engaged in "vaccine diplomacy," promising the Philippines, Southeast Asian countries along the Mekong River, Latin American and Caribbean countries, Pakistan,

*Notable examples of China's disinformation campaign in the EU were accusations against Italy and France made by Chinese diplomats and state media. When international attention focused on the increase in COVID-19 infections in Italy, state-sponsored tabloid *Global Times* suggested Italy was the real source of the virus. In April, France's foreign ministry summoned China's ambassador over a string of anonymous posts on the embassy's website falsely claiming France had left elderly citizens to die in care homes. Valbona Zeneli and Federica Santoro, "China's Disinformation Campaign in Italy," *The Diplomat*, June 9, 2020; Catherine Wong, "Too Soon: Chinese Advisers Tell 'Wolf Warrior' Diplomats to Tone It Down," *South China Morning Post*, May 14, 2020; *AFP News*, "France Summons Chinese Ambassador over Virus Comments: Ministry," *Barron's*, April 14, 2020.

†The Health Silk Road, first mentioned in 2017, falls under the BRI umbrella. Like BRI, the Health Silk Road remains vaguely defined. Kirk Lancaster, Michael Rubin, and Mira Rapp-Hooper, "Mapping China's Health Silk Road," *Council on Foreign Relations*, April 10, 2020.

Malaysia, and countries in Africa priority or other special access to future Chinese vaccines for COVID-19 in an attempt to bolster its image, increase its influence in the healthcare space, and encourage support for its diplomatic goals.[166] Meanwhile, Chinese state-backed cyber actors attempted to hack several U.S. organizations conducting research on COVID-19, aiming to use stolen research in support of China's effort to produce a vaccine before the United States.[167] (For more on Beijing's efforts to use the COVID-19 pandemic to assert global diplomatic and ideological leadership, see Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom.")

China's COVID-19 diplomacy generated mixed reactions. Some politicians in affected countries expressed gratitude for China's assistance, such as Serbia's President Aleksandar Vučić, who called China "the only country that can help."[168] However, China's actions also met with backlash, with critics pointing out that some of China's provisions of medical equipment were actually goods donated to China during the beginning of the COVID-19 outbreak and which China then sold—not donated—back.[169]

In a sharp departure from traditional protocol for humanitarian relief efforts, Chinese officials often demanded recipients make public declarations of gratitude in exchange for the aid shipments.[170] For example, Beijing attempted to solicit public statements of gratitude from government officials in Germany and pressured the president of Poland to call General Secretary Xi to express his gratitude, while repeatedly highlighting international leaders' positive comments on China's response to the virus in state media for domestic consumption.[171]

CCP officials also attempted to persuade a U.S. state legislature to praise Beijing's response to the pandemic. On February 26 and again on March 10, a diplomat from the Chinese consulate in Chicago sent unsolicited emails to the president of the Wisconsin state senate requesting that the body pass a resolution praising the CCP's response to the virus and its "transparent and quick" sharing of information.[172] In June, Twitter removed from its platform 23,750 highly active accounts and approximately 150,000 amplifier accounts, many of which had posted pro-China messages and disinformation related to the pandemic.[173] According to a statement from Twitter, all of the roughly 170,000 accounts had been attributed to China and were engaged in a "manipulative and coordinated" attempt at "spreading geopolitical narratives favorable to the… CCP."[174]

Beijing's Influence in the UN Undermines Global Response

The COVID-19 pandemic also revealed the extent and effects of China's influence in the UN in general and the WHO in particular. In the early days of the outbreak, the WHO refrained from criticizing Beijing's coverup and did not put public pressure on Chinese authorities to release the crucial details that could have helped contain the crisis. Even as CCP censors deleted information from the internet to keep citizens in the dark, WHO Director-General Tedros Adhanom Ghebreyesus publicly praised Beijing's transparency and response to the virus.*[175] As Beijing's lack of transparency became

*According to the Associated Press, recordings of internal WHO meetings demonstrate that the organization initially praised China in an attempt to coax crucial information out of Beijing with-

increasingly obvious, he continued his public defense of China and projected confidence about China's ability to contain the virus.[176] Beijing also used its leverage in the WHO to stifle Taiwan's participation in global pandemic response efforts.[177] (For more information, see Chapter 4, "Taiwan.")

Throughout the pandemic, Ren Minghui, a 30-year veteran of China's Ministry of Health, occupied the position of WHO assistant director-general for communicable diseases. He has held this position since 2017, which involves oversight of the WHO's work on communicable diseases and representing the WHO in international forums for HIV/AIDS, tuberculosis, and malaria.[178] While no information is publicly available about his duties during the COVID-19 pandemic, Dr. Ren's leading position in coordinating the WHO's response to communicable diseases suggests he may have played a role in the organization's failure to push for transparency from Beijing.

The effects of Chinese leadership in other UN agencies also became apparent in 2020.* Early in the year, China made a push for leadership in the World Intellectual Property Organization. The race between Beijing's candidate, Binying Wang, and the U.S.-supported candidate, Daren Tang of Singapore, played out as a high-profile struggle for influence between the United States and China over global intellectual property standards.[179] Prior to this race, U.S. concerns over the issue of Beijing's leadership in UN agencies had already crystalized following the victory of China's Qu Dongyu in the June 2019 election for the position of director-general at the UN Food and Agriculture Organization.[180]

Global Views Harden against China

Beijing's role in the pandemic, its escalating repression in Hong Kong and Xinjiang, and its aggressive global push for influence led many countries to consider significant changes to their relationships with China. At the same time, the pandemic revealed the enduring strength of China's partnerships with countries like Russia and Iran.

The year 2020 saw a significant hardening of views in the parliaments and publics of both Brussels and individual EU member states. In late March, the EU's top foreign and security policy coordinator Josep Borrell warned EU countries to be wary of China's "politics of generosity" and called upon them to prepare for a "strug-

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out upsetting CCP authorities. It was reported, however, that as of the second week of January, the WHO chief of emergencies did not believe this strategy was working. Continued public praise for China's response by the director general after this time suggests pressure from Beijing may also have been at play. *Associated Press*, "China Delayed Releasing Coronavirus Info, Frustrating WHO," June 3, 2020; Stuart Lau, "Coronavirus: WHO Head Stands by His Praise for China and Xi Jinping on Response to Outbreak," *South China Morning Post*, February 13, 2020.

*The strong influence Beijing has in the WHO is not unique within the UN system, which has serious implications given Beijing's tendency to leverage individuals in leadership positions to push Chinese political objectives. China has increased its control of leadership positions in the UN over the past ten years, and organs with Chinese officials and citizens in top positions are a strong indication of Beijing's priorities. Chinese nationals currently lead four UN specialized agencies, which is more than any other country. They include the International Telecommunications Union, the International Civil Aviation Organization, the UN Industrial Development Organization, and the Food and Agriculture Organization. Many of these individuals rose up through a series of leadership roles within their organizations before reaching top positions. Melanie Hart, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on A 'China Model?' Beijing's Promotion of Alternative Global Norms and Standards,* April 27, 2005, 5–6; U.S.-China Economic and Security Review Commission, *PRC Representation in International Organizations*, April 20, 2020, 4.

gle for influence" in a "global battle of narratives" with China.*[181] Sweden, formerly one of the top countries in Europe for exchange agreements with China, closed its last remaining Confucius Classroom in April amid worsening public opinion.[182] Since 2019, Sweden has also ended twin city agreements with four Chinese cities, citing among other issues "threats that the Chinese embassy has directed toward the Swedish government."[183] In late April, the chair of the European Parliament's delegation for relations with China, Reinhard Bütikofer, stated, "Over these months China has lost Europe," citing what he called "the pervasiveness of an attitude that does not purvey the will to create partnerships, but the will to tell people what to do."[184]

Parliamentary pressure for a tough stance on China also increased in Germany, especially following Beijing's imposition of its security law in Hong Kong.[185] In late July, authorities in France reportedly imposed restrictions to prevent telecommunications operators from renewing licenses on existing Huawei 5G equipment, amounting to a de facto ban on the technology by 2028.[186] Italy also took steps to limit Huawei's participation in the country's 5G rollout.[187] Also in July, Delegation Chair Bütikofer criticized German automaker Volkswagen for ignoring the CCP's human rights violations against Uyghurs while operating a factory in Xinjiang.[188] On August 2, Germany's minister of state for Europe published an opinion article calling for unity among Europeans to stand up to China, warning that the CCP "passes up no opportunity to drive a wedge between the EU member states and weaken them."[189]

The UK displayed a similar trend. By April, London had begun considering whether the country would benefit from restricting Chinese ownership in high-tech companies or access for Chinese students to sensitive research topics.[190] On April 16, while standing in for Prime Minister Boris Johnson, who was hospitalized with COVID-19, UK Foreign Secretary Dominic Raab stated it could no longer be "business as usual" with China after the pandemic.[191] In late May, Prime Minister Johnson reversed his January decision on Huawei and announced new plans to reduce Huawei's share in the UK market to zero by 2023, pressured in part by strong U.S. opposition and UK parliamentarians angered by China's growing repression in Hong Kong and Xinjiang and disinformation on COVID-19.[192] On July 14, the UK government officially announced it would ban UK mobile providers from purchasing new Huawei equipment after the end of 2020, and that all 5G equipment from Huawei must be removed from UK networks by 2027.[193]

Under the United States-led "Clean Network" initiative, about thirty countries located primarily in Europe and the Indo-Pacific committed to keep Huawei and other state-backed actors from ac-

*Beijing's treatment of both EU member states and non-EU countries aroused concern in Brussels for different reasons. First, throughout the pandemic, authorities in Beijing continually chose to bypass and discredit the institution of the EU and interact with countries bilaterally. Beijing particularly sought to take advantage of the dissatisfaction that hard-hit countries like Spain and Italy felt with the EU's pandemic response to boost its own reputation through medical aid. Meanwhile, Beijing used the pandemic as a chance to capitalize on its growing influence in non-EU states and present itself as a superior partner. After the EU enacted a ban on exports of medical equipment to non-EU countries, the president of Serbia—a non-EU country—turned immediately to Beijing and heaped praise upon General Secretary Xi and the CCP in exchange for a large shipment of medical aid. For more, see Stuart Lao, "EU Fires Warning Shot at China in Coronavirus Battle of the Narratives," *South China Morning Post*, March 24, 2020.

cessing their networks.[194] The initiative, which the state-backed tabloid *Global Times* attacked as "madness," began in April 2020 with requirements for secure 5G network traffic at U.S. diplomatic facilities and expanded in August to include additional provisions for carriers, mobile apps and app stores, cloud systems, and undersea cables.[195]

Sino-Russian Entente Deepens despite Pandemic Friction

China and Russia continued to deepen their robust ties in 2020 despite some diplomatic and economic friction from the COVID-19 pandemic. In October 2019, Russian President Vladimir Putin called ties with China an "allied relationship in the full sense of a multifaceted strategic partnership"—stronger language than either side had used before to describe the bilateral relationship.[196] Beijing and Moscow took new steps to expand their economic cooperation, highlighted by the inauguration of a key gas pipeline project, the Power of Siberia, in December 2019. The $400 billion project, under development since 2014, will significantly boost Russian energy exports to China over the next 30 years, delivering 38 billion cubic meters (28 million tons) of natural gas per year to China by 2024.[197] The two sides also opened the first vehicle bridge connecting northeast China to the Russian Far East just two months before the January 2020 spread of COVID-19 from China to Russia.[198]

Beijing and Moscow also bolstered defense and dual-use technology cooperation. In late 2019, Russia announced it would provide assistance producing a missile warning system for China, and the pair conducted two first-time trilateral naval exercises, one with South Africa and the other with Iran.[199] Upon President Putin's decree that 2020 would be the year of Sino-Russian science and technology cooperation, China and Russia boosted cooperation in dual-use technologies, such as telecommunications and artificial intelligence.[200] Chinese telecom giant Huawei continued to deepen its presence in Russia. In March 2020, it announced a partnership with Russia's largest bank, Sherbank, for a cloud services platform; promised to build an "artificial intelligence ecosystem" in Russia by 2025; and committed to train 35,000 Russian information technology specialists and build a research and development center in the country over the next five years.[201] In July 2020, the two countries' space agencies agreed to take steps toward building a joint research base on the moon after their planned manned missions to the moon in the late 2020s. The base, which may serve dual-use functions, reportedly will be designed to monitor deep space and enhance remote sensing of Earth.[202]

At the same time, the COVID-19 pandemic brought new frictions to Sino-Russian ties. Both countries became embroiled in a rare public diplomatic row when Russia closed its land border and most transport links in February 2020 after several Chinese citizens traveled to the country with the virus.[203] The Chinese ambassador to Russia criticized Moscow for banning Chinese tour groups and deporting Chinese citizens who violated quarantine rules. Still, in a sign of the closeness of bilateral ties, Beijing's response was more measured than with other countries that closed their borders with China.[204] Carnegie Moscow Center senior fellow Alexander Gabuev

noted Kremlin officials were privately frustrated with Beijing's information-sharing on COVID-19, though they did not publicly criticize Beijing.[205] Russia also backed an EU and Australia-led resolution at the World Health Assembly calling for an independent inquiry of the virus' origins.[206] In the defense realm, Chinese media reported that Russian shipments of S-400 surface-to-air missile systems to China were delayed due to the pandemic.[207] Meanwhile, demonstrating strong support for a Chinese geopolitical rival, Russian defense officials announced that shipments of the same weapons system to India were still on track for delivery by 2021 even in the wake of the deadly Sino-Indian border clash.[208]

In other ways, the pandemic tightened the linkages between Beijing and Moscow, particularly through collaboration on disinformation and anti-U.S. messaging. Throughout the spread of the pandemic, Beijing and Moscow actively spread disinformation critical of the United States and other democracies while frequently echoing and reinforcing the other's narrative.[209] The disinformation campaigns shared similar themes of deflecting international and domestic criticism of their own responses to the virus, criticizing the United States, and attempting to stoke domestic unrest in other democracies. Despite Moscow backing an independent inquiry on the virus' origins, it defended Beijing from widespread criticism of its response to the virus and fueled conspiracy theories about the supposed foreign origins of COVID-19.[210] Even before the pandemic, the two countries' media outlets were increasingly collaborating and amplifying the other's messages, such as by accusing the United States of provoking the Hong Kong prodemocracy protests and anti-Putin demonstrations in 2019.[211]

China Continues Opportunism in the Middle East

Beijing continued to pursue an opportunistic strategy in the Middle East driven largely by its economic objectives, specifically maintaining access to the region's energy sector.*[212] Although signs emerged that China and Iran were moving to deepen their bilateral relationship, Beijing remained committed to robust diplomatic and economic partnerships with Iran's regional rivals, such as Saudi Arabia and other members of the Gulf Cooperation Council.†[213] China also balanced its military ties with regional countries, conducting a weeks-long naval exercise with the Saudi Royal Navy immediately prior to holding a trilateral naval drill with Iran and Russia in December 2019.[214] In July 2020, Beijing hosted a virtual summit of the ninth China-Arab States Cooperation Forum, praising Arab countries for their support of China's global diplomatic goals such as

*The Middle East has been China's number one source of imported petroleum since 1995, and China is now the largest net importer of crude oil from the region. *World Exports*, "Top 15 Crude Oil Suppliers to China." April 12, 2019; Xi Chen, "China in the Post-Hegemonic Middle East: A Wary Dragon?" *E-International Relations*, November 22, 2018; Andrew Scobell and Alireza Nader, "China in the Middle East: The Wary Dragon," *RAND Corporation*, 2016, 7.

†The Gulf Cooperation Council is a trade bloc that includes the United Arab Emirates, Bahrain, Saudi Arabia, Oman, Kuwait, and Qatar. China has much more robust economic ties with Arab countries in the Gulf Cooperation Council than it does with Iran. For instance, China's trade with the bloc was worth over $170 billion in 2019, compared with $19 billion for Iran. Iran lags far behind both Saudi Arabia and the United Arab Emirates as a trade partner and was only slightly ahead of Oman in 2019. Jonathan Fulton, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on U.S.-China Relations in 2020: Enduring Problems and Emerging Challenges*, September 9, 2020, 4.

isolating Taiwan and building a Sinocentric "community of common human destiny."[215]

Beijing and Tehran Explore an Expansion of Their Relationship

In July 2020, China and Iran reportedly moved closer to reaching a deal on a 25-year cooperation agreement that could fundamentally transform their relationship if fully implemented. As Jonathan Fulton, assistant professor at Zayed University, argued in his testimony before the Commission, the purported deal would go well beyond the parameters set by China's current partnership with Iran and "represent a dramatic departure from China's approach to the Middle East."*[216]

Nevertheless, significant obstacles remain for both sides to finalize and implement the agreement. For example, Beijing's reported pledge to invest $400 billion in Iran under the terms of the deal appears highly unrealistic given that cumulative Chinese investment in the country over the last 15 years has totaled only approximately $27 billion.[217] Chinese leaders may also hesitate to prioritize relations with Iran over concerns about antagonizing China's other close partners in the region.[218] Although an Iranian official suggested a final agreement could be reached by March 2021, Chinese officials have yet to comment publicly on the deal.[219] Moreover, after news of the proposed deal leaked, many Iranian citizens and political opponents of Iranian President Hassan Rouhani rejected the deal on the grounds that it sold out Iran's resources to China, building on longstanding opposition among the Iranian public to China's growing influence over the Iranian economy.[220]

Against the backdrop of the potential cooperation agreement, Beijing and Tehran coordinated their messaging on the COVID-19 outbreak despite also experiencing tension from the pandemic's severe economic and public health impact on Iran.[221] Iran was among the group of countries that suffered the most damaging public health effects from the virus,† yet the Iranian regime defended Beijing and repeated its messaging during the crisis. China and Iran cooperated on exchanges of medical personnel and equipment, while both countries rejected U.S. offers of assistance and echoed the other's accusations of the United States unfairly restricting travel to China and preventing international medical assistance from reaching Iran.[222] Iranian officials and media also echoed Chinese disinformation efforts blaming the United States for causing the virus.[223] During the initial COVID-19 outbreak, Foreign Minister Wang thanked his Iranian counterpart Mohammad Javad Zarif for being the first foreign official to publicly voice support for China's fight against the virus.[224]

*According to a leaked draft of the agreement, the roadmap would reportedly (1) boost Chinese investment to $400 billion in Iran's energy, infrastructure, and telecommunications sectors; (2) guarantee long-term Chinese access to Iranian oil and gas at a steep discount; and (3) upgrade defense ties to allow Chinese access to strategic port facilities along the Sea of Oman. Farnaz Fassihi and Steven Lee Meyers, "Defying U.S., China and Iran near Trade and Military Partnership," *New York Times*, July 22, 2020.

†As of August 3, 2020, Iran had the tenth-most-confirmed COVID-19 cases in the world, according to Johns Hopkins University. Center for Systems Science and Engineering at Johns Hopkins University, "COVID-19 Dashboard," August 3, 2020.

Still, while Tehran almost never publicly criticizes Beijing, China's attempt to cover up the virus outbreak led some Iranian officials and the Iranian public to voice grievances regarding Beijing's lack of transparency about the virus. In April 2020, Iran's health ministry spokesperson accused Beijing of vastly underreporting cases and deaths linked to the virus, calling China's official numbers "a bitter joke."[225] Iranian citizens also expressed anger toward Beijing for bringing the disease to Iran through Chinese business operations in the country.[226] Nonetheless, reflecting Tehran's unwillingness to upset Beijing, Iranian officials allowed flights from China to continue operating even after confirming the virus had spread to Iran.[227] In a further sign of the Iranian regime's fear of antagonizing China, shortly after making his remarks criticizing China, Iran's health ministry spokesperson praised the Chinese government's assistance to Iran.[228]

Beijing and Tehran's security ties will probably deepen after the UN arms embargo on Iran expires in October 2020 and Beijing can resume arms sales to Tehran.* In September 2020, China joined most other members of the UN Security Council in rejecting U.S. calls to reimpose UN sanctions on Iran.[229] According to a senior U.S. intelligence official, Iran will likely buy fighter jets and tanks from both China and Russia upon the embargo's expiration.[230] Other Iranian purchases of Chinese weapons systems, such as antiship and land-attack cruise missiles, could bolster Tehran's ability to target U.S. ships and bases out to a range of 400 kilometers (249 miles) and deny access to the Persian Gulf.[231] In addition, Chinese individuals and entities continued to violate U.S. and UN sanctions on transfers of sensitive dual-use equipment to Iran, prompting Washington to sanction four Chinese entities and individuals in February 2020 for supporting Iran's missile program.†[232] Chinese entities also persisted in their defiance of U.S. sanctions on Iranian oil exports and blacklisted companies, resulting in further U.S. sanctions on four Chinese mainland and three Hong Kong entities.‡

*The Obama Administration signed the Iran nuclear deal in July 2015 with the other P5+1 countries (China, France, Russia, and the UK, plus Germany) and Iran. Although the Trump Administration withdrew from the agreement, it remains in force and all the other signatories have expressed their desire to adhere to its terms. The deal stipulates that the UN arms embargo on Iran must be lifted on October 18, 2020, with the exception of goods and technologies that could be used to develop nuclear weapons delivery systems. The latter provision is scheduled to be lifted in 2023. Andrew Hanna, "Part 3: Europe, China and Russia on U.N. Arms Embargo on Iran," *United States Institute of Peace*, June 20, 2020; Kelsey Davenport, "The Joint Comprehensive Plan of Action (JCPOA) at a Glance," May 2018; Stockholm International Peace Research Institute, "UN Arms Embargo on Iran," January 20, 2016.

†Per the Iran, North Korea, and Syria Nonproliferation Act, the U.S. Department of State announced two-year sanctions on Luo Dingwen, Baoding Shimaotong Enterprises Services Company Limited, Gaobeidian Kaituo Precise Instrument Co. Ltd., and Wuhan Sanjiang Import and Export Co., Ltd. for supporting Iran's missile program. The sanctions restrict these individuals and firms from U.S. government procurement, assistance, and exports. Michael R. Pompeo, "New Sanctions under the Iran, North Korea, and Syria Nonproliferation Act (INKSNA)," *U.S. Department of State*, February 25, 2020.

‡The State Department announced sanctions on Chinese companies Dalian Golden Sun Import & Export Co., Ltd.; Tianyi International (Dalian) Co., Ltd.; and Aoxing Ship Management (Shanghai) Ltd., as well as Hong Kong-based companies McFly Plastic HK Limited; Saturn Oasis Co., Limited; and Sea Charming Shipping Company Limited for "knowingly engaging in a significant transaction for the purchase, acquisition, sale, transport, or marketing of petrochemical products from Iran." In addition, the U.S. Department of the Treasury announced sanctions on Shanghai Saint Logistics Ltd. for acting as a sales representative for the blacklisted Iranian airline Mahan Air. Mengqi Sun, "U.S. Sanctions Chinese Company, Alleges Ties to Iran's Mahan Air," *Wall Street Journal*, May 19, 2020; U.S. Department of State, *Sanctions on Entities Trading in or Transporting Iranian Petrochemicals*, March 18, 2020.

Beijing Ramps Up Coercion in the Indo-Pacific

In the Indo-Pacific region, Beijing ramped up its multiyear coercion campaign against its neighbors as they struggled to contain COVID-19 within their borders. At the National People's Congress in May, Defense Minister Wei called on Beijing to "use fighting to promote stability," potentially indicating China's intent to initiate military tensions with its neighbors to stabilize its periphery by projecting an image of strength.[233] Meanwhile, Beijing's increase in its military and economic coercion prompted policy changes in countries across the region, such as in South Korea and Japan, who moved to decrease their economic reliance on China.[234] Singapore and Vietnam took steps to limit Huawei's participation in their 5G rollouts.[235] In Australia, a poll released in June revealed that Australian public opinion of China had reached a historic low, with only 23 percent of respondents reporting trust in China's ability to act responsibly either somewhat or a great deal (down from 52 percent in 2018) and 94 percent supporting a reduction in Australia's economic dependence on China.[236]

China's increasingly assertive behavior also accelerated an increase in cohesion among the countries participating in the Quadrilateral Security Dialogue or the "Quad," comprising the United States, Japan, India, and Australia. Between March and May, these countries held weekly vice-ministerial-level meetings and one ministerial-level meeting to coordinate on containing COVID-19, restore their economies, and communicate shared strategic interests.[237] Notably, for the first time the grouping also took on an expanded format, known as the "Quad Plus," which saw Brazil, Israel, New Zealand, South Korea, and Vietnam participating in various group discussions.*

Worsening China-Japan Ties

Despite attempts to reset their fraught ties, Beijing and Tokyo's relationship became more antagonistic in 2020. General Secretary Xi was slated to visit Japan for a summit in 2020, which would have marked the first Chinese state visit to Japan in 12 years. The summit, long under preparation, was postponed due to the outbreak of COVID-19.[238] The bilateral relationship deteriorated following the postponed summit. In April, Japan earmarked $2.2 billion as part of an economic stimulus package to help manufacturers shift production out of China, prompting an angry response from Beijing.[239] In June, the Japanese Defense Ministry announced plans to create a post for Association of Southeast Asian Nations (ASEAN) affairs designed to counter Beijing's growing military power in the Indo-Pacific.[240] In August, Shinzo Abe, Japan's longest-serving prime minister, announced his retirement, with his former Chief Cabinet Secretary

*"Quad Plus" groupings conducted teleconferences at least three times between March and May 2020. The first meeting occurred on March 21 and included the Quad countries plus New Zealand, South Korea, and Vietnam. The second meeting occurred on March 28 and included the same grouping. The third meeting, which was the first at the foreign minister level, occurred on May 11 and included the Quad countries plus Brazil, Israel, and South Korea. Indrani Bagchi, "Focus on COVID in Quad Plus Meet," *Times of India*, May 13, 2020; Indrani Bagchi, "New Alliances, Grouping Being Created in Response to COVID-19," *Times of India*, May 14, 2020; Indrani Bagchi, "India, Quad-Plus Countries Discuss COVID-19 Battle, Economic Resurgence," *Times of India*, March 28, 2020; Indrani Bagchi, "India Joins Hands with NZ, Vietnam, S Korea to Combat Pandemic," *Times of India*, March 21, 2020.

Yoshihide Suga succeeding him in September.[241] The implications of this leadership change for the trajectory of Sino-Japanese relations remain unclear.[242]

Bilateral tensions also deepened over Beijing's expansive claims in the East China Sea as Chinese intrusions into waters and airspace near the Japan-administered Senkaku Islands and into Japanese airspace reached historic highs. As of December 2019, Chinese maritime incursions near the Senkaku Islands reached their highest level since 2012, the year Chinese maritime law enforcement and other ships began regularly entering those waters.[243] According to the Japan Coast Guard, Chinese government ships had entered waters near the islands more than 1,000 times in 2019, a roughly 80 percent increase over China's intrusions the previous year.[244] In May 2020, two China Coast Guard ships entered waters near the Senkaku Islands and attempted to evict a Japanese fishing boat operating there before being warded off by the Japan Coast Guard.[245] This was the fifth time since 2013 that China Coast Guard vessels pursued Japanese fishing boats around the Senkaku Islands.[246] In July, describing the increase in Chinese incursions near the Senkaku Islands as "unprecedented," the commander of U.S. forces in Japan reiterated Washington's "100%" commitment to assist Japan in the case of conflict with China.[247]

China also increased military pressure on Japan through a rare submarine deployment and military flights near Japanese airspace. In June, Japanese forces detected a submarine they believed to be Chinese operating off the coast of Amami Oshima, an island located between Kyushu (one of Japan's five main islands) and Okinawa, representing the first intrusion since 2018 of a Chinese submarine into waters within Japan's contiguous zone.[248] Beijing also continued conducting military training and intelligence collection flights near Japan, with Japan Air Self Defense Forces scrambling 675 times to intercept Chinese fighter jets between April 2019 and March 2020, a 6 percent increase compared with the same period the previous year.[249]

Increasing Pushback against China's Coercion in Southeast Asia

Over the past year, Beijing's increasingly aggressive efforts to buttress its unlawful maritime claims and activities in the South China Sea prompted significant diplomatic criticism from countries in Southeast Asia. China's actions included intensive coercion by its coast guard and naval fleet, likely accompanied by diplomatic threats, that successfully prevented other countries from exploiting natural resources in their own exclusive economic zones (EEZs).[250]

In continental Southeast Asia, China deepened military ties with Cambodia although its standing in the region suffered from revelations by a U.S.-funded research report that China's damming of the Mekong River had likely exacerbated a 2019 regional drought.[251] The report deepened a rift between China and Lower Mekong countries, as Thailand withdrew support for Chinese plans to deepen parts of the Mekong, Vietnam sought intervention from ASEAN against Beijing's control of the waterway, and the multilateral Me-

kong River Commission* urged Beijing to cease withholding data on the amount of water held back by China's dams.[252] In September 2020, the United States launched the Mekong-U.S. Partnership; announced increased U.S. aid on issues such as water security; and held the partnership's inaugural Ministerial Meeting, which was attended by representatives from Cambodia, Laos, Myanmar, Thailand, and Vietnam.[253]

Large-Scale Coercion in the South China Sea

In 2020, Beijing took sweeping coercive actions to assert its expansive territorial and maritime claims in the South China Sea, incurring significant diplomatic costs. In April, Beijing established two new administrative districts and named 80 additional maritime features in the Paracels and Spratlys, the first time it had named new features since 1983.†[254] The governments of the Philippines and Vietnam both protested, with Manila refusing to recognize the new districts and Hanoi demanding Beijing "abolish its wrongful decisions."[255] These actions followed China establishing two scientific research centers in the Spratlys in March, ostensibly to monitor local ecosystems but that likely also have capabilities to gather hydrographic data relevant for submarine operations.‡[256]

As in years prior, China's efforts to assert control targeted energy exploitation in the South China Sea. In testimony before the Commission, Bill Hayton, associate fellow for the Asia-Pacific Program at Chatham House, described China's multilevel pressure on Vietnam as a particularly notable example of its coercion this year. Following years of acute pressure on the Vietnamese government and its foreign energy exploration partners, Vietnamese state-owned energy company PetroVietnam canceled new drilling with Russian partner Rosneft in an oil field within Vietnam's EEZ that had been operating for 18 years.[257] According to Mr. Hayton, oil industry observers assumed "this was again due to political pressure on the Vietnamese government."§[258] China's efforts have not been universally success-

*The Mekong River Commission is an intergovernmental body that works with Cambodia, Laos, Thailand, and Vietnam. Panu Wongcha-um, Prak Chan Thul, and James Pearson, "Mekong River Groups Urge China to Show Transparency after Dam Report," *Reuters*, April 15, 2020.

†The 80 features are a combination of rocks, low-tide elevations, and underwater features such as seamounts. Under the UN Convention for the Law of the Sea, rocks are entitled to only a territorial sea, a 12-nautical-mile area extending from a country's coastline considered to be its sovereign territory. Low-tide elevations and underwater features do not qualify as islands under the UN Convention for the Law of the Sea, and are thus not entitled to a territorial sea, contiguous zone, exclusive economic zone, or continental shelf. Furthermore, China's attempt to buttress its territorial claims by unilaterally naming the features holds no legal weight. According to judicial precedent for sovereignty disputes, unilateral actions by a claimant state are legally "meaningless" if they are taken after the "critical date" when a dispute arose and are "strictly with the aim of buttressing those claims" or "undertaken for the purpose of improving the legal position" of the claimant. Drake Long, "Sandbars, Submerged Reefs, and Underwater Canyons: China's New Claims in the South China Sea," *Radio Free Asia*, 2020; United Nations, "United Nations Convention of the Law of the Sea," December 10, 1982, 1833 U.N.T.S. art, 2; United Nations, "United Nations Convention of the Law of the Sea," December 10, 1982, 1833 U.N.T.S. art, 13, 121; Jonathan G. Odom, "How a 'Rules-Based' Approach Could Improve the South China Sea Situation," in *Perspectives on the South China Sea*, Murray Hiebert, Phuong Nguyen, and Gregory B. Poling, eds., Center for Strategic & International Studies, September 2014, 121–22.

‡The 2020 National People's Congress all but confirmed these research centers will support China's military and paramilitary coercion. Under a law passed in June, all administrative districts must furnish the People's Armed Police, including the China Coast Guard, with meteorological, hydrographic, and environmental data, such as that collected by the two new research centers. China's Ministry of Justice, *People's Armed Police Law of the People's Republic of China*, June 20, 2020.

§China has employed military and paramilitary coercion, including through military leader visits, to force Vietnam to restrain its own companies from drilling in the South China Sea for years.

ful. In October 2020, Philippines President Rodrigo Duterte lifted a drilling moratorium first imposed in 2015 despite General Secretary Xi reportedly threatening the Philippines with war in 2017 should it resume drilling.[259]

China's aggressive actions in the South China Sea in 2020 also included physical attacks and overt threats. A Chinese survey ship operated for months in Vietnam's EEZ, while in April a China Coast Guard vessel rammed and sank a Vietnamese fishing boat operating in waters claimed by Vietnam near the Paracels.*[260] In May, a PLA Navy frigate reportedly aimed its fire-control radar† at a Philippine corvette, which Philippines military officers interpreted as a threat to fire on the vessel.[261] The Philippines Department of Foreign Affairs issued statements of support and solidarity with Vietnam after the China Coast Guard sank the Vietnamese fishing vessel, and Manila lodged diplomatic protests against China for its new administrative claims and the fire-control radar incident.[262]

China's Coercion of Malaysia over Oil and Gas Exploration

China's standoff with Malaysia from late 2019 to early 2020 offers a notable example of how Chinese maritime forces attempted to prevent other countries from undertaking new oil and gas exploration in the South China Sea, seizing on opportunities to undermine U.S. regional influence in the process.[263] In December 2019, China Coast Guard vessels began a two-phase, months-long harassment campaign against a Malaysian drillship operating in the Malaysia-Vietnam Joint Defined Area, an area located approximately 700 nautical miles from China's Hainan Island where Malaysia and Vietnam resolved overlapping EEZ claims with an agreement for shared development.[264]

The first phase of China's harassment campaign began in December 2019, the same month Malaysia submitted information to the UN extending its continental shelf and EEZ claims.[265] Around the same time, Beijing dispatched China Coast Guard vessels to harass a Malaysian drillship operating in the Malaysia-Vietnam Joint Defined Area within Malaysia's presubmission EEZ. The Chinese deployment began a month-long standoff that did not end until the Royal Malaysian Navy dispatched a destroyer in January, prompting the China Coast Guard vessels to withdraw.[266]

The second phase of China's harassment campaign began on April 13 when Beijing dispatched a survey ship with a China Coast Guard and maritime militia escort near the Malaysian

According to Mr. Hayton, Vietnam canceled a drilling project in 2017 after Beijing communicated a "specific threat to attack" one of Vietnam's stilt platforms situated in shallow waters around a key drilling area in its EEZ. In 2019, a Chinese ship rammed and sank a Philippine fishing boat anchored near Reed Bank in the Philippines' EEZ. See Bill Hayton, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on U.S.-China Relations in 2020: Enduring Problems and Emerging Challenges*, September 9, 2020, 6; Renato Cruz De Castro, "Incident at Reed Bank: A Crisis in the Philippines' China Policy," *Asia Maritime Transparency Initiative*, June 20, 2019.

*Chinese vessels previously rammed and sank a Vietnamese boat in 2014. See *BBC News*, "Vietnam Boat Sinks after Collision with Chinese Vessel," May 27, 2014.

†A fire-control radar is an electronic device that tracks targets and transmits data for calculating firing trajectories. U.S. Navy, *Fire Controlman, Volume 2—Fire-Control Systems and Radar Fundamentals,* April 2003.

China's Coercion of Malaysia over Oil and Gas Exploration—*Continued*

drillship, ostensibly on a survey mission.[267] On April 18, U.S. Navy warships approached the area to counterbalance China Coast Guard activities, starting a series of pass-through operations that leveraged other U.S. Navy warships and Air Force bombers to maintain a U.S. military presence near the Malaysian drillship through May 12, when the drillship left the area.[268]

On April 23, the Malaysian Minister of Foreign Affairs issued a statement calling on "all parties," including China and the United States, to work together for South China Sea stability.[269] In this and all prior statements, the Malaysian foreign ministry declined to acknowledge publicly that Chinese vessels were engaged in any conflict, standoff, or illegal activity in the area.[270] Chinese vessels did not withdraw until May 15, following a call between the Chinese and Malaysian defense ministers and a public statement from the Malaysian defense ministry, which did not acknowledge the pressure campaign and instead expressed "gratitude to the medical aid sponsored by China" and "mutual interest" in South China Sea stability.[271]

Countries Align Their Policies with the 2016 Permanent Court of Arbitration Decision

China's actions in the South China Sea drew significant diplomatic rebukes as regional countries, the United States, and European countries endorsed the 2016 Permanent Court of Arbitration decision that invalidated significant elements of China's expansive "nine-dash line" maritime claims.*[272] In March, the Philippines submitted a note verbale to the UN reiterating its position that the 2016 decision "conclusively settled the issue of historic rights and maritime entitlements in the South China Sea," marking a shift from prior policy to ignore the ruling in an effort to appease Beijing.[273] Later that month, Vietnam submitted a similar note to the UN objecting to multiple elements of China's claims in the South China Sea and for the first time tacitly supporting the 2016 ruling.[274] The protest established a new official Vietnamese position that no Spratly or Paracel feature, including those claimed by Vietnam, is entitled to an EEZ or continental shelf.[275] In May, Indonesia also submitted a note to the UN rejecting China's claim to "historical rights" in the South China Sea and endorsing the Permanent Court of Arbitration's ruling.[276] In June, the U.S. mission to the UN submitted a note rejecting China's claim to "historical rights" and additional claims of internal waters between features in the South China Sea.[277]

On July 13, Secretary Pompeo articulated a new position aligning U.S. policy with the 2016 Permanent Court of Arbitration ruling by

*As of September 2020, Australia, France, Germany, Indonesia, Malaysia, the Philippines, the United States, the UK, and Vietnam have all endorsed the 2016 Permanent Court of Arbitration ruling's determination that China's claim to historic rights in the South China Sea is illegal. With the exceptions of France, Germany, and Malaysia, these countries, along with Canada and Japan, have stated that China must comply with this ruling. See Asia Maritime Transparency Initiative, "Who's Taking Sides on China's Maritime Claims?" September 24, 2020.

designating many of China's claims to offshore resources in the South China Sea "unlawful" and condemning Beijing's "bullying campaign" to control those resources.[278] Following the announcement, India expressed tacit support for the U.S. position by reiterating that the Indian government supports freedom of navigation in the South China Sea, while Vietnam's foreign ministry issued a statement supporting the U.S. position insofar as it is in line with international law.[279] In late July, both Australia and Malaysia issued diplomatic notes explicitly affirming the 2016 ruling and rejecting China's claims to historic rights in the South China Sea.[280] The new Australian position went further than the U.S. position by also rejecting Chinese claims that Beijing's sovereignty over artificial islands is "widely recognized by the international community."[281] On September 16, the UK, Germany, and France also issued joint diplomatic notes to the UN rejecting China's claims to "historic rights" in the South China Sea as noncompliant with international law.[282]

China's actions in the South China Sea also halted a breakdown of U.S.-Philippines defense cooperation. In early June 2020, President Duterte chose to retain the longstanding Visiting Forces Agreement with the United States, which he had previously declared in February he would terminate in favor of closer relations with China.[283] Experts suggested the decision reflected a recognition in Manila that Washington remained a necessary partner to deter Beijing.[284]

Beijing Escalates Tensions with New Delhi

In 2020, Sino-Indian relations suffered their worst year in decades. In June, Chinese and Indian soldiers engaged in a deadly clash on their border, the first confrontation since 1975 that resulted in loss of life on either side.[285] Tanvi Madan, senior fellow at the Brookings Institution, argued in her testimony before the Commission that this clash marked a "turning point" in the Sino-Indian relationship and that it was unlikely the relationship would return to normal.[286] Shortly after the skirmish, New Delhi announced plans to ban 59 apps developed by Chinese firms, including TikTok, a major Chinese video sharing and social media app that counted India as its largest overseas market.*[287] In September, India banned 118 additional Chinese apps, arguing they were "hostile to national security."[288]

The COVID-19 pandemic also accelerated calls in New Delhi to limit India's economic dependence on China. As the virus spread across India, in April New Delhi announced a $394 million plan to manufacture active pharmaceutical ingredients domestically rather than import them from China.[289] In June, the Indian government announced restrictions on Indian state-run companies working with Chinese technology companies such as Huawei and ZTE for any new 4G mobile networks.[290] Indian officials also reportedly warned Indian telecoms operators against working with Chinese companies

*TikTok had more than 200 million users in India prior to the ban, which some estimated will cause the company to lose up to $6 billion in revenue. Other prominent apps banned by the Indian government include Baidu, WeChat, and Alipay. Arjun Kharpal, "India Bans 118 Chinese Apps, Including Tencent's Hit Games, as Border Tensions Flare Up," *CNBC*, September 2, 2020; Zack Doffman, "TikTok May Lose Up to $6 Billion as Result of India Ban; Users Urged to Delete App," Forbes, July 4, 2020; Manish Singh, "TikTok Goes Down in India, Its Biggest Overseas Market," *TechCrunch*, June 30, 2020.

in the rollout of new 5G networks.* In August, New Delhi barred Indian state-owned enterprises from using Chinese tankers to ship crude oil and petroleum products and has sought to partner with Japan and Australia to establish a "supply chain resilience initiative" likely aimed at limiting their economic dependence on China.[291] Even before the pandemic, in October 2019 the Indian government made moves to restrict academic collaboration with Chinese institutions, requiring universities to obtain approval from two separate Indian ministries before entering into academic cooperation agreements with Chinese institutions.[292]

The Most Severe Border Crisis in Decades

In June 2020, the PLA and Indian troops engaged in a massive physical brawl in the Galwan Valley, located in the far-western Ladakh region along the Line of Actual Control (LAC) separating the two countries.† The clash, which followed a series of standoffs beginning in early May along multiple sectors of the LAC, led to at least 20 Indian deaths and an unconfirmed number of Chinese casualties, the first time since 1975 that lives were lost in fighting between the two sides.‡[293] According to Dr. Madan, if China's goal from its actions was "to acquire territory… [the Chinese government] might deem the moves a success."[294] If Beijing intended to dissuade India from building infrastructure on its side of the LAC or warn it against aligning with the United States, however, "then the Chinese moves have been ineffective, if not counterproductive."[295]

Some evidence suggested the Chinese government had planned the incident, potentially including the possibility for fatalities. For instance, several weeks prior to the clash Defense Minister Wei made his statement encouraging Beijing to "use fighting to promote stability."[296] Just over two weeks before the incident, in another potential indication of Chinese leaders signaling their intent to escalate tensions, an editorial in China's state-owned tabloid *Global Times* warned that India would suffer a "devastating blow" to its trade and economic ties with China if it got "involved in the U.S.-China rivalry."[297] Satellite images depicted a large Chinese buildup in the Galwan Valley, including potentially 1,000 PLA soldiers, the week before the deadly skirmish.[298]

China and India have engaged in multiple physical clashes along their border for decades, but since General Secretary Xi assumed power in 2012 the two countries have seen five major altercations§

*As recently as December 2019, Huawei and ZTE were welcomed to participate in India's 5G trials. Liza Lin, "China Tech Firms Face Backlash over Beijing's Policies," *Wall Street Journal*, June 22, 2020.

†The LAC is the demarcation that separates Indian-controlled territory from Chinese-controlled territory on the two countries' shared border. It is made up of three sectors: eastern, middle, and western. The two countries do not agree on many details of the LAC, including the exact length. Beijing and New Delhi have been unable to overcome their differences despite signing agreements and committing to various confidence-building measures. Ananth Krishnan, "The Hindu Explains | Who Does Galwan Valley Belong To?" *Hindu*, June 21, 2020; Sushant Singh, "Line of Actual Control: Where It Is Located, and Where India and China Differ," *Indian Express*, June 1, 2020; Dean Cheng and Lisa Curtis, "The China Challenge: A Strategic Vision for U.S.-India Relations," *Heritage Foundation*, July 18, 2011; Lisa Curtis, "U.S.-India Relations: The China Factor," *Heritage Foundation*, November 25, 2008.

‡Beijing has not confirmed deaths on its side. Unconfirmed reports from Indian media assert that the PLA lost 43 soldiers. *Asian News International*, "China Suffered 43 Casualties in Violent Face-Off in Galwan Valley, Reveal Indian Intercepts," June 16, 2020.

§These altercations include the 2020 Sino-Indian clash, the 2017 Doklam standoff, the 2015 Burtse incident, the 2014 Demchok standoff, and the 2013 Daulat Beg Oldi and Chumar stand-

along their border. The exact motivations behind the Chinese government's provocative behavior on the LAC this year remain unclear. The proximate cause of the clash appeared to be India's construction of a strategic access road to support troops stationed along the LAC. China has also built extensive infrastructure along the LAC in recent years.[299] In the aftermath of the clash, Beijing asserted sovereignty over the entire Galwan Valley, a new claim and significant change to the territorial status quo.[300]

Tensions have increased since the initial clash, with China reportedly building up its troop presence along the LAC since July.*[301] In September, shots were fired for the first time since 1975 along the border around Pangong Tso, a strategic area near the site of the clash in June.[302] Although no injuries were reported, both sides accused each other of violating a 1996 agreement barring the use of firearms along the LAC.[303] An Indian special forces soldier of Tibetan origin† also died along the LAC, reportedly from a landmine blast.[304] In an unusual move, India allowed the soldier's funeral to be publicized and dispatched a high-ranking official from India's ruling party to attend.[305] On September 10, the Chinese and Indian foreign ministers met in Moscow on the sidelines of the annual Shanghai Cooperation Organization summit and pledged to defuse tensions, with Beijing agreeing to release five Indian nationals it had captured along the border.[306] Despite this agreement, China subsequently conducted war games in Tibet.[307]

Political Friction and Cooling Trade Ties with North Korea

Although rhetoric between General Secretary Xi and North Korean leader Kim Jong Un remained publicly effusive in 2020, the countries' responses to the COVID-19 pandemic posed significant obstacles to bilateral trade and revealed small political rifts between the two countries. On the surface, the two leaders issued supportive statements to one another in 2020, with Kim sending a message of condolence to Xi in February regarding the COVID-19 outbreak and the two leaders exchanging letters in early May expressing mutual congratulations for successes managing COVID-19.[308]

Yet economic exchange between the two countries fell after North Korea closed its borders to China in January, ranking among the first countries to do so, with strict limits on imported goods.[309] Com-

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offs. The altercations have occurred despite Beijing and New Delhi agreeing to use "border personnel meetings" between local commanders to diffuse tensions along the LAC. Meetings include "flag meetings," convened to resolve urgent issues, and "scheduled meetings," which take place four times a year. In addition, as part of a 1996 agreement, Chinese and Indian troops are not permitted to carry firearms on the LAC in a further attempt to reduce tensions. Will Green, "Conflict on the Sino-Indian Border: Background for Congress," *U.S.-China Economic and Security Review Commission*, July 2, 2020; *New Indian Express*, "India-China Border Standoff: After Diplomatic Negotiations, Now Army-Level Meet on Saturday," June 6, 2020.

*In July, the *Times of India* reported that China had deployed roughly 40,000 troops to the Ladakh region after the two sides agreed to disengage from the area in the aftermath of the clash. *Times of India*, "China Not De-escalating, Still Has Heavy Troop Presence on Ladakh Front: Sources," July 22, 2020.

†The solider belonged to the Special Frontier Force, an elite commando unit set up in the aftermath of the 1962 Sino-Indian war. The force consists mostly of ethnic Tibetans and was trained by the Central Intelligence Agency until 1972. China is particularly sensitive to ethnic Tibetans serving in foreign militaries. Reacting to the news of the soldier's death, China's Ministry of Foreign Affairs spokeswoman said, "We are firmly opposed to any country, including India, supporting the secession activities of Tibetan pro-independence forces or providing them with any assistance or physical space." Yang Ming, "Death of Tibetan Commando Offers Insight into Little-Known Elite Indian Force," *Voice of America*, September 18, 2020.

pared to the same periods in 2019, China-North Korea trade volume fell by 28 percent over January and February 2020, by 55.5 percent in March 2020, and by 66.6 percent in April 2020.[310] Also in April, North Korean leader Kim was absent from North Korean public view for an unusual three-week stretch. After his reappearance, a research fellow from the China Institute of International Studies, a think tank administered by the Ministry of Foreign Affairs, publicly questioned the North Korean regime's durability due to Kim's health, a diplomatic affront potentially revealing China's skepticism toward the North Korean regime or toward the North Korean leader himself.[311]

An Openly Confrontational U.S.-China Relationship

The U.S.-China relationship grew openly confrontational in 2020 as both governments characterized the other in sharply adversarial terms and unfavorable views toward China among the U.S. public reached a new historic high. The Chinese government's attempts to cover up and redirect blame for the COVID-19 outbreak helped crystallize the increasingly negative U.S. government and public views. In the early stages of the outbreak, authorities in Beijing rejected U.S. offers of assistance while withholding key data on the spread of the disease, building suspicion about the CCP's handling of the crisis and making its growth to global pandemic status more likely.[312]

Once it became clear that COVID-19 was not contained, Chinese diplomats initiated a campaign to blame the evolving pandemic on the United States. In the second week of March, Ministry of Foreign Affairs spokesperson Zhao Lijian used Twitter to spread an unsubstantiated rumor that COVID-19 had originated in the United States.[313] In a series of five posts shared nearly five million times in the ensuing two days, he claimed the United States owed China an explanation for covering up information on patient zero and urged his then over 287,000 followers to spread the accusation.[314] Meanwhile, the Chinese Embassy in France posted a series of tweets suggesting the virus escaped from a lab in Maryland and claiming the United States had covered up the outbreak by reporting it as the flu.[315]

Chinese actors also launched cyberattacks against U.S. organizations involved in COVID-19 research to gain the upper hand in the race to a vaccine. In April, the Trump Administration blamed Chinese cyberactors for a wave of cyberattacks on hospitals and other healthcare providers, research laboratories, and pharmaceutical companies, as well as a series of daily strikes against the U.S. Department of Health and Human Services.[316] On May 13, the U.S. Federal Bureau of Investigation and Cybersecurity and Infrastructure Security Agency announced a formal investigation into attempts by People's Republic of China-affiliated cyberactors to illicitly obtain intellectual property and public health data related to vaccines, treatments, and testing for COVID-19.[317] The attacks on COVID-19-related information began as early as January, although Chinese cyberactors had targeted U.S. biomedical research long before COVID-19.[318] China's Ministry of Foreign Affairs accused the U.S. of rumor-mongering and claimed to be opposed to cyberattacks in all forms.[319]

Existing U.S.-China Tensions Worsen

Tension over the pandemic highlighted friction in other dimensions of the U.S.-China relationship. Diplomatic language between the United States and China turned more openly confrontational, evidenced by Beijing's ad hominem attacks on top U.S. leaders. In June and July, high-level members of the Trump Administration delivered a series of speeches on China policy, focusing specifically on the actions of the CCP and calling attention to China as a priority national issue.

On June 24, National Security Advisor Robert O'Brien delivered a speech in which he warned Americans that the CCP seeks economic, political, physical, and ideological control over people both at home and abroad and compared General Secretary Xi to Joseph Stalin.[320] In a speech on July 7, Federal Bureau of Investigation Director Christopher Wray called the threat of espionage from China the "greatest long-term threat" to U.S. information, intellectual property, and economic vitality.[321] On July 16, U.S. Attorney General William Barr spoke on economic issues and the United States' response to the CCP's global ambitions, which he called "the most important issue for our nation and the world in the twenty-first century."[322] On July 23, Secretary Pompeo concluded the series with an address at the Richard Nixon Presidential Library and Museum. Using the words of President Nixon, he insisted "the world cannot be safe until China changes" and stated that "securing our freedoms from the Chinese Communist Party is the mission of our time."[323]

Policy developments in the United States mirrored the change in tone. In May, the White House issued an order suspending visas for particular categories of approximately 3,000 Chinese students seeking to study in the United States out of concern that some Chinese postgraduate students were using research and study in the United States to collect intellectual property in support of the Chinese government and PLA.[324] Throughout July and August, U.S. government agencies implemented a series of measures against Chinese entities involved in human rights violations in Xinjiang, repression in Hong Kong, and unlawful construction activities in the South China Sea. Entities sanctioned regarding Xinjiang human rights violations included three senior CCP officials, the Xinjiang Public Security Bureau, and the Xinjiang Production and Construction Corps.[325] On July 20, the U.S. Department of Commerce added to the Entity List 11 Chinese companies also implicated in Xinjiang human rights violations.*[326]

On August 7, the U.S. Department of the Treasury imposed sanctions on 11 officials from China and Hong Kong, including Hong Kong Chief Executive Carrie Lam, for actions undermining Hong Kong's autonomy and Hong Kong citizens' right to free expression.[327] On August 17, Beijing retaliated by announcing unspecified sanctions

*According to the Treasury Department, "The Entity List is a tool utilized by BIS to restrict the export, reexport, and transfer (in-country) of items subject to the Export Administration Regulations to persons (individuals, organizations, companies) reasonably believed to be involved, or to pose a significant risk of becoming involved, in activities contrary to the national security or foreign policy interests of the United States. Additional license requirements apply to exports, reexports, and transfers (in-country) of items subject to the Export Administration Regulations to listed entities, and the availability of most license exceptions is limited." U.S. Department of Commerce, "Commerce Department Adds Eleven Chinese Entities Implicated in Human Rights Abuses in Xinjiang to the Entity List," July 20, 2020.

against 11 U.S. individuals, including six members of Congress and the heads of five organizations promoting democratic causes,* whom it accused of interfering in China's internal affairs with regard to Hong Kong.[328] On August 26, the Commerce Department added 24 Chinese companies to the Entity List for their role in helping construct and militarize artificial islands in the South China Sea.[329] The list included five subsidiaries of China Communications Construction Corporation, a major contractor for BRI projects that has built ports around the world and supplied cranes and other services to U.S. ports.[330]

The United States also took steps to address concerns over China's widespread espionage and influence operations. On July 22, the United States directed the Chinese government to close its consulate in Houston, Texas, accusing it and other Chinese diplomatic missions in the United States of economic espionage and visa fraud.[331] The decision prompted angry reactions from China's Foreign Ministry spokesperson and the Chinese Embassy in the United States.[332] In retaliation, the Chinese government ordered the United States to close its consulate in Chengdu.†[333] On August 13, the State Department designated the Confucius Institute U.S. Center, the Washington, DC-based de facto headquarters of China's Confucius Institute network, as a foreign mission of the People's Republic of China.[334] Under the new designation, the Confucius Institute U.S. Center is required to inform the State Department regularly about its personnel, recruiting, funding, and operations in the United States.[335]

Military tension also continued between the two sides. In his remarks at the Munich Security Conference on February 15, U.S. Secretary of Defense Mark Esper referred to China as "the Pentagon's top concern."[336] He urged the international community to "wake up to the challenges presented by China's manipulation of the long-standing international, rules-based order" while calling upon the Chinese government to "be transparent and respect the sovereignty, freedom, and rights of all nations."[337] Meanwhile, the PLA decried the U.S. Navy's continuing high rate of freedom of navigation operations in the South China Sea, where the United States publicly reported eight such operations between January 1 and October 12, 2020.[338]

Media Challenges and Expulsions

Beijing responded forcefully to U.S. efforts to establish reciprocal U.S.-China media access. On February 18, following long-term frictions over extremely limited U.S. media access in China, the State

*Sanctioned members of Congress include Senators Tom Cotton, Ted Cruz, Josh Hawley, Marco Rubio, and Patrick Toomey, and Representative Chris Smith. Sanctioned organization heads include Michael Abramowitz, President of Freedom House; Carl Gershman, President of the National Endowment for Democracy; Derek Mitchell, President of the National Democratic Institute; Kenneth Roth, Executive Director of Human Rights Watch; and Daniel Twining, President of the International Republican Institute. *Associated Press*, "China Sanctions 11 US Politicians, Heads of Organizations," August 10, 2020.

†The U.S. consulate in Chengdu, whose consular district included the Tibet Autonomous Region, Chongqing municipality, and Sichuan, Yunnan, and Guizhou provinces, played a crucial role in the United States' ability to monitor Chinese government abuses of China's Tibetan population. Keith Bradsher and Steven Lee Myers, "China Orders U.S. to Shut Chengdu Consulate, Retaliating for Houston," *New York Times*, July 24, 2020; Evelyn Cheng, "China Orders U.S. to Close a Consulate After U.S. Demands it Shutter Houston Outpost," *CNBC*, July 24, 2020.

Department designated five Chinese state-run media organizations* as foreign missions, noting that they are subject to the control of the Chinese government.[339] In response, the next day China expelled three Wall Street Journal reporters from the country, with the Chinese foreign ministry claiming the expulsions were in response to a provocative opinion piece the Wall Street Journal had published.[340]

Less than two weeks after the expulsion, Secretary Pompeo implemented a personnel cap of 100 Chinese citizens on the same five Chinese state-run media organizations to establish reciprocity with China's restrictions on foreign media.[341] China's foreign ministry called the cap "oppression" and on March 18 enacted "countermeasures" by demanding operational and financial information from five U.S. media outlets in addition to expelling at least 13 reporters from the New York Times, Washington Post, and Wall Street Journal, representing nearly all reporters from those outlets in the country.[342] On June 22, the State Department designated an additional four Chinese state-run media outlets as foreign missions.†[343]

*These include Xinhua News Agency, China Global Television Network, China Radio International, China Daily Distribution Corporation, and Hai Tian Development USA, which is the U.S. distributor for the *People's Daily*.

†These include the U.S. operations of China Central Television, China News Service, the *People's Daily*, and the *Global Times*.

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342. China's Ministry of Foreign Affairs, "China Takes Countermeasures against the U.S. Actions to Suppress Chinese Media in the United States" (中方针对美方打压中国媒体驻美机构行为采取反制措施), May 18, 2020; Foreign Correspondents Club, Hong Kong, "FCCC Statement on Expulsions from China of Journalists of Three U.S. Newspapers," March 18, 2020; *Xinhua*, "China Condemns U.S. Political Oppression against Chinese Media in the Country," March 4, 2020.

343. Morgan Ortagus, "Designation of Additional Chinese Media Entities as Foreign Missions," *U.S. Department of State*, June 22, 2020.

SECTION 2: CHINA'S GROWING POWER PROJECTION AND EXPEDITIONARY CAPABILITIES

Key Findings

- Recent advances in equipment, organization, and logistics have significantly improved the People's Liberation Army's (PLA) ability to project power and deploy expeditionary forces far from China's shores. A concurrent evolution in military strategy requires the force to become capable of operating anywhere around the globe and of contesting the U.S. military if called upon to do so. Chinese leaders have vigorously pushed the PLA to develop power projection and expeditionary capabilities over the last 20 years.
- China's power projection capabilities are developing at a brisk and consistent pace, reflecting the civilian leadership's determination to transform the PLA into a global expeditionary force in a matter of decades. In the short term (next five years), the PLA will focus on consolidating the capabilities that would enable it to conduct large-scale military operations around its maritime periphery. In the medium term (next 10–15 years), the PLA aims to be capable of fighting a limited war overseas to protect its interests in countries participating in the Belt and Road Initiative (BRI). By mid-century, the PLA aims to be capable of rapidly deploying forces anywhere in the world.
- China's basing model includes military facilities operated exclusively by the PLA as well as civilian ports operated or majority-owned by Chinese firms, which may become dual-use logistics facilities. Chinese firms partially own or operate nearly 100 ports globally, more than half of which involve a Chinese state-owned enterprise (SOE).
- Despite the PLA's progress in building expeditionary capabilities, it continues to face a number of challenges in projecting power. These challenges grow more pronounced the farther away the PLA operates from China's immediate periphery and include inadequate airlift, sealift, at-sea replenishment, and in-air refueling capabilities.
- China's power projection capabilities are robust in East and Southeast Asia, where it is building military bases. In the Indian Ocean, the PLA deploys naval task forces that regularly operate for seven to eight months as far away as Africa's eastern seaboard. While the PLA's power projection capabilities diminish the farther it operates from China, it is beginning

to develop the ability to project power in the South Atlantic, where it occasionally conducts naval operations, makes port calls, and carries out military exercises with local partners. In Latin America and the Caribbean, where PLA power projection capabilities are weakest, the force is cultivating political influence and greater access to the region that will complement the satellite tracking station it already maintains in Argentina.

Introduction

China has made recent changes to its military strategy, equipment, and global posture that enable it to project power at greater distances from its shores. Following four decades of military modernization and his predecessor's guidance that the PLA safeguard the Chinese Communist Party's (CCP) expanding global interests, General Secretary of the CCP Xi Jinping has prioritized the development of what he calls a "world-class military" to support his ambitions for national rejuvenation.[1] PLA strategists argue that a world-class military must possess a blue-water navy as well as air and ground forces capable of conducting expeditionary operations on faraway continents.[2] The PLA has sought to develop these capabilities by making significant changes to its equipment, training, and internal organization according to a timeline that envisions China projecting forces around the globe by the middle of the century. Two unique and important dimensions of the PLA's capability-building efforts are its incorporation of emerging technologies, particularly in the cyber and space domains, and its reliance on ostensibly civilian entities as a force enabler.

CCP leaders see the PLA as having three main strategic requirements related to the projection of military power: defending sovereign territory as the CCP defines it; delaying or denying potential threats or intervention by other powers, such as the United States; and protecting China's overseas economic interests, which include sea lines of communication (SLOCs). They also want the PLA to support activities in the gray zone and to use its military assets for political signaling.

While the PLA already possesses robust power projection capabilities in East and Southeast Asia, it is working to establish the capability to project power and conduct expeditionary operations in the Indian Ocean region, Africa, and even as far as Latin America and the Caribbean. To prepare the groundwork for a future network of overseas military bases and dual-use logistics facilities, the PLA uses its soft power—in the form of traditional military diplomacy and humanitarian activities—to burnish its image and sway local officials. The PLA's attempts to generate such soft power reinforces China's broader influence-building activities in BRI countries and around the world.

This section first examines why China is developing power projection and expeditionary capabilities before assessing how changes to equipment, force structure, and the PLA's use of civilian assets will enable it to develop these capabilities. It then surveys the PLA's global power projection activities spanning the Taiwan Strait to Latin America and the Caribbean. The section

concludes by considering the implications of the PLA's growing power projection and expeditionary capabilities for the United States. This section is based on the Commission's February 2020 hearing on this topic, contracted research, as well as open source research and analysis.

Power Projection Serves Beijing's Strategic Requirements

China's pursuit of power projection and expeditionary capabilities is driven primarily by three strategic requirements the CCP feels it must address to manage threats and opportunities in its security environment. One of these strategic requirements—resolving territorial disputes—has existed since the People's Republic of China's establishment in 1949. By contrast, the second and third—denying U.S. forces space to operate and protecting overseas commercial interests—emerged in the 1990s as Beijing refocused its attention on the United States as its primary military threat and China became integrated with the global economy. Indeed, it was only in the last 20 years that the PLA fielded capabilities allowing any significant degree of power projection.

Defining Power Projection and Expeditionary Capabilities

The U.S. Department of Defense (DOD) defines power projection as "the ability of a nation … to rapidly and effectively deploy and sustain forces in and from multiple dispersed locations to respond to crises, to contribute to deterrence, and to enhance regional stability."[3] An important subset of power projection is expeditionary warfare, which DOD defines as "military operations conducted by an armed force to accomplish a specific objective in a foreign country."[4]

China's power projection activities fall into four categories, Admiral (Ret.) Dennis Blair testified to the Commission. The first type of activity, which is the most peaceful and smallest in scale, includes "rescue operations, humanitarian response and peace[keeping] operations (PKOs)," such as China's PKOs in Africa and its noncombatant evacuation operations in Yemen and Libya. The second type is "symbolic show[s] of force, political intervention, and coercive threat[s]," such as China's visits to foreign ports and submarine deployments to the Indian Ocean. The third type is the "protection of trade" through the deployment of vessels to guard SLOCs, such as China's antipiracy operations in the Gulf of Aden. The fourth type, which is the most aggressive and largest in scale, is a "punitive attack" on another country's territory, such as China's 1979 invasion of Vietnam.[5]

Today's PLA regularly projects power abroad in every category except the fourth, but its rapid development of new strategies and equipment, as well as its changed global posture, demonstrate that Chinese leaders wish at minimum to possess the capacity for all types of power projection. Military presence and military diplomacy are precursors to and enablers of power projection, but not types of power projection themselves.

For Country, Wealth, and Glory: China's Strategic Requirements

The first and most urgent of Beijing's strategic requirements involving the need for power projection capabilities is the requirement to resolve outstanding territorial disputes in its favor. Since the Kuomintang (Nationalists) fled the Mainland for Taiwan in 1949, the CCP has viewed the island's government as a direct challenge to the legitimacy of its claim to rule all of China.[6] Taiwan's economic development and subsequent transition to a multiparty democracy magnified that threat by undermining the CCP's argument that only an authoritarian government could bring stability and prosperity to China. The PLA accordingly regards Taiwan as its "main strategic direction" for military planning and refuses to renounce the use of force against the island.[7] Beijing is also embroiled in disputes over sovereignty and resource exploitation with its neighbors in the East and South China seas, two other important "strategic directions" for the PLA.[8] To annex Taiwan, the Senkaku Islands administered by Japan, or the South China Sea features claimed by Vietnam and the Philippines, the PLA must be able to transport troops and equipment over large bodies of water and support them with air and naval power. These are tasks the force has historically struggled to achieve due to shortfalls in amphibious lift and related capabilities.

China's second strategic requirement is to deny U.S. forces access to or delay their arrival in a potential East Asian contingency. The United States' dispatch of two aircraft carrier battle groups to the region during the Third Taiwan Strait Crisis in 1995–1996 forced Chinese leaders to acknowledge there was little they could do to stop the United States from coming to Taiwan's aid or otherwise operating in China's immediate vicinity.[9] They responded by accelerating a campaign already underway to develop PLA capabilities that could prevent or constrain the deployment of U.S. forces to the East Asian theater, a strategy later described by U.S. analysts as "anti-access and area-denial" (A2/AD).* For most of the early 2000s, China's focus remained within the so-called "first island chain" (see Figure 1), but by 2013 authoritative PLA sources were discussing the need to keep the enemy as far from mainland China as possible.[10] The 2013 edition of the publication *Science of Military Strategy*, for example, called on the PLA to "push the strategic forward edge from the home territory to the periphery, from land to sea, from air to space, and from tangible spaces to intangible spaces."[11]

China's third strategic requirement is to defend its overseas economic interests. These include the security of Chinese assets and people abroad as well as access to foreign markets, natural resources, and advanced technologies. Then General Secretary Jiang Zemin's direction to Chinese enterprises to invest overseas under the auspices of his 1999 "Going Out" strategy marked the point at which

*Anti-access actions are intended to slow the deployment of an adversary's forces into a theater or cause them to operate at distances farther from the conflict than they would prefer. Area denial actions affect maneuvers within a theater and are intended to impede an adversary's operations in key areas. Luis Simon, "Demystifying the A2/AD Buzz," *War on the Rocks*, January 4, 2017; U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2013*, 2013, 32–33; U.S. Department of Defense, *Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges*, May 2013, 2; Andrew Krepinevich, Barry Watts, and Robert Work, "Meeting the Anti-Access and Area-Denial Challenge," *Center for Strategic and Budgetary Assessments*, 2003.

Figure 1: First and Second Island Chains

Source: Created for the U.S.-China Economic and Security Review Commission; adapted from U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2012*, May 2012, 40.

China's economic interests became truly international, and political guidance to the PLA in the decade and half afterward emphasized the need for a military capable of defending those interests. The 2015 defense white paper stated that the security of China's "energy and resources, SLOCs, as well as institutions, personnel and assets abroad" had become an "imminent issue" for the PLA.*[12]

*Beijing views the protection of SLOCs as particularly important among its various economic interests. Approximately 80 percent of China's oil imports, 25 percent of global maritime cargo, and 33 percent of global maritime traffic pass through the Indian and Pacific oceans. Tom Guorui Sun and Alex Payette, "China's Two Ocean Strategy: Controlling Waterways and the New Silk Road," *Asia Focus* 31 (May 2017): 5–6.

The PLA Goes Global: Chinese Leaders Task the PLA with Overseas Missions

Chinese leaders have vigorously pushed the PLA to develop power projection and expeditionary capabilities over the last 20 years.* General Secretary Xi has followed this tradition by emphasizing the importance of China's global reach and pushing for changes to the PLA's strategy, planning, force development, and operations.

Since becoming paramount leader in 2012, General Secretary Xi has consistently emphasized that a global PLA must underpin his "China dream" of "national rejuvenation" as a great power. In remarks before the CCP's 19th National Congress in October 2017, for example, he pledged to build the PLA into a "world-class" force by mid-century, one capable not only of enforcing Beijing's sovereignty claims in the Indo-Pacific region but also of defending China's interests throughout the world.[13] Major defense policy documents published under General Secretary Xi reflect his intent to transform the PLA into a force capable of robust overseas military operations. For example, China's 2019 defense white paper characterized overseas interests as "crucial" and the PLA's efforts to build a far seas navy, construct overseas logistics facilities, and conduct maritime operations as important "mechanisms for protecting China's overseas interests."[14]

The PLA's Timeline for Power Projection

One authoritative PLA source suggests the development of China's power projection capabilities will proceed according to a timeline. Central Military Commission Transport and Projection Bureau Chief of Staff Liu Jiasheng wrote in a February 2019 PLA journal article that China's power projection would occur in short-, medium-, and long-term phases.[15] In the short term, he wrote, the PLA must be ready to fight a limited war in the maritime domain around China's periphery requiring robust sea and air lift forces. In the medium term, the PLA must be able to fight a limited war overseas to protect its interests in countries participating in BRI. In the long term, the PLA must focus on "global projection," making use of China's overseas bases as well as air and space assets to be prepared to rapidly deploy anywhere around the globe. While Liu did not define the short, medium, and long term, these periods may correspond to the PLA's deadlines for achieving full mechanization by 2020, becoming "modern" by 2035, and becoming "world class" by mid-century.[16] (For more on the PLA's efforts to meet its 2020 mechanization goal, see Chapter 3, Section 1, "Year in Review: Security, Politics, and Foreign Affairs.")

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*Then General Secretary Hu Jintao's promulgation of the "new historic missions" in 2004 was the first time the CCP expanded the armed forces' traditional missions to include operations well beyond China and its immediate periphery. Globalization and changes in modern technology had caused China's national security interests "to gradually extend beyond traditional territories, territorial seas, and airspace," then General Secretary Hu told the PLA in a December 2004 speech. The PLA now needed to be capable of protecting its interests in the maritime, space, and electromagnetic domains—tasks it should carry out alongside an ambitious new charge to "uphold world peace." His redefinition of China's role as a global security provider hinted at the global ambitions that expeditionary capabilities were ultimately intended to underpin. The PLA began operating regularly beyond East Asia with the advent of the Gulf of Aden antipiracy task forces in 2008 and made changes to its force structure, personnel assignments, doctrine, and exercises to build the capabilities for these newly assigned missions. Hu Jintao, "Recognize the Historic Missions of Our Army in the New Stage of the New Century" (认清新世纪新阶段我军历史使命), *Jiangxi National Defense Education Net*, December 24, 2004. Translation.

Coupled with General Secretary Xi's January 2019 call to build a BRI "system of security guarantees" and PLA writings portraying BRI as a strategy to expand China's "strategic depth," Liu's timeline suggests China's intention to transform some BRI-financed projects into logistical platforms for a military presence.[17] Deputy Assistant Secretary of Defense for China Chad Sbragia testified to the Commission that DOD is increasingly concerned about the conversion of BRI projects such as ports into "strategic platforms for military access," noting that such facilities may appear in the Middle East, Africa, Southeast Asia, the western Pacific, and even the Arctic.[18] Creating the basis for future military access is a key driver behind the PLA's robust efforts to expand its presence, influence, and image in BRI countries in recent years.

Building a Nascent Global Force

The PLA is currently capable of most lower-end types of power projection beyond China's borders and is actively working to rectify shortfalls in six key operational areas so it can project power more robustly and at greater distances in the future. These areas include amphibious assault; naval power projection; air power projection and delivery; long-range precision strike; global logistics; and global command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR). The PLA sought to address these limitations in its 2015 reorganization and has improved its ability to deploy forces abroad in particular by commissioning advanced multimission warships,* aircraft designed for long-distance operations, and long-range ground-launched missiles. China's ISR satellites and ground-based cyber architecture also enable the PLA's global operations. Finally, the country's base in Djibouti and expanding access to ports and airfields constitute an anchor from which Beijing can project power.

Current Capabilities: Conducting Military Operations Short of Major Conflict

China is already capable of executing a range of small-scale military operations that enable power projection far beyond its borders. According to Admiral Blair, today's PLA can conduct humanitarian response and peacekeeping operations; symbolic shows of force, political intervention, and coercive threats; and the protection of trade.[19] Between 2012 and 2018, the PLA participated in at least 11 humanitarian assistance/disaster relief operations abroad, which provided it with opportunities to deploy throughout the Indo-Pacific, Africa, and the Middle East.[20] The PLA's deployment of infantry units and other personnel on overseas PKO missions has helped it develop logistics capabilities, gain experience operating in unfamiliar environments, and learn how to interact with foreign militaries and multilateral organizations.

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*In contrast to the PLA Navy's older and mostly single-purpose ships, multimission ships typically are capable of operating at greater ranges from the coast and conducting two or more types of naval warfare due to their improved antiship, anti-air, and anti-submarine weapons and sensors. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2018*, May 16, 2018, 28; Michael S. Chase et al., "China's Incomplete Military Transformation: Assessing the Weaknesses of the People's Liberation Army (PLA)," *RAND Corporation* (prepared for the U.S.-China Economic and Security Review Commission), 2015, 13–18.

Much of the PLA's significant operational experience has come from the PLA Navy's regular participation in the Gulf of Aden antipiracy operations since 2008. These operations have improved the PLA's ability to gain experience sustaining operations at long distances from China's shores, refueling at foreign ports, and integrating naval intelligence into operations.[21] During this same timeframe, the PLA Navy has also increased its familiarity with foreign environments by conducting routine operations such as patrols, training, port calls, and exercises outside its near seas.[22] Even so, projecting power over long distances is a relatively new accomplishment; it was only in 2009 under the auspices of a military exercise called Stride-2009 that the PLA demonstrated for the first time that it could quickly transport a division-sized force across long distances within China's borders.[23]

The PLA has more limited power projection capabilities in distant regions. Chad Peltier, a senior analyst at defense research firm Janes, testified to the Commission that today's PLA is capable of deploying a three-ship task force for approximately seven to eight months as far as Africa's eastern seaboard.[24] The force, however, would face challenges sustaining combat operations at this distance for more than two weeks.[25] Independent analyst Kevin McCauley testified to the Commission that the PLA's recent encounter with logistics problems while providing equipment to a small peacekeeping force in South Sudan indicates that support for a larger expeditionary operation in combat conditions would present the PLA with significant difficulties.[26] The PLA will likely be capable of responding to limited contingencies overseas with its more substantial airlift fleet by 2035, but it will probably struggle to sustain prolonged offensive combat operations.[27] Moreover, the PLA has yet to clarify command and control for joint operations beyond China's borders. Despite efforts to resolve the problem during the 2015 reorganization, the force has not specified how responsibility for units in distant regions will be allocated among the theater commands, services, and Central Military Commission.[28]

Space and Cyber Operations: Power Projection in the 21st Century

China has achieved space-based and cyber capabilities that can be employed independently or with traditional maritime, air, and ground forces to enhance China's power projection and expeditionary operations. The 2013 *Science of Military Strategy* anticipates future wars will begin in space and cyberspace, arguing that "seizing command of space and network dominance will become crucial for obtaining comprehensive superiority on the battlefield and conquering an enemy."[29] Space is of growing importance to the PLA for situational awareness, intelligence, and command and control. China's constellation of over 120 ISR satellites—numbering second only to the United States—enhances the PLA's global situational awareness by providing mapping, ground and maritime surveillance, imag-

Space and Cyber Operations: Power Projection in the 21st Century—*Continued*

ery, and intelligence data.*[30] In June 2020, China completed its global Beidou satellite navigation system, bolstering the PLA's command and control capabilities by providing deployed commanders with enhanced situational awareness and a short messaging service for communication.[31]

China also has a growing number of land- and sea-based space tracking assets that support targeting for PLA counterspace weapons systems, tracking missile launches, and collecting intelligence on U.S. and allied troop movements.[32] Some of China's terrestrial satellite tracking stations in Africa and Latin America are fully controlled and operated by the PLA's Strategic Support Force, improving tracking of U.S. satellites and providing locations from which to collect intelligence on troop movements of the United States and its allies and partners.†[33]

PLA strategists view the cyber domain as particularly critical to power projection, and China's dominance of global telecommunications infrastructure could bolster that capability.[34] Under China's 2017 National Intelligence Law and 2014 Counter-Espionage Law, for example, Chinese firms involved in constructing the undersea cables that carry most of the world's telecommunications data are required to provide data on their networks to the government if requested.[35] Moreover, China's dominance of global internet communications technology infrastructure, combined with its push to set global technology standards and its military-civil fusion strategy, may enhance the PLA's ability to disrupt command and control networks and spy on foreign countries.[36]

Training and Equipping the PLA for Expeditionary Operations

China's rapid introduction of modern ships and aircraft as well as its reorganization and training of the PLA's services have all facilitated the PLA's development of expeditionary capabilities. Nonetheless, the Chinese military's expeditionary capabilities have considerable room for improvement due to challenges such as inadequate underway replenishment, amphibious lift, and strategic lift capabilities, as well as a shortage of advanced naval helicopters.

Growing Long-Range Amphibious Assault Capabilities

An important step in China's development of expeditionary capabilities is its rapid commissioning of amphibious assault ships. These ships are crucial for a Taiwan conflict, various contingencies

*China also has over 30 communications satellites, with four solely for military use. Defense Intelligence Agency, *Challenges to Security in Space*, February 11, 2019, 18–19.

†China has built or has access to satellite tracking and control stations in Pakistan, Namibia, Kenya, Australia, Chile, and Argentina, complementing its 21 stations in China and the PLA Navy's YUANWANG-class satellite-tracking ships. *Xinhua*, "China's Yuanwang-7 Departs for Space Monitoring Missions," May 3, 2019; Cassandra Garrison, "China's Military-Run Space Station in Argentina Is a Black Box," *Reuters*, January 31, 2019; Kevin Pollpeter et al., "China Dream, Space Dream: China's Progress in Space Technologies and Implications for the United States" (prepared for the U.S.-China Economic and Security Review Commission), March 2, 2015, 109.

in the East and South China seas, and expeditionary operations far from China's shores.[37] The Type 075 (YUSHEN-class) flattop landing helicopter dock will enable the PLA Navy to deploy its marine corps globally, with the first two ships of its class expected to enter service by 2021 or 2022.[38] The Type 075, which has an estimated displacement of 35,000 tons and space for up to 30 helicopters, will be the largest and most capable amphibious assault ship in China's fleet.* This new class of landing helicopter docks will complement the Type 071 (YUZHAO-class), five of which are in service and at least two more of which are under construction.[39]

China is also tasking the PLA Navy Marines with a mission to support expeditionary operations. According to the first commander of the recently established PLA Navy Marines Headquarters, Beijing has directed the force to serve as a "strategic dagger" to expand China's influence and defeat U.S. intervention if needed, implying support for global expeditionary capabilities.[40] Like the PLA Army, the PLA Navy Marines' restructuring into modular brigades and battalions will increase its flexibility to deploy for more diverse missions.[41] Traditionally focused on the near seas, the PLA Navy Marines' missions now include land, sea, and air operations such as manning the PLA base in Djibouti and providing forces to the Gulf of Aden task forces.[42] Moreover, the PLA Navy Marines has tripled in size from a force of 10,000 to over 30,000 marines since late 2015, though the newly added marines are still being trained and equipped.[43] The sizeable increase of the force has occurred in tandem with changes to its training. Since 2014, the PLA Navy Marines has shifted its training pattern from a focus on island and reef landing operations to cross-theater exercises in diverse terrains and climates.†

The PLA Navy is likely capable of executing a range of expeditionary missions in China's periphery, such as a punitive missile strike, blockade, or seizure of small disputed features in the South China Sea. The PLA, however, still lacks the capability to execute a full-scale invasion of Taiwan and would likely rely on civilian assets, cyberattacks, and special forces to supplement a traditional amphibious assault.[44] (For a more extensive discussion of the PLA's capabilities for executing an invasion of Taiwan, see Chapter 4, "Taiwan.") Another obstacle is the limited quantity of helicopters (both assault and transport) available for deployment on PLA Navy ships. Mr. Peltier assesses China's amphibious assault capabilities will "remain substandard" for the next five to ten years as the PLA Navy, Marines, and Army compete for these helicopters.[45]

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*The Type 075's estimated displacement is at least 50 percent larger than the YUZHAO-class (Type 071) amphibious ship, and it can reportedly carry between 25 and 30 helicopters compared to the Type 071's four. Ronald O'Rourke, "China's Naval Modernization: Implications for U.S. Naval Capabilities—Background and Issues for Congress," *Congressional Research Service*, March 18, 2020, 17; Kyle Mizokami, "China Launches Its First Amphibious Assault Ship," *Popular Mechanics*, October 2, 2019; Rick Joe, "The Future of China's Amphibious Assault Fleet," *Diplomat*, July 17, 2019.

†In 2018, the PLA Navy Marines conducted its largest transregional exercise to date involving 10,000 marines operating in mountainous terrain and subtropical climates using air, water, rail, and motor transport. Other exercises in recent years have involved cold weather as well as desert, forest, and plateau terrains, suggesting the PLA Navy Marines will underpin expeditionary operations in a land contingency. Dennis J. Blasko and Roderick Lee, "The Chinese Navy's Marine Corps: Chain-of-Command Reforms and Evolving Training," *China Brief*, February 15, 2019; *China Military Online*, "PLA Marine Corps Conducts Massive Groundbreaking Maneuvers," March 16, 2018.

Janes Assesses PLA Expeditionary Capabilities Will Greatly Improve by 2035

According to a report prepared for the Commission by Janes, the PLA Navy Marines is developing the capability to conduct organic amphibious combat operations similar to those carried out by the U.S. Marine Corps, while the PLA Navy is bolstering its ability to project power and support these operations. China is likely capable of six-month deployments of two amphibious task forces composed of approximately four infantry battalions across four landing platform docks.[46] By 2035, the PLA could triple its deployable amphibious task forces from two to six, with each task force possessing roughly the same number of ships, personnel, and capacity to sustain operations as one U.S. marine expeditionary unit. Such task forces would comprise an amphibious assault ship, a landing platform dock, a landing helicopter dock, and associated amphibious weapons systems that could carry up to 36 helicopters, ten landing craft air cushions, and 30 amphibious infantry fighting vehicles.[47] Each task force would carry about 2,500 sailors and marines and be capable of sustaining combat operations for up to 15 days while deployed on six-month rotations as far as the Middle East.[48] A typical U.S. marine expeditionary unit contains 2,600 personnel and is capable of sustaining operations for 15 days without external support.[49]

Janes assesses the PLA Navy will become a "significantly more formidable force" by 2035 but will probably not have the number of warships and support ships necessary to sustain a protracted overseas campaign. The PLA Navy's force structure will likely increase from two to as many as six aircraft carriers and from one to twelve Type 055 destroyers by 2035.[50] These ships will probably focus on protecting China's overseas investments, including "overseas infrastructure, sea lanes, and overseas [Chinese] nationals," according to Janes.[51]

Carriers and Multimission Ships Advance the PLA's Ability to Project and Sustain Power

The PLA Navy now ranks second only to the United States in terms of the number of blue-water-capable ships, or those designed for operations on the high seas, due to China's commissioning of advanced multimission ships over its decades-long naval modernization.* Aircraft carriers and large multimission ships complement the PLA Navy's growing amphibious assault capabilities and are major power projection platforms themselves. In December 2019, China commissioned its second aircraft carrier, *Shandong* (Type 002), which joined the refurbished *Liaoning* (Type 001) in the PLA Navy's fleet.[52] *Shandong* is China's first indigenously produced aircraft carrier and has a slightly larger displacement than *Liaoning*, which allows it to carry about four more fixed-wing aircraft or eight

*According to Admiral (Ret.) Michael McDevitt, China is expected to have 131 blue-water-capable ships commissioned or in the fitting-out stage by 2021, far exceeding those of other regional militaries. By comparison, the United States is expected to have 236 such ships. Michael McDevitt, written testimony for the U.S. House Armed Services Committee, *Hearing on DOD's Role Competing with China*, January 15, 2020, 9–10.

more helicopters than the older vessel.[53] Both carriers' ski-jump design limits the fuel and munitions with which a carrier-launched fighter jet can take off, thus restricting *Shandong* and *Liaoning* to air defense and potentially anti-submarine warfare operations.[54] Mr. Peltier asserts the PLA Navy will probably wait for the introduction of its third aircraft carrier before undertaking expeditionary operations outside its near seas.[55] This aircraft carrier, which is currently under construction and expected to be operational by 2022, reportedly uses a flat deck design and an electromagnetic catapult similar to those found on certain classes of U.S. aircraft carriers.[56] The catapult system would allow the PLA Navy to employ aircraft to support long-range maritime strike and land-attack missions.[57]

Multimission combat ships are also critical for escorting China's amphibious ships beyond its shores. The PLA Navy's commissioning of these surface combatants within the last 15 years has significantly improved China's far seas power projection capabilities. In January 2020, China commissioned its first Type 055 (RENHAI) destroyer, which displaces 25 percent more tonnage than the United States' main destroyer, the Arleigh Burke-class.* The China Maritime Studies Institute at the U.S. Naval War College called the event "a watershed moment in the evolution of Chinese naval capabilities."[58] The Type 055 is 25 percent larger than the PLA Navy's next-most-capable destroyer and equipped with more offensive firepower than any of China's other ships. This superiority in firepower is largely due to the ship's 112-cell vertical launch system, allowing it to carry 48 more missiles than the already capable 64-cell launch system on the Type 052D (LUYANG III) destroyer.† The fielding of the Type 055, together with the advanced Type 052D and the older yet still modern Type 052C (LUYANG II) destroyers, has created a formidable fleet of surface combatants capable of projecting power globally.‡

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*Modern definitions for destroyers and cruisers, a class of naval combatant typically larger and more capable than destroyers and smaller only than aircraft carriers and battleships, vary by country. Official PLA sources classify the ship as a destroyer, while DOD judges it is better characterized as a guided-missile cruiser. The London-based International Institute for Strategic Studies classifies cruisers as warships displacing over 9,750 tons and destroyers as warships displacing 4,500–9,750 tons. International Institute for Strategic Studies, *The Military Balance*, February 2020, 524; Li Tang and Wang Qinghou, "Navy's Type 055 Destroyer Nanchang Is Commissioned" (海军055型驱逐舰南昌舰入列), *PLA Daily*, January 13, 2020. Translation. *http://www.81.cn/jfjbmap/content/2020-01/13/content_252021.htm*; U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019*, May 2, 2019, 36; China's Ministry of National Defense, *Transcript of the Regular Press Conference of the Ministry of National Defense in April 2019* (2019年4月国防部例行记者会文字实录), April 25, 2019. Translation. *http://www.mod.gov.cn/jzhzt/2019-04/25/content_4840410.htm*.

†The Type 055 also has advanced anti-submarine warfare capabilities, an area where the PLA Navy has historically lagged behind. Chad Peltier, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 3.

‡As of January 2020, the PLA Navy reportedly had at least five more Type 055 ships and 13 additional Type 052Ds in sea trials or being outfitted. Since the first Type 052D was commissioned in 2014, at least ten more of these destroyers entered service. Franz-Stefan Gady, "China Declares Latest Type 052D Destroyer and Type 054A Frigate 'Combat Ready,'" *Diplomat*, March 10, 2020; Andrew Tate, "First 'Stretched' Type 052D Destroyer Enters Service," *Janes Defense Weekly*, January 14, 2020; U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019*, May 2, 2019, 36; Kristin Huang, "China Steps Up Warship Building Program as Navy Looks to Extend Its Global Reach," *South China Morning Post*, December 31, 2019; Michael McDevitt, "The Modern PLA Navy Destroyer Force: Impressive Progress in Achieving a 'Far Seas' Capability," in Peter A. Dutton and Ryan D. Martinson, *China's Evolving Surface Fleet*, China Maritime Studies Institute, July 2017, 59–61.

China's ability to sustain these ships for extended deployments in distant seas depends on its underway replenishment capability. Recent increases in both the quality and quantity of PLA Navy replenishment ships are addressing the PLA's traditional deficiency in sustaining surface combatants far from China's shores. Introduced in 2017, the Type 901 (FUYU) supply ship increases the PLA Navy's logistics support capabilities with its larger cargo capacity, more numerous refueling stations, faster speed, and unique design for replenishing China's aircraft carriers.* The Type 903A (FUCHI), introduced in 2013, provides the PLA Navy with additional cargo capacity and a hanger capable of supporting two medium-lift helicopters.[59] It is this ship that has been used in most of the PLA's Gulf of Aden antipiracy task force operations.[60] Even with these new ship classes, the PLA Navy's small overall number of replenishment ships with limited cargo capacity for ordnance constrains its power projection capabilities. The PLA has experimented with using civilian container ships to carry out underway replenishment, but this capability remains nascent.[61] (For more, see "Modernizing China's Joint Logistics System for Strategic Delivery of Troops and Materiel" later in this section.) According to Janes, in the next decade the PLA Navy's force structure will reflect a focus on more limited types of force projection, such as protecting China's overseas investments.[62]

Growing Air and Missile Capabilities Support Power Projection and Delivery

The PLA Air Force and Navy's introduction of new fighter, bomber, and transport aircraft has further improved China's ability to project power beyond its borders.† The PLA's most capable aircraft for projecting power is the H-6K bomber, which has a longer range than the PLA's other combat aircraft and carries air-launched land-attack and antiship cruise missiles that can target Guam and ships in the waters nearby.[63] China will soon boost its air power projection capability with the introduction of a nuclear-capable stealth bomber, designated the H-20, that could enter service as early as 2025.[64] Completing China's nuclear triad,‡ the strategic bomber will reportedly double the strike range of the H-6K with an estimated cruising distance of 8,500 kilometers (km) (5,300 miles [mi]), enough to cover most of the Indo-Pacific and place the continental United States within range of its conventional and nuclear weapons.[65] China is also fielding advanced fighter jets that are armed with the latest missiles and capable of striking targets beyond the first island chain, including the fourth-generation Su-35

*Janes and several U.S. experts on the PLA Navy expect at least one Type 901 and several other surface combatants and amphibious ships to operate within each aircraft carrier battle group. Chad Peltier, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 1–2; Andrew Erickson and Christopher Carlson, "Sustained Support: The PLAN Evolves Its Expeditionary Logistics Strategy," *Janes Navy International*, March 9, 2016, 4–5.

†The PLA's aviation force has more than 2,700 aircraft, not including trainer aircraft or unmanned aerial vehicles, and around 2,000 combat aircraft (fighters, bombers, and multimission aircraft). U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019*, May 2, 2019, 40.

‡A nuclear triad is composed of land-, sea-, and air-based capabilities that can deliver a nuclear bomb or a ballistic missile or cruise missile carrying a nuclear warhead.

imported from Russia, the recently introduced J-16 and J-10C, and the indigenously produced fifth-generation J-20.*

The PLA Air Force's expeditionary capabilities are limited by its small quantities of modern heavy-lift aircraft and operational tankers, but it is working to address these deficiencies with the introduction of the Y-20 strategic heavy-lift aircraft and its tanker variant. First introduced in 2016, the Y-20 has a greater payload capacity than China's other transport aircraft, with the ability to transport troops, supplies, and equipment to most locations in the Indo-Pacific without refueling. Similar to the U.S. C-17 heavy-lift transport aircraft but with a slightly smaller size and payload capacity, the Y-20 is capable of carrying 140 troops and flying 2,700 miles with a maximum payload of 66 metric tons.[66] The PLA had only ten Y-20s in service as of mid-2020, suggesting that in the short term it will continue to rely on commercial aircraft for transport missions.[67] Experts expect the PLA will produce the Y-20 rapidly over the next decade, and Chinese media have speculated it may add between 100 and 400 of these aircraft to the order of battle by 2030.[68] DOD assesses that the Y-20 and the 2022 introduction of the world's largest seaplane, the AG600, will supplement and eventually replace China's small fleet of strategic airlift assets.[69] While currently limited in tanker capacity and combat aircraft engineered for aerial refueling, the PLA is making significant progress in this area with the development of a Y-20 tanker variant.† When the repurposed Y-20 debuts in the coming years, it will reportedly have three times the fuel capacity of China's other indigenous tanker, the H-6U, extending the range of its bomber and fighter fleet well beyond the first island chain.‡[70]

Precision Strike Capabilities Are Key Enabler of China's Ability to Project Power

The PLA Rocket Force has more than 1,300 ballistic and cruise missiles that can strike targets in and beyond the first island chain, extending PLA power projection and complicating U.S. military operations in China's periphery and the Western Pacific.[71] According to RAND Corporation senior political scientist Michael Chase, China's conventional missiles would be a key component of PLA joint campaigns, such as a blockade and amphibious landing.[72] Core to

*Another fifth-generation fighter is in development, the FC-31 (or J-31), but commentators debate whether the aircraft will be delivered to PLA customers for carrier operations or be mostly for export. Greg Waldron, "AVIC Official Sounds Upbeat Note about FC-31: Report," *Flight Global*, July 8, 2019; *Global Times*, "J-31 May Become China's Next-Generation Carrier-Borne Fighter Jet," March 6, 2013.

†The PLA Air Force and PLA Navy Aviation currently only have 14 tankers for in-flight refueling to extend aircraft ranges (ten H-6U and four Il-78 tankers). Meanwhile, the U.S. Air Force has a fleet of 455 tankers and plans to increase to 479 by the late 2020s. Only the H-6N bomber and J-20, J-15, and J-10 fighters reportedly are currently capable of conducting aerial refueling. Kevin McCauley, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 23; Stewart Welsh and David Leroy, "The Case for a Three-Tanker Air Force," *War on the Rocks*, October 11, 2019; *Global Times*, "J-20 Now Capable of Aerial Refueling," November 15, 2018; Jeffrey Lin and P.W. Singer, "Tanker Buddies: Chinese Navy's J-15 Fighter Planes Refuel in Flight, *Popular Science*, May 7, 2014.

‡As the PLA Air Force acquires more of these aircraft, they are likely to become the core tankers fueling China's expeditionary operations over the long term as the force phases out its limited numbers of H-6U and Ukrainian Il-78s. Dave Makichuk, "China's Y-20 Variants Make Rapid Progress: Officer," *Asia Times*, February 26, 2020; Chad Peltier, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 4.

this capability are the DF-21D and DF-26 missile systems. The DF-21D is a medium-range antiship ballistic missile with a maximum range of between 1,450 km and 1,550 km (900 mi to 963 mi), far enough to target ships in the Philippine and South China seas.[73] With a maximum range of 4,000 km (nearly 2,500 mi), the DF-26 intermediate-range ballistic missile, which can carry a nuclear warhead, is capable of precision strikes against ships and ground targets out to Guam.[74] These missile forces would play a leading role in any regional conflict, including a contingency involving Taiwan.

The PLA Rocket Force is also making progress toward fielding hypersonic weapons that can outmaneuver U.S. and allied missile defense systems,* thereby extending PLA power projection. The PLA revealed its first hypersonic weapon, the DF-17 medium-range ballistic missile equipped with a hypersonic glide missile, at an October 2019 military parade commemorating the 70th anniversary of the founding of the People's Republic of China. With a maximum range of around 2,500 km (over 1,500 mi), the missile would play an important role in a regional contingency and may already have entered service with PLA operational units in 2020.[75] According to DOD, China may also double the number of nuclear warheads in its arsenal over the next decade.[76]

Pursuing Improved Joint Logistics Capabilities and Overseas Bases

The PLA's advances in both joint logistics capabilities and access to overseas basing improve its ability to project power far from China's borders. The mostly state-owned Chinese firms that have either invested in or built overseas commercial ports and airfields have contributed significantly to this progress. Nonetheless, the PLA still faces challenges in delivering equipment to deployed forces, collaborating effectively with civilian firms, and allaying third-country concerns about allowing China to construct bases on their territories.

Modernizing China's Joint Logistics System for Strategic Delivery of Troops and Materiel

The establishment of the PLA's Joint Logistic Support Force (JLSF) in 2016 streamlined the logistics structures of different military services by placing common logistics functions in the hands of the newly created force.† [77] The JLSF is responsible for coordinating

*Hypersonic weapons are defined as (1) hypersonic glide vehicles, which are launched from a large rocket on a relatively flat trajectory that either never leaves the atmosphere or reenters it quickly before releasing the vehicle that glides unpowered to its target; and (2) hypersonic cruise missiles, which are powered by a supersonic combustion ramjet or "scramjet" engine that activates after the missile's release from a ground, sea, or air launcher. Hypersonic weapons can sustain flight in the Mach 5 to Mach 10 speed range (about 3,840 to 7,680 miles per hour) and theoretically can strike any target on earth in under one hour. Kelley M. Sayler, "Hypersonic Weapons: Background and Issues for Congress," *Congressional Research Service*, March 17, 2020; Robert Farley, "A Mach 5 Arms Race? Welcome to Hypersonic Weapons 101," *National Interest*, December 31, 2014; Harry Kazianis, "The Real Military Game-Changer: Hypersonic Weapons 101," *Interpreter*, March 14, 2014.

†In addition, as part of the Central Military Commission restructuring that resulted in the establishment of 16 organizations, the Logistic Support Department replaced the former General Logistics Department. It largely retained responsibility for logistics planning across the PLA, but implementation was passed to the JLSF, subordinated under the Central Military Commission. Under the JLSF are five logistics support centers that service each of the theaters and may be directed to support other theaters. Chad Peltier, Tate Nurkin, and Sean O'Connor, "China's Logistics Capabilities for Expeditionary Operations," *Janes* (prepared for the U.S.-China Economic and Security Review Commission), April 15, 2020, 13; LeighAnn Luce and Erin Richter, "Handling

logistics operations for overseas deployments alongside service-level logistics support.[78] Since its establishment, the JLSF has conducted at least 50 cross-theater exercises involving the different military services.[79]

Despite the JLSF's new authority, the PLA joint logistics system still struggles with long-distance precision logistics and delivery. According to independent analyst LeighAnn Luce and Defense Intelligence Agency analyst Erin Richter, the PLA appears to be placing "little emphasis on developing true strategic force projection capabilities to support PLA overseas operations" aside from its production of the Y-20 heavy-lift aircraft.[80] The PLA's difficulties in delivering equipment for small-scale UN PKOs in South Sudan highlighted substantial problems with personnel training and a shortage of spare parts for equipment, issues that must be resolved before the PLA can reliably service larger deployed forces or those in combat conditions.[81] The PLA has sought to fill some of these gaps by relying on civilian aircraft and ships to transport troops and equipment.[82]

The PLA regularly employs civilian air and maritime assets for transportation missions and other logistics support, but such cooperation is not without its challenges.[83] Commercial aircraft, including Boeing 777 models, have significantly augmented the PLA Air Force's strategic delivery capabilities by transporting troops and supplies for overseas operations, military exercises, and international competitions.[84] While commercial roll-on/roll-off ships and tankers have conducted exercises with the PLA Navy and assisted logistics operations, more recently container ships have also contributed to naval logistics.[85] In its first test of at-sea replenishment with a commercial ship, the PLA Navy conducted a November 2019 exercise with a container ship owned by the Chinese SOE Sinotrans replenishing dry cargo to two PLA naval ships.[86] China's 2017 National Defense Transportation Law strengthened construction standards for ships and aircraft to be built to military specifications and required civilian transportation support for overseas military operations.[87]

More broadly, the PLA has used both civil aviation and ship fleets since 2012 to support power projection, complementing its use of China's modern rail network and trucking fleet.[88] In 2014, the PLA established the Zhengzhou Strategic Projection Base, billed as its first "military-civil fusion strategic delivery base," which aims to bolster joint logistics support for PLA power projection missions.[89] Using civilian assets, the base has supported transregional exercises in China and airlifted troops supporting PKOs in Africa as well as aid missions in Burma (Myanmar) and Afghanistan.[90] The PLA's reliance on civilian entities is not without its own challenges, however. Mr. McCauley testified to the Commission that civilian personnel are not always sufficiently trained to support PLA missions and do not always fully comply with dual-use ship and aircraft construction regulations mandated by China's National Defense Transportation Law.*[91]

Logistics in a Reformed PLA," in Philip C. Saunders, ed., *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms*, NDU Press, March 3, 2019, 273–274.

*China has sought to strengthen military-civil fusion for PLA logistics and strategic delivery through the implementation of the 2017 National Defense Transportation Law, which requires civilian transportation entities and infrastructure to support the PLA. The law calls for: (1) do-

PLA Logistics System Gains Operational Experience Responding to COVID-19 Crisis

The PLA supported China's national response to the novel coronavirus (COVID-19) pandemic by conducting rapid mobilization and logistics over long distances, skills it would need to execute in any expeditionary operation. The PLA's response, which involved medical personnel from every service and force, constituted one of the biggest mobilizations of its medical system ever and tested the PLA's joint operations capability after the force's 2015 reorganization.[92] According to Chinese media, the JLSF secured and managed the distribution of medical supplies, provided medical treatment, and built hospitals in Wuhan, the epicenter of the outbreak and headquarters of the force.[93] The PLA also used large and medium-size transport aircraft, including six Y-20 aircraft, to deliver supplies and personnel to Wuhan and other hard-hit areas in Hubei Province. Moreover, the response was notable because it was the PLA's first-ever large-scale operation involving the Y-20.[94]

Network of Basing and Access Points Supports the PLA's Global Ambitions

The PLA is using a two-track strategy for expanding its overseas basing architecture. One track involves building purely military bases while the other involves establishing preferential access to Chinese-invested civilian ports.[95] The latter dual-use facility model has the benefit of serving both commercial and military logistics purposes while supplementing China's limited capacity to sustain complex military operations overseas.[96] Both tracks of China's basing model are consistent with the PLA's "strategic strongpoints" concept.[97] The 2013 *Science of Military Strategy* defines strategic strongpoints as locations that "provide support for overseas military operations or act as a forward base for deploying military forces overseas."[98] According to U.S. Naval War College research associate Conor Kennedy, strategic strongpoints will improve the PLA's ability to operate overseas by shortening resupply intervals, hosting facilities for servicing personnel and equipment, and serving intelligence support functions.[99] China's establishment of its first overseas military base in Djibouti in 2017 contradicted China's 1998 white paper's claim that China "does not station troops or set up military bases in any foreign country."[100] This is the first of what Mr. Kennedy believes may become a series of overseas strategic strongpoints.[101]

The PLA's purely military bases include those it has established on artificial islands in the South China Sea as well as its first overseas naval base in Djibouti (for more on the Djibouti base, see "China's Basing and Troop Deployments in East Africa" later in this

mestic and overseas civilian transportation nodes to help sustain PLA operations; (2) the creation of standards and technical requirements for the construction of commercial ships and aircraft to military specifications; and (3) civilian transportation entities to participate in training with the PLA and provide assistance in wartime. For more, see Kevin McCauley, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 6–7; China's Ministry of National Defense, *Law of the People's Republic of China on National Defense Transportation [Effective]*, March 3, 2017.

section.)[102] PLA writings advocate for additional naval bases overseas, as well as airbases in countries from Southeast Asia to Latin America, to support the strategic delivery of forces, equipment, and materiel.*[103] One way the PLA has sought to address this need is by seeking friendly countries' permission to access their ports and airfields. The PLA has acquired some access through exercises, Gulf of Aden antipiracy operations, humanitarian assistance/disaster relief, and PKOs.[104]

China has also leveraged its economic cooperation with countries participating in BRI to gain access to airfields that enhance the PLA's strategic delivery capabilities.[105] As of 2019, China had established international air passenger agreements with 65 countries participating in BRI and freight transportation agreements with 14 countries participating in BRI, some of which could conceivably support PLA military operations in wartime.[106] Even so, it is probable that in wartime most countries would be reluctant to host a Chinese base or allow the PLA access to their ports and airstrips for fear of being dragged into a regional conflict.[107] PLA sources have also discussed constructing floating bases to avoid these limitations.[108]

The second track of the PLA's basing strategy involves preferential access to Chinese-invested commercial ports. Properly equipped, these ports may perform valuable military functions that do not require the establishment of formal PLA facilities and permissions.[109] In his February 2020 testimony to the Commission, U.S. Naval War College professor Isaac Kardon argued that in the next five to ten years China is likely to employ such a dual-use model built around ports serving both commercial and military logistics functions.[110] According to Dr. Kardon, China may consider several factors when pursuing a base or dual-use facility, including geographic proximity to perceived security threats, whether the host is friendly and stable, suitable natural conditions at the port, adequate force protection, and the presence of Chinese enterprises on or near the site. Even if many of these conditions are unmet, Dr. Kardon observed, China could be motivated by opportunism to establish bases in willing host countries in a bid to expand its global network of strategic strongpoints.[111]

China's investment in overseas commercial ports has grown dramatically over the past decade, a trend that increases the feasibility of the PLA's reliance on the second type of basing model. As of February 2020, Chinese firms partially own or operate 94 ports globally, 59 of which involve a Chinese SOE.[112] Dr. Kardon found that just two SOEs—Hong Kong-based China Merchants Port Holdings (CMPort), a subsidiary of central SOE China Merchants Group, and China COSCO Shipping Company (COSCO)—accounted for nearly all of the 59 cases in which Chinese SOEs partially own or operate a port.†[113] Other Chinese firms own or operate a small number of

*In addition to the Djibouti base, the PLA operates satellite telemetry, tracking, and control stations in Argentina and Namibia, as well as a base in Tajikistan near the border with Afghanistan. Mark Stokes et al., "China's Space and Counterspace Capabilities and Activities," *Project 2049* and *Pointe Bello* (prepared for the U.S.-China Economic and Security Review Commission), March 30, 2020, 91–92, 94; Gerry Shih, "In Central Asia's Forbidding Highlands, a Quiet Newcomer: Chinese Troops," *Washington Post*, February 18, 2019.

†According to Dr. Kardon, COSCO is more likely than CMPort to facilitate access to the PLA Navy because of the former firm's lack of transparency, willingness to incur losses, and dependence on financial support from Beijing. CMPort, however, has shown it is willing to cooperate

ports but also appear to be designed with the PLA in mind as a customer. Chinese SOE China Overseas Port Holdings, for instance, was reportedly established for the sole purpose of constructing and operating Pakistan's Gwadar Port.[114]

China's Power Projection in the World

China's power projection capabilities are most developed in East and Southeast Asia but diminish as distance from the region increases. China's militarization of the South China Sea has altered the balance of power in Southeast Asia, and its anticipated access to basing facilities in Cambodia is likely to shift the balance even more sharply in China's favor. In the Indian Ocean, China has created a constant presence through routine deployments of ships and submarines. By contrast, its newer but growing power on the African continent is anchored by a base and troop deployments that ostensibly serve humanitarian purposes. The PLA also occasionally forays into the South Atlantic and is building influence in Latin America and Caribbean countries that could translate into a more robust military presence over time.

China Seeks Dominance along Its Maritime Periphery

For China's defense planners, the most important region in the world is the one on their doorstep, comprising the geographic area between China's shores and what Beijing terms the "first and second island chain" (see Figure 1).* PLA strategists assert that the United States relies upon these island chains to "encircle" or "contain" China and prevent the PLA Navy from freely operating in the Western Pacific.[115] The PLA seeks to project power throughout the first and second island chains in order to resolve outstanding territorial disputes and to deny or defeat intervention by U.S. forces in a contingency.

"Taking Back" the First Island Chain: Resolving China's Claims on Taiwan and the Senkakus

The PLA's combat preparations remain focused on the ability to seize Taiwan and mitigate U.S. intervention in a Taiwan conflict.[116] PLA ships and aircraft have significantly increased their training and patrols near Taiwan in recent years, intensifying Beijing's military pressure on the island in peacetime and improving its ability to carry out a wartime campaign.[117] This activity has included regular transits by China's first aircraft carrier in the Taiwan Strait as well as transits by other Chinese warships through the Bashi Channel, a key chokepoint within the first island chain important for force projection beyond China's near seas.[118] PLA Air Force aircraft have

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with the PLA Navy by regularly devoting space for PLA Navy ships at its Doreleh Port in Djibouti. Isaac Kardon, original database on PRC firm port ownership and operation, 2020; Isaac B. Kardon, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on China's Military Power Projection and U.S. National Interests*, February 20, 2020, 4–5.

*The first island chain refers to the line of islands running through the Kurile Islands, Japan, the Ryukyu Islands, Taiwan, the Philippines, Borneo (which includes parts of Indonesia, Malaysia, and Brunei), and the Indonesian island of Natuna Besar. The second island chain farther east encompasses Japan's Volcano Islands and Bonin Islands, the U.S. territories of the Northern Mariana Islands and Guam, and Palau. Andrew S. Erickson and Joel Wuthnow, "Barriers, Springboards and Benchmarks: China Conceptualizes the Pacific 'Island Chains,'" *China Quarterly*, January 2016, 5–11.

conducted flights circumnavigating Taiwan since 2016 and repeatedly crossed the median line, an informal demarcation between Taiwan and mainland China in the Taiwan Strait, since 2019.[119] Moreover, the PLA's circumnavigation flights and naval transits through the Miyako Strait suggest the PLA could attack Taiwan from the north or the east, compounding the threat of an invasion on the island's western side. Coupled with China's military modernization, these activities have improved the PLA's ability to invade smaller Taiwan-controlled islands and carry out operations such as an air and maritime blockade of Taiwan or air and missile strikes against targets across the island (for more, see Chapter 4, "Taiwan.")[120]

China's power projection activities also target the Japan-controlled Senkaku Islands in the East China Sea, which Beijing claims as its own.* Since Tokyo's purchase of the islands from a private Japanese owner in 2012, China has sought to erode Japan's effective sole administration of the islands and establish its own control through China Coast Guard, PLA Navy, and PLA Air Force patrols.[121] Increasingly frequent maritime and air incursions around the Senkaku Islands and Miyako Strait are a hallmark of China's coercive activities in the East China Sea.† These operations have also provided China with experience transiting the Miyako Strait, which in addition to providing a maritime passage north of Taiwan also enables access to the far seas.[122] Moreover, China has considerably increased the number of aircraft operating near Japanese territory, ramping up military pressure on Japan during peacetime and improving the PLA's ability to carry out a range of potential campaigns involving the seizure of the Senkakus.‡[123] This growing air presence includes the PLA's increasingly frequent H-6K long-range bomber training in airspace near Japan.[124]

Extending Control into the South China Sea

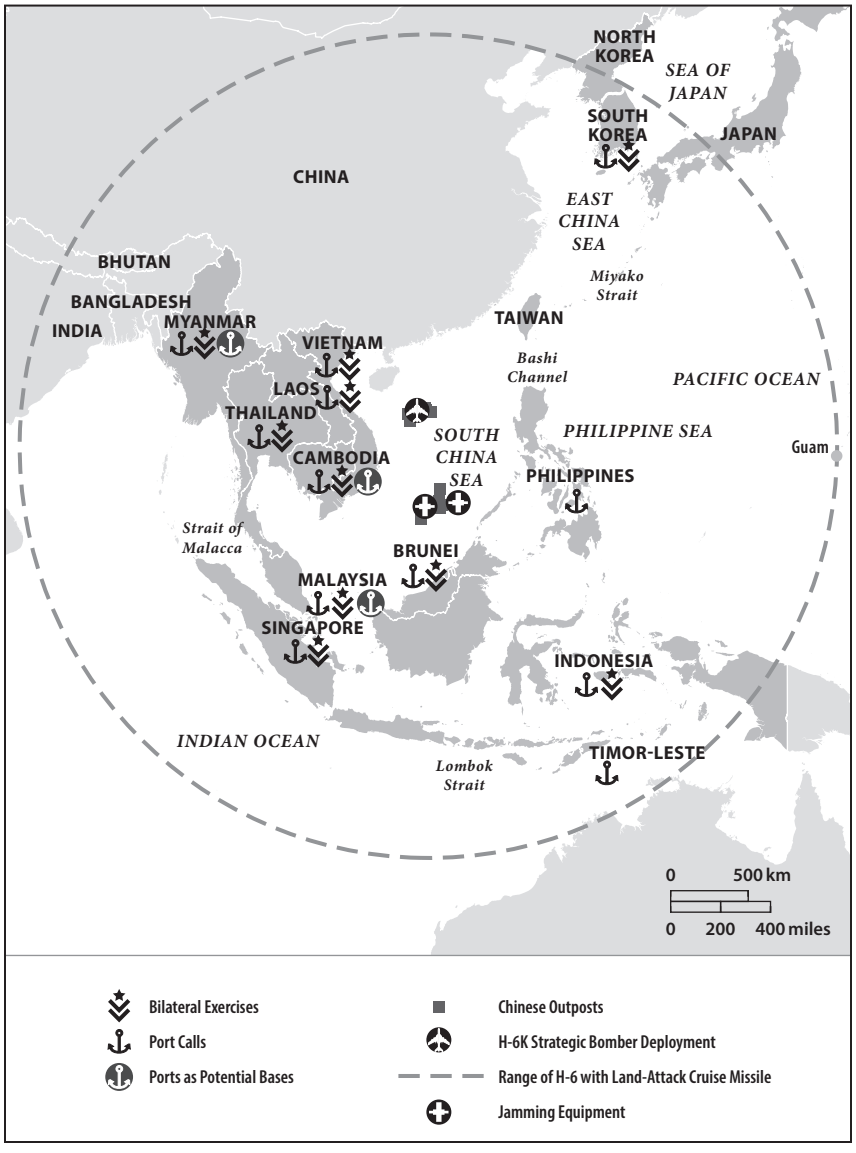
Beijing's power projection efforts also aim to extend its operational presence deep into the South China Sea. China's rapid placement of military infrastructure and advanced weapons systems on artificial islands in the South China Sea since 2013 has expanded its power projection range to the south by 1,000 nautical miles and dramatically shifted the balance of power in maritime Southeast Asia (see Figure 2).[125] According to Gregory Poling, director of the Asia Maritime Transparency Initiative at the Center for Strategic and International Studies, these developments enable continuous deployments of military power in the region and the persistent coercion of neighboring states.[126] To date, China has built one major air and naval base in the Paracels and three in the Spratlys that

*Taiwan also claims the islands and calls them the Diaoyutai.

†In December 2019, the Japan Coast Guard reported over 1,000 incidents of Chinese incursions into Japanese territory over the course of the year, a record number and nearly 80 percent more than in 2018. See *Japan Times*, "Chinese Incursions near Japan-Held Islands Top 1,000 to Hit Record, Up 80% on Last Year," December 6, 2019.

‡Between April 2019 through March 2020, the Japan Air Self-Defense Force scrambled its fighter aircraft 675 times to intercept Chinese military aircraft approaching Japanese airspace, the second-highest number of such incidents over the last five years. Japan scrambled its fighter aircraft a record number of 851 times in response to Chinese military aircraft between April 2015 and March 2016. Japan's Ministry of Defense Joint Staff, *Scramble Missions in Fiscal Year 2019* (令和元年度の緊急発進実施状況について), April 9, 2020. Translation. *https://www.mod.go.jp/js/Press/press2020/press_pdf/p20200409_01.pdf*.

Figure 2: PLA Power Projection in East Asia and the South China Sea



Note: Port calls, bilateral exercises, and high-level contacts between militaries included in the map are from 2010–2020. Only the countries and territories in the darker shade are analyzed for the purposes of this map.

Source: Created for the U.S.-China Economic and Security Review Commission; Various.[127]

host troops, high-frequency radar stations, and military-grade runways.[128] China has conducted landing and takeoff drills with strategic bombers, rotated fighter jets, and installed surface-to-air missile systems as well as antiship cruise missiles on Woody Island in the Paracels since 2016.[129] It also reportedly deployed antiship cruise missiles and surface-to-air missile systems to three outposts in the Spratlys in 2018.[130] In testimony to the Commission, Mr. Poling said China's bases in the South China Sea "further China's goal of eventually dominating the waters within the first island chain and provide a stepping stone to project power beyond it."[131]

Beijing has used its continuous presence in the South China Sea to deny other countries in the region access to features they already occupy and to prevent them from fishing or drilling for natural resources. Nearly every class of PLA Navy and China Coast Guard ship has regularly called at ports in the Spratlys since 2017, while the People's Armed Forces Maritime Militia tripled its presence from fewer than 100 ships anchored at Subi and Mischief reefs at any given time in 2017 to 300 in August 2018.[132] China's ports in the Spratlys allow its naval forces to operate in greater numbers and for far longer in the South China Sea than they would otherwise because they do not need to sail back to mainland China for resupply. This presence has led to numerous high-profile incidents of harassment against military, fishing, and resource exploration vessels from the Philippines, Vietnam, Indonesia, and Malaysia in recent years.[133] Two recent examples include the apparently concerted move by hundreds of Chinese vessels to block the Philippines from constructing military infrastructure on Thitu Island in the early months of 2019 and a China Coast Guard ship's ramming and sinking of a Vietnamese fishing boat in April 2020.[134]

Expanding Power Projection Capabilities in Southeast Asia

China is also seeking to expand its power projection capabilities in the region by linking bases on its artificial islands with a permanent military presence in continental Southeast Asia. Doing so would significantly expand its power projection capabilities into the far southern reaches of the South China Sea, across continental Southeast Asia, and into the Indian Ocean. The Wall Street Journal reported in July 2019 that China had signed a secret agreement with Cambodia giving the PLA exclusive rights to part of Cambodia's Ream naval installation on the Gulf of Thailand for 30 years, with automatic renewals every ten years thereafter.[135] The Ream naval base is not far from Dara Sakor, where a Chinese company has secured a 99-year lease to build an airport on land constituting 20 percent of Cambodia's coastline that not only is close to a port but also has an airstrip long enough to support military aircraft.[136] If China is able to deploy fighter jets from Dara Sakor in the future, it would enable the PLA to contest U.S. air superiority over the Malacca Strait and into the eastern Indian Ocean.[137]

To create bilateral relations conducive to the establishment of a future base, the PLA engages in robust influence-building efforts in Southeast Asia. Senior PLA officers met most frequently

with their Thai counterparts between 2002 and 2020 while also holding numerous meetings with Vietnam and Singapore.[138] The PLA Navy conducts routine port calls in the region, calling most often at ports in Singapore and Thailand.[139] China participates in regular military exercises with countries in the region, such as Thailand and Cambodia, and conducted its first naval exercise with ASEAN in 2018.[140] According to a Janes report contracted by the Commission, sites in Malaysia or Burma could also serve as bases within the next decade.[141] The PLA's growing operational presence and increased efforts to build influence along the second island chain also could result in the establishment of bases in the Pacific Islands.*

South Asia and the Indian Ocean Rim: Beyond the Second Island Chain

While the PLA's focus remains concentrated on East and Southeast Asia, it has also expanded its influence over and presence within countries along the Indian Ocean rim (see Figure 3).† Some analysts in Australian and Indian defense circles have argued that the traditional two island chain concept be expanded beyond the second island chain to account for the growing scope of China's activity in the Indian Ocean, which includes naval operations as well as a network of dual-use facilities that support PLA basing objectives.[142] The strategic drivers of the PLA's activities in the Indian Ocean rim are threefold: to exert pressure on India, with whom China has extensive territorial disputes; to slow U.S. forces intervening in an Asian contingency; and to protect the SLOCs carrying Chinese trade and energy imports.

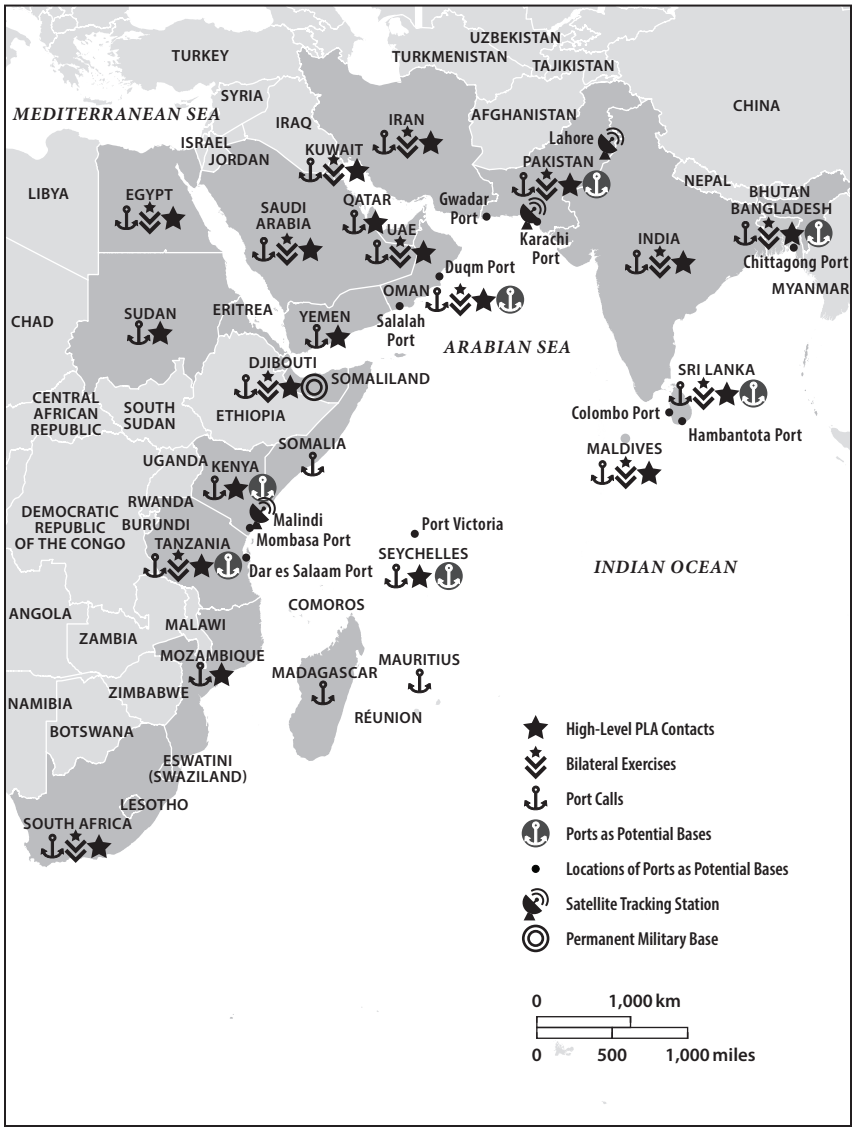
China's Military Expansion in South Asia

China conducts a variety of naval operations in the Indian Ocean that serve to project power. The most prominent example is the ongoing Gulf of Aden antipiracy task forces, which China publicly portrays as its contribution to the security of the global commons. The PLA Navy dispatched 35 naval escort task forces to support international antipiracy efforts in the Gulf of Aden between 2008 and April 2020, undertaking merchant shipping escort operations; maritime intercept operations; visit, board, search, and seizure operations; and deployments by China's special forces.[143] The PLA Navy has also regularly deployed diesel-electric and nuclear attack submarines in the Indian Ocean since 2013, which—despite their ostensible mission to support China's Gulf of Aden antipiracy task forces—serve to collect intelligence and signal to India that China could contest the Indian Navy or threaten commercial shipping.[144] Chinese hydrographic survey vessels also sometimes venture into waters around

*For more information on the PLA's activities in the Pacific Islands, see U.S.-China Economic and Security Review Commission, *2019 Annual Report to Congress*, November 2019, 418–423; Ethan Meick, Michelle Ker, and Han May Chan, "China's Engagement in the Pacific Islands: Implications for the United States," *U.S.-China Economic and Security Review Commission*, June 14, 2018, 6, 17.

†The Indian Ocean rim begins with South Asian countries like India, Pakistan, Bangladesh, and Sri Lanka before stretching across the Indian Ocean to include the island nations of the Maldives, the Seychelles, the Union of Comoros, and Madagascar. Its upper western side is framed by the Middle Eastern countries of Iran, the United Arab Emirates, Oman, Yemen, and Egypt, while its lower western side comprises the East African countries of Sudan, Djibouti, Kenya, Tanzania, Mozambique, and South Africa.

Figure 3: PLA Power Projection along the Indian Ocean Rim



Note: Port calls, bilateral exercises, and high-level contacts between militaries included in the map are from 2010–2020. Only the countries and territories in the darker shade are analyzed for the purposes of this map.

Source: Created for the U.S.-China Economic and Security Review Commission; Various.[145]

India's strategic sites to collect intelligence.* For example, India's navy chased away China's *Shiyan-1* research vessel in December 2019 after catching the vessel loitering without permission near Port Blair, the capital of the Indian-administered Andaman and Nicobar Islands where the Indian Armed Force's tri-service theater command is based.[146]

The PLA has also made itself highly visible in South Asia in recent years through activities and projects that build influence over local civilian and military leaders. Although between 2002 and 2020 senior PLA officials met most frequently with their Pakistani counterparts—a sign of that bilateral relationship's key importance—they also regularly interacted with defense officials from India, Bangladesh, and Sri Lanka.[147] The PLA Navy calls frequently at South Asian ports for goodwill visits as well as rest and replenishment, especially in Pakistan, Sri Lanka, and Bangladesh.[148] China participates in military exercises with South Asian countries, including the multilateral Cormorant ground exercise with Sri Lanka and the bilateral Shaheen air force exercise with Pakistan.[149] The PLA has also brought officers from South Asian countries to China for professional military education and assisted with military construction projects, for example building an office and auditorium complex for the Sri Lankan Military Academy in December 2017.[150] China reportedly also agreed in 2019 to build a submarine base in Bangladesh to berth two Type 035G diesel-electric submarines it sold to the country in 2016.[151] All of these activities build goodwill among local leaders and are conducive to China's plans to increase its military presence in the future.

China may soon seek to translate this influence into military bases in South Asia. According to an analysis by Janes, potential candidates for a future PLA base include Chittagong Port, Bangladesh; Hambantota Port and Columbo Port, Sri Lanka; and Karachi Port and Gwadar Port, Pakistan.[152] To take one example, Janes assesses that China could establish a base at Chittagong Port because Bangladesh's participation in BRI, debt to China, and Beijing-friendly government all predispose it to accept a basing request. A base at Chittagong Port could use commercial facilities to augment PLA operations and create a point for access and replenishment in the Indian Ocean.[153] Chittagong Port can already support submarines, small surface combatants, maintenance facilities, and floating dock repairs.[154] Moreover, Chittagong Port would offer a convenient location because it is close to the home base of most of the Bangladesh Navy fleet, with whom the PLA Navy sometimes exercises.

China's Basing and Troop Deployments in East Africa

China's approach to East Africa and other countries on the continent is motivated by its strategic requirements to delay U.S. forces in a contingency and protect China's access to the SLOCs as well as natural resources. China's first overseas military base in Djibouti is the most prominent example of PLA power projection in East Africa, a region notable for its visible PLA engagement and operational

*In December 2019, the survey ship *Xiangyanghong 06* also reportedly launched 12 unmanned underwater drones into the Indian Ocean, which China recovered in February 2020 after making more than 3,400 observations. For more, see H. I. Sutton, "China Deployed 12 Underwater Drones in the Indian Ocean," *Forbes*, March 22, 2020.

presence (for more, see Chapter 1, Section 3, "China's Strategic Aims in Africa"). The base replenishes vessels from the Gulf of Aden antipiracy task forces and features a heliport, hangars, hardened bunkers for possible ammunition storage, and barracks, with at least one pier under construction that supports all naval ships.[155] While China presents the base as a facility supporting regional antipiracy and peacekeeping operations, the base clearly serves larger strategic purposes. Because of Djibouti's strategic location near the maritime passage connecting the Red Sea and Indian Ocean, it is a transshipment hub for cargo in and out of the Middle East as well as for the transport of the Middle Eastern crude oil on which China increasingly depends.[156] Janes has noted in its analysis that a Chinese submarine's port call to the base in April 2018 suggests it "could be used to extend the endurance of diesel-electric attack boats operating in the Indian Ocean."[157] China's base in Djibouti—coupled with PLA Navy ships and submarines operating in the Indian Ocean—could complicate the U.S. Fifth Fleet's operations in the region and ability to respond quickly to a contingency in East Asia.

China's participation in UN PKOs in Africa also facilitates its regional power projection.* While PKOs are often portrayed as an example of international prestige-seeking, they in fact provide the PLA with opportunities to gain experience useful for military operations. Since the PLA's first deployment of an infantry unit as part of a PKO on a mission to South Sudan in 2012, subsequent missions have all included these units with a mix of other forces, such as logistics, transportation, medical, and engineering units.[158]

Participating in peacekeeping missions has enabled the PLA to improve its command and control among small infantry units, familiarize its troops with unfamiliar operating environments, and increase its interoperability with other countries' militaries.[159] Moreover, PKOs have given the PLA experience with overseas deployments of increasingly advanced capabilities. In 2017, the PLA's 81st Group Army dispatched a helicopter unit to Khartoum, Sudan, to join the UN-led PKO in Darfur. This was the first time the PLA had sent such a unit to support a UN mission, thereafter making its deployment of army aviation units routine.[160] The PLA Air Force also deployed the Y-20 transport aircraft to bring PLA peacekeepers back home from the Democratic Republic of the Congo in September 2019, marking the first time China used its heavy-lift aircraft to transport troops and equipment over such a distance.[161]

The PLA also exerts influence in East African countries through traditional military-to-military diplomacy (for more, see Chapter 1, Section 3, "China's Strategic Aims in Africa"). Senior PLA officers met most frequently with their counterparts in Tanzania between 2002 and 2020, but they also interacted often with defense officials from Zambia, Mozambique, Zimbabwe, Kenya, and Sudan.[162] The PLA Navy has called 108 times in Djibouti for replenishment and overhaul since 2010, and has visited ports in Mozambique, Kenya,

*As of August 2020, China had 1,030 troops deployed to the UN Mission in South Sudan (UNMISS) peacekeeping mission; 364 troops deployed to the UN-AU Mission in Darfur (UNAMID) peacekeeping mission in Sudan; 413 troops deployed to the UN Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) peacekeeping mission; and 218 troops deployed to the UN Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO) peacekeeping mission. For more, see United Nations Peacekeeping, "Troop and Police Contributors," August 2020. *https://peacekeeping.un.org/en/troop-and-police-contributors.*

and Tanzania several times since 2014.[163] The PLA and the Tanzanian military have conducted combined exercises, such as the Sincere Partners exercise held in December 2019, and the PLA built a military training center for the Tanzania People's Defense Forces in 2018.[164]

China's ties with East African countries are less extensive than in regions like South Asia, but some analysts believe this influence at minimum creates the possibility of future Chinese bases in the region to complement the existing base in Djibouti.[165] For example, Janes argues that the port in Mombasa, Kenya, is a likely candidate for a future dual-use-style facility.[166] Kenya's likelihood of hosting a PLA base is also relatively high due to its receipt of $9.2 billion in BRI-related projects, openness to foreign basing, and risk of defaulting on big-ticket projects like the $2.3 billion Mombasa-Nairobi Standard Gauge Railway.[167] The PLA Navy could take advantage of existing military-grade piers at Mombasa for rest and replenishment.[168]

The Atlantic Ocean and Western Hemisphere: Into the Far Seas

The PLA's power projection activities in the South Atlantic, Latin America, and the Caribbean further several strategic requirements by protecting China's access to SLOCs, which transport crude oil from Angola and Venezuela, and distracting the United States in a potential contingency (see Figure 4).* China's presence in these regions is clearly less developed than in East Africa or the Indo-Pacific; it does not, for example, dispatch its naval forces to protect the SLOCs or maintain permanent military bases that enhance power projection capabilities in these areas. Nonetheless, the PLA has already established a pattern of Atlantic Ocean deployments, expressed interest in establishing a permanent presence in a South Atlantic country, and built a space station in Argentina run by its Strategic Support Force, all developments that enhance its power projection.

Beijing's Emerging Interest in the South Atlantic

The PLA Navy's operations in the South Atlantic and reported search for a basing site on the African continent's western coast serve to protect the SLOCs carrying Angolan oil around the tip of South Africa and could divide U.S. attention during a contingency. The PLA's naval operations along the South Atlantic coast in particular are anchored by its close relationships with South Africa, Angola, and Namibia, all of which have hosted PLA Navy port calls.[169] Ryan Martinson of the U.S. Naval War College notes that the PLA Navy has operated in the South Atlantic every year since 2014, progressing from "port visits and largely symbolic joint exercises to independent operations at sea."[170] Unlike China's deployments of warships in the Indian Ocean, PLA Navy vessels deployed to the South Atlantic tend to have been "added on to overseas deployments designed for some other aim," such as Gulf of Aden antipiracy task

*The regions considered here encompass countries along Africa's southwestern coast like Guinea-Bissau, Guinea, Liberia, the Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Gabon, the Congo, the Democratic Republic of the Congo, Angola, Namibia, and South Africa, as well as those across the Atlantic, including Latin America and the islands of the Caribbean.

forces, and are irregular deployments of two surface combatants and a supply ship.[171] Nonetheless, the PLA Navy's deployments in the South Atlantic are part of its push to extend naval operations to the far seas and help the PLA familiarize itself with the ocean battlespace environment.[172] These activities may also reflect what Mr. Martinson describes as a wartime strategy to distract U.S. forces in the event of a maritime contingency in East Asia.[173]

The PLA also builds influence in African countries along the Atlantic Coast through visible activities that seek to build awareness and goodwill among local leaders. Senior PLA officials met most frequently with South African counterparts between 2002 and 2020, while interacting to a lesser degree with West African counterparts in Namibia, Angola, Gabon, and Ghana.[174] Since 2014, the PLA Navy has called six times at the port in Cape Town, South Africa, visited ports in Angola and Gabon twice, and stopped at ports in Nigeria, Cameroon, Namibia, Ghana, and the Ivory Coast at least once.[175] The PLA has also conducted military exercises with countries along Africa's Atlantic seaboard from South Africa to Ghana, including a joint trilateral sea exercise between the South African, Russian, and Chinese navies in November 2019.[176]

Such influence-building could result in a future PLA base in Namibia. According to Janes, Namibia's Walvis Bay would be a strong candidate for a future PLA logistics facility because it provides strategically valuable access to the South Atlantic in proximity to other nodes of the Maritime Silk Road.[177] Moreover, Walvis Bay's existing infrastructure could support nearly all types of PLA Navy surface combatants.*[178] Reports in the Namibian press in 2014 indicated China was in discussions with Namibia to establish a military facility at Walvis Bay, where there is already a massive BRI project to expand the bay and port.[179] Aside from its China-friendly government, however, Namibia does not exhibit the risk factors typically associated with a future PLA base, such as significant debt to China, hosting of PLA Navy replenishment calls, or prior openness to foreign basing.

Into the Western Hemisphere: Latin America and the Caribbean

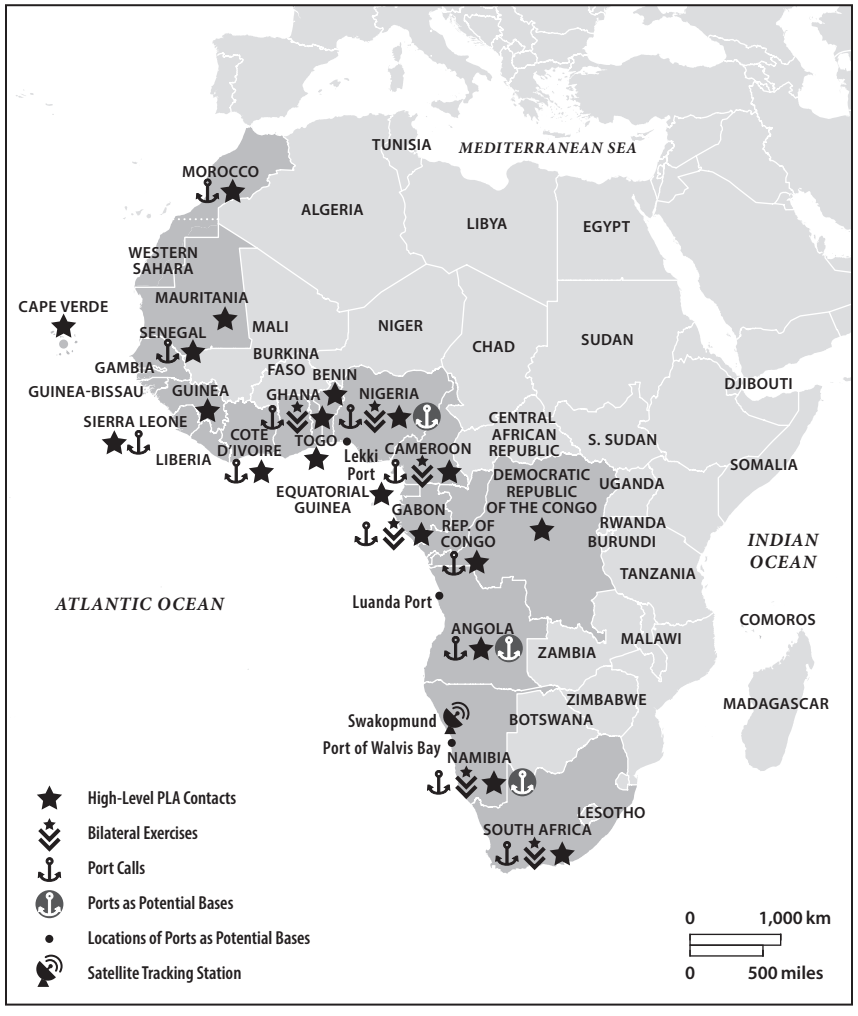
The PLA's overt power projection in Latin America and the Caribbean is limited at present but its growing influence serves to facilitate espionage and support China's space activities. In time, China's presence may also create the conditions for China's protection of the SLOCs that carry Venezuelan crude oil to China or for the establishment of a base from which Chinese forces could distract the United States during a future East Asian contingency.

The most prominent example of Chinese military presence in Latin America and the Caribbean is the satellite tracking and control station in Argentina's Patagonia region, which U.S. analysts worry improves China's ability to spy on the United States in the Western Hemisphere. The station is ostensibly devoted to peaceful space observation and exploration but managed by the China Satellite Launch and Tracking Control General, which in turn reports to the

*Walvis Bay previously served as the regional headquarters for Britain's Royal Navy due to its strategic location and decent facilities. See Robert C. O'Brien, "China's Next Move: A Naval Base in the South Atlantic?" *Pacific Council on International Policy*, March 31, 2015.

Figure 4: PLA Power Projection in the Atlantic Ocean and Western Hemisphere

Figure 4: PLA Power Projection in the Atlantic Ocean and Western Hemisphere—*Continued*



Note: Port calls, bilateral exercises, and high-level contacts between militaries included in the map are from 2010–2020. Only the countries and territories in the darker shade are analyzed for the purposes of this map.

Source: Created for the U.S.-China Economic and Security Review Commission; Various.[180]

PLA Strategic Support Force.[181] According to a January 2019 investigation by Reuters, the Argentine government negotiated the station with China in secret, has limited oversight of the facility, and lacks an enforcement mechanism to ensure the station's activities are limited to civilian purposes.[182] Some U.S.-based analysts have warned that the station's enormous dish radar could enable China to collect information on the position and activity of U.S. military satellites, effectively allowing it to spy throughout the Southern and Western hemispheres.[183] The PLA also reportedly operates multiple signals intelligence facilities in Cuba, though the details surrounding these are murky.[184]

The PLA is building deep ties with local officials and institutions in Latin America and the Caribbean that may ultimately facilitate greater military access or basing agreements for the PLA. Senior PLA officials met frequently with regional counterparts between 2002 and 2020, favoring those in Chile, Cuba, Brazil, and Argentina.[185] Since 2013, the PLA Navy has called several times at ports in the Caribbean, Ecuador, and Chile.[186] The PLA has participated in a small number of military exercises with partners in the region, such as a 2013 combat exercise with the armed forces of Chile, Brazil, and Argentina.[187] The PLA sent its hospital ship *Peace Ark* to the Caribbean to offer humanitarian services to locals in 2011, 2015, and 2018, increasing the length and complexity of its operations each time while familiarizing PLA personnel with the local security environment.[188] According to U.S. Army War College professor R. Evan Ellis, China's gifting of nonlethal items to the defense forces of Caribbean nations like Barbados and Guyana has successfully built "connections and goodwill potentially useful in protecting the interests of Chinese companies and personnel operating in the recipient nations."[189]

The PLA has also deepened its ties to the region through professional military education and a dialogue involving senior defense officials from the Caribbean. Latin American and Caribbean military officials have traveled to China for instruction at the PLA National Defense University in Beijing as well as navy and army staff and command courses in Nanjing, while PLA members have taken special courses at Brazil's jungle warfare school and Colombia's special forces school.[190] Perhaps the most telling sign of the PLA's intention to deepen its military presence in the region emerged during a conference of senior defense officials from Caribbean and South Pacific countries held in Beijing in July 2019. Chinese Defense Minister Wei Fenghe stated at the forum that the PLA stood ready to deepen cooperation with Latin America and Caribbean countries in areas such as counterterrorism and disaster relief under the framework of BRI.[191] His remarks were affirmed by Guyana Defense Force Chief of Staff Brigadier Patrick West, who said Guyana was eager to strengthen exchanges and cooperation with the PLA.[192]

The PLA's activities in the region reflect preparations that would allow it to conduct a portion of a future war from the Western Hemisphere if required. Dr. Ellis told the Commission in June 2020 that "Chinese security engagement in the region, while modest to date, plays an important role in helping the PLA develop technical and support capabilities, knowledge and relationships that enable it to

operate in an increasingly global fashion."[193] The PLA's professional military educational exchanges with Latin American and Caribbean military officers allow the force to obtain information about those personnel, evaluate their potential to be compromised for China's intelligence-gathering purposes, and develop relationships useful for future operations in Latin America.[194]

Taken together with China's deployments and other cooperative activities in the region, such relationships may enable the PLA to secure access to local ports, airfields, and other facilities without establishing formal alliances or base access agreements in the future, Dr. Ellis argues.[195] Indeed, China is busily establishing the kinds of ties and presence in Latin America and the Caribbean that may presage the development of additional military bases in the region. China's efforts to engage Latin American and Caribbean governments arguably resemble the political, economic, and military strategies it has deployed to build close relationships with African governments. (For a more extensive discussion of China's engagement with Africa, see Chapter 1, Section 3, "China's Strategic Aims in Africa.") Janes assesses that PLA bases could crop up in Venezuela or Panama due to the high degree of economic leverage China has over both countries.[196]

Wherever they emerge, future PLA bases in the region are likely to be co-located with ports. Commander of U.S. Southern Command Admiral Craig Faller said in October 2019 that Chinese firms were involved in around 56 port deals in the region, some of which entail long-term leasing arrangements.[197] Several of these deals involve the Panama Canal, the Western Hemisphere's most important commercial and logistics hub through which two-thirds of ships coming to or from the United States pass, and access to which is vital for U.S. military vessels.[198] While Hong Kong-based firm Hutchinson (formerly known as Hutchison-Whampoa) continues to operate the ports of Balboa and Cristóbal on the Pacific and Atlantic sides of the Panama Canal for which it won concessions in 1999, Chinese firms' efforts to develop port, bridge, and energy infrastructure around the canal within the last five years have raised new concerns about Beijing's influence in this strategic area.*[199] For example, in 2017 Chinese investment firms Landbridge Group and Shanghai Gorgeous secured concessions worth $1 billion to construct a deep water port and container terminal at Margarita Island, Panama's largest port on the Atlantic side of the canal, which was to be built by Chinese construction company China Harbour Engineering Company.[200] Analysts expected that COSCO would become one of the port's key customers and worried the shipping company might seek to acquire the adjacent Taiwan-owned Evergreen port, a merger that if accomplished could allow COSCO to drive non-Chinese competitor ports around the canal out of business.[201] The project stalled after Panama's supreme court considered an appeal brought by concerned

*Other examples include China Harbour's moves in 2015 to express interest in building and financing a fourth set of locks in the canal; China Harbour's winning of a contract in 2017 to build a cruise terminal at Panama City's Amador Causeway; and the Panamanian government's decision to authorize a Chinese consortium to build a fourth bridge over the canal in 2018. *Panama Today*, "Chinese Consortium Starts Building Fourth Bridge over Panama Canal," December 4, 2018; *Maritime Executive*, "Panama Maritime Authority Signs for New Cruise Terminal," October 19, 2017; Simon Gardner and Elida Moreno, "Panama Canal Sets Sights on New $17 Billion Expansion Project," *Reuters*, March 26, 2015.

environmental groups.[202] Nonetheless, Chinese firms' growing influence around the canal led Admiral Kurt W. Tidd, the former commander of U.S. Southern Command, to note that China's "increased reach to key global access points like Panama create[s] commercial and security vulnerabilities for the United States."[203]

Implications for the United States

China's military power projection and expeditionary capabilities now present a serious threat to U.S. allies in East and Southeast Asia, with whom the United States has defense treaties or is required to defend as a result of other security obligations.* If the United States fails to respond to a PLA attack on one U.S. ally or partner, the others could lose confidence in Washington's commitment to defend them. Demoralized allies and partners could then become psychologically unwilling or physically unable to provide U.S. forces access to military facilities proximate to the battlefield, improving China's chances of prevailing in a contingency. The loss of U.S. allies and partners in East and Southeast Asia would have knock-on effects not only on U.S. security and economic interests, but also on the viability of democratic governance in the region precisely because many U.S. allies and partners are fellow democracies.

But if the United States comes to the defense of an ally or partner in the wake of a PLA attack, it must be prepared for the possibility of a costly and protracted conflict. The PLA's power projection capabilities enable it to harm U.S. forces and assets deployed to East or Southeast Asia, developments that could drain the United States' coffers, erode public morale, and cost U.S. lives. U.S. policymakers must therefore fully appreciate the potential ramifications of PLA power projection for the continued existence of the U.S. security architecture in East Asia, the success of democratic governance in the region.

Moreover, growing PLA capabilities will enable the force to contest U.S. interests across the globe. Though China's activities in regions beyond East and Southeast Asia appear small in scale, they are viewed by Beijing as a legitimate part of the U.S.-China competition and offer pretexts to deploy the PLA in ways that could undermine U.S. political or strategic influence in a given part of the world. It may not be so farfetched to imagine the PLA someday deploying to defend BRI infrastructure, support Beijing's preferred elites in a coup on an island nation, or prop up authoritarian allies. U.S. strategic interests could also be compromised by the PLA's gradually expanding military activity. For example, if PLA ships and submarines operate more frequently in the far seas, they could complicate efforts by the U.S. Navy to deploy from the eastern seaboard of the

*The United States has bilateral treaties entailing defense obligations with Japan, the Republic of Korea, and the Philippines; it is party to multilateral treaties that commit it to the defense of Australia and Thailand. The United States also has a piece of domestic legislation, the Taiwan Relations Act, that commits to provide defensive articles and services to Taiwan. The Taiwan Relations Act states that it is the policy of the United States to "consider any effort to determine the future of Taiwan by other than peaceful means, including by boycotts or embargoes, a threat to the peace and security of the Western Pacific area and of grave concern to the United States;" to "make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability;" and to "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." Taiwan Relations Act, Pub. L. No. 96–8, 1979.

United States to an African contingency, or from Bahrain to an East Asian contingency.

The PLA's growing power projection capabilities and confidence also require the United States to consider how to manage interactions with Chinese forces that could escalate into conflict. A more capable and confident PLA might be willing to employ greater amounts of force at the initial stages of a conflict to quickly control, contain, or terminate it. Such actions differ from those U.S. military planners have heretofore assumed, requiring a reexamination of the differences between U.S. and Chinese escalation control strategies. But a more confident PLA may also have a much larger appetite for risk than was true in the past, presenting another variable that U.S. military planners must factor into their calculations when assessing a potential standoff with Chinese forces in the Indo-Pacific or other regions of the world.

Finally, the centrality of military-civil fusion to PLA power projection and expeditionary capabilities poses new challenges for the United States as it evaluates the security risks stemming from Chinese companies' global investments in critical infrastructure. The PLA increasingly leverages Chinese civilian research, expertise, and resources to enhance its expeditionary capabilities, drawing upon civilian assets such as commercial ports, shipping companies, and airlines during some types of overseas operations. Chinese companies in the United States and in allied countries may be acquiring logistics infrastructure that could enhance the PLA's power projection and expeditionary capabilities. U.S. entities' commercial collaboration with Beijing—be it in logistics, telecommunications, or shipping—may enhance China's global power projection.

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CHAPTER 4

TAIWAN

Key Findings

- The year 2020 was pivotal for cross-Strait relations. China's imposition of the national security law in Hong Kong and its intensifying military activities around Taiwan proved that Chinese leaders are determined to pursue their political objectives without concern for their existing commitments or the reputational costs they might incur by violating them. Events this year underscored the urgency of ongoing discussions in Washington over whether the United States should alter its longstanding policy toward Taiwan and how China's annexation of the island could affect U.S. national security interests.
- Taiwan President Tsai Ing-wen won reelection by a landslide in January 2020, easily defeating her opponent with an historic number of votes in a victory many experts viewed as improbable just a year earlier. President Tsai's late surge in the polls was driven largely by voter dissatisfaction with Beijing's heavy-handed approach to the island and its destruction of basic freedoms in Hong Kong. The Chinese Communist Party's (CCP) imposition of the national security law in Hong Kong discredits Beijing's assurance that Taiwan could preserve its chosen way of life under a prospective unification model and proved Chinese leaders intend to pursue their sovereignty claims regardless of the international reaction.
- In 2020, Beijing continued its multifaceted pressure campaign against Taiwan. Both of Taiwan's dominant political parties rejected Beijing's pursuit of unification under its "one country, two systems" framework, affirming their commitment to the island's free, multiparty democracy. The Tsai Administration continued initiatives introduced during its first term to deepen ties with the United States and other countries in the Indo-Pacific region.
- The outbreak of the novel coronavirus (COVID-19) underscored the consequences of Beijing's politically motivated exclusion of Taiwan from international organizations. Despite Beijing's attempts to marginalize the island, Taiwan's impressive domestic epidemic control and prevention efforts earned it the admiration of countries around the world, with many expressing strong opposition to Beijing's actions.
- Through stringent measures for case identification and containment, Taipei mounted a model response to the COVID-19 pandemic and averted a largescale economic shutdown. As a result, Taiwan's economy continued to expand in 2020, albeit

at a slower pace, even as its neighbors suffered contractions. Taipei may face challenges in the medium term, however, as the pandemic roils the global economy and threatens to reduce external demand for the island's exports.

- The COVID-19 pandemic brought into stark relief the risks associated with China-centric supply chains and led Taipei to accelerate its push to reduce Taiwan's economic reliance on mainland China. The Taiwan government reinvigorated its efforts to incentivize Taiwan companies operating on the Mainland to relocate production to the island and unveiled other investment incentives and subsidies to encourage multinational technology firms to expand operations in Taiwan. These developments led to some preliminary recalibrations of global technology supply chains.
- The foundations of the U.S.-Taiwan economic relationship began to shift in 2020 as Taipei and Washington took significant steps to upgrade economic engagement. President Tsai removed a longstanding source of friction in bilateral trade ties by lifting restrictions on U.S. meat imports, while the Trump Administration announced it would launch a new Economic and Commercial Dialogue with Taipei focused on supply chain security, among other objectives.
- The Peoples Liberation Army's (PLA) military activities around Taiwan in 2020 were more frequent and more aggressive than those recorded in 2019. The PLA's moves abrogated norms that once managed tensions across the Strait and expanded Beijing's operations in the air and waters around Taiwan. The more frequent presence of PLA aircraft and naval vessels around Taiwan also increases the chance of a crisis stemming from an accident or miscalculation.
- Taiwan stepped up its missile production, upgraded its unmanned aerial vehicles, and continued to develop other asymmetric capabilities in 2020 even as it sought to replace aging conventional legacy systems with modern aircraft and tanks. Despite these efforts, Taiwan's military continued to grapple with ongoing problems related to equipment, readiness, and its transition to an all-volunteer force as the cross-Strait military balance remained deeply tilted in Beijing's favor.
- The U.S. government demonstrated its support for Taiwan through multiple avenues of engagement in late 2019 and 2020. In the political realm, the United States sent U.S. Department of Health and Human Services Secretary Alex Azar to Taipei in August, making him the highest-ranking U.S. cabinet official to visit the island since 1979. In the military realm, the United States dispatched a senior defense official to Taiwan; initiated the sale of multiple major weapons systems to Taiwan; enabled Taiwan's participation in U.S.-led multilateral security consultations; and continued U.S. air and maritime transits around the island.
- The U.S. Department of State reaffirmed longstanding policy by releasing declassified cables containing its "Six Assurances"

to Taiwan and emphasizing that the United States regards the question of Taiwan's sovereign status as unresolved. Assistant Secretary of State for the Bureau of East Asian and Pacific Affairs David R. Stilwell said in a speech, however, that the United States was making "important updates" to its engagement with Taiwan in response to "changing circumstances." These changes will be "significant, but still well within the boundaries of [the] One China policy."

Recommendations

The Commission recommends:

- Congress consider enacting legislation to make the Director of the American Institute in Taiwan a presidential nomination subject to the advice and consent of the United States Senate.
- Congress amend the TAIPEI Act to provide that the United States, as a member of any international organization, should oppose any attempts by China to resolve Taiwan's status by distorting the language, policies, or procedures of the organization.
- Congress evaluate the opportunity to strengthen economic relations with Taiwan in key sectors where there are unique reciprocal opportunities, with technology as the initial sector for evaluation.
- Congress encourage the Administration to include Taiwan in multilateral efforts to coordinate and strengthen supply chain cooperation and security. This could be done through the expansion of Global Cooperation and Training Framework programming or a new multilateral arrangement with likeminded democracies. This multilateral engagement should focus on securing critical inputs and assuring supply chain resilience in strategic industries critical to economic competitiveness and national security, including information and communications technology, integrated circuits, and electronic components.

Introduction

As China dismantled the last vestiges of institutional autonomy guaranteed to Hong Kong under "one country, two systems" and attacked the territory's vibrant civil society in 2020, it simultaneously escalated its coercion of Taiwan to intimidate the island's leadership into accepting a unification agreement on Beijing's terms. Displeased with the outcome of Taiwan's January elections, which saw President Tsai Ing-wen of the Democratic Progressive Party (DPP) reelected by a landslide despite intense political interference from the Mainland, Beijing intensified its efforts to isolate Taiwan on the global stage by continuing to prevent its participation in the World Health Organization (WHO) amid the COVID-19 pandemic. At the same time, the PLA conducted frequent military operations in the air and waters near Taiwan, organized large-scale training for a conflict with Taiwan, and continued procurement and reforms that would support an island invasion.

Taipei remained defiant in the face of Beijing's coercion, affirming its commitment to its own democratic system and active participation in the international community. President Tsai began her sec-

ond term by continuing her efforts to deepen Taiwan's relations with the United States, expand its global engagement, and reform its military to better prepare for a PLA attack. Meanwhile, the United States took several actions to express strong support for Taiwan and its self-defense capabilities. Taiwan's exemplary response to the COVID-19 pandemic also afforded it a rare opportunity to demonstrate to the world its medical expertise and political transparency, winning it praise from foreign leaders as they grappled with the outbreak. Taiwan donated millions of masks and medical equipment such as ventilators to countries in need and initiated partnerships with the United States and EU to develop a vaccine and treatments for COVID-19.*

Taipei's robust and comprehensive response to the COVID-19 outbreak enabled Taiwan to avoid full lockdowns and mitigate disruptions to economic activity, but the pandemic also highlighted longstanding concerns regarding Taiwan's economic reliance on China. In 2020, the Tsai Administration stepped up its efforts to strengthen Taiwan's domestic industrial base, fortify Taiwan's position in global technology supply chains, and bolster its international economic relationships. U.S. policy measures to mitigate the risks of U.S.-China economic interdependence converged with Taipei's economic initiatives, generating new momentum toward deepened U.S.-Taiwan economic ties.

This section analyzes developments in Taiwan's external relations, economic policy, cross-Strait security issues, and relationship with the United States between late 2019 and late 2020. It is based on the Commission's consultations with experts, open source research, its June 2020 hearing on "The Chinese View of Strategic Competition with the United States," and its September 2020 hearing on "U.S.-China Relations in 2020: Enduring Problems and Emerging Challenges."

Taiwan's External Relations

Taipei's handling of the COVID-19 pandemic in 2020 attracted widespread acclaim despite Beijing's attempts to marginalize its contributions to global public health. The island's successful elevation of its global standing followed years of public diplomacy intended to preserve for Taipei a role in international venues and counteract the isolation created by the Chinese government's multifaceted pressure campaign. Taipei responded to Beijing's coercion this year by affirming its free and democratic way of life while deepening its relations with like-minded countries, including the United States.

COVID-19 Highlights Beijing's Pressure on Taiwan's International Space

As the novel coronavirus spread throughout the world in the early months of 2020, Beijing operationalized ties it had developed over decades within the WHO to exclude Taiwan from the international response to the pandemic. In the months that followed, WHO officials consistently ignored Taiwan's requests for information and

*The official name of the novel coronavirus responsible for the pandemic is "severe acute respiratory syndrome coronavirus 2," which is abbreviated SARS-CoV-2. COVID-19 is the name of the disease caused by the SARS-CoV-2 virus. World Health Organization, "Naming the Coronavirus Disease (COVID-19) and the Virus That Causes It," 2020.

efforts to share best practices for containing the virus even as they praised China's response and consistently referred to Taiwan as a province of China in official documents.[1] The WHO's leading official, Director-General Tedros Adhanom Ghebreyesus, also made the unfounded claim that Taiwan was behind a slew of racist online attacks and death threats against him.[2] A study by the Australian Strategic Policy Institute concluded the social media messages in question were in fact connected to a coordinated disinformation campaign originating from mainland China.[3] The messaging of the social media campaign led Taipei-based analyst J. Michael Cole to conclude that its purpose was "to discredit Taiwan, to further alienate it from the WHO, and to draw attention away from Taiwan's success in handling the COVID-19 outbreak and generous medical assistance to international partners."[4] Beijing advanced all three of these aims in May when it foiled a U.S.-led diplomatic push to secure observer status for Taiwan at the WHO World Health Assembly by successfully dissuading enough countries from supporting a proposed vote on the matter.[5]

Beijing leveraged its growing influence in other UN organizations to further narrow Taiwan's international space. In late January 2020, the International Civil Aviation Organization (ICAO) blocked Twitter accounts criticizing the organization's exclusion of Taiwan from membership.[6] Critics charged that ICAO's sidelining of Taiwan, a major regional and international transit hub,* limited its ability to both share and receive information and coordinate international air travel across the region.[7] ICAO communications staff subsequently claimed that "to the best of [their] understanding, [information is] being promptly shared by China with all of the applicable aviation stakeholders and officials in its sovereign territories," referring to Taiwan as a part of China's sovereign territory.[8] ICAO later reinforced this claim in a news release about COVID-19's impact on the travel industry, explicitly labeling Taiwan a province of China† and underscoring Beijing's influence over the organization.[9] Former Chinese government official Fang Liu has led ICAO since 2015 and has presided over the organization's moves to marginalize Taiwan.[10] (For more on China's influence in international organizations, see Chapter 1, Section 2, "The China Model: Return of the Middle Kingdom.")

Taiwan's Humanitarian Outreach Wins Global Praise amid COVID-19 Pandemic

Despite Beijing's exclusionary efforts, Taiwan earned global praise with its early and aggressive measures‡ to identify suspected cases

*Taiwan's 17 airports connect travelers to 32 countries and 150 global cities, with more than 72 million passengers transiting through Taiwan's airports annually. In 2019, 15 percent (10.8 million) of these passengers were traveling to or from the Mainland. Taiwan's Ministry of Transportation and Communications, *Aviation: East Asian Hub for Global Travel*, January 15, 2020; Taiwan's Ministry of Transportation and Communications, *Cross-Strait Passenger and Cargo Traffic*.

†Since the outbreak of the COVID-19 pandemic, ICAO has begun to explicitly label Taiwan a province of China in its economic impact estimates of the pandemic on the global aviation industry. The altered description is notable as ICAO publications have otherwise identified Taiwan as "Taiwan, China," in an implicit but less forceful affirmation of Beijing's position on Taiwan's sovereignty. International Civil Aviation Organization, "Economic Impacts of COVID-19 on Civil Aviation," October 8, 2020; Matthew Strong, "ICAO Describes Taiwan as Province of China in Coronavirus News Release," *Taiwan News*, February 15, 2020.

‡Critical measures Taiwan took to contain the spread of the virus included screening passengers from Wuhan, the epicenter of the outbreak, starting in late December; standing up its

of the novel coronavirus, trace infected individuals' contacts, and enforce quarantines. As of October 16, Taiwan had just 531 confirmed cases and seven deaths, while global cases surpassed 39 million and the death toll exceeded one million.[11] Taiwan's success in mitigating the virus' spread is especially notable given its proximity to the Mainland, robust people-to-people contacts across the Strait, and population density. According to the 2019 UN *World Population Prospects* report, Taiwan is the 17th most densely populated area in the world, with 671.4 people per square kilometer.[12]

With the pandemic firmly under control within Taiwan's borders, Taipei leveraged its robust supply of personal protective equipment and expertise to launch a global assistance campaign. Though it initially ramped up face mask production exclusively for domestic use, by April the Taiwan government moved to donate its excess supply of face masks to virus-stricken countries, including the United States, Canada, Japan, and European countries.[13] As of October 1, Taiwan has donated more than 30 million face masks to the international community,* with 12.6 million sent to the United States.[14] Taipei notably did not limit its support to fellow democracies or its diplomatic allies; it also sent masks to China-friendly countries in Africa through the Vatican, one of its remaining diplomatic allies, and held a videoconference for medical professionals from countries that recently switched diplomatic recognition to Beijing.[15]

Taipei's outreach opened new avenues of partnership between the United States and Taiwan. For example, Taiwan's Ministry of Foreign Affairs and the American Institute in Taiwan (AIT), the United States' de facto embassy in Taipei, issued a joint statement in March outlining efforts to cooperate in the research and development (R&D) of tests, medicines, and vaccines for COVID-19, as well as in the exchange of medical supplies.[16] One manifestation of this cooperation emerged in the form of a vaccine development partnership between Taiwan-based Medigen Vaccine Biologics Corporation and the U.S. National Institutes of Health.[17] U.S. Health and Human Services Secretary Alex Azar also praised Taiwan's success

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Central Epidemic Command Center in January to coordinate various ministries' responses to the virus; developing rapid test kits to identify cases; requiring recent travelers to self-quarantine and imposing fines on those who broke the restrictions; boosting domestic production of masks and developing a cloud-computing system to monitor and effectively manage their distribution; closing public spaces upon confirming cases of the virus; combating novel coronavirus-related disinformation; and providing financial assistance to workers furloughed during the outbreak. Taiwan drew particular praise for its approach to managing face mask distribution. As news of the COVID-19 outbreak spread in Taiwan and sparked panic buying of face masks, supplies quickly ran low. Taiwan Digital Minister Audrey Tang collaborated with Taiwan software developers to design and implement a mobile application tracking face mask inventories in real time. Citizens could download the application to see which local storefronts had face masks on hand, alleviating confusion over supply, while the government could monitor where masks were in short supply and address shortfalls. Andrew Leonard, "How Taiwan's Unlikely Digital Minister Hacked the Pandemic," *Wired*, July 23, 2020; C. Jason Wang, Chun Y. Ng, and Robert H. Brook, "Response to COVID-19 in Taiwan: Big Data Analytics, New Technology, and Proactive Testing," *Journal of the American Medical Association*, March 3, 2020.

*The actual number of masks donated is likely higher because Taiwan's Ministry of Foreign Affairs does not uniformly disclose the specific quantities donated to all countries. For example, Taiwan's Ministry of Foreign Affairs enumerates the specific number of masks (12.665 million) donated to the United States, but elsewhere indicates it donated individual "shipments" of face masks to African and Latin American countries. Taipei has donated face masks and other medical equipment to countries in Central Asia, the Middle East, Africa, and Latin America and the Caribbean. Taiwan's Ministry of Foreign Affairs, *Taiwan and North America Cooperation and Assistance to Combat COVID-19*, September 2020; Taiwan's Ministry of Foreign Affairs, *Taiwan and Latin America & the Caribbean Cooperation and Assistance to Combat COVID-19*, June 2020; Taiwan's Ministry of Foreign Affairs, *Taiwan and West Asia & Africa Cooperation and Assistance to Combat COVID-19*, May 2020.

in combatting COVID-19 during his August trip to Taipei, where he met with President Tsai, visited a memorial for the late former President Lee Teng-hui, and oversaw the signing of a memorandum of understanding on public health cooperation between Taiwan's Ministry of Health and Welfare and the U.S. Department of Health and Human Services.[18]

Taipei advanced vaccine research partnerships and exchanges with other democracies beyond the United States. After a March telephone call between Taiwan's premier research institution Academia Sinica and multiple officials from the EU, Brussels and Taipei agreed to work together in vaccine research and development of rapid testing options for COVID-19.[19] Taiwan's Ministry of Science and Technology announced in May that Taiwanese and Australian university researchers will work together to identify existing and new drugs effective against COVID-19.[20] In March, Academia Sinica also held talks with the Canadian Trade Office in Taipei on possible collaboration related to COVID-19.[21]

Rebuked by Taiwan's Voters, Beijing Escalates Threats and Intimidation

The CCP ramped up its intimidation tactics after President Tsai's election to a second term in January, continuing to insist on the application of "one country, two systems" to the island despite international criticism of Beijing's decision to renege on its promise to respect Hong Kong's autonomy under the framework. Meanwhile, Taiwan's dominant parties flatly rejected "one country, two systems" and several public opinion polls conducted in the summer showed the Taiwan public's views became increasingly inhospitable to unification with the Mainland.[22] Hong Kong's loss of freedom cast a pall over Taiwan politics in 2020, fueling concerns that Beijing could soon take action to compel unification or attack the island.

Beijing Promotes "One Country, Two Systems" for Taiwan

Beijing expressed dismay at what it viewed as negative developments in cross-Strait relations throughout 2020 but continued to invoke its "one country, two systems" model as the only acceptable solution to the impasse over Taiwan's sovereign status.* China's Taiwan Affairs Office responded to President Tsai's reelection by reiterating its adherence to "one country, two systems" despite the categorical rejection of this framework by the people of Taiwan.[23] A Xinhua commentary blamed foreign agitators for the outcome of Taiwan's January elections, alleging that "anti-China political forces in the West openly intervened in Taiwan's elections and supported President Tsai in order to contain the Chinese mainland and to prevent the two sides of the Taiwan Strait from getting closer."[24] Beijing emphasized its disappointment with the election results by sailing a Chinese aircraft carrier near the island in April one month before President Tsai's inauguration, and the PLA planned large-scale exercises potentially applicable to a Taiwan contingency throughout the summer months (see "Cross-Strait Military and

*In January 2019, General Secretary of the CCP Xi Jinping delivered a major speech on Beijing's Taiwan policy in which he claimed Taiwan's unification with China was inevitable and indicated the "one country, two systems" model was the only acceptable arrangement for unification.

Security Issues" later in this chapter). Premier Li Keqiang adopted a threatening tone in his May work report before China's National People's Congress, notably dropping the word "peaceful" while referring to Beijing's desire to "reunify" with Taiwan despite the standard inclusion of the word in official discourse.*[25]

Beijing also continued to apply the tactics it had deployed after President Tsai's election in 2016 to poach Taiwan's 15 remaining diplomatic allies. For example, Beijing continued to pressure Paraguay's government and encourage its business elite to lobby for a decision to switch diplomatic recognition to China.†[26] Beijing also threatened to cut off all economic ties with the African nation of Eswatini, Taiwan's sole diplomatic partner in Africa, if it did not break relations with Taipei.‡[27] In July, Taiwan and Somaliland, a breakaway part of Somalia, announced they would establish representative offices in their respective territories.[28] In response, Beijing accused Taiwan's government of "plotting separatist activities" and violating Somalia's sovereignty.[29]

Beijing's Aggression in Hong Kong Factors Prominently in Taiwan's Elections

The CCP's abolition of Hong Kong's autonomy played a significant role in Taiwan's January elections and their aftermath. While the DPP suffered significant losses in the 2018 local elections, over the following year the party successfully linked the deterioration of Hong Kong's freedoms under Beijing's "one country, two systems" framework to the DPP's cross-Strait relations platform, which insisted on Taiwan's freedom to determine its own political system and ultimately resonated with voters. President Tsai's campaign rallies regularly featured the slogan "Hong Kong today, Taiwan tomorrow," and a DPP campaign video drew widespread praise from the Taiwan public for its split-screen depiction of unrest in Hong Kong in contrast to peaceful daily life in Taiwan.[30]

Beijing's decision to impose a national security law in Hong Kong ignited debate among Taiwan's major political parties over how to assist Hong Kongers seeking asylum or residency, since the island lacks a formal refugee law.§[31] President Tsai faced

*By contrast, Premier Li used the phrase "peaceful unification" in his 2019 work report for the National People's Congress. China's 2019 defense white paper, *China's National Defense in the New Era*, also invoked the phrase to describe its preferred resolution to the dispute over Taiwan's sovereign status.

†Paraguay is the only remaining country in South America that maintains official ties with Taipei. Kuo Chien-shen and Emerson Lim, "Paraguayan President Rejects China, Maintains Ties with Taiwan: Envoy," *Focus Taiwan*, July 21, 2020; Tom Long and Francisco Urdinez, "Taiwan's Last Stand in South America," *Americas Quarterly*, May 7, 2020.

‡Several African countries broke diplomatic ties with Taipei as a result of Chinese pressure following President Tsai's election in 2016. Sao Tome and Principe and Burkina Faso ended their recognition of Taiwan in 2016 and 2018, respectively. Ankit Panda, "Beijing Ups Pressure on Taipei's Sole Remaining African Diplomatic Partner," *Diplomat*, February 11, 2020.

§Prior to the July 2020 opening of the Taiwan-Hong Kong Services and Exchange Office, which processes applications from Hong Kongers wishing to immigrate to Taiwan on humanitarian grounds, Taipei had created several low-profile avenues for de facto asylum. These included granting student visas to students from Hong Kong who, as of late 2019, were no longer subject to visa quotas Taipei universities previously observed in admissions, and by extending tourist visas on a case-by-case basis. Nick Aspinwall, "Taiwan Opens Office to Help People Fleeing Hong Kong in Wake of National Security Law," *Diplomat*, July 2, 2020; *Washington Post*, "For Hong Kong Refugees, New Life in Taiwan Means Traversing a Legal Twilight Zone," February 24, 2020.

Beijing's Aggression in Hong Kong Factors Prominently in Taiwan's Elections—*Continued*

criticism from opposition parties for allegedly abandoning the people of Hong Kong after she suggested in a May Facebook post that she could respond to Beijing's imposition of the national security law by suspending the Act Governing Relations with Hong Kong and Macau,* a law that extends special treatment to Hong Kongers wishing to visit, work, study, and invest in Taiwan.[32] She subsequently abandoned her proposal to suspend the law and announced that her government would draft a plan to offer humanitarian assistance to Hong Kongers.[33] In July, Taiwan's Mainland Affairs Council opened a dedicated office called the Taiwan-Hong Kong Services and Exchange Office in Taipei to help people and businesses wishing to relocate from Hong Kong.[34]

After the elections, Hong Kong's loss of autonomy continued to fuel debate in Taiwan about the likelihood of a PLA attack on the island. Wu Jieh-min, a research fellow in sociology at Academia Sinica, argued at a July seminar in Taipei that China's national security legislation has created a figurative "Berlin Wall" in Hong Kong setting apart Mainland-controlled territories from the free world.[35] As Beijing plans for a prolonged confrontation with the United States, he said, it may invade Taiwan in a manner reminiscent of Nazi Germany's invasion of Poland.[36] During an August press conference in Taipei held with visiting Secretary Azar, Taiwan's Minister of Foreign Affairs Joseph Wu also framed Beijing's actions in Hong Kong as reflective a broader struggle between democracy and authoritarianism in the Indo-Pacific region. "Our daily lives have become increasingly difficult as China continues to pressure Taiwan into accepting its political conditions, conditions that will turn Taiwan into the next Hong Kong," said Minister Wu.[37] "We know this is not just about Taiwan's status, but about sustaining democracy in a phase of authoritarian aggression. Taiwan must win this battle so democracy prevails."[38]

*Because Taiwan does not have formal refugee legislation, asylum cases are processed on an ad hoc basis. Debates about the legal basis for protections for Hong Kongers therefore revolved around Taiwan's Act Governing Relations with Hong Kong and Macau, a 1997 law that set out general principles regulating trade, economic, legal, and cultural relations with Hong Kong and Macau. It is distinct from the 1991 Act Governing Relations between the People of the Taiwan Area and the Mainland Area, which applies a considerably stricter set of rules to mainland Chinese nationals wishing to visit, study, work, or invest in Taiwan. Article 18 of the Act Governing Relations with Hong Kong and Macau states that "necessary assistance shall be provided to Hong Kong or Macau Residents whose safety and liberty are immediately threatened for political reasons." However, Article 60 also states that "should any change occur in the situation of Hong Kong or Macau such that the implementation of this Act endangers the security of the Taiwan Area, the Executive Yuan may request the President to order suspension of the application of all or part of the provisions of this Act." Beijing's imposition of the national security law in Hong Kong and President Tsai's Facebook post floating a potential suspension of the Act Governing Relations with Hong Kong and Macau sparked vigorous debate within Taiwan about the special treatment and support afforded to Hong Kongers. Ultimately, Taipei did not revise the Act, instead opting to cite Article 18 as sufficient authority to establish the Taiwan-Hong Kong Office for Exchanges and Services under the Mainland Affairs Council. Chen Hui-ju and William Hetherington, "Experts Urge Law Change to Clarify HK Assistance," *Taipei Times*, May 26, 2020; Sherry Hsiao, "Suspending Act Bad Idea, KMT Says," *Taipei Times*, May 26, 2020; Taiwan's Mainland Affairs Council, *Act Governing Relations with Hong Kong and Macau*, 1997.

In Hong Kong's Shadow, Taiwan's Dominant Political Parties Reject "One Country, Two Systems"

Both the DPP and Kuomintang (KMT) condemned Beijing's suppression of Hong Kong's freedoms and flatly rejected its calls for Taiwan to accept "one country, two systems." Mindful of public sympathy for Hong Kong's prodemocracy protests, DPP and KMT party leaders emphasized their commitment to Taiwan's democracy while highlighting the island's engagement with the United States.

The Tsai Administration continued to pursue a cross-Strait policy in 2020 that opposed "one country, two systems," rejected the "1992 Consensus,"* and emphasized political dialogue between the two governments. In her May inauguration speech, President Tsai argued that "both sides have a duty to find a way to coexist over the long term and prevent the intensification of antagonism and differences."[39] She invited General Secretary of the CCP Xi Jinping to "work with us to jointly stabilize the long-term development of cross-Strait relations" even as she insisted on the island's freedom to determine its own political system.[40] President Tsai continued to defend Taiwan's democracy, condemn events in Hong Kong, and improve defense ties with the United States. "We are very disappointed that China is not able to carry out its promises," President Tsai said in response to Beijing's passage of the Hong Kong national security law in late June.[41] "It proves that 'one country, two systems' is not feasible [for Taiwan]."[42]

Meanwhile, the opposition KMT party sought to regain voter confidence after its disappointing performance in the January elections by taking an overtly critical stance on Beijing.† In the course of his unsuccessful presidential run, KMT candidate Han Guo-yu famously declared in a June 2019 speech that Taiwan would accept Beijing's "one country, two systems" framework "over [his] dead body," a major departure from the KMT's traditional approach of finding ways, such as use of the 1992 Consensus, to avoid directly opposing Beijing's terms.[43] In May, the KMT also issued a statement opposing Beijing's proposed national security law for Hong Kong that was notable for its full-throated condemnation of Beijing: "'One country, two systems' has no market in Taiwan," the statement said, adding that "Taiwan's society cares about the rights and the situation of the people of Hong Kong regardless of party."[44] Seeking to invoke the United States as a strategic counterweight to Beijing, the KMT has

*The "1992 Consensus" refers to a tacit understanding that the KMT under President Ma Ying-jeou and Beijing said was reached between representatives of Taiwan and China in 1992 regarding the idea that there is only one state called "China" and that both mainland China and Taiwan belong to that state. The KMT defined the consensus as "one China, respective interpretations," interpreting "one China" as the Republic of China, the formal name of Taiwan's government. By contrast, Beijing accepts only the definition embodied in its "one China" principle: mainland China and Taiwan are part of one and the same China, the People's Republic of China, and Taiwan is a subnational region. Although in official documents and statements Beijing has never acknowledged that the consensus allows different interpretations of "one China," in practice it has at times officially ignored, but grudgingly tolerated, the KMT's definition of the consensus. By contrast, the ruling DPP and current Taiwan Administration have consistently refused to recognize the 1992 Consensus or the "one China" principle. For more, see U.S.-China Economic and Security Review Commission, Chapter 5, "Taiwan," in *2019 Annual Report to Congress*, November 2019, 459.

†President Tsai was reelected in a landslide against her KMT opponent, Kaohsiung Mayor Han Guo-yu, and the DPP retained its majority in the national legislature by winning 61 seats (losing only seven), leaving the KMT with 38 seats (adding only three). Thomas J. Shattuck, "The Future of the Kuomintang in Taiwan: Reform, Recalibrate, or Stay the Course?" *Foreign Policy Research Institute*, January 16, 2020.

also publicized its interactions with personnel of AIT and is exploring the possibility of re-opening its long-closed representative office in Washington, DC.[45] The KMT briefly mulled a complete abandonment of the 1992 Consensus, a legal position that has allowed the party flexibility to argue it holds a "differing interpretation" of the idea that there is but "one China," but ultimately chose to continue endorsing the consensus at the party's annual national congress in September 2020.[46]

The Taiwan public's views also became increasingly inhospitable to unification with the Mainland in 2020. An August survey conducted by Taiwan's Mainland Affairs Council found that almost 90 percent of citizens oppose Beijing's proposal to implement "one country, two systems" on the island, and 86 percent support maintaining the political "status quo" until some undefined point in the future.*[47] The same survey showed that almost 91 percent of respondents disapprove of Beijing's use of military assets to intimidate Taiwan, while 82 percent support strengthening the island's military to protect its sovereignty and democratic system.[48] A separate survey by National Chengchi University exploring Taiwan citizens' perceptions of national identity found that the percentage of people in Taiwan calling themselves exclusively "Taiwanese" (as opposed to "Chinese" or "both Taiwanese and Chinese") rose from 60 percent to 70 percent between December 2019 and March 2020, an historic high.[49]

United States Signals Stronger Support for Taiwan

The U.S. government took several notable steps in 2020 to demonstrate support for Taiwan and enhanced bilateral ties in a manner consistent with longstanding U.S. policy. Taiwan Vice President-elect William Lai's February trip to the United States, which included stops at the National Prayer Breakfast and a roundtable held by the Senate Foreign Relations Committee, was the highest-profile visit to Washington by a Taiwan politician since 1979.[50] In March, President Donald Trump signed into law the TAIPEI Act, legislation that advises the president to strengthen bilateral economic ties with Taiwan and encourage third-party countries to increase their engagement with Taiwan.[51] Ambassador James F. Moriarty, the U.S.-based chairman of AIT, told President Tsai in March that the United States would "redouble [its] efforts to expand Taiwan's participation on the global stage."[52] This assurance was paired with robust though ultimately unsuccessful U.S. advocacy for Taiwan's observer status in the WHO's World Health Assembly on the basis of its exemplary handling of the coronavirus outbreak.[53]

Senior U.S. officials sent messages congratulating President Tsai on her inauguration and traveled to the island, moves reflecting a

*Respondents who expressed support for maintaining the political status quo fell into four categories: those favoring the status quo for now, but eventual unification (7 percent); those favoring the status quo for now, but willing to reconsider the question of unification with China or formal independence at some point in the future (28.9 percent); those favoring indefinite maintenance of the status quo (24 percent); and those favoring the status quo for now, but eventual formal independence (26.2 percent). Their responses illustrate the fact that while the vast majority of Taiwan's population reject the specific unification framework known as "one country, two systems," some remain open to the idea of eventual unification with China in another form. Taiwan's Mainland Affairs Council, "*People's Views on the Current State of Cross-Strait Relations": Routine Poll Results and Distribution Table* (「民眾對當前兩岸關係之看法」例行民調結果配布表), August 1, 2020. Translation. *https://ws.mac.gov.tw/001/Upload/295/relfile/7837/76094/f02a6ff0-7720-425e-8f37-cc4c4002ef22.pdf.*

more publicly supportive U.S. stance than before. Secretary of State Mike Pompeo's written remarks were read aloud at the inauguration ceremony, marking what Taiwan's Ministry of Foreign Affairs said was the first time a U.S. secretary of state had publicly congratulated the island's president on an election victory, while Assistant Secretary Stilwell and U.S. Deputy National Security Adviser Matthew Pottinger offered their congratulations in video messages.[54] China's Ministry of National Defense denounced Secretary Pompeo's congratulatory remarks and sternly warned against perceived U.S. meddling in China's "internal affairs." "The Chinese People's Liberation Army has the strong will, full confidence and sufficient capability to thwart any form of external interference and any separatist attempts for 'Taiwan independence,'" the ministry's spokesperson said.[55]

Secretary Azar became the highest-ranking cabinet official to travel to Taiwan since 1979 when he visited the island in early August,* a move signaling strong U.S. support for its democracy.[56] China's Ministry of Foreign Affairs slammed Secretary Azar's visit as a "serious breach of [U.S.] commitments pledged on the Taiwan question,"[57] and two PLA fighter jets pointedly crossed the Taiwan Strait median line on the first day of his stay in Taipei.[58] The September visit to Taipei by Under Secretary of State for Economic Growth, Energy, and the Environment Keith Krach to attend a memorial service for former President Lee elicited a similar response from China's Ministry of Foreign Affairs and state-run media.[59] The PLA dispatched 18 warplanes to fly repeatedly into different sectors of Taiwan's Air Defense Identification Zone (ADIZ) and across the median line on the first full day of Under Secretary Krach's visit.†[60]

The United States also declassified several cables clarifying U.S. commitments to the island, and a senior State Department official publicly discussed the need for a policy responsive to changing circumstances in the Strait. In late August, AIT posted on its website two declassified 1982 documents containing a series of promises known as the "Six Assurances" and a statement of the Reagan Administration's position on U.S. arms sales to Taiwan. The first document expressed the idea that U.S. policy toward both sides of the Strait was dependent on the level of threat posed by China and made six promises to Taipei, thereby demonstrating that the United States would continue to support Taiwan's security needs despite a lack of diplomatic ties.‡[61] The second document made clear that the United States' willingness to reduce arms sales to Taiwan over time

*U.S. cabinet officials to visit Taiwan prior to Secretary Azar were Environmental Protection Agency (EPA) Administrator Gina McCarthy in 2014 and Transportation Secretary Rodney Slater in 2000. The EPA Administrator and Transportation Secretary both rank lower than the Health and Human Services Secretary in the U.S. government's protocol order. Chen Yun-yu and Christie Chen, "U.S. Plans First Cabinet-Level Visit to Taiwan in 6 Years," *Central News Agency*, August 5, 2020.

†Other U.S. engagements with Taiwan officials in the leadup to Under Secretary Krach's visit may have contributed to Beijing's provocative actions. On the eve of Under Secretary Krach's arrival in Taipei, U.S. Ambassador to the UN Kelly Craft met with James Kuang-jang Lee, director of the Taipei Economic and Cultural Representative Office in New York, in the first such meeting between a U.S. envoy to the UN and a top Taiwan official. Sarah Zheng and Wendy Wu, "China Protests after U.S. Envoy to UN Meets Taiwanese Official in New York," *South China Morning Post*, September 18, 2020.

‡The "Six Assurances" were that the United States had not set an end date for arms sales, had not agreed to consult with China on arms sales, would not mediate between Taipei and Beijing, had not agreed to revise the Taiwan Relations Act, had not altered its position on the question of Taiwan's sovereignty, and would not pressure Taipei to negotiate with Beijing.

was "premised on a continuation of the Chinese policy of seeking a peaceful resolution of the Taiwan issue."[62] Speaking at a public event hosted by the Heritage Foundation the same day the cables were declassified, Assistant Secretary Stilwell emphasized the distinction between the U.S. "one China policy" and China's "one China principle"* by clearly stating the United States considers the question of Taiwan's sovereign status unresolved.[63] Assistant Secretary Stilwell also said the United States would make "some important updates" to its engagement with Taiwan to account for Beijing's growing threat to regional stability and the deepening of amicable ties with Taipei.[64]

Taiwan Strengthens Relations with Other Democracies

Bolstered by international acclaim for its response to the COVID-19 outbreak, Taiwan's relations with other democracies grew more robust and overt throughout 2020. President Tsai foreshadowed the island's diplomatic push in her inaugural address, saying Taiwan would "fight for [its] participation in international institutions, strengthen mutually beneficial cooperation with [its] allies, and bolster ties with the United States, Japan, Europe, and other like-minded countries."[65] She also emphasized that Taiwan would "play a more active role" in regional cooperation mechanisms and make "concrete contributions to peace, stability, and prosperity in the Indo-Pacific region."[66]

Democratic countries around the world responded to Taiwan's overtures for deepened interaction with shows of support, at times in the face of Beijing's pressure. Japan's State Minister for Foreign Affairs Keisuke Suzuki wrote in a May blog post that Taiwan's welfare was important to Japan's national security and that the CCP should not be allowed to "ravage" Taiwan on the global stage.[67] Japan also called Taiwan an "extremely important partner" in the 2020 edition of its annual foreign policy report, the *Diplomatic Bluebook*, an elevation from the report's 2019 characterization of Taiwan as a "crucial partner and an important friend."[68] Two members of parliament from India's ruling Bharatiya Janata Party sent video congratulations to President Tsai's inauguration, emphasizing in their message that "both India and Taiwan are democratic countries, bonded by shared values of freedom, democracy and respect for human rights."[69] The Netherlands changed the name of its de facto embassy in Taipei from the Netherlands Trade and Investment Office to Netherlands Office Taipei to reflect an expansion in bilateral ties with the island beyond trade, prompting Beijing to lodge a diplomatic complaint.[70] In retaliation, Chinese state media threatened disruptions in exports of medical supplies and boycotts of Dutch

*The "one China principle" refers to the Chinese government's position that Taiwan is an inalienable part of the state called "China" ruled by the People's Republic of China. By contrast, the "one China policy" refers to the U.S. government position that the People's Republic of China—rather than the Republic of China government on Taiwan—is the sole legal government of the state called "China." It is because of this commitment that the United States acknowledges the People's Republic of China as the only representative of the state called "China" in international organizations that require statehood for membership. It is also why the United States conducts relations with Taiwan on an unofficial basis. However, as Brookings Institution non-resident senior fellow Richard Bush notes, the United States "has not taken a position on what 'one' means substantively for a possible unification between Taiwan and China, and it has generally remained agnostic on the key question of whether the Taiwan government possesses sovereignty." Richard C. Bush, *Untying the Knot: Making Peace in the Taiwan Strait*, 2005, 254.

products just as the rate of COVID-19 infections was accelerating in the country.*[71] In May, France's Ministry for Europe and Foreign Affairs dismissed Chinese warnings about selling Taiwan equipment to update the missile defense systems of the island's six French-made frigates, saying it was implementing existing deals and that China should focus on managing COVID-19 instead.[72]

Another striking example of a fellow democracy's support for Taiwan was the visit by the head of the Czech Senate to Taiwan in late August. Czech Senate speaker Milos Vystrcil defied threats from Beijing that he would "pay a heavy price" by leading an 89-member delegation to Taiwan to promote business ties and underscore what he said was the Czech Republic's tradition of "values-based" foreign policy.[73] During the visit, Vystrcil met with President Tsai, engaged with several other top Taiwan officials, and addressed the Legislative Yuan, where he declared, "I am Taiwanese" in a show of solidarity.[74] The speaker was accompanied by eight Czech senators, the mayor of Prague, and representatives from Czech business and civil society. The visit led to the signing of several memorandums of understanding with Taiwan companies, an agreement that Taiwan state-run banks could open branches in the Czech Republic, and the Czech Republic's permission for Taiwan's state-owned national carrier, China Airlines,† to operate direct flights there.[75]

Economics and Trade

Taiwan's economy had advantages that enabled it to face the COVID-19 pandemic from a position of strength. Prior to the outbreak, Taiwan maintained steady economic growth and a low unemployment rate, supported by Taipei's concerted efforts to attract Taiwan businesses back to the island amid slowing growth in China and U.S.-China trade frictions. These foundations, together with Taipei's robust response to the outbreak, enabled Taiwan's economy to weather the initial phases of the COVID-19 pandemic with relatively little disruption. Despite this early success, challenges mounted for Taiwan's economy as COVID-19's global spread accelerated, sapping external demand for Taiwan's exports. Depressed consumption and disruptions to services sector activity also led to fresh spikes in unemployment. In response, the Tsai Administration leaned on fiscal support to shore up business sentiment and reinvigorated its efforts to encourage investment in its information and communications technology (ICT) manufacturing sector amid global technology supply chain reshuffling.

Taipei's Response to COVID-19 Mitigates Initial Economic Disruption

Taipei's comprehensive and rapid response to COVID-19 limited the outbreak's initial impact on Taiwan's economy. As news of the novel coronavirus outbreak in Wuhan began to emerge in late

*The threats were made as the Netherlands grappled with nearly 40,000 confirmed coronavirus cases by the end of April and more than 4,800 deaths, which is a higher toll than the official number reported by China's authorities. Johns Hopkins University Center for Systems Science and Engineering, "Coronavirus COVID-19 Global Cases."

†China Airlines is Taiwan's state-owned national carrier; the "China" in the airline's name refers to the state claimed by the Republic of China, the government currently on Taiwan. Taiwan's government is in the process of considering whether to change the airline's name so as to avoid confusion with carriers from mainland China.

December 2019, Taipei instituted stringent measures for case identification and containment to stem the virus' transmission within Taiwan. For example, Taipei integrated its national health insurance and immigration customs databases to enable authorities to identify potential cases based on travel history and clinical symptoms.[76] These and other measures enabled Taiwan to avoid an economic lockdown, with Taiwan registering positive economic growth of 2.2 percent year-on-year in the first quarter of 2020 while growth in other Asian economies contracted in the same period.*[77] With factories still running, industrial production in Taiwan's export-reliant economy grew 9.1 percent year-on-year in the first quarter of 2020.[78] Underpinning this growth was strong global demand for electronic products† as the pandemic forced people to telecommute and schools moved to online learning. Overall, Taiwan's exports grew nearly 4 percent in the first quarter, driven by a 20 percent year-on-year surge in electronics components exports.[79]

Though Taiwan's economy capably weathered the COVID-19 pandemic's initial disruptions, sluggish demand in Taiwan's export markets wore on the economy as the year progressed. Consequently, in the first six months of 2020, Taiwan's gross domestic product (GDP) grew only 0.41 percent year-on-year.[80] Export growth was also weak, inching up just 0.16 percent in the same period.[81] Taiwan's Ministry of Finance stated exports may "come under pressure" in the second half of the year due to potential second waves of global COVID-19 infections and ongoing tensions in the U.S.-China trade relationship.[82] Taiwan's Directorate General of Budget, Accounting, and Statistics also forecasted full-year exports will narrow from $391.1 billion in 2019 to $374.1 billion in 2020, a decline of 4.3 percent year-on-year.[83]

The pandemic's disruptions to consumer sentiment and services industries pose sharper challenges to Taiwan's economy in 2020. Domestic retail sales contracted 1 percent year-on-year in the first eight months of 2020 as consumers opted to shop online.‡[84] Taiwan's food and beverage services sector was hard hit, with sales falling 6.7 percent year-on-year in the same period.[85] Separately, while Taipei's restrictions on inbound travel to Taiwan protected the island from importing COVID-19 cases, they also upended the tourism sector. Hotel earnings plummeted 40.3 percent year-on-year to $566.1 million in the first six months of 2020, an 11-year low, as fewer tourists visited the island and Taiwan citizens deferred domestic travel plans amid the pandemic.[86]

Disruptions to Taiwan's services industries, which accounted for nearly two-thirds of GDP§ and 60 percent of jobs in 2019, pushed

*For example, Q1 2020 growth in Singapore, South Korea, and China contracted 2.2 percent, 1.4 percent, and 6.8 percent, respectively. Andrew Salmon, "South Korea GDP Shrinks 1.4 Percent in First Quarter," *Asia Times*, April 23, 2020; Singapore's Ministry of Trade and Industry, *Singapore's GDP Contracted by 2.2 Percent in the First Quarter of 2020. MTI Downgrades 2020 GDP Growth Forecast to '-4.0 to -1.0 Percent,'* March 26, 2020; China's National Bureau of Statistics via CEIC database.

†Electronic products are Taiwan's top export. In 2019, Taiwan exported $135.2 billion of electronic products, accounting for 44.4 percent of total exports. Taiwan's Bureau of Foreign Trade, *Trade Statistics*.

‡In contrast to the fall in retail sales, online retail sales grew 17.2 percent year-on-year in the first eight months of the year. Taiwan's Ministry of Economic Affairs, *Sales of Wholesale, Retail and Food Services in August 2020*, September 23, 2020.

§Services accounted for 62.4 percent of Taiwan's GDP in 2019, while manufacturing and agriculture accounted for 36 percent and 1.7 percent, respectively. Taiwan's National Statistics from

up unemployment in early 2020 before moderating to 3.9 percent in June and holding steady through August, in line with the monthly average recorded in the Tsai Administration's first term.[87] The slowdown in job losses in June was notable as it was the first time in 29 years unemployment declined in that month. Typically, fresh college graduates looking for work drive up the jobless rate in the summer months.[88]

To contain the economic fallout, Taipei enacted $38.4 billion worth of fiscal stimulus measures, including low-interest rate loans to companies hit by the pandemic, wage subsidies, and discounts on utility and rent payments in industrial parks.[89] Taiwan's Ministry of Economic Affairs (MOEA) announced a separate subsidy program tailored to the services sector in April, with support for payroll and overhead costs for any business whose income has dropped by at least 50 percent.[90] The generation of $38 billion (new Taiwan dollars [NT] $1.1 trillion)* in investment from Taiwan companies with overseas operations and other Taiwan manufacturers since July 2019 further provides Taipei with a sustainable revenue base, limiting the drain of fiscal stimulus measures on government coffers.[91]

Taiwan Makes Mixed Progress in Reducing Economic Reliance on China

Although the Tsai Administration remains committed to its longstanding goal of reducing economic reliance on China, Taipei's progress on this front has been mixed. The Administration's signature New Southbound Policy,† which seeks to expand economic relations with countries in South and Southeast Asia and Oceania, has not significantly diversified Taiwan's trading relationships.‡ China remained Taiwan's largest trading partner for a sixth consecutive year in 2019, with cross-Strait goods trade accounting for nearly a quarter ($140.8 billion) of Taiwan's total trade in 2019 ($589.6 billion), a share that has held steady since 2015.[92] New Southbound Policy countries' share of Taiwan's total trade has hovered around 19 percent since the launch of the initiative, and the share fell to 18.5 percent ($108 billion) in 2019.[93]

The resilience of cross-Strait trade ties stems from complex and tightly linked consumer electronics supply chains, with goods trade between China and Taiwan consisting primarily of integrated circuit products and other electronic devices. For example, in 2019, equipment and intermediate goods used in semiconductor and other elec-

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the National Statistics Bureau, *Principal Figures*.

*Unless otherwise noted, this section uses the following exchange rate throughout: $1 = $NT 29.6.

†Launched in 2016, the New Southbound Policy seeks to reduce Taiwan's economic reliance on China by expanding economic, trade, tourism, and investment ties with 18 countries across South and Southeast Asia and Oceania. The specific countries are Australia, Bangladesh, Bhutan, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, New Zealand, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand, and Vietnam. Taiwan's Executive Yuan, *New Southbound Policy Promotion Plan*, September 5, 2016.

‡Though the New Southbound Policy has not yet meaningfully diversified Taiwan's trading relationships, some countries targeted as part of the initiative expressed interest in developing closer trade ties with Taiwan in 2020. In September, for example, a trade and investment attaché at the Embassy of Pakistan in Cairo, Egypt tweeted that she met with the director of the Taiwan Trade Center in Cairo, a non-profit trade promotion organization co-sponsored by the Taiwan government, to discuss bilateral trade relations. The post was later deleted, presumably due to concerns about Beijing's reaction given Pakistan's close economic relations with China. Ching-Tse Cheng, "Pakistan Pursues Trade Ties with Taiwan," *Taiwan News*, September 4, 2020; *Times of India*, "China's Ally Pakistan Secretly Developing Trade Ties with Taiwan," September 3, 2020.

tronics manufacturing accounted for 60.3 percent of Taiwan's total exports to China and 65.1 percent of total imports from China.[94]

Taipei's efforts to diversify investment ties away from the Mainland have been comparatively more successful than trade diversification efforts. Even before the COVID-19 outbreak, Taiwan companies sought to reduce their presence in China, with Taiwan's foreign direct investment (FDI) flows into the Mainland declining dramatically from their peak in 2010 (see Figure 1, Panel A).[95] The main reason for this decline is increased operational costs due to rising wages and more stringent regulatory standards in the Mainland.[96] The Tsai Administration has also presided over a decrease in investment flows from mainland Chinese companies into Taiwan, with the value of approved investment from these companies contracting 60.7 percent over three years, from $247.6 million in 2016 to $97.1 million in 2019.[97] Taipei's scrutiny of Chinese investment tightened further in 2020. In August, Taiwan's Investment Commission at MOEA unveiled draft regulations that would, among other things, bar mainland Chinese investors from indirectly acquiring stakes in Taiwan technology firms through third-party companies registered in Hong Kong or Macau and enhance investment review procedures to consider whether the Chinese investor has links to the CCP or PLA.[98]

Meanwhile, Taiwan's FDI in New Southbound Policy countries is gradually trending upward, reaching $2.7 billion in 2019, a 16.1 percent increase year-on-year (see Figure 1, Panel B).*[99] The rise in Taiwan's FDI in New Southbound Policy countries in 2019 is made more notable by the fact that Taiwan's total FDI in other countries fell by half in the same period. Though uncertainty created by the COVID-19 pandemic may crimp such investment activity in the short term, Taiwan's sustained efforts to deepen economic partnerships with New Southbound Policy countries are likely to push Taiwan manufacturers to continue reorienting operations toward them. For example, in December 2019 the Taiwan and Vietnam governments updated their bilateral investment agreement to provide strengthened protections for Taiwan investors in Vietnam, and Taiwan's MOEA has indicated it is in talks with other New Southbound Policy countries regarding similar agreements.†[100]

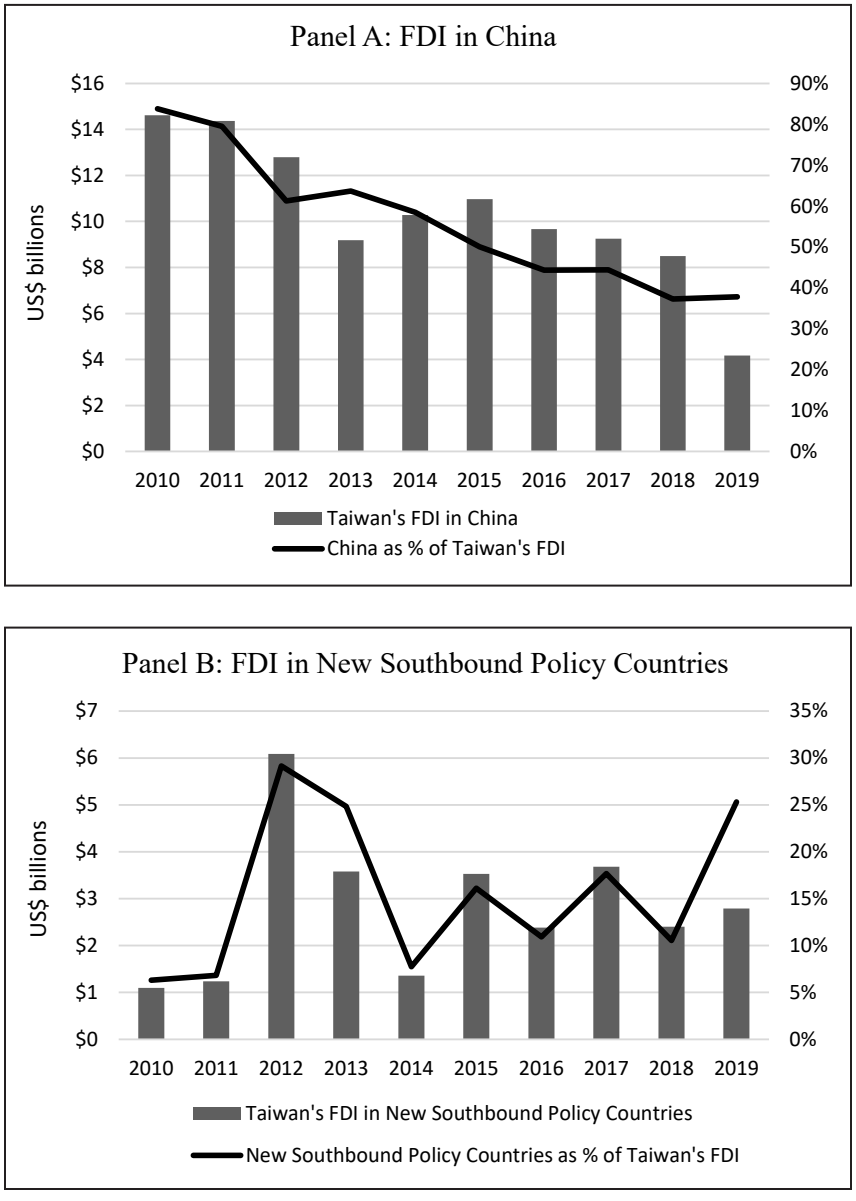
Taiwan Technology Supply Chains Evolve amid Trade Frictions, COVID-19

Taiwan companies play a central role in global consumer electronics supply chains and are of increasing geopolitical relevance to the United States and China. Because they use U.S. designs and

*Vietnam has been one of the largest beneficiaries of this diversification, with Taiwan contract manufacturers and suppliers following the multinationals they serve from China to the Southeast Asian country to reduce costs and circumvent U.S. tariffs. The trend continued in 2020, with several Taiwan suppliers to U.S. technology companies such as Microsoft, Apple, and Google announcing plans to deepen production in Vietnam as well as India and Indonesia. Huang Tzu-ti, "Google, Microsoft to Move Production Away from China over Coronavirus Concerns," *Taiwan News*, February 27, 2020; Michael Reilly, "Can Taiwan Decouple from the Chinese Economy?" *Taiwan Insight*, February 17, 2020; Debby Wu, "Apple Partner Pegatron to Set Up Production in Vietnam," *Bloomberg*, January 20, 2020.

†The upgrading of the investment agreement with Vietnam follows similar updates to other agreements made between Taiwan and countries targeted as part of the New Southbound Policy. In 2017 and 2018, for example, Taipei signed updated investment accords with the Philippines and India, respectively.

Figure 1: Taiwan's FDI, 2010–2019



Note: New Southbound Policy countries include Australia, Bangladesh, Bhutan, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, New Zealand, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, and Vietnam.

Source: Taiwan's Ministry of Economic Affairs, Investment Commission, *Monthly Report*, August 2020.

equipment to manufacture semiconductors and other components but sell much of their production to China, Taiwan's companies are particularly vulnerable to U.S.-China trade tensions and technology frictions.* As a result, Taiwan technology companies have taken steps since 2019 to relocate production capacity away from China and back to the island (see Table 1).[101]

Table 1: Selected Companies' Investment Plans in Taiwan Since January 2019

Company	Business Line	Investment Plan
Innolux	Liquid crystal display panel manufacturer	Spending $2.4 billion to relocate some panel production out of China and build an automated manufacturing facility in Taichung.
Yageo	Supplier of electronics components (e.g., chip resistors and capacitors)	Spending $1.1 billion to expand manufacturing capacity in Kaohsiung.
Unimicron Technology	Printed circuit board maker	Spending $895.2 million to expand production in Taoyuan, with 80 percent of planned capital expenditure in 2020 earmarked for Taiwan.
Kinsus	Printed circuit board maker	Spending $557.4 million to expand manufacturing operations in Taoyuan and Hsinchu.
ChipMOS	Semiconductor testing services provider	Spending $510.1 million to expand testing capacity in Tainan.
Quanta Computer	Electronics manufacturing services provider	Spending $506.8 million to build facility producing server parts for U.S. customers in Taoyuan.
Pegatron	Electronics manufacturing services provider	Spending $503.4 million to expand production and R&D facilities for telecommunications equipment in Taoyuan.
Ardentec	Semiconductor testing services provider	Spending $209.4 million to develop testing technology for semiconductors used in 5G telecommunications infrastructure and Internet of Things devices.

Source: Various.[102]

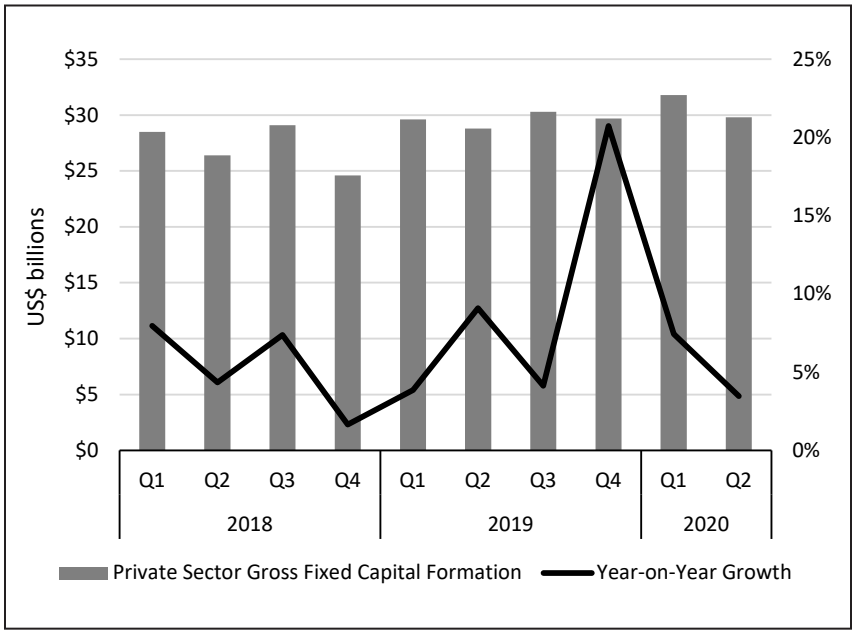
Taiwan electronics manufacturers' renewed interest in Taiwan as a base for industry is driven partly by investment incentive programs advanced by the Tsai Administration. In July 2019, Taipei launched "Invest Taiwan," a three-year program incentivizing Taiwan firms to increase their domestic investment through preferential loan financing, land rental concessions, assistance in ensuring stable water and electricity supplies, and other perks.[103] The initiative specifically targets Taiwan small- and medium-sized enterprises as well as companies with manufacturing operations in the Mainland that are adversely impacted by the U.S.-China trade dispute.[104] Taipei set a target for the initiative to generate $45.7 billion

*For background on the U.S.-China trade dispute and technological conflict and competition, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 1, "Year in Review: Economics and Trade" in *2019 Annual Report to Congress*, November 2019.

(NT $1.3 trillion) in domestic private sector investment and create 118,000 new jobs by December 31, 2021.[105]

Taiwan is on track to meet these targets ahead of schedule, with $38 billion (NT $1.1 trillion) in investment already generated and more than 94,000 new jobs created as of October 8, 2020.[106] Taiwan businesses returning from overseas have underpinned this success, accounting for nearly three-quarters ($26.6 billion) of total investment and 69.3 percent (65,219) of new jobs created.[107] Success of the program is further evidenced through a steady uptick in gross fixed capital formation by private enterprises in Taiwan, a proxy measure for investment, which grew 20 percent year-on-year to $29.6 billion by the fourth quarter of 2019 (see Figure 2).[108] It will take time, however, for such investments to be realized, and China remains a key market and production base for Taiwan companies, particularly in ICT sectors.* Additionally, dampened business sentiment arising from the COVID-19 pandemic is slowing the growth rate of private sector investment in Taiwan. In the second quarter of 2020, gross fixed capital formation by private enterprises grew just 3.5 percent year-on-year, reversing the gradual upward trend observed in 2019.[109]

Figure 2: Taiwan's Private Sector Gross Fixed Capital Formation, Quarterly, 2018–Q2 2020



Source: Taiwan's Directorate-General of Budget, Accounting and Statistics via CEIC database.

*For example, according to a study conducted by the McKinsey Global Institute, China accounted for 40 percent of global mobile phone sales and 19 percent of global computer sales from 2013 to 2017. Jonathan Woetzel et al., "China and the World: Inside the Dynamics of a Changing Relationship," *McKinsey Global Institute*, July 2019, 57.

Taipei indicated it will strengthen support for Taiwan companies seeking to move production out of China amid the pandemic. In February, Taiwan's then Minister of Economic Affairs Shen Jong-chin observed that "U.S. and European firms require [Taiwan] suppliers to adjust their production in China in light of the spreading pandemic" in offering the ministry's support to help Taiwan companies relocate to the island.[110] Taipei unveiled separate investment incentives targeting multinational ICT firms in 2020 as Taiwan manufacturers repatriated operations to the island. In June, Taiwan's MOEA announced it would spend more than $337.5 million in subsidies over the next seven years to attract R&D investment by foreign ICT companies, targeting $1.3 billion worth of total investment in 5G, artificial intelligence, and semiconductors.[111] The program would also apply to local Taiwan chip manufacturers that convince foreign suppliers of intermediate inputs to expand operations in Taiwan.[112] President Tsai reaffirmed Taipei's commitment to strengthening Taiwan's semiconductor industry, saying in a September forum with Taiwan chip manufacturers that her administration "will continue to consolidate the advantages of Taiwan's semiconductor industry" and "accelerate its transformation and development."[113]

TSMC Straddles U.S.-China Technology Frictions

With China accounting for 53 percent of global semiconductor consumption and Taiwan leading the world in semiconductor manufacturing capacity, Taiwan companies are uniquely exposed to U.S.-China technology frictions.[114] No company exemplifies these vulnerabilities better than Taiwan Semiconductor Manufacturing Company (TSMC), the world's largest semiconductor fabrication company, with 52 percent of global market share.[115] TSMC manufactures the semiconductor chips that underpin an array of emerging technologies, from 5G telecommunications infrastructure and Internet of Things-connected devices to those used in military applications such as aircraft, satellites, and drones. TSMC manufactures these chips across 17 foundries, two of which are in the Mainland.*[116]

In 2020, the Trump Administration held talks with TSMC to encourage expanded manufacturing investment in the Unit-

*Of the 17 foundries, 14 are located in Taiwan, two are located in mainland China, and one is located in the United States. The quality of chips TSMC manufactures across these foundries varies significantly. For example, TSMC's two foundries in Nanjing and Shanghai, China, can only produce chips as small as 16 nanometers (nm), while its Taiwan-based foundries can produce a greater variety of more advanced and smaller-sized chips, including those as small as 10 nm, 7 nm, and 5 nm, which are often used in 5G-enabled smartphones or to support artificial intelligence applications. Chinese customers, including Huawei semiconductor design firm HiSilicon, import these higher-end chips from TSMC's leading-edge facilities in Taiwan. Though strengthened U.S. export controls in 2020 have limited such transactions, HiSilicon already moved in 2019 to stockpile imports of TSMC chips as U.S.-China trade and technology frictions escalated that year. HiSilicon accounted for 14 percent of TSMC's sales in 2019. Scott W. Harold and Justin Hodiak, "China's Semiconductor Industry: Autonomy through Design?" *Institut Montaigne*, September 25, 2020; Josh Ye, "Huawei's HiSilicon Becomes First Mainland Chinese Chip Company to Enter Top 10 in Global Sales, Says IC Insights," *South China Morning Post*, May 7, 2020; *Economist*, "A Look inside the Factor around Which the Modern World Turns," December 18, 2019; Mathieu Duchatel, "Huawei's 5G Supply Chain: Taiwan Winning Twice?" *Institut Montaigne*, October 29, 2019; Michael S. Chase et al., "Shanghaied? The Economic and Political Implications of the Flow of Information Technology and Investment across the Taiwan Strait," *RAND Corporation*, July 2004, 91; TSMC, "GIGAFAB Facilities."

TSMC Straddles U.S.-China Technology Frictions—*Continued*

ed States.[117] TSMC subsequently announced on May 15 that it would build a $12 billion chip production plant in Arizona and would no longer accept orders from Huawei.[118] The decision to halt sales to Huawei came after the U.S. Department of Commerce Bureau of Industry and Security (BIS) published an interim final rule strengthening control over semiconductor exports to the company.[119] The preliminary rule effectively bars TSMC and other semiconductor firms that use U.S. technology or equipment for production from selling to Huawei without first securing a license from BIS.

The combination of tightened business ties between TSMC and its U.S. customers, including the U.S. military,* and strengthened U.S. export controls with respect to Huawei may complicate TSMC's ability to serve both U.S. and Chinese customers. Preliminary indications suggest TSMC is preparing to pare back its China business to comply with U.S. law and prioritize the U.S. market, with TSMC Chairman Mark Liu claiming U.S. customers could "fill the gap" of business lost from cutting sales to Huawei and its affiliates.[120] Despite these claims, financial and operating data reported by TSMC suggests the company will struggle to extricate itself from the Chinese market. Though U.S. clients account for the majority of TSMC's net revenue by geography, their share of total revenue has declined from 69.1 percent in 2014 to 60 percent in 2019, while China's grew from 6.6 percent to 19.4 percent in the same period.[121] Additionally, annual revenue growth from Chinese clients has averaged 33.5 percent since 2014, compared to a more modest 4 percent for U.S. clients.[122]

In response to tightened U.S. export controls and TSMC's planned investment in the United States, the Chinese government unveiled plans to invest $1.4 trillion by 2025 to increase China's self-sufficiency in emerging technologies.[123] Separately, China's state-backed China National Integrated Circuit Industry Investment Fund and the Shanghai Integrated Circuit Industry Investment Fund pledged a combined $2 billion of investment into Chinese chipmaker Semiconductor Manufacturing International Corporation.[124] Despite this enormous financial and policy support, Chinese semiconductor firms remain one to two generations behind international competitors and highly reliant on foreign semiconductor technology, with TSMC serving as China's largest semiconductor contract supplier.[125]

As U.S. policy pushes TSMC and other semiconductor firms to cut sales to China, Beijing may redouble its efforts to secure access to Taiwan's semiconductor innovation and expertise. Media reports suggest Chinese state-owned semiconductor manufacturers are strengthening their efforts to poach Taiwan engineering

*TSMC sells high-performance chips to U.S. military suppliers such as Xilinx, which in turn makes components for U.S. F-35 fighter jets and satellites. Lauly Li and Cheng Ting-Fang, "Exclusive: Washington Pressures TSMC to Make Chips in U.S.," *Nikkei Asian Review*, January 15, 2020.

TSMC Straddles U.S.-China Technology Frictions—*Continued*

talent and locate R&D centers near TSMC facilities in southern Taiwan, raising the possibility of industrial espionage.[126] The Taiwan business community has also expressed concern that the Chinese government could move to nationalize semiconductor manufacturing facilities of TSMC and other Taiwan companies in the Mainland.[127]

U.S.-Taiwan Economic and Trade Relations

Congress and the Trump Administration took steps in late 2019 and 2020 to deepen the U.S.-Taiwan trade and investment relationship and expand economic cooperation. Following an uptick in Beijing's political demands on foreign companies to recognize Taiwan as a part of China and to adhere to other policy positions held by the Chinese government,* the U.S. Departments of Commerce, Agriculture, and State issued a letter to Fortune 500 companies in late 2019 encouraging them to strengthen commercial engagement with Taiwan.[128] Separately, a bipartisan group of 161 Members of Congress sent a letter to the Office of the U.S. Trade Representative in December 2019 calling for "work toward beginning negotiations for a bilateral trade agreement with Taiwan."[129] The TAIPEI Act further expressed the sense of Congress that the U.S. Trade Representative should consult with Congress on opportunities to strengthen the U.S.-Taiwan economic relationship.[130] In an address at the National Taiwan University during his visit to Taiwan in August 2020, Secretary Azar affirmed that the United States expects its economic relationship with Taiwan to deepen, and noted in a separate statement to the press that his discussions with Taiwan officials touched upon prospects for a "bilateral trade agreement."[131]

Taipei also signaled renewed determination to upgrade the U.S.-Taiwan economic relationship. On August 28, President Tsai announced the Taiwan government would lift restrictions on U.S.

*The Chinese government has pressured individual U.S. companies to modify their products, online activity, and websites and social media accounts to reflect Beijing's views and preferences. For example, in January 2018, China's Civil Aviation Administration ordered all foreign airlines to change their designation of Taiwan to indicate Taiwan is a part of China. U.S. airlines American Airlines, Delta Airlines, and United Airlines complied with the demand. Separately, Beijing shut down Marriott's China website after the hotel company distributed an online survey to customers listing Taiwan as a country, while clothing retailer Gap apologized to the Chinese government for selling a t-shirt in North American retail stores showing a map of China that did not include Taiwan. Jinshan Hong and Iain Marlow, "NBA Loses More Sponsors as China Flexes Economic Muscle," *Bloomberg*, October 8, 2019; Sui-Lee Wee, "Giving In to China, U.S. Airlines Drop Taiwan (in Name at Least)," *New York Times*, July 25, 2018; Peter Harrell et al., "China's Use of Coercive Economic Measures," *Center for a New American Security*, June 2018, 8; Simon Denyer, "Gap Apologizes to China over Map on T-Shirt that Omits Taiwan, South China Sea," *Washington Post*, May 15, 2018; *BBC*, "China Shuts Marriott's Website over Tibet and Taiwan Error," January 12, 2018.

beef and pork imports,* a politically fraught decision† that removes a longstanding source of friction in U.S.-Taiwan trade relations.[132] President Tsai stated the "decision is in line with the country's overall interests and the goals of the nation's strategic development" and will also serve as "an important start for Taiwan-U.S. economic cooperation at all fronts."[133] Trump Administration officials and several U.S. senators lauded the announcement, with Vice President Mike Pence and Secretary Pompeo noting it "opens the door" for further economic and trade cooperation.[134] Separately, in early October, 50 U.S. senators sent a letter to U.S. Trade Representative Robert Lighthizer urging him to begin the "formal process of negotiating a comprehensive trade agreement with Taiwan," citing President Tsai's decision "to greatly increase accessibility for [U.S.] farmers and ranchers to do business in Taiwan."[135]

President Tsai's announcement catalyzed a broadening of U.S.-Taiwan economic engagement across several domains. Following President Tsai's announcement, Assistant Secretary Stilwell said the United States and Taiwan would launch a new Economic and Commercial Dialogue.[136] A statement from AIT further detailing the dialogue added it will be led by Under Secretary Krach and serve as a platform to "forge new areas of economic cooperation."[137] Taiwan's Minister of Economic Affairs Wang Mei-hua said in a press conference following Under Secretary Krach's visit to Taipei in September that U.S. and Taiwan officials held informal talks on the dialogue, with preliminary discussions focused on supply chain realignment and investment review policies, among other topics.[138]

Separately, AIT and the Taipei Economic and Representative Office (TECRO) announced in late September that both sides would form a "Framework to Strengthen Infrastructure Finance and Market Building Cooperation."[139] The framework will focus on strengthening U.S.-Taiwan cooperation in infrastructure investment and development finance in Southeast Asia and Latin

*Taiwan has restricted imports of U.S. beef and pork products since 2003 due to some U.S. farmers' use of ractopamine, a feed additive that produces leaner meat products, and other health and food safety concerns. In 2012, Taiwan's legislature changed regulations to allow U.S. beef imports with trace amounts of ractopamine, but it continued to limit other U.S. beef imports to cattle younger than 30 months, citing risks of mad cow disease. Proposals to similarly ease restrictions on imports of ractopamine-treated pork have faced stiff opposition from civic groups and Taiwan's local pig farming industry. President Tsai's August 2020 announcement resolves these outstanding issues, allowing imports of U.S. pork with trace amounts of ractopamine and U.S. beef products from cattle aged 30 months and older. President Tsai promised her government would set up a $340 million fund to support local Taiwan pig farmers to mitigate any impact on domestic industry. Chun Han Wong, "Taiwan to Ease Limits on American Pork and Beef, Smoothing Path for Trade Talks," *Wall Street Journal*, August 28, 2020; Miaojung Lin and Chris Horton, "Taiwan Eases U.S. Meat Limits in Step toward Trade Talks," *Bloomberg*, August 28, 2020.

†President Tsai's announcement carries some political risk, as the DPP has otherwise long opposed easing restrictions on ractopamine in deference to the island's pig farming industry and public concerns regarding food safety. For example, after President Tsai's announcement, Taiwan health experts called for a risk assessment on the health impacts of the long-term consumption of ractopamine, arguing food safety risks should not be shouldered by consumers. Separately, Taiwan pig farmers raised concerns that opening the Taiwan market to U.S. imports will increase competition and damage their economic livelihoods. The opposition KMT party submitted a petition in late September to hold a referendum on the decision. One public opinion poll conducted just before President Tsai's announcement found that 73.7 percent of Taiwan citizens opposed removing restrictions on U.S. pork imports in order to begin bilateral trade negotiations, while only 17.9 percent were in favor of doing so and 8.4 percent expressed no opinion. Chen Chun-hua et al., "KMT Submits Petition for Referendum on Government Pork Policy," *Focus Taiwan*, September 23, 2020; Nick Aspinwall, "Tsai Takes a Political Risk to Pursue a Taiwan-U.S. Trade Agreement," *Diplomat*, August 31, 2020.

America.* [140] An AIT statement describing the framework added it will contribute to concurrent efforts to bolster supply chain resilience, while Taiwan Minister of Foreign Affairs Joseph Wu said it complemented the U.S. Indo-Pacific Strategy and Taiwan's New Southbound Policy.[141]

Other pronouncements from Taiwan officials underscored Taiwan's interest in enhanced economic engagement with the United States. In an August interview with Taiwan news media, TECRO Representative Hsiao Bi-khim asserted that global supply chain realignment and rising U.S. concerns about supply chain security presented an opportunity for Taiwan to establish itself as a reliable economic partner to the United States.[142] Taiwan's MOEA separately announced it would work to establish a Taiwan-U.S. Business Center to expand "industrial cooperation" with the United States.[143]

The increased momentum toward expanded U.S.-Taiwan economic ties follows growth in overall bilateral trade in 2019. Taiwan's total trade with the United States grew 12.2 percent year-on-year to $79.2 billion in 2019, underpinned by an 18.4 percent year-on-year surge in exports as U.S. tariffs on Chinese exports diverted trade to Taiwan.[144] As a result, Taiwan became the United States' tenth-largest trading partner in 2019, moving up from the 11th spot in 2018 and halting a slide in the rankings over the past five years.[145]

While the sharp increase in Taiwan's overall exports to the United States in 2019 may signal expanded trade ties, the composition of trade raises concerns about transshipment by Taiwan companies to bypass U.S. tariffs. Many Taiwan companies manufacture computer and electronics products in China and may have rerouted their exports of such products via Taiwan to circumvent U.S. tariffs. For example, Taiwan exports of electronic components, computers, and related equipment (Chinese exports of which were subject to U.S. tariffs) jumped 34.6 percent year-on-year in 2019.[146]

Trade flows may also mischaracterize the significance of Taiwan to the U.S. economy due to global supply chain configurations. In 2019, U.S. firms placed export orders† with Taiwan manufacturers worth $140.3 billion, nearly three times the value of U.S. imports from Taiwan ($54.2 billion) in the same year (see Figure 3).[147] The United States also served as the largest source of Taiwan's export orders that year, accounting for 29 percent of the total.[148]

*The framework establishes a working group, led by the U.S. Department of the Treasury and Taiwan's Ministry of Finance, to identify and promote opportunities for public and private sector collaboration in the infrastructure sector through investment promotion. The first meeting of the Working Group is scheduled for Fall 2020. American Institute in Taiwan, "AIT-TECRO Infrastructure Financing Framework Strengthens U.S. and Taiwan Cooperation on Infrastructure Development in the Indo-Pacific," September 30, 2020.

†An export order is a document conveying the choice of a foreign purchaser to buy goods from an exporter, typically in two to three months' time. Once the goods are exported to the foreign buyer, they are recognized as exports for the country in which they were produced, not for the country in which the firm that manufactured the goods is based. This explains the divergence in U.S. imports from Taiwan and export orders placed with Taiwan firms. Taiwan manufacturers have moved the bulk of their labor-intensive manufacturing processes overseas, with 91.8 percent of export orders fulfilled by Taiwan firms in the ICT sector produced outside of Taiwan. Export orders for Taiwan are typically seen as a bellwether of global technology demand, with export orders for ICT products accounting for nearly a third ($144.8 billion) of all export orders received by Taiwan firms in 2019 ($484.5 billion). Ben Blanchard, "Taiwan May Export Orders Up, Flags Better Outlook though Wary of Pandemic," *Reuters*, June 20, 2020; Taiwan's Ministry of Economic Affairs, Department of Statistics, *Export Orders Survey*.

Figure 3: Comparison of U.S. Export Orders Placed with Taiwan Firms and U.S. Data on Merchandise Imports from Taiwan, 2002–2019

Source: U.S. Census Bureau, *Trade in Goods with Taiwan*, May 5, 2020; Taiwan's Ministry of Economic Affairs, Department of Statistics, *Export Orders Survey*.

Cross-Strait Military and Security Issues

The PLA intensified its provocative operations in the air and waters near Taiwan in 2020 while continuing its efforts to train and equip the force for a wartime campaign against the island. As the PLA dialed up its pressure, the Tsai Administration continued to emphasize asymmetric capabilities in the island's defense modernization drive as the United States took several notable steps to deepen its support for Taiwan in the military realm. U.S.-Taiwan defense ties remained consistent with the framework established by the Taiwan Relations Act as the cross-Strait military balance tipped further in Beijing's favor.

Beijing Increases Military Pressure on Taiwan

The PLA conducted numerous and frequent military activities around Taiwan in 2020, actions China's Ministry of National Defense framed as consistent with its longstanding efforts to deter "Taiwan separatist forces" and improve the PLA's operational capabilities.[149] The PLA's activities around Taiwan this year, however, surpassed those recorded in 2019 both in their frequency and aggressiveness. The increase in PLA activity around Taiwan in 2020 fits an historical pattern whereby China displays military might in proximity to important political events on the island and signals to both Taipei and Washington its resolve to achieve unification.*

*China has historically displayed its military might around important events in Taiwan's electoral cycle or the CCP's political calendar. During the Taiwan Strait Crisis of 1995–1996, the PLA carried out a series of live-fire missile tests landing in the waters near Taiwan after then President Lee Teng-hui delivered a speech at Cornell University in 1995 and in the months before Taipei's first direct presidential election in 1996. Several PLA exercises—including live-fire naval and air exercises near the Penghu Islands and a large-scale amphibious landing near Matsu—stoked fears of an imminent invasion. China's military pressure prompted the United States to send two aircraft carrier battle groups to the area and contributed to a 5 percent boost for then

Yet the PLA's activities also create new facts on the ground by abrogating norms that once managed tensions across the Strait, such as earlier practices to avoid crossing the median line* or entering Taiwan's ADIZ, and by asserting Beijing's prerogative to operate in the air and waters around Taiwan, which it claims as its sovereign territory. The more frequent presence of PLA aircraft and naval vessels around Taiwan also increases the probability of an incident that could lead to a crisis in the Strait.

The PLA Aims to Deter "Taiwan Independence Forces"

The PLA's operations around Taiwan in late 2019 and 2020 served both to express Beijing's displeasure at political developments on the island and to attempt to deter moves by Taipei toward independence. China's newest aircraft carrier, *Shandong*, sailed north through the Taiwan Strait in late December in an apparent effort to frighten voters ahead of the January presidential and legislative elections.[150] PLA fighter jets, early warning and control aircraft, and H-6K bombers circumnavigated the island during a joint aerial and naval exercise in February that Chinese state media framed as a response to Taiwan Vice President-elect Lai's contemporaneous visit to the United States.[151] China's other aircraft carrier, *Liaoning,* passed by the eastern and southern coasts of Taiwan in April several weeks ahead of President Tsai's inauguration, forcing the island to dispatch warships to monitor its movements.[152] Chinese military aircraft entered Taiwan's ADIZ nine times in June alone, incursions that potentially expressed Beijing's displeasure with Washington's approval of a possible sale of heavyweight torpedoes to Taiwan in May or the island's preparations to accept refugees from Hong Kong throughout the spring.†[153]

President Lee in the March election, an indication that Beijing's efforts to intimidate Taiwan's electorate were counterproductive. Cross-Strait tensions mounted during then Taiwan President Chen Shuibian's second term (2004–2008) after Chen proposed a referendum on the island's bid to enter the UN under the name of "Taiwan" rather than its official name, the Republic of China. China responded to moves by Chen perceived as "provocative" by staging a large-scale, multiservice exercise in 2005 tied explicitly to a Taiwan invasion, passing the Anti-Secession Law—which promoted a purposely ambiguous definition of activities Beijing regarded as "red lines"—and unveiling a powerful new air defense system to complement its force of surface-to-air missiles targeting Taiwan. The PLA began to conduct circumnavigation flights around Taiwan after the election of current President Tsai in 2016, and the frequency of its training flights near the island appeared to increase after the CCP's 19th Party Congress in October 2017. David A. Shlapak et al., *A Question of Balance: Political Context and Military Aspects of the China-Taiwan Dispute*, RAND Corporation, 2009, 20–21; David Lague, "China and Taiwan Flex Military Muscles," *New York Times*, October 10, 2007; U.S. Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China,* 2006, 3; Qimao Chen, "The Taiwan Strait Crisis: Causes, Scenarios, and Solutions," in Suisheng Zhao, ed., *Across the Taiwan Strait: Mainland China, Taiwan, and the 1995–1996 Crisis*, Routledge, 1999, 127.

*The median line, also known as the center line, is an informal demarcation extending down the middle of the Taiwan Strait. The line was drawn in 1955 by General Benjamin O. Davis, then commander of the U.S. Air Force's Taiwan-based 13th Air Force. In the decades following the drawing of the median line, Taiwan's military superiority made it too dangerous for PLA aircraft to cross the line. In fact, the Taiwan military never publicly acknowledged the median line until 1999, when the PLA's previous deliberate crossing occurred, because it could control the airspace over the entire Taiwan Strait. With the shift in the cross-Strait military balance in China's favor over the last two decades, this is no longer the case. For more, see U.S.-China Economic and Security Review Commission, Chapter 5, "Taiwan," in *2019 Annual Report to Congress*, November 2019, 449.

†Most of these incursions involved Chinese military aircraft entering the southwest corner of Taiwan's ADIZ and included the following: two H6-K bombers on June 28; one H6-K bomber and one J-10 fighter jet on June 22; one J-10 fighter jet on June 21; one J-10 fighter jet on June 19; one J-10 fighter jet and one J-11 fighter jet on June 18; one J-10 fighter jet and a Y-8 transport plane on June 17; one J-10 fighter jet on June 16; one Y-8 transport plane on June 12; and several Su-30 fighter jets on June 9.

China's government also made clear that it would deviate from longstanding norms underpinning cross-Strait stability by asserting that it did not recognize the existence of the median line and repeatedly dispatching PLA aircraft to fly in the area. China's Ministry of Foreign Affairs announced in September that "there is no median line," despite the fact that the PLA had previously observed a tacit practice by which aircraft from both militaries stayed on their respective sides of the line.[154] Chinese military aircraft had crossed the median line of the Taiwan Strait on at least four days in 2020 as of October 15, after only one such incursion in 2019 and none in the 20 years prior.[155] Two of those occurred during Under Secretary Krach's September visit to Taiwan, when the PLA flew several types of its advanced fighter jets over the median line on two consecutive days as its bomber and transport aircraft intruded on the southwestern corner of Taiwan's ADIZ.[156] The PLA had responded to Secretary Azar's visit the month before by dispatching an unspecified number of J-10 and J-11 fighter aircraft to cross the median line, activity Taiwan's Ministry of National Defense said it had tracked with its land-based anti-aircraft missiles and "strongly driven out" with its own patrol aircraft.[157]

Beijing paired this military signaling with threatening rhetoric that underscored its willingness to punish Taiwan for behaviors it deemed steps toward de jure independence. Speaking at a gathering in Beijing to mark the 15th anniversary of the Anti-Secession Law,* Central Military Commission member and Joint Staff Department Chief Li Zuocheng said China would attack Taiwan if it felt there was no other way to prevent its independence.[158] While Beijing consistently refuses to renounce the use of force against the island, public statements of this type from such a high-ranking military official could be viewed as a direct warning to Taipei.†

The PLA also conducted trainings and large-scale exercises that honed operational capabilities relevant to a Taiwan contingency. The PLA's February exercise practiced what the Eastern Theater Command described as "air-ground assault and firepower support" operations while focusing on jointness between air and sea forces, one of the stumbling blocks in the PLA's efforts to cultivate a credible invasion capability.[159] Eastern Theater Command Air Force spokesman Zhang Chunhui said in a press conference that the exercise was intended to deter "Taiwan independence forces" and emphasized the PLA's combat readiness for a Taiwan campaign, breaking with

*The 2005 Anti-Secession Law is a domestic law that asserted Taiwan is a part of China, despite the fact that the People's Republic of China has never exercised control over the island, and laid out a vague set of conditions under which Beijing could employ "non-peaceful" means to forestall Taiwan's separation or independence from China. Article 8 states the following: "In the event that the 'Taiwan independence' secessionist forces should act under any name or by any means to cause the fact of Taiwan's secession from China, or that major incidents entailing Taiwan's secession from China should occur, or that possibilities for a peaceful reunification should be completely exhausted, the state shall employ non-peaceful means and other necessary measures to protect China's sovereignty and territorial integrity." *Xinhua*, "Anti-Secession Law Adopted by the NPC (Full Text)," March 14, 2005.

†"If the possibility for peaceful reunification is lost, the People's Liberation Army will, with the whole nation—including the people of Taiwan—take all necessary steps to resolutely smash any separatist plots or actions," General Li said. "We do not promise to abandon the use of force, and reserve the option to take all necessary measures, to stabilize and control the situation in the Taiwan Strait." However, Li Zhanshu, chairman of the standing committee of the National People's Congress, emphasized at the same event that nonpeaceful means were the option of last resort. Yew Lun Tian, "Attack on Taiwan an Option to Stop Independence, Top China General Says," *Reuters*, May 28, 2020.

Chinese officials' usual practice of portraying exercises that target the island as routine.[160] Chinese military aircraft also conducted nighttime sorties over the waters southwest of Taiwan for the first time ever in March, marking an improvement in the PLA's ability to operate in challenging conditions.[161]

In May, the PLA began a 78-day joint exercise in the Bohai Sea that reportedly included pitting multiple regiments against each other for scenarios such as an amphibious landing, a seizure of small islands, and establishing an invasion beachhead, as well as anti-air and antimissile maneuvers.[162] Although the PLA often trains and tests weapons in the Bohai Sea, the timing of the exercise around President Tsai's inauguration, as well similarities between the width and hydrogeological features of the Bohai Sea and the Taiwan Strait, led some Chinese analysts and observers in the press to conclude the exercise was intended to send a deterrent signal to Taipei.[163]

The PLA also conducted several exercises this summer relevant to a Taiwan contingency. Just a day after Secretary Azar completed his visit to Taiwan in August, the PLA Eastern Theater Command announced that multiple services took part in simultaneous exercises at the northern and southern ends of the Taiwan Strait.[164] Eastern Theater Command spokesperson Senior Colonel Zhang Chunhui said the exercises were "a necessary move responding to the current security situation in the Taiwan Strait and were meant to safeguard national sovereignty."[165] The August exercises came several weeks after the PLA held two large-scale drills involving the Eastern and Southern Theater Commands in waters to the west and north of Taiwan in late July.[166] Media reports had also indicated that the PLA planned to conduct a large-scale beach landing drill in August near Hainan to simulate a seizure of Taiwan's Pratas Islands, spurring Taiwan to hold an annual firing exercise around the islands in June and send a Marine company of 200 personnel to reinforce the garrison on the Pratas Islands in early August.[167] No corresponding PLA exercise ultimately materialized that month, however.

The PLA appeared to make good on its implicit threats to the Pratas Islands, however, when it conducted a large-scale joint air and naval exercise in early September in the area between the Pratas and Taiwan's southwestern coast, which falls within Taiwan's ADIZ.[168] Major General Young Ching Se, vice minister for intelligence at Taiwan's Ministry of National Defense, remarked afterward that the PLA was "using the pretext of an exercise to squeeze [Taiwan's] operating space."[169] The PLA also conducted an exercise simulating an island invasion on Taiwan's National Day holiday on October 10, moving forces between multiple locations in the coastal provinces of Guangdong and Fujian.[170] The exercise reportedly involved drones, special forces, and airborne troops.[171]

The PLA Asserts Beijing's Prerogatives in the Taiwan Strait

PLA activity near Taiwan occurred more often in 2020 than it did in the past five years and exhibited sophisticated capabilities relevant to an island campaign, suggesting Beijing is seeking to assert its prerogative to control the area around Taiwan and potentially mulling a shift in military strategy toward the island. As depicted in Figure 4, PLA air

operations around Taiwan over the last five years remained under ten flights per year in 2015 and 2016; reached 24 flights in 2017; declined throughout 2018 and 2019 to 14 and seven flights, respectively; and then rose to 38 flights in 2020 as of October 14. The PLA flew more than five times more often around the island in 2020 than in 2019, crossing onto Taiwan's side of the median line on four occasions as of mid-October and making frequent incursions into Taiwan's ADIZ.

Compared to previous years, when the PLA's operations involved mostly transport, reconnaissance, and H-6K bomber aircraft flying through the Miyako Strait and Bashi Channel, PLA activity around Taiwan in 2020 featured a greater diversity of flight routes, more types of advanced fighter aircraft, larger formations, and a first-ever nighttime exercise in March.* The increase in flights in 2020 followed President Tsai's reelection, an outcome Beijing had hoped to avoid, and mirrored the spike in 2017 flights after the CCP's 19th Party Congress.

The PLA's activity around Taiwan creates new precedents by normalizing its presence around the island, identifying the limits of Taiwan's defense capabilities, straining its capacity to respond militarily, and eroding the public's morale.[172] The spate of incursions by Chinese military aircraft into Taiwan's ADIZ in June, for example, appeared to probe Taiwan's defensive capabilities and occurred over Taiwan's southwestern waters, an area Taipei-based think tank researcher Chieh Chung believes corresponds to the Penghu Islands and some analysts regard as a potential target in a PLA campaign.[173] DPP legislator Tsai Shih-ying acknowledged the strain PLA activities place on Taiwan's defenses when he told the Liberty Times that PLA aircraft violating Taiwan's airspace now often take off from bases in central China rather than sticking to their previous practice of taking off from bases in southeast China.[174] If the PLA continues to routinely fly its aircraft from different locations, Mr. Tsai said, Taiwan's military will find it increasingly difficult to detect and assess PLA activities of concern.[175] PLA activity such as the June aerial incursions could also arguably be considered "gray zone" activities, or coercive actions to change the status quo that remain below the threshold justifying a kinetic military response.†[176] In their totality, the PLA's activities are significant because they increase the dangers and pressures Taiwan faces in its security environment.

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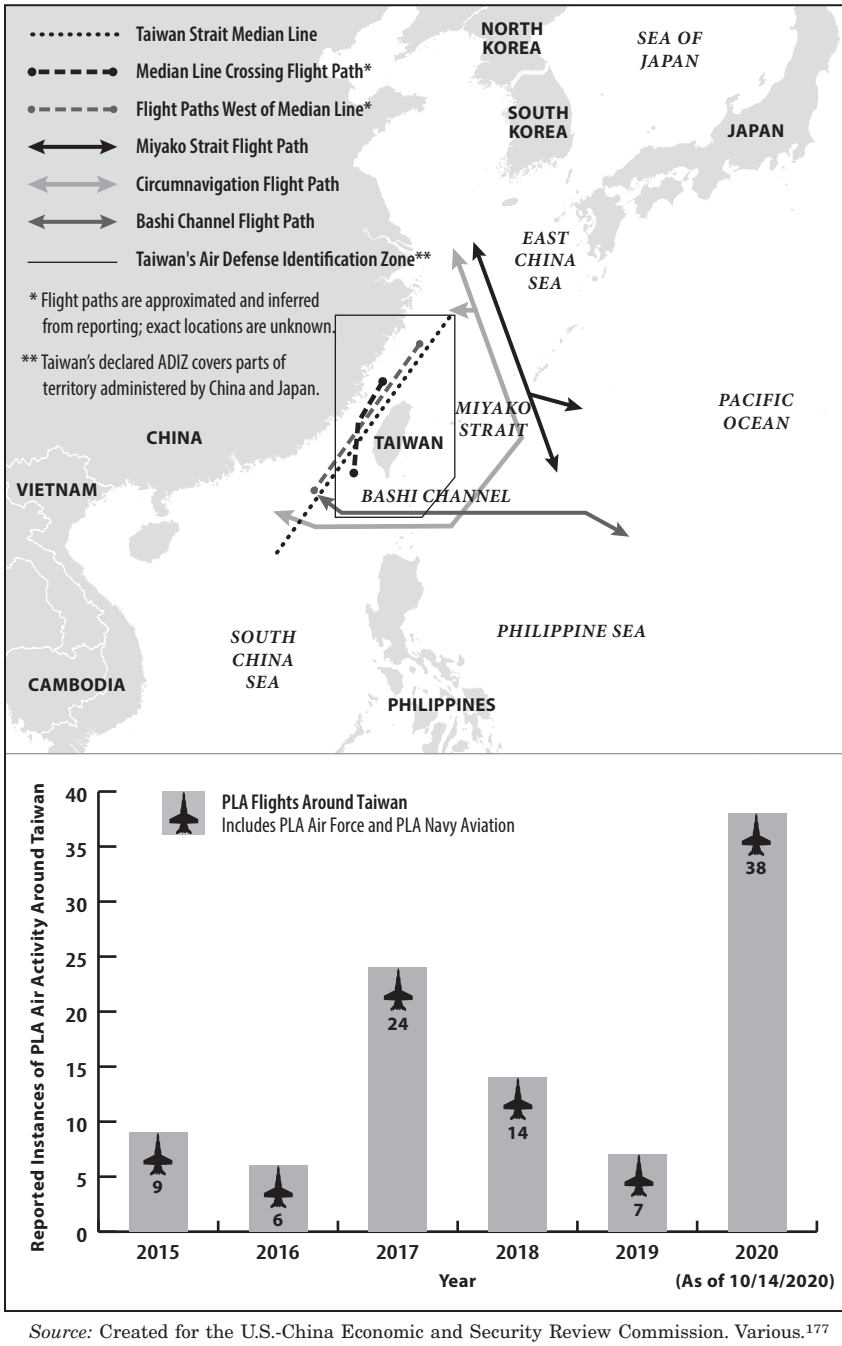
*PLA flights in 2020 involved crossings of the median line, flights along the western side of the median line, circumnavigations, flights through the Miyako Strait, flights over Taiwan's southwestern waters that entered various portions of Taiwan's ADIZ, flights through the Bashi Channel and back, and flights into the Western Pacific via the Bashi Channel and Orchid Island. Flights in 2020 appeared to be conducted mostly by the PLA Air Force, whereas flights in 2015 frequently involved PLA Navy Aviation. Aircraft the PLA has flown near Taiwan this year included J-10 fighters, J-11 fighters, H6-K bombers, Y-8 transport aircraft, Su-35 fighters, Su-30 fighters, KJ-500 early warning and control aircraft, KJ-600 early warning and control aircraft, and an additional unspecified type of electronic reconnaissance aircraft. In contrast to previous years, in which most aircraft flown were transport and reconnaissance aircraft, most of those flown in 2020 were fighters or bombers. Commission staff database of PLA training flights around Taiwan, derived from a variety of sources over the last five years, including press releases and products from Taiwan's Ministry of National Defense; Japan's Ministry of Defense Joint Staff; the Institute for National Defense and Security Research; and media coverage.

†Chieh Chung, a research fellow at the Taiwan-based think tank National Policy Foundation, observed that the June aerial incursions displayed similarities with China's approach to the Senkaku Islands. China's fighter aircraft have flown frequent missions near Japan's Senkaku Islands since 2012, straining the capacity of Japan's Air Self Defense Force to respond and reinforcing erroneous perceptions within the international community that the territory is rightfully in dispute. Matt Yu and Matthew Mazzetta, "China Fighter Jet Enters Taiwan's Air Defense Identification Zone," *Central News Agency*, June 16, 2020.

Figure 4: PLA Air Activity Near Taiwan, 2015–2020



Source: Created for the U.S.-China Economic and Security Review Commission. Various.[177]

China's Gray Zone Tactics in the Taiwan Strait

Security analysts in both Taipei and Washington have argued that China uses gray zone tactics to bolster its sovereignty claims over Taiwan by normalizing its presence around the island and establishing the trappings of administrative control when possible.[178] A 2019 RAND Corporation study defined the "gray zone" as "an operational space between peace and war, involving coercive actions to change the status quo below a threshold that, in most cases, would prompt a conventional [kinetic] military response, often by blurring the line between military and nonmilitary actions and the attribution for events."[179] Gray zone tactics can occur through military intimidation, paramilitary activity, the economic activities of state-owned enterprises or private proxies, information operations, diplomacy, and economic coercion.[180]

China perpetrates a number of activities around Taiwan consistent with this definition of gray zone:

- *Military intimidation:* The PLA frequently flies fighters, bombers, transport, and reconnaissance aircraft around Taiwan, at times entering its ADIZ or crossing the median line, which it declared in September does not exist (see Figure 4).
- *Paramilitary activity:* Speedboats likely affiliated with China's maritime militia swarmed and attacked two Taiwan Coast Guard Administration cutters in March, hurling rocks and bottles.[181]
- *Economic activity of state-owned or private actors:* Chinese fishermen and dredgers frequently engage in illegal fishing and sand collection in Taiwan's territorial waters, depleting fish stocks and damaging the local marine ecosystem while establishing a presence that can bolster claims to administrative control.[182] In response to recent sightings of Chinese fisherman operating around the Pratas Islands, Taiwan's Coast Guard Administration announced in July it would step up enforcement of laws against mainland fishermen engaged in illegal activity.[183] Taiwan's Ocean Affairs Council also publicized statistics in July showing a sharp increase in the presence of mainland dredging vessels in Taiwan's waters in 2020. While Taiwan Coast Guard Administration patrol vessels only intercepted two Chinese dredgers in 2017 and 71 in 2018, they intercepted 600 in 2019 and 2,988 between January and July of 2020 alone.[184]
- *Information operations:* China is engaged in a robust disinformation campaign against Taiwan over social and traditional media to sow public distrust of the DPP leadership, a feeling of hopelessness about the island's future, and false information about the origins of the COVID-19 pandemic.[185]
- *Diplomacy:* China has leveraged diplomacy to bolster its claims to sovereignty over Taiwan and administrative control over its affairs. For example, the WHO and ICAO both refer to Taiwan as a province of China, due to Beijing's in-

China's Gray Zone Tactics in the Taiwan Strait—*Continued*

sistence that these organizations abide by its "One China" principle.[186] China's government has also insisted on its prerogative to provide Taiwan's COVID-19 case numbers to the WHO.[187]

- *Economic coercion:* China has successfully pressured multinational companies and airlines to describe Taiwan as a province of China in their products and on their websites.[188]

The PLA's operations near Taiwan in 2020 may also reflect experimentation with new wartime strategies. For example, the PLA's circumnavigation flights and naval transits through the Miyako Strait suggest the PLA could attack Taiwan from the north or the east in addition to launching attacks on the island's western side as Taiwan defense planners and U.S. analysts have traditionally assumed. It is also possible, however, that the increase in PLA activity near Taiwan this year simply reflects the fact that the PLA now has many more capabilities and types of equipment to employ in its routine operations east of the first island chain. Moreover, the PLA's flights through the Miyako Strait and into the Western Pacific serve to pressure Japan and the United States, not just Taiwan.

PLA Activities around Taiwan Increase Odds of a Crisis

The increase in aggressive PLA activity documented near Taiwan in 2020 highlighted Beijing's tolerance for risk and challenged longstanding U.S. interests in the peace and stability of the Taiwan Strait. While the CCP has staked its legitimacy on the resolution of the "Taiwan question" for decades, the PLA has historically displayed little appetite to confront Taiwan forces directly for fear of provoking intervention by the United States. This year's activities in the Taiwan Strait, however, suggest the PLA is more confident of its capabilities and more willing to test the limits of U.S. and Taiwan forbearance than before.

Moreover, the PLA's activities increase the probability of a future crisis or other dangerous situation in the Strait. Greater numbers of PLA aircraft, ships, and even maritime militia vessels operating near Taiwan or its outlying islands will lead to more frequent, close interactions with Taiwan's Air Force or responding Coast Guard units, which could result in miscalculations, collisions, or other accidents that might challenge the two sides' ability to communicate about and resolve a crisis. Two events in 2020 underscored the possibility of such unsafe encounters: a PLA fighter jet took the provocative step of briefly locking its radar onto an intercepting Taiwan fighter jet in February,* while speedboats likely affiliated with China's maritime militia

*Radar lock-on indicates that a target has been acquired by an aircraft's missile guidance system and precedes the firing of a missile.

PLA Activities around Taiwan Increase Odds of a Crisis—*Continued*

rammed two Taiwan Coast Guard vessels off the coast of Kinmen in March.* [189]

China's announcement that it does not recognize the median line and repeated crossings of the line by Chinese military aircraft in 2020 reflected a deterioration of longstanding expectations governing military activity in the Taiwan Strait that previously contributed to cross-Strait stability. Chinese military planners' doctrinal approaches to escalation control may also predispose the PLA to use force in ways it believes are consistent with deterrence but which could seem like warfighting to Taiwan or other actors in the region.[190] All of these factors raise the worrying possibility that an accident or skirmish could escalate into a crisis or conflict in the Taiwan Strait.

The PLA's Current Capabilities and Limitations for a Taiwan Campaign

The increase in PLA activity this year occurred in tandem with the debut of capabilities that better position the PLA to carry out a range of operations against Taiwan. China's Type 055 (RENHAI) guided-missile destroyer was commissioned in January and would play a crucial role in an amphibious invasion scenario, small or large, by protecting China's landing force from intervening U.S. forces and attacks by Taiwan's air and maritime forces.[191] The PLA also launched its second Type 075 (YUSHEN) flattop landing helicopter dock, the PLA Navy's largest and most capable amphibious assault ship, at a Shanghai shipyard in April.[192] If the PLA were to attempt any number of coercive scenarios, the Type 075 would be instrumental in transporting troops and landing craft, hovercraft, and helicopters on Taiwan or the smaller islands and features.[193] The PLA has also acquired hundreds of ground-launched cruise missiles and between 750 and 1,500 short-range ballistic missiles that can be used to strike targets across the island for the purpose of punishing Taiwan or executing the early stages of a campaign.[194]

The U.S. Department of Defense (DOD) assesses that the PLA is capable of carrying out a range of military operations against Taiwan short of a large-scale amphibious operation to punish Taiwan or accomplish other military objectives. These operations include an air and maritime blockade of Taiwan, air and missile strikes against targets across the island, or a seizure of Taiwan's offshore islands, all options that could be implemented individually or in combination.[195] (See Chapter 3, Section 2, "China's Growing Power Projection and Expeditionary Capabilities," for further discussion of the PLA's modernization and continued capability shortfalls, re-

*The 9th (Kinmen) Offshore Flotilla of the Taiwan Coast Guard Administration reported that more than ten Chinese speedboats attacked its vessels. Crew aboard the speedboats hurled rocks, threw bottles, and rammed two cutters. Coast Guard Administration officers responded by throwing six stun grenades and firing five bean bag rounds at the Chinese boats, prompting them to retreat. One Coast Guard Administration officer told the Taiwan media outlet *Liberty Times*, "We've never seen more than 10 Chinese speedboats swarm and aggressively attack like this." See Keoni Everington, "10 Chinese Speedboats Attack Taiwan Coast Guard Cutters," *Taiwan News*, March 20, 2020.

spectively.) The PLA could supplement these options with actions designed to disrupt critical infrastructure on Taiwan or its offshore islands, or use special operations forces to assassinate Taiwan's leaders.[196]

A successful large-scale amphibious invasion, most commonly described in terms of an operational concept known as the Joint Island Landing Campaign,* would require the PLA to control the air and waters around Taiwan, land on one or more of the island's few accessible beaches, and continuously transport both forces and materiel to the designated landing sites.[197] The PLA's most immediate limitation in executing a Taiwan campaign is a shortage of amphibious lift, or ships and aircraft capable of transporting the troops the PLA needs to successfully subjugate the island.†[198] According to independent analyst Kevin McCauley, the PLA is currently capable of transporting the main combat elements (though not all personnel and equipment) of one or two infantry brigades and two armored and/or mechanized brigades.‡[199] U.S. intervention would also greatly increase the complexity of a PLA invasion of the island.[200] Retired PLA Air Force Major General Qiao Liang, a notoriously hawkish voice within China's security establishment, alluded to the danger a failed invasion could pose to the CCP when he remarked in early May that a war with Taiwan would be "too costly" because it could jeopardize China's ambitions for national rejuvenation.[201]

Yet the PLA is working to rectify its lack of amphibious lift in creative ways that may challenge foreign preconceptions of what the PLA can and cannot do in an invasion of Taiwan. One of the PLA's most notable adaptations is its growing use of civilian vessels and aircraft for military logistics, a strategy that has been employed by the force since its failed attack on the Taiwan-controlled island of Kinmen in 1949.§[202] China's 2017 National Defense Transportation Law and 2010 National Defense Mobilization Law have sought to resolve longstanding problems involving the mobilization of civilian assets in wartime, the incorporation of military standards into civilian construction, and compensation for requisitioned civilian assets.[203] The PLA continued limited training with civilian shipping vessels in 2020 that could support the landing of second echelon

*According to DOD, the Joint Island Landing Campaign "envisions a complex operation relying on coordinated, interlocking campaigns for logistics, air, and naval support, and electronic warfare. The objective would be to break through or circumvent shore defenses, establish and build a beachhead, transport personnel and materiel to designated landing sites in the north or south of Taiwan's western coastline, and launch attacks to seize and occupy key targets or the entire island." For more, see U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 2019, 84–85.

†DOD concludes that there is "no indication China is significantly expanding its landing ship force at this time—suggesting a direct beach-assault operation requiring extensive lift is less likely in planning." U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 2019, 88.

‡DOD does not provide a public estimate of how many troops and how much equipment China is capable of transporting across the Strait at this time.

§The PLA planned to rely on fewer than 300 civilian fishing boats to transport 20,000 troops to Kinmen's shores in groups for the 1949 assault. After the fisherman dropped off the first three regiments of PLA troops, or about 8,700 men, on the beachhead, they became stranded on their return journey to pick up the second landing group as the tide went out. The KMT defenders on Kinmen destroyed every single boat, and subsequently annihilated the three PLA regiments stranded on the shore. The defeat has remained a painful memory informing PLA military planning ever since. See Maochun Miles Yu, "The Battle of Quemoy: The Amphibious Assault That Held the Postwar Military Balance in the Taiwan Strait," *Naval War College Review* 69:2 (Spring 2016): 94–96.

forces in a wartime scenario after the PLA seizes one of Taiwan's ports or constructs temporary wharves to offload civilian ships.[204] In June, for example, a Chinese television report showed personnel and equipment from at least three battalions of the PLA 74th Group Army's heavy 16th Combined Arms Brigade practice loading a large civilian roll on-roll off ("ro-ro") ship.[205]

China has also invested heavily in rotary-wing aircraft, which could supplement the PLA's ability to transport troops or provide fire support for landing amphibious forces. The army aviation brigades and air assault brigades of the five group armies falling under the PLA Eastern and Southern Theater Commands have about 350 helicopters, while the PLA Air Force Airborne Corps has about 40 helicopters.[206] According to the China Aerospace Studies Institute, images of PLA Army Aviation attack helicopters under the Eastern Theater Command flying frequent low-altitude missions over water, carrying large fuel tanks, and refueling on China's coastal islands suggest helicopters may play a prominent role in an invasion of Taiwan.[207] In August, multirole helicopters from the 71st Group Army aviation brigade also practiced a medical evacuation operation that involved taking off from land, moving over water, and landing on a prepositioned civilian ship for refueling and rearming.[208] Dennis Blasko, an independent analyst and former U.S. military attaché in Beijing, argues that this particular exercise has clear applications to a Taiwan contingency and represents an "important evolutionary step" in the PLA's development of effective procedures for creating Forward Arming and Refueling Points, or designated areas where aircraft such as helicopters can refuel and rearm.[209]

The PLA still regards its own capabilities as lagging behind those of the United States, a fact that may inform Chinese leaders' assessment that they would be unlikely to win a conflict over Taiwan that involved the United States if it were to happen today.[210] At the Commission's June hearing, CNA principal research scientist Alison Kaufman argued that China's perception of the credibility of the U.S. commitment to fight is the most crucial determinant of a decision to attack the island in the near term. "If China's leaders believe that attacking Taiwan will certainly trigger an overwhelming U.S. response in some domain, military or otherwise, then they'll probably calculate it's not worth that risk, unless Taiwan independence is truly imminent," Dr. Kaufman said.[211] "If, on the other hand, they're fairly certain that the U.S. won't intervene, or that the PLA could preclude the U.S. from intervening effectively, then the odds in China's favor become much better."[212] Putting aside a full-scale invasion, Beijing is likely currently capable of seizing one or more of Taiwan's outlying islands, a contingency for which it routinely practices.[213]

Taipei Invests in Asymmetric and Conventional Capabilities to Counter Beijing's Military Advantages

In her May inauguration speech, President Tsai affirmed Taiwan's commitment to developing asymmetric capabilities and promised that a slate of national defense reforms would enable her military to achieve its strategic goal of multidomain deterrence.[214] The island's

procurement agenda throughout 2020 partly reflected this ambition, but it also involved efforts to acquire conventional capabilities that critics charged were big-ticket purchases contributing little to Taiwan's actual defense capability. At the same time, Taiwan's military grappled with ongoing problems related to its equipment, readiness, and transition to an all-volunteer force as the cross-Strait military balance remained deeply unfavorable to Taipei.

Taiwan Pursues Combination of Asymmetric and Conventional Capabilities

Taiwan ordered, acquired, or continued to develop several weapons systems conducive to asymmetric warfare in line with its 2017 Overall Defense Concept, which emphasizes capabilities that are small, mobile, and survivable.[215] Taiwan is stepping up its missile programs, with the island's premier defense manufacturer, the National Chungshan Institute of Science and Technology (NCSIST), playing a leading role in this effort. During an inspection tour of NCSIST in January 2020, President Tsai asked the institute and Taiwan's Ministry of National Defense to accelerate mass production of its updated Tien Kung-3 and supersonic Hsiung Feng-3 missiles.[216] The Tien Kung-3 surface-to-air missile system, which was modified in September 2019 to be deployable on ships, has an operational range of 200 kilometers (km) (124 miles [mi]) and could improve the Taiwan military's ability to intercept PLA cruise missiles or to counter fighter aircraft during a conflict.[217] By contrast, the Hsiung Feng-3 supersonic cruise missile has an operational range of between 120 km and 300 km (75 mi and 168 mi) and is capable of hitting both PLA Navy ships and targets on the Chinese mainland during a conflict.[218] NCSIST is also developing the medium-range Yun Feng land-attack cruise missile, which can reportedly hit major inland targets like Beijing and Shanghai and is expected to begin production at the end of 2020.[219]

Taiwan's military is also investing in unmanned aerial vehicles (UAVs) and torpedoes to counter China's conventional maritime advantages. Media reported in August that the United States was negotiating the sale of at least four of its sophisticated SeaGuardian surveillance drones to Taiwan, an acquisition that could complement the Taiwan Navy's announcement in May that it will upgrade its entire fleet of Albatross UAVs.[220] While both technologies have reconnaissance and target acquisition capabilities, the SeaGuardian drones' 6,000-nautical mile (11,100 km) range far exceeds that of Taiwan's current UAV fleet and would enhance its ability to observe military activity within China.[221] It is unclear whether U.S. officials have approved exporting the UAVs with weapons attached. Several months earlier, the United States approved a possible sale of 18 MK-48 Mod 6 advanced heavy weight torpedoes to Taiwan for an estimated $180 million, a deal that could improve the Taiwan Navy's ability to sink the PLA Navy's nuclear-powered submarines and surface combatants.[222]

The island has also reportedly made a request to purchase M109A6 Paladin self-propeller howitzers from the United States, artillery that could improve Taiwan's coastal defense.[223] Reuters

reported in October that the White House had sent informal notifications to Congress regarding its intent to sell to Taipei MQ-9 drones, land-based Harpoon antiship missiles, a truck-based rocket launcher, long-range air-to-ground missiles, and external sensor pods for F-16 jets that transmit data and imagery back to ground stations in real time.[224]

These requests take place against the background of Taiwan's ongoing efforts to acquire small fast-attack missile craft and mine-laying ships, the kinds of small and survivable assets prioritized by the Overall Defense Concept.[225] Taiwan launched the construction of its third and fourth MIN JIANG-class mine-laying ships in April, with the first expected to be delivered later this year.[226]

At the same time, Taipei continued to upgrade its conventional military capabilities. In April, Taiwan's Ministry of National Defense announced it would buy decoy-launcher upgrade kits from France for $112 million to equip the Taiwan Navy's six KANG DING-class missile frigates.[227] The facility that will house the construction of Taiwan's first indigenously produced submarine fleet was completed in September 2020 and reportedly was built with the assistance of foreign consultants and engineers from the United States, Europe, Japan, and South Korea.[228] The Tsai Administration has framed the submarine program, expected to cost about ten percent of Taiwan's defense budget, as an asymmetric capability consistent with its Overall Defense Concept that would play a role in a cross-Strait conflict by targeting PLA Navy surface ships.[229] In July, the United States approved a $620 million sale to Taiwan of a package to extend the operational life of its Patriot Advanced Capability-3 surface-to-air missiles and related equipment.[230] Taiwan officials are also looking forward to 2023, when they will begin to take possession of the latest deliveries of the 66 F-16V fighter jets and the 108 M1A2T Abrams tanks approved for sale by the United States in 2019.[231] Taiwan-based advocates of the F-16V sale, which has a price tag equivalent to 70 percent of Taiwan's 2019 military budget, argue it will improve the warfighting capability of Taiwan's Air Force and boost public morale.[232] But critics argue such acquisitions are inconsistent with the Overall Defense Concept and are financially imprudent given the island's defense budget.[233]

Taiwan is complementing its acquisitions with reforms to its reserve force, mobilization system, and military management institutions, all areas highlighted by President Tsai in her inauguration speech.[234] During the 36th annual Han Kuang exercises in July, for example, Taiwan's military debuted its new combined arms battalions but also showed progress toward reform goals by including its reservists in live-fire exercises.[235] According to DOD, Taiwan's military is also working to improve its joint operations and crisis response capabilities, build its war reserve stocks, and strengthen its officer and noncommissioned officer corps.[236]

Taiwan's Military Struggles with Reform and Talent Recruitment

Taiwan grappled in 2020 with ongoing problems related to its equipment, readiness, and transition to an all-volunteer force. Pres-

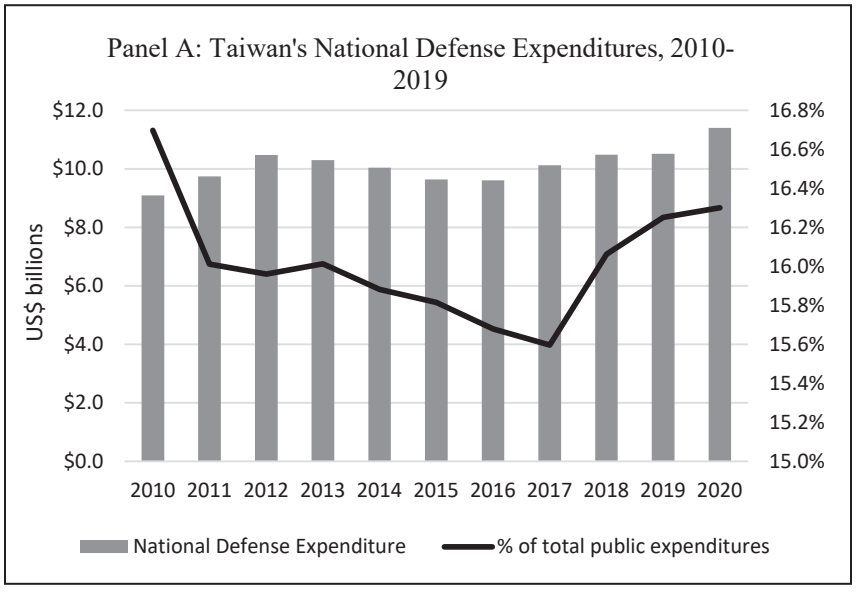
ident Tsai acknowledged the urgency of these challenges in her May inauguration speech, arguing that Taiwan "need[s] to enhance the quality of [its] reserve forces, as well as [its] weapons, equipment, and training, in order to achieve effective jointness with [its] regular forces."[237] She also called on the military to more effectively recruit young people, highlighting serious personnel shortfalls that complicate the island's efforts to rectify an increasingly unfavorable cross-Strait military balance.[238]

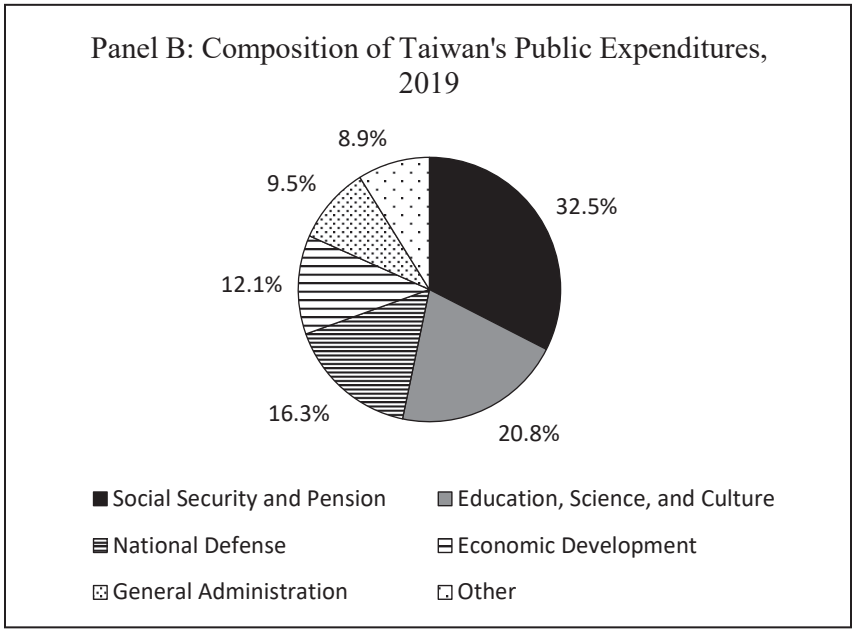
The Taiwan military's transition from one based on conscription to an all-volunteer force remains a particular challenge. The island's civilian leadership has argued that the new, smaller force will be better suited to operate modern weapons. The Ministry of National Defense has facilitated this transition by raising salaries for personnel and developing a suite of attractive professional benefits but has still fallen far short of its recruitment targets.[239] In 2018, only 153,000 of the Ministry of National Defense's 188,000 active duty billets were filled, but anecdotal evidence suggests the army's frontline combat units have just 60 to 80 percent of the manpower they need.[240] Longtime Taiwan-based journalist Wendell Minick observed in a 2019 article that the island's 153,000 warfighters constituted only 81 percent of the minimum number of troops Taiwan's military believes it needs to fend off an invasion.[241]

The costs of enhanced recruitment for active duty personnel have also had second-order effects on the Taiwan military's equipment and readiness. According to DOD, "The unanticipated magnitude of transition costs has led Taiwan to divert funds from foreign and indigenous defense acquisition programs, as well as near-term training and readiness."[242] Some critics have argued that Taiwan's training and exercises are small, scripted, and lack jointness.[243] The shortfall in active duty personnel is exacerbated by the fact that Taipei has reduced the length of compulsory service required for Taiwan's reserve force, the last line of defense in an invasion scenario, from one year to four months in addition to inadequately funding it.[244]

Taipei has moderately increased its defense expenditures in recent years to counter these challenges. After contracting during President Ma Ying-jeou's administration, Taiwan's spending on national defense resumed growth in 2017 and has gradually accounted for a larger share of its total public expenditures (see Figure 5, Panel A).[245] In 2019, Taiwan's national defense expenditures grew 0.2 percent year-on-year to $10.5 billion, accounting for 16.3 percent of total public expenditures ($64.7 billion) (see Figure 5, Panel B).[246]

Figure 5: Taiwan's National Defense Expenditures, 2010–2019





Source: Taiwan's Ministry of Finance via CEIC database.

Though Taipei increased its defense budget to $11.4 billion for 2020 and has proposed hiking it further to $11.9 billion for 2021,* this target is not adequate to fund the new platforms, training, maintenance, ordnance, reserve force, and other areas essential to the Taiwan military's readiness in light of the growing threat from China (see Figure 6).[247] Ambassador James F. Moriarty, chairman of AIT, expressed concerns about the island's limited defense spending in remarks at the October 2019 U.S.-Taiwan Defense Industry Conference. "Taiwan must do its part to invest wisely in capabilities that deter aggression and would help Taiwan mount an effective defense should deterrence fail," he said.[248] "That will require further investment in national defense, including strengthening its reserve and call-up systems, as well as more investment in mobile, survivable, and cost-effective asymmetric systems."[249]

If Taiwan's leaders maintain defense spending at current levels, they risk disadvantaging it in a conflict with the PLA, which has substantial forces and an increasingly impressive array of advanced equipment in its order of battle.[250] According to DOD, PLA ground forces in the Eastern and Southern Theater Commands numbered 412,000 personnel as of 2020, compared with Taiwan's 88,000 active duty army personnel.[251] China had 600 fighter jets within range of the island versus Taiwan's 400 fighters, 34 diesel and nuclear attack submarines versus Taiwan's two operational submarines, and a range of missiles capable of hitting Taiwan's ships, aircraft, and land-based targets.[252] In the face of such robust capabilities, Taiwan's government has given varying estimates of how long the island could hold out against a PLA attack before help from the United States arrived, ranging from two weeks to one month.[253]

Yet a narrow focus on these numbers overlooks the limitations the PLA's own deficit of amphibious lift may place on how much heavy equipment and personnel it can transport in the opening phases of an invasion, as well as how such assets would fare during the long, vulnerable transit or once landed on Taiwan's inhospitable terrain, which varies from mountain ranges to rice paddies. Certain PLA capabilities, such as tanks, may be more useful for propaganda or deterrence than they would be in combat.[254] How much advance warning Taiwan has of an impending PLA invasion, the combat effectiveness of elements of its 1.5 million-man-strong reserve force, and its use of heretofore secret indigenous missiles also introduce uncertainty into the outcome of any conflict.

U.S.-Taiwan Security Cooperation

The U.S. government took a number of important steps to support Taiwan in late 2019 and the first half of 2020, reflecting strong backing within the Trump Administration and Congress for measures enhancing Taiwan's defensive capabilities in line with the Taiwan Relations Act.

*The 2021 budget must be approved by Taiwan's Legislative Yuan. Since President Tsai's DPP holds a majority in the Legislative Yuan, the proposal is likely to pass. Taiwan's Legislative Yuan is expected to deliberate the central government's budget in sessions held from September to December 2020. Lee Hsin-fang and Jake Chung, "Budget Talks Likely Central to Next Legislative Session," *Taipei Times*, August 24, 2020; Yimou Lee and Ben Blanchard, "Taiwan to Raise Defense Spending as China Details Combat Drills," *Reuters*, August 12, 2020.

Figure 6: The Cross-Strait Military Balance

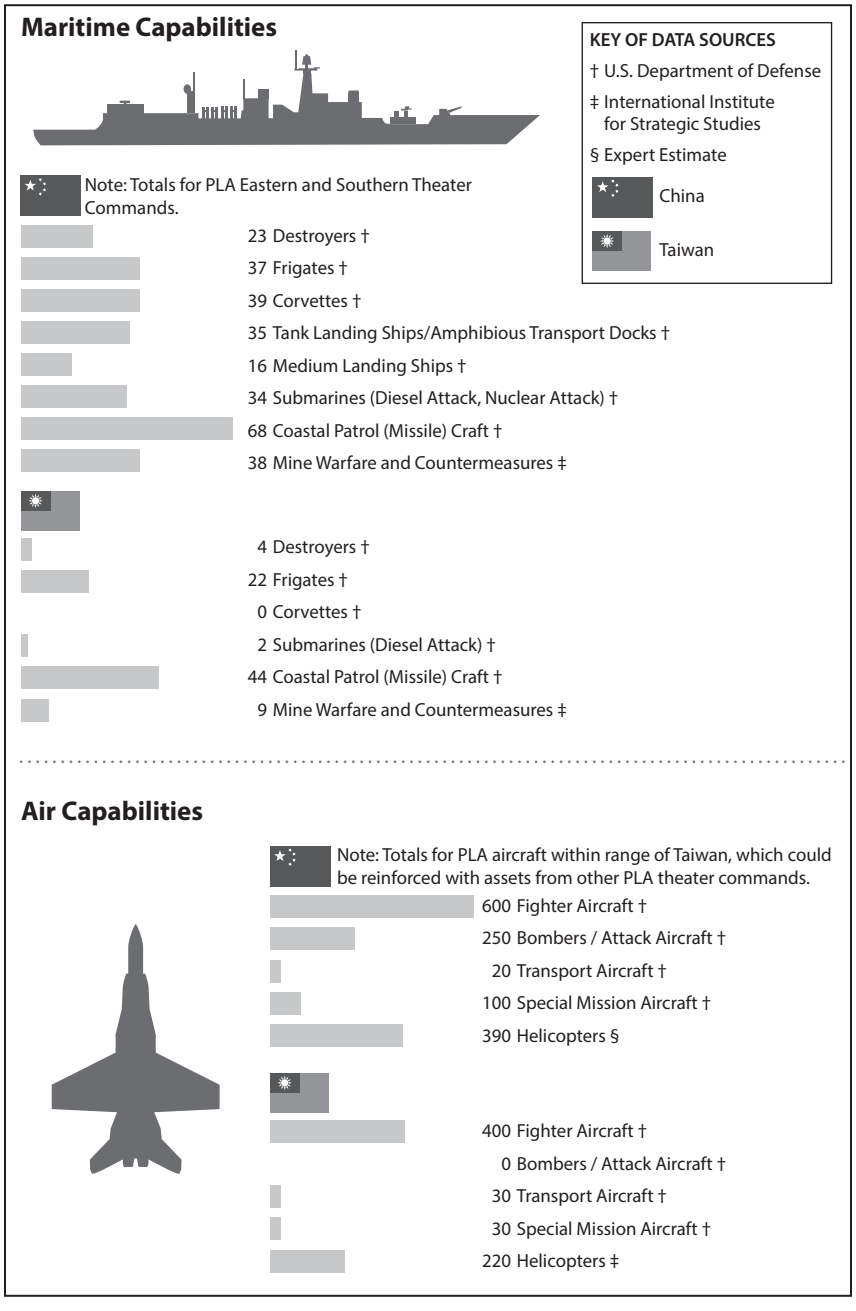


Figure 6: The Cross-Strait Military Balance—*Continued*

Missile and Rocket Capabilities

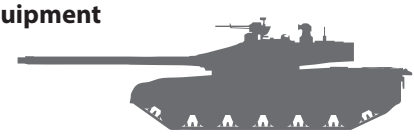
Note: Totals for PLA Rocket Force.

150+ Medium-Range Ballistic Missiles (MRBM) †
600+ Short-Range Ballistic Missiles (SRBM) †
300+ Ground-Launched Cruise Missiles (GLCM) †

Note: Taiwan is presumed to have land-attack cruise missiles (LACM) and anti-ship cruise missiles (ASCM), but their quantities are unknown.

12 Ground-Launched Cruise Missiles (GLCM) ‡
278+ Surface-to-Air Missiles (SAM) ‡

Heavy Equipment



Note: Totals for PLA Eastern and Southern Theater Command, which could be reinforced with assets from other theater commands. China's heavy equipment is only relevant upon landing, and would need to be transported across the Strait in waves.

1,440-2,016 Tanks §
1,842 Artillery §

800 Tanks †
1,100 Artillery †

Ground Force Personnel

Note: Taiwan army reserves are estimated at 1.5 million personnel; however, only a subset of these (A-Level and B-Level reserve units) should be considered to have moderate to high combat effectiveness. A-Level reserve units are estimated at 8 to 9 brigades; B-Level reserve units are unknown. Each figure below represents 10,000 personnel.

PLA Eastern and Southern Theater Command Ground Force Personnel: 412,000 †

Taiwan Military Ground Force Personnel: 88,000 †

Source: Created for the U.S.-China Economic and Security Review Commission; U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 2020, 164–166; International Institute of Strategic Studies, *The Military Balance: 2020*, 2020, 259–268, 311–314; and expert interviews with Commission staff, August 17–19, 2020.

The Taiwan Relations Act and the U.S. Practice of Strategic Ambiguity

U.S. government policy toward Taiwan is based on the 1979 Taiwan Relations Act (TRA) and an informal practice known as "strategic ambiguity" whereby the United States does not explicitly state whether it will come to Taiwan's defense in the event of a Chinese attack.

The TRA laid the legal foundation for continued ties between the United States and Taiwan after Washington switched diplomatic recognition to Beijing in 1979.[255] In addition to creating a nonprofit corporation called the American Institute in Taiwan, through which U.S.-Taiwan relations are conducted, the TRA states that it is U.S. policy to:

- "consider any effort to determine the future of Taiwan by other than peaceful means, including by boycotts or embargoes, a threat to the peace and security of the Western Pacific area and of grave concern to the United States,"[256]
- "make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability,"[257] and
- "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."[258]

The TRA has provided the legal basis for U.S. arms sales to Taipei over the last 40 years. It directs the president to promptly inform Congress of any threat to Taiwan's security, its social or economic system, and any related danger to U.S. interests. Under its provisions, "[t]he President and the Congress shall determine, in accordance with constitutional processes, appropriate action by the United States in response to any such danger."[259]

The practice of strategic ambiguity is not codified in public legislation but is nonetheless a crucial part of what Brookings Institution senior fellow Richard Bush calls the "unstated operational guidelines" that have informed U.S. policy in Asia for decades.[260] By remaining opaque about U.S. intentions, the policy aims to create sufficient uncertainty among leaders both in Beijing and Taipei to deter moves the other would regard as intolerably provocative, such as a PLA attack on Taiwan or a move by Taiwan leaders to establish de jure independence.

Proponents of strategic ambiguity argue that the practice affords the United States flexibility to decide whether or not it wishes to become involved in a contingency, a calculation that depends not only on the costs of a potential conflict but also on U.S. public opinion. They also argue it incentivizes both Taipei and Beijing to avoid destabilizing actions for fear of an undesirable U.S. response.[261] Critics argue that strategic ambiguity fosters conditions that could lead Beijing to miscalculate the likelihood of a PLA victory in a conflict given the dramatic imbalance in military capabilities across the Strait, the absence of clear costs for belligerent action, and the inevitable delay of a U.S. response due to the time required to transport personnel and assets across the Pacific Ocean.[262]

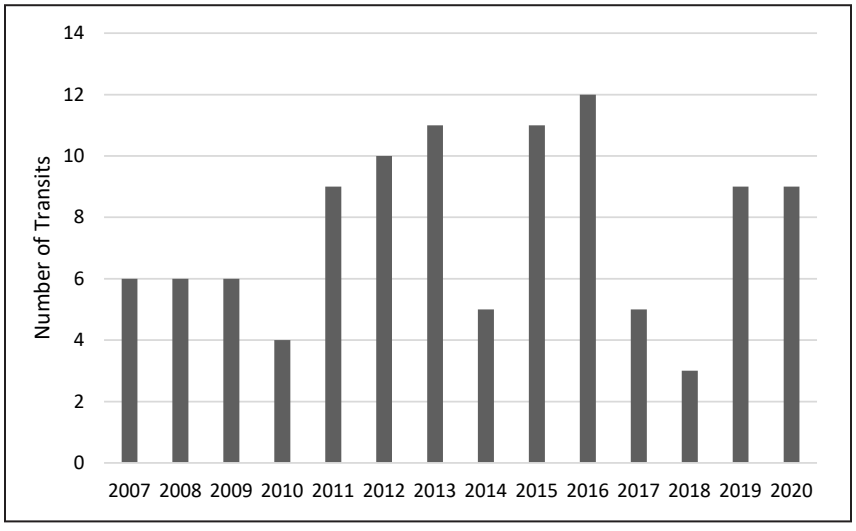
Notable events in U.S.-Taiwan defense relations since late 2019 included a visit by a senior defense official, the establishment of a committee for joint defense consultations, and new opportunities for Taiwan to participate in U.S.-led multilateral security discussions. The United States sent Deputy Assistant Secretary of Defense for East Asia Heino Klinck to Taiwan in November 2019 as China ramped up its intimidation tactics ahead of January's elections, continuing a practice of sending senior defense officials to the island.[263] Just a month earlier, an official in Taiwan's Ministry of National Defense told Taiwan's Legislative Yuan that the United States and Taiwan would form an ad hoc joint committee to help the island assess its combat capabilities and improve its adherence to the Overall Defense Concept.[264] The committee would reportedly involve both civilian and active duty U.S. personnel drawn from across DOD and U.S. Indo Pacific Command, with expertise in fields like special operations, army aviation, unmanned vehicles, and mines.[265]

Taiwan also participated in two video conferences the U.S. military held in May with a large number of regional partners to discuss approaches to fighting COVID-19. The first videoconference, held by the U.S. Pacific Air Force, discussed cooperation between the air forces of the 19 countries in attendance across the Indo-Pacific during the pandemic, while the second was hosted by the U.S. Army Pacific under the auspices of the Indo-Pacific Land Power Conference and involved 26 countries in discussions about the role of ground forces during the pandemic.[266] In the cybersecurity realm, the United States and Taiwan followed up their first-ever cybersecurity exercises in November 2019 with an August 2020 forum to discuss information security risks stemming from 5G technology.[267]

The United States military also made itself visible in the region with a number of aerial and naval transits around Taiwan. A U.S. C-40 Clipper military transport aircraft made a rare flight over Taiwan's western coast within its airspace in June, the same day Taiwan's Air Force chased off multiple incursions by Chinese Su-30 Flanker fighter jets into the island's ADIZ.[268] The C-40 flight elicited an angry reaction from China, which claimed that "this move by the U.S. side severely breaches international law and basic norms guiding international relations."[269] In February, a U.S. Air Force MC-130J special operations transport aircraft flew north to south along the airspace over the Taiwan Strait, while two U.S. Air Force B-52 Stratofortress bombers flew along Taiwan's east coast.[270]

U.S. Navy guided missile destroyers also transited the Taiwan Strait at least nine times between January and September 2020 (see Figure 7), on occasion coinciding with significant PLA activity near Taiwan.[271] For example, the U.S. guided-missile destroyer *Barry* sailed through the Taiwan Strait in April as PLA fighter jets drilled in the waters nearby, while the *McCampbell* made the same trip a week before President Tsai's May inauguration.[272] By contrast, the U.S. Navy sailed through the Taiwan Strait 9 times in 2019, 12 times in 2016, and 11 times in 2015.[273] Considering the higher figures in past years, University of Maryland professor Scott Kastner argues, "It isn't clear how much the recent increase in transits represents a fundamental break with the past."[274] Nonetheless, the naval transits in 2020 contributed to the United States' multifaceted display of support for Taiwan.

Figure 7: Yearly U.S. Navy Transits through the Taiwan Strait, 2007–2020



Source: Central News Agency, "U.S. Destroyer Passes through Taiwan Strait During Vystrcil's Visit" (維特齊訪台之際 美驅逐艦通過台灣海峽), August 31, 2020. Translation; *Central News Agency*, "U.S. Pacific Fleet Actively Discloses Destroyer Transited the Taiwan Strait" (美軍太平洋艦隊主動披露 驅逐艦通過台灣海峽), May 14, 2020. Translation; John Power, "U.S. Warships Made 92 Trips through the Taiwan Strait since 2007," *South China Morning Post*, May 3, 2019.

Implications for the United States

The year 2020 was pivotal for cross-Strait relations, highlighting the growing risk of a miscalculation in the Strait or a decision by China to use force against Taiwan. China's imposition of the national security law in Hong Kong and its repeated violations of longstanding norms underpinning cross-Strait stability indicated that Chinese leaders are determined to pursue their political objectives without concern for their international obligations or the costs they may incur on the global stage for violating these obligations. President Tsai's reelection and public support for the prodemocracy movement in Hong Kong underscored the island's resolve to remain free in the face of Chinese pressure to accept unification on Beijing's terms. Events this year injected urgency into the ongoing debate in Washington over U.S. policy toward Taiwan. Actions U.S. policymakers take now to address the situation in the Taiwan Strait will have far-reaching consequences for U.S. interests in the region and the world.

Beijing's imposition of the national security law in Hong Kong was not only the death knell for the territory's autonomy but also a clarifying moment for the people of Taiwan and the rest of the world. Chinese leaders' swift move to dismantle the last vestiges of Hong Kong's institutional independence in the face of international outrage proved that Beijing is willing to break its commitments, tolerate a high level of risk, and act with impunity to achieve its goals. Chinese leaders have long emphasized Taiwan's status as a "core interest," staked the CCP's legitimacy on unification, and invested significantly over the last few decades in capabilities that create a

grave military threat to the island. For General Secretary Xi, bringing Taiwan back into the fold is necessary to his plans for the "great rejuvenation of the Chinese nation." Beijing's actions against Hong Kong bring to the fore the existential threat the CCP's intended solution poses to Taiwan's vibrant democracy.

Beijing's claims to speak on Taiwan's behalf in global discussions ranging from public health to aviation, paired with its frequent incursions into the island's air and waters this year, reflect an unprecedented assertion of its prerogatives to treat Taiwan as its sovereign territory. Chinese leaders have intensified their pressure on Taiwan without concern for the established norms underpinning cross-Strait stability, suggesting they are willing to act in incremental and surprising ways to alter the strategic situation. There is still much space for Beijing to assert control over Taiwan's affairs, from sanctioning third-party countries doing business with the island to dispatching its fishermen, dredgers, and coast guard to create a constant presence around Taiwan. Beijing's imposition of the national security law in Hong Kong was shocking in large part because it was a nonmilitary action that nonetheless dealt a fatal blow to the territory's autonomy. Taiwan is a different case; it governs itself through free elections, has a standing military, and conducts its own foreign relations. Even so, U.S. policymakers should be vigilant about the nonviolent means Beijing could employ to fundamentally alter Taiwan's existence as a free polity.

U.S. policymakers should also consider a variety of potential cross-Strait contingencies and determine whether U.S. policy in its current configuration can deter a forced resolution of the controversy over Taiwan's sovereign status. A Taiwan free from coercion advances the overriding U.S. interest in a peaceful and stable Indo-Pacific by embodying democratic governance and denying the PLA a forward base from which it can prosecute further military expansion. China's annexation of Taiwan would bring 23 million people under the CCP's authoritarian rule, alter the balance of power in the region, and damage the United States' credibility in the eyes of its allies and the rest of the world.

Though Beijing has long supplemented its military intimidation of Taiwan with its economic leverage over the island, Taipei is demonstrating new fortitude in seeking to reduce its vulnerability to Beijing's coercion. Taipei's diplomatic outreach in the wake of the pandemic, increased defense expenditures, and efforts to reshore supply chains together reflect how Taiwan increasingly seeks to conduct its own affairs regardless of Beijing's reaction. The United States stands to benefit from this transformation amid heightening competition with China. Taipei's efforts to reshore electronics manufacturing capabilities, for example, suggest Taiwan can serve as a valuable partner to the United States in mitigating the risks posed by China's outsized presence in their production. As Taiwan firms and their U.S. clients move production and supply lines out of China and toward some democracies like Taiwan, the components underpinning emerging technologies become sourced from and assembled in places that share the same values as the United States. This realignment creates the opportunity for the United States to augment supply chain security.

Separately, Taipei's decision to lift restrictions on U.S. meat imports, a longstanding source of friction in U.S.-Taiwan trade ties, underscores the Taiwan government's commitment to deepening ties with the United States. As Taipei moves to address these and other concerns of U.S. stakeholders, the United States is presented with opportunities to develop new export markets and forge a tighter trade relationship with one of the Indo-Pacific region's most dynamic economies.

As U.S.-Taiwan economic ties deepen, the risk that Beijing may retaliate against the United States or Taiwan actors rises. Beijing may move to forcefully secure access to Taiwan's technological ecosystem and innovation. From renewed theft of Taiwan intellectual property in high-tech industries to more aggressive efforts to poach the island's engineering talent, Beijing's willingness to exploit Taiwan economically may strengthen as the CCP becomes more emboldened in its push for global technological leadership and pursuit of national rejuvenation.

Beijing's violation of its treaty obligations in Hong Kong and its imposition of authoritarian rule on the territory's unwilling populace illustrate two unfortunate truths: that China's leaders cannot be trusted to uphold their obligations and that they are not interested in compromise. There is little reason to believe that concerns about international condemnation or the opposition of Taiwan's people will constrain Beijing's decisions to exert pressure on—or in the worst-case scenario, invade—the island in the future.

Though the United States reaffirmed its historical longstanding commitments to Taiwan in the recently declassified "Six Assurances," the PLA's aggressive actions toward the island this year may require the United States to consider changes to its policy. Some U.S. observers argue that the historic value of strategic ambiguity may be dwindling, or that aspects of the current policy framework for U.S.-Taiwan relations such as the Taiwan Relations Act should be enhanced in light of Chinese leaders' greater appetite for risk and the PLA's military superiority over Taiwan. Whatever U.S. policymakers decide is the most compelling basis for policy, and however they choose to articulate it, they must expect Beijing to test the United States' willingness to back up its words with deeds.

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CHAPTER 5

HONG KONG

Key Findings

- On June 30, 2020, the Chinese government implemented a sweeping national security law for Hong Kong that brought the territory's 7.5 million residents under the full and direct authoritarian rule of the Chinese Communist Party (CCP). This action violated China's commitment to preserve the "one country, two systems" framework that would have guaranteed Hong Kong's autonomy through 2047. In passing this law, Beijing demonstrated its willingness to sacrifice economic interests, the rule of law, and basic human rights to establish political control over the territory.
- The national security law has fundamentally transformed Hong Kong's relationship with the United States and other democracies, as well as the international perception of China as a global actor. China's unapologetic violation of a binding treaty once again calls into question the credibility of its commitments to the international community. In recognition of Hong Kong's changed status, the United States has begun dismantling Hong Kong's separate treatment in U.S. law, which served as the basis of U.S.-Hong Kong relations for nearly 30 years.
- The new law's extraterritorial provisions pose a substantial risk to U.S. citizens in Hong Kong and internationally. It criminalizes any perceived criticism of the Chinese or Hong Kong governments, regardless of where the offending individual or entity resides. Under this law, the Hong Kong government has already sought the arrest of a U.S. citizen, the director of a prodemocracy group advocating for congressional action on Hong Kong. Left unchecked, the law could grant the Chinese government broad powers to censor global discourse.
- U.S. multinationals and their personnel in the territory now face a heightened degree of political and personal risk and are waiting on the law's implementation and the U.S. government's response. Companies with operations on the Mainland may replicate precautions there for operations in Hong Kong. Other companies may choose to relocate more international-facing operations elsewhere. Major U.S. technology firms face particular challenges due to their collection of sensitive user data.
- In further confirmation of the territory's changed status, the Hong Kong authorities quickly moved to erase democratic processes in Hong Kong. Facing a likely prodemocracy victory, the government postponed a pivotal Legislative Council (LegCo)

election and banned a dozen prodemocracy candidates. The de facto separation between mainland and Hong Kong security forces also vanished. Immediately after the national security law's implementation, the authorities began targeting and arresting prodemocracy supporters. Despite the danger of arrest under the law, many activists are committed to staying in the city to defend their freedoms, while others seek to move abroad.

- The national security law has significantly compromised Hong Kong's historically strong rule of law and press freedom. Under growing pressure from the CCP, the territory's judicial system has been thrown into crisis as judges are compelled to adopt mainland legal principles and CCP positions. Journalists have faced new levels of pressure to self-censor while the Hong Kong authorities have harassed prodemocracy news outlets and refused to renew press credentials. The CCP has also suppressed other aspects of Hong Kong's civil society. Illustrating this trend, the Hong Kong authorities for the first time banned the annual vigil to mark the 1989 Tiananmen Square massacre.

Recommendations

The Commission recommends:

- Congress direct the Administration to identify and remove barriers to receiving United States visas for Hong Kong residents attempting to exit Hong Kong for fear of political persecution.
- Congress consider legislation extending political asylum to residents of Hong Kong born on or after June 30, 1997, who currently cannot apply for a second form of identification beyond a Hong Kong Special Administrative Region passport.
- Congress direct the Office of the U.S. Trade Representative to produce a report within 90 days assessing the risk of mainland China using Hong Kong to evade or circumvent Section 301 trade enforcement actions or other U.S. trade remedies.

Introduction

On June 30, 2020, China's government passed national security legislation* for Hong Kong without regard for the rights of the people of Hong Kong or Beijing's international treaty commitment to grant Hong Kong a "high degree of autonomy." In a bold assertion of power, the Chinese government took steps to implement the national security law immediately after passing it, quickly changing the political, economic, and security landscape for Hong Kong and its citizens. The CCP appeared to judge the benefits of implementing the law would outweigh any potential costs imposed by the international community. This move reflected the CCP's growing tolerance for risk and disregard for international condemnation of its actions.

*The law's full official title is Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region. This chapter uses "national security law" throughout given its common reference as such in media and government statements, but "state security law" is a more appropriate translation given that the law's intent is to maintain the CCP's control over Hong Kong.

The national security law came after years of the CCP's encroachment into the territory's affairs. Since the 1997 handover of Hong Kong from the United Kingdom (UK) to China, the CCP has tried to pressure Hong Kong to adopt Article 23 national security legislation but failed, most prominently in 2003 due to mass protests opposing the move. More recently, in 2019, a proposed bill permitting extraditions of Hong Kong citizens to the Mainland sparked a historic protest movement, forcing the Hong Kong government to withdraw the bill. With the global spread of the novel coronavirus (COVID-19), Chinese leaders seized an opportunity to silence opposition and establish control over civil society while the pandemic prevented Hong Kong residents from continuing demonstrations and distracted the international community.

In implementing the law, Beijing violated its legal obligations to Hong Kong and the international community. This act ended Beijing's "one country, two systems" policy that guaranteed Hong Kong a "high degree of autonomy" as enshrined in the 1984 Sino-British Joint Declaration and Hong Kong's mini constitution, the Basic Law. Beijing's implementation of the national security law removed any semblance of Hong Kong's historical freedom of expression and rule of law, both of which have sustained the territory's position as one of the largest global financial centers.

After the law's announcement, Hong Kong's protest movement reached a crossroads as many activists committed to stay to defend the territory's freedoms while some sought political asylum abroad. At the same time, the Hong Kong government increasingly turned into the executor of the CCP's directives. The Hong Kong authorities curtailed an anticipated prodemocracy victory in the September 2020 legislative election by banning a dozen candidates and delaying the election for a year under the guise of the pandemic. As of October 2020, the Hong Kong authorities continued to target and arrest prominent prodemocracy activists and supporters as part of a widescale crackdown on dissent.

This chapter begins by examining the CCP's decision to implement national security legislation for Hong Kong and the responses from the U.S. government and the international community. It then assesses the economic risks the law poses to Hong Kong's longstanding role as a key financial hub for Beijing and its status as a global financial center. Next, the chapter discusses how Beijing has eroded the territory's autonomy and denied Hong Kong residents their civil liberties guaranteed by the Basic Law. It concludes by considering the implications of these developments for the United States. This chapter is based on consultations with U.S. government officials and nongovernmental experts, open source research and analysis, and findings from the Commission's September 2020 hearing.

Beijing's Commitments under the Sino-British Joint Declaration and the Basic Law

According to the 1984 Sino-British Joint Declaration, which dictated the terms of the 1997 handover of Hong Kong to mainland China from the UK, Hong Kong "will enjoy a high degree of autonomy, except in foreign and defense affairs" and will retain

Beijing's Commitments under the Sino-British Joint Declaration and the Basic Law—*Continued*

its democratic freedoms as is included in China's "one country, two systems" framework.[1] The Joint Declaration states that Hong Kong's autonomy and freedoms "will remain unchanged for 50 years" (from the 1997 handover to 2047).[2] The document is registered at the UN as a legally binding treaty. These commitments by mainland China are included in Hong Kong's Basic Law, promulgated by China's National People's Congress in 1990 and adopted following the 1997 handover.[3]

Beijing's National Security Law for Hong Kong: The End of "One Country, Two Systems"

On June 30, 2020, the 13th National People's Congress Standing Committee in Beijing bypassed Hong Kong's LegCo to unanimously adopt a draconian national security law for Hong Kong.[4] As soon as Beijing announced its decision to draft the law, Hong Kong Chief Executive Carrie Lam and the Hong Kong government promoted it before seeing the full text.[5]

The national security law illustrates the CCP's willingness to suffer international backlash and bear potentially significant economic costs to silence dissent in the territory and establish complete control over Hong Kong. It grants widespread authority to the Hong Kong government and the CCP to arrest any Hong Kong resident or foreign national taking action they deem contrary to its policies.[6] The extraterritorial provision of the law authorizes the arrest and detention of anyone regardless of where they are in the world, increasing the risk of detention of any U.S. or foreign citizen who criticizes the CCP or the Hong Kong government if they transit through Hong Kong or any country with an extradition treaty with the Mainland.

Although Chinese and Hong Kong authorities insist the law will only target a small number of people in the territory committing the specific crimes outlined, the law's vague provisions create a climate of fear and intimidation that severely constrains freedom of expression.[7] For example, the Hong Kong government used the law to ban the popular protest slogan "liberate Hong Kong, revolution of our times" and announced implementation rules for one of the law's provisions requiring online platforms to remove offensive content or face fines and jail sentences.[8]

Key Provisions of the National Security Law

Among its key provisions, the national security law:*

- Prohibits vaguely defined acts of separatism, subversion, terrorism, and "collusion with foreign or overseas forces" perceived to threaten China's national security. These prohibitions make protests and interactions with foreign organizations and governments punishable by a maximum lifetime

*For a detailed summary and analysis of the law, see Taige Hu and Haoran Zhang, "Legislation Summary: Hong Kong National Security Law," *NPC Observer*, June 30, 2020.

Key Provisions of the National Security Law—*Continued*

jail sentence. The law's expansive scope adds "terrorism" and "collusion" to the national security legislation requirement under Article 23 of the Basic Law.*

- Applies punishable offenses to Hong Kong residents and foreign citizens alike, regardless of whether they are physically located in Hong Kong.
- Overrides the Basic Law where discrepancies exist and provides the National People's Congress Standing Committee sole authority to interpret the law.[9]
- Establishes a new mainland security office in Hong Kong with its own law enforcement personnel who can make arrests and conduct investigations outside of the Hong Kong government's jurisdiction.
- Grants Beijing the ability to take jurisdiction over cases to try defendants in mainland courts. In effect, this authority provides for the extradition of suspects from Hong Kong to mainland China, the centerpiece of a widely opposed 2019 bill that sparked the protest movement. In addition, trials may be held in secret.
- Allows Hong Kong's chief executive to designate judges eligible to rule on national security cases.

The law violates both the spirit and the letter of Beijing's commitments in the Sino-British Joint Declaration and the Basic Law. Beijing had vowed to administer only the territory's defense and foreign affairs under its "one country, two systems" policy. Under the Joint Declaration, Beijing promised to grant Hong Kong a "high degree of autonomy," allowing the territory to "retain its current lifestyle and legal, social, and economic systems until at least the year 2047."[10] In implementing the national security law, China's Foreign Ministry stated the Joint Declaration no longer applied, as it represented a "unilateral policy announcement by China," rather than a "promise by China to the UK."[11]

Beijing also disregarded Hong Kong's treaty commitments to protect civil liberties under the International Covenant on Civil and Political Rights.[12] While the national security law states that Hong Kong "should protect" these rights, Donald Clarke, expert on Chi-

*According to Article 23 of the Basic Law, Hong Kong must enact laws "to prohibit any act of treason, secession, sedition, subversion against [the Chinese government], or theft of state secrets, to prohibit foreign political organizations or bodies from conducting political activities in [the territory], and to prohibit political organizations or bodies of [Hong Kong] from establishing ties with foreign political organizations or bodies." Hong Kong already prohibits most of the acts included in Article 23 through other national security laws, except for "secession" or "subversion," both of which are undefined and vulnerable for exploitation. The last time the Hong Kong government attempted to pass Article 23 legislation in 2003, it initially included provisions such as search and seizure powers and banning unlawful disclosure of government information that went far beyond the letter of the law, though these provisions were later removed after a march of over 500,000 people against the law. Carole J. Petersen, "Balancing National Security and the Rule of Law: Article 23 of the Basic Law," *Hong Kong Watch*, November 1, 2018, 7, 11–12; Basic Law of the Hong Kong Special Autonomous Region of the People's Republic of China, Chapter II: Relationship between the Central Authorities and the Hong Kong Special Administrative Region, Article 23, April 4, 1990.

nese law at George Washington University, argued the International Covenant on Civil and Political Rights "does not pre-empt or invalidate contrary provisions in the [national security law]. The [national security law] takes precedence."[13] Finally, Beijing's unilateral imposition of the legislation contradicted Hong Kong's Basic Law, which obligates Hong Kong to pass its own set of national security laws.[14] While Beijing accelerated its erosion of the "one country, two systems" framework since General Secretary of the CCP Xi Jinping took office in 2012, this legislation establishes comprehensive control over Hong Kong's affairs.

Implementation of the National Security Law

Hong Kong's historic protest movement,* initially sparked in June 2019 by a proposed bill that would have allowed for the extradition of any individual in the territory to the Mainland, reached a crossroads after the national security law's introduction as fears grew that any expression of dissent would be silenced. By late September 2020, the Hong Kong police reported that since the start of the movement total arrests of protesters had risen to over 10,000, 26 of whom were arrested under the national security law, and civil liberties advocates stated that at least 1,650 of those arrested faced legal proceedings.[15]

Prosecution of The Hong Kong 12 Demonstrates New Risks for Activists

The case of the "Hong Kong 12," who were forcibly prevented from leaving Hong Kong and then held without access to communications for weeks on the Mainland before facing trial, demonstrates the consequences that may now await prodemocracy activists who run afoul of the national security law. The same day Beijing approved the law in late June 2020, the People's Liberation Army (PLA) staged an exercise in Hong Kong's Victoria Harbor that appeared designed to strike fear in Hong Kong residents by simulating the capture of fugitives leaving Hong Kong by boat.[16] Subsequently, the China Coast Guard did just this in August 2020 when it captured a dozen Hong Kong residents attempting to flee to Taiwan by speedboat, all but one of whom faced charges in Hong Kong related to participation in protests.† One other was charged with foreign collusion under the new law.[17]

Family members of the detainees and other activists claimed that government records leaked from within the Hong Kong Police Force showed the police had dispatched a fixed-wing aircraft to assist mainland authorities in monitoring and intercepting the attempt to flee by boat.[18] John Lee, Hong Kong Secretary for Security, argued in an editorial that the arrests were justified be-

*For a review of the protest movement's origins, demonstrations, and impact on Hong Kong's political situation, see U.S.-China Economic and Security Review Commission, Chapter 6, "Hong Kong," in *2019 Annual Report to Congress*, November 2019.

†According to the *Wall Street Journal*, three were charged for being linked to a raid that found a gun and bullets; three were charged for possessing materials to make Molotov cocktails; two were charged with rioting; one was charged with foreign collusion; one was charged with manufacturing explosives; one was charged with arson; and one was not charged under Hong Kong law. Wenxin Fan and John Lyons, "China Snatched the 'Hong Kong 12' Off a Speedboat, Giving Protest Movement New Life," *Wall Street Journal*, October 7, 2020.

Prosecution of The Hong Kong 12 Demonstrates New Risks for Activists—*Continued*

cause the dozen activists had violated bail conditions set by the Hong Kong government.[19]

The subsequent transfer of the Hong Kong 12 to the mainland legal system demonstrates that even when not charged in Hong Kong, as was the case with one of the twelve, activists can now be extradited to the Mainland to face charges in its opaque and merciless judicial system. According to the Wall Street Journal, after the Coast Guard interception, the twelve activists were moved to a detention facility in Shenzhen, across the border in the Mainland.[20] Mainland authorities formally arrested them on September 30 after holding them for 37 days, announcing that ten of the twelve would be charged for illegally crossing the Chinese border and two would be charged for illegally organizing the trip. The charges under Chinese law indicated that Chinese authorities were preparing to keep the prisoners under detention in the Mainland for months more. A joint statement issued by the detainees' families called for their return to Hong Kong and expressed concern that they may have already been subjected to torture during their confinement.[21]

Many activists committed to stay in Hong Kong to defend the territory's promised autonomy and freedoms, such as former Umbrella Movement* leader Joshua Wong and his former colleague in the Demosistō prodemocracy political party, Agnes Chow, while a number of activists chose to leave Hong Kong to focus on international advocacy efforts.† As of this writing, hundreds of activists have sought refuge abroad, mostly in Taiwan, Australia, and Canada.‡ Former elected Hong Kong legislator and Umbrella Movement student leader Nathan Law is the most prominent activist to leave Hong Kong; he is now promoting Hong Kong's prodemocracy cause in the UK.[22] Even before the law's passage, formal emigration requests and numbers of individuals seeking asylum abroad were on the rise. In 2019, 33,252 people applied with the Hong Kong police

*The Umbrella Movement (also referred to as Occupy Central with Love and Peace, the Occupy movement, or the "Umbrella Revolution") advocated for true universal suffrage according to international standards in future Hong Kong elections. The largely nonviolent protests occupying some of the city's major thoroughfares lasted 79 days and concluded in December 2014, but the prodemocracy activists' proposals were rebuffed. U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 534–536; U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 523–527.

†Mr. Wong and Ms. Chow were arrested and awaiting trial as of late September 2020. Elaine Yu, "Hong Kong Police Arrest Activist for Violating 2019 Mask Ban," *New York Times*, September 24, 2020; Takeshi Kihara, "Agnes Chow Arrest Deepens Hong Kong Fears of Arbitrary Detention," *Nikkei Asia*, August 13, 2020.

‡Several weeks after Beijing implemented the law, an Australian government official said at least 137 Hong Kong residents were seeking asylum in Australia. By January 2020, at least 200 prodemocracy protesters had fled to Taiwan and at least 50 had sought asylum in Canada to escape charges that could lead to years-long jail sentences for their participation in demonstrations. Nicholas McElroy, "Alan Tudge Says Hong Kong Residents Fearful of China Are Not Guaranteed Australian Visas," *Australian Broadcasting Corporation*, July 12, 2020; *Japan Times*, "Hong Kong Protesters Seek Sanctuary Overseas as China Tightens Its Grip," June 5, 2020; Steven Chase and Robert Fife, "Hong Kong Protesters Seek Refuge in Canada," *Globe and Mail*, May 3, 2020; Nick Aspinwall, "For Hong Kong Refugees, New Life in Taiwan Means Traversing a Legal Twilight Zone," *Washington Post*, February 24, 2020.

for a document needed to emigrate and to apply for various types of visas, a 41 percent year-on-year increase.[23]

In some instances, Hong Kong authorities have used the new law to arrest prominent prodemocracy activists and protesters for their participation in actions that occurred prior to the law's passage, despite Chief Executive Lam's promise to the UN Human Rights Council that the law would not be retroactive.[24] As of August 2020, high-profile arrests included that of 72-year-old Jimmy Lai, chairman of Hong Kong media company Next Digital and the founder of the popular prodemocracy newspaper *Apple Daily*. The arrests of Mr. Lai, his two sons, and four executives at his company—and the raid of his newsroom by more than 200 police officers in August 2020—signaled the CCP's blatant disregard for press freedom and its desire to silence its loudest critics.[25] In the same month, Ms. Chow was arrested for allegedly colluding with foreign forces over social media. An article in the *People's Daily*, the CCP's mouthpiece, criticized her advocacy efforts that targeted a Japanese audience, suggesting these activities led to her arrest.[26] Hong Kong prodemocracy lawmaker James To argued the new law "fundamentally undermines the rule of law and independence of the judiciary. It brings the Mainland's authoritarian values to Hong Kong."[27]

The crackdown on prominent activists in Hong Kong followed other arrests made under the new law for acts such as making online posts, holding banners, and chanting slogans. On July 1, hours after the law took effect, thousands of protesters took to the streets defying a ban on the annual prodemocracy march marking the anniversary of the 1997 handover of Hong Kong to China. The Hong Kong police reportedly arrested ten protesters aged 15 to 23 under the new law for allegedly inciting subversion—some for carrying pro-independence flags and chanting slogans promoting Hong Kong independence.*[28] Those arrested for allegedly committing national security offenses had DNA samples taken, a step usually only reserved for people accused of violent crimes.[29] In late July 2020, Hong Kong police arrested four students aged 16 to 21 on charges of subversion and incitement of secession for allegedly posting pro-independence messages online, despite the students' move to disband their pro-independence group before the law went into effect.[30]

Illustrating the law's coercive extraterritorial reach and threat to U.S. citizens, less than a month after the law's implementation, Chinese state television said the Hong Kong authorities issued arrest warrants for six prominent prodemocracy activists living overseas on charges of inciting secession and collusion with foreign forces.†

*The first person arrested under the national security law was 23-year-old Tong Ying-kit, who was accused of inciting secession and conducting terrorist activities after allegedly driving a motorcycle into police officers while carrying a protest flag. As of August 2020, the youngest person arrested under the new law was a 15-year-old girl for waiving a Hong Kong independence flag. *RTHK*, "Man, 23, Charged with Terrorism and Secession," July 3, 2020; James Griffiths and Joshua Berlinger, "Defiance and Fear as Hong Kong Settles into New Normal after China-Backed Law Takes Hold," *CNN*, July 2, 2020.

†These included: (1) Simon Cheng, a 29-year-old former employee of the UK consulate in Hong Kong who was detained and tortured in mainland China in August 2019 for his apparent protest activities and was granted political asylum in the UK in June 2020; (2) Nathan Law, a 27-year-old activist who left Hong Kong for the UK; (3) Ray Wong, a 26-year-old activist who became the first Hong Kong political refugee in 2019 when Germany granted him asylum; (4) Lau Hong, an 18-year-old pro-independence activist who lives in the UK; (5) Wayne Chan, a young pro-independence activist who left Hong Kong on the eve of the national security law's implementation and now lives in the UK; and (6) Samuel Chu, a 42-year-old activist and U.S. citizen who is also the

One of these activists was Samuel Chu, a U.S. citizen and managing director of Washington, DC-based advocacy group Hong Kong Democracy Council.[31] As Chinese law does not recognize dual citizenship, the CCP considers individuals of Chinese or Hong Kong descent to be Chinese citizens regardless of whether they have another nationality or passport.* Already, the arrest warrants have had severe consequences. For example, Mr. Chu said, "I fear that I can no longer travel to Hong Kong, or to any countries with active extradition treaties with the Hong Kong [government] or with China without risking arrest and extradition. I cannot speak to my elderly parents in Hong Kong without opening them to investigations and invasive searches by the police."[32]

Many Hong Kong residents took preemptive measures to reduce their exposure to potential charges under the law. At least six prodemocracy political parties and organizations disbanded, most prominently Demosistō, led by Mr. Wong and Mr. Law.[33] In addition, downloads of virtual private network software skyrocketed with leading service provider NordVPN estimating 120 times more downloads the day after Beijing signaled its plans for the new law.[34] Inquiries into opening foreign bank accounts also spiked.[35] Prodemocracy advocates scrubbed their social media accounts and posts of content that could be considered offenses.[36]

Other expressions of dissent were curtailed due to the growing fear of retaliation under the law. For example, prodemocracy labor unions and student groups held a vote in June 2020 to determine whether to hold strikes against the law but failed to gain enough support.[37] Fearing retaliation, some retail stores and other small businesses in Hong Kong that back the protest movement removed overt signs of their public support, while some replaced them with blank multicolored sticky notes and blank sheets of paper emulating the former "Lennon Walls"† supporting the movement.[38] In July, police declared a protest in a mall featuring blank sheets of paper illegal and arrested eight people for unlawful assembly or obstructing officers.[39]

In a tongue-in-cheek gesture of support for the movement, some businesses replaced now-criminalized prodemocracy signs with vintage CCP propaganda posters, knowing the police could not justify removing them. The posters' old slogans took on a new meaning

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son of Reverend Chu Yiu-ming, one of the founders of the 2016 Occupy Central protests. *Hong Kong Free Press*, "Exclusive: Wanted by Beijing, Activist In-Exile Wayne Chan Says He Won't Stop Fighting for Hong Kong Independence," August 3, 2020; *BBC*, "Hong Kong 'Seeking Arrest' of Fleeing Activists," July 31, 2020.

*Chinese agents have made extrajudicial arrests abroad in recent years, most prominently the 2015 kidnapping of Hong Kong bookseller Gui Minhai from Thailand. Mr. Gui, a dual citizen with Swedish citizenship, sold books banned in mainland China to customers there on taboo topics, such as the private lives of senior CCP officials. After spending years in Chinese detention and serving a supposedly unrelated jail sentence, Mr. Gui was temporarily free until in 2018 when Chinese authorities snatched him from a train to Beijing while he was accompanied by Swedish diplomats. In February 2020, he was sentenced to ten years in jail for "illegally providing intelligence overseas," a likely fabricated charge. Mary Hui, "Four Years after His Disappearance, China Sentenced a Hong Kong Bookseller to 10 Years in Prison," *Quartz*, February 24, 2020.

†Inspired by the original "John Lennon Wall" established in Prague in the 1980s upon the artist's death, Hong Kong prodemocracy demonstrators first created their version of a Lennon Wall during the 2014 Umbrella Movement to share messages of support and encouragement for the movement. During the 2019–2020 prodemocracy movement, over 150 of these walls materialized around the territory displaying messages of support for the movement and its five demands. *Dim Sum Daily*, "Police, FEDH and Highways Department Officers Clear Lennon Wall Tunnel Opposite Tai Po Market Station," November 22, 2019; Joyce Zhou and John Ruwitch, "Imagine All the Post-Its: Hong Kong Protesters Come Together with 'Lennon Walls,'" *Reuters*, July 11, 2019.

with patrons, signifying opposition to the CCP's crackdown on Hong Kong's autonomy by subverting police attempts to quell public displays of solidarity.[40]

LegCo Election Postponed, Prodemocracy Candidates Banned

Facing the likelihood of a major prodemocracy victory in the LegCo election after the pro-Beijing camp's drubbing in the late 2019 District Council election, the CCP acted to destroy democracy in Hong Kong. Demonstrating intolerance for opposition, Hong Kong officials banned 12 prodemocracy candidates and delayed the election to provide the CCP more control over the outcome. Among the candidates barred from running in the election were Mr. Wong and four sitting lawmakers.*[41] The Hong Kong government bureaucrats who enacted the bans cited the candidates' alleged activities before the national security law's implementation, such as participating in protests and making statements calling for international support to the prodemocracy movement, that supposedly indicated they did not intend to uphold the Basic Law.[42]

In late July 2020, just days after the ban of prodemocracy candidates, Chief Executive Lam used the pretext of the pandemic to postpone the September 2020 election to 2021. In deference to the Mainland, she also asked the Chinese government to decide how the provisional legislature would operate in the meantime. These moves were significant steps toward removing any remaining semblance of democratic institutions in Hong Kong and illustrated the CCP's unwillingness to allow even the potential for a prodemocracy majority in the LegCo.

Leading up to the election, the odds of the prodemocracy camp, who are also known as the pan-democrats, winning a majority of seats appeared favorable.[43] Even in the face of threats from Hong Kong officials that the primary risked violating the national security law, the 600,000-strong primary turnout (the largest since the handover) showed Hong Kong residents' desire to maintain their right to vote.[44] The election's postponement forced the 23 sitting pan-democrats to decide whether they would remain or boycott the extended session, a decision which could lead to internal divisions. By late September, 16 had decided to continue to serve.[45] Democratic Party chairman Wu Chi-wai stated remaining pan-democrats would "continue to voice out for the public [and] block the progress of draconian laws."[46]

Beijing Moves to Extinguish Hong Kong's Prodemocracy Movement

Chinese officials argued the national security law would help solve what they characterized as the territory's underlying political instability. In June 2020, as the law was being drafted, Zhang Xiaoming, deputy director of China's Hong Kong and Macau Affairs

*This was not the first time candidates were banned from running in a LegCo election for their political views. In the leadup to the 2016 LegCo election, five candidates were barred from running for crossing Beijing's red line by supporting independence for Hong Kong. In addition, the Hong Kong authorities disqualified six elected prodemocracy legislators, arguing that they would not uphold the Basic Law. Notably, the Hong Kong officials who made these decisions used statements and activities before the election as justification. Austin Ramzy and Alan Wong, "Hong Kong Restricts Election Candidates, Renewing Fears of Lost Rights," *New York Times*, August 3, 2016.

Office (HKMAO), made unfounded assertions that the prodemocracy camp and "foreign forces" were attempting to turn Hong Kong into an independent or semi-independent entity.[47] Mr. Zhang likened the law to "anti-virus software" designed to bring stability to the city.[48] The HKMAO previously labeled the protest movement a "political virus" that must be purged—a highly symbolic term it used to lay the groundwork for more repression.*[49]

The CCP and Hong Kong government launched a massive public relations campaign intended to compel Hong Kong residents' adherence to the then pending law while claiming widespread support among Hong Kong residents. Instead of responding to Hong Kong residents' demands for the protection of their freedoms over more than a year of demonstrations, Chief Executive Lam and other Hong Kong officials argued the law was necessary to resolve months of unrest.†[50] Mainland and Hong Kong officials also asserted the legislation would fix the legal "loopholes"‡ caused by the territory's inability to pass its own national security legislation since the 1997 handover of Hong Kong to China.[51] The Hong Kong government spent millions of Hong Kong dollars to promote the law on billboards, buses, and media throughout the territory, despite not seeing the text until the day it came into effect.[52]

Beijing's Rush to Act

Beijing's growing impatience with the protest movement and the strategic opportunity presented by the COVID-19 outbreak contributed to its decision to fast-track implementation of the national security law. Factors that may have contributed to its decision included:

Impact of the COVID-19 Outbreak: While the CCP apparently decided to establish the national security legislation months before the COVID-19 outbreak, Beijing likely calculated it could exploit the pandemic to implement the law while the attention of Hong Kong residents and the international community was focused elsewhere. During the pandemic, the Hong Kong government instituted social distancing measures banning most large public gatherings. While these policies were ostensibly to prevent the spread of COVID-19, some observers argued the public health

*Maya Wang, China researcher at Human Rights Watch, noted the term "political virus" bears a close resemblance to the CCP's use of the term "ideological virus" in Xinjiang. She further noted, "There's, disturbingly, growing parallel" between Beijing's policies toward the two regions. Maya Wang (@wang_maya), "While the use of the term 'political virus' by the Hong Kong and Macau Affairs Office bears a striking resemblance to the Party's use of the term 'ideological virus' in Xinjiang and that there's, disturbingly, growing parallel between Xinjiang & #Hong Kong," Twitter, May 6, 2020, 2:52 a.m.

†In October 2019, the Lam Administration fulfilled one of the protest movement's five demands: the formal withdrawal of the proposed extradition bill that initially triggered the demonstrations. The remaining demands of the protest movement are: (1) granting universal suffrage in the legislative and chief executive elections as promised under the Basic Law, Hong Kong's constitution; (2) establishing an independent inquiry into police abuses against demonstrators; (3) providing amnesty to all arrested protesters; and (4) retracting the official characterization of the protests as "riots." Alvin Lum, Kimmy Chung, and Jeffie Lam, "Hong Kong's 'Dead' Extradition Bill Finally Buried as Government Formally Withdraws It," *South China Morning Post*, October 23, 2019.

‡Mainland and Hong Kong officials argued that the inability of the LegCo to pass national security laws as required in Article 23 of the Basic Law rendered the authorities "defenseless" in countering acts that threaten China's national security. *Standard*, "Carrie Lam Says She Felt at Ease after Beijing Adopted the National Security Law," June 3, 2020; Zhang Yangfei, "Deputies to Deliberate on Measures to Boost HK Security," *China Daily*, May 23, 2020.

Beijing's Rush to Act—*Continued*

emergency was being used to suppress protests.[53] Simon Shen, adjunct associate professor at Hong Kong University, judged that Beijing likely saw the United States and its allies struggle to deal with their respective responses to the pandemic and that they would be in a weak position to respond to China.[54]

Increasing Intensity of Police-Protester Clashes: The Hong Kong authorities' use of more extreme tactics and their inability to suppress the protest movement foreshadowed the law's introduction.[55] The Hong Kong police's November 2019 siege of university campuses represented one of the most violent confrontations between police and protesters since the start of the movement five months earlier. Without a warrant, police entered Hong Kong Polytechnic University and clashed with students, firing over 1,000 rounds of tear gas, rubber bullets, beanbag rounds, and stun grenades and threatening the use of live ammunition.[56] The operation resulted in dozens of injuries among students and police as well as 1,377 arrests, with many individuals facing "rioting"* charges that carry a maximum ten-year jail sentence.[57] Hong Kong police also clashed with students and fired hundreds more tear gas canisters at the Chinese University of Hong Kong and the University of Hong Kong, and it conducted smaller-scale operations at three other college campuses in the territory.[58]

Landslide Prodemocracy Victory in District Council Election: Beijing was shocked by the prodemocracy camp's (or pan-democrats) landslide District Council election win in late November 2019 that demonstrated the protest movement's widespread popularity.[59] Although the council only plays an advisory role to the Hong Kong government on community matters, the election results just days after the CCP's Fourth Plenum decision to overhaul Hong Kong's national security laws probably contributed to Beijing's growing impatience with the situation in Hong Kong. With record turnout of 71.2 percent, the election resulted in the pan-democrats taking control of 17 out of 18 district councils and nearly 400 out of 452 seats across the territory.[60] The election represented a dramatic turnaround from just four years earlier when the pan-democrats captured only 126 seats and failed to win a majority of seats in even one of the councils.[61]

The United States and Other Democracies Denounce National Security Law

Following Beijing's decision in late May that it would formulate the law, U.S. Secretary of State Michael Pompeo certified to Congress that Hong Kong no longer warrants the same treatment under U.S. law as the territory enjoyed since the 1997 handover.†[62] Shortly before

*The "rioting" charge falls under the colonial-era Public Order Ordinance the Hong Kong authorities have used frequently during the protests. Cap. 245 Public Order Ordinance, November 17, 1967; Hong Kong Watch, "Outdated and Draconian: Hong Kong's Public Order Ordinance," July 2, 2019.

†Signed into law in November 2019, the Hong Kong Human Rights and Democracy Act requires the secretary of state to certify annually that Hong Kong was sufficiently autonomous

Beijing's law went into effect, the Trump Administration announced it would impose sanctions on current and former CCP officials who undermined Hong Kong's autonomy and announced it would end controlled defense exports to Hong Kong and suspend the preferential treatment of Hong Kong over China on dual-use technology exports.[63]

In response to the law's passage, the United States announced a series of policy measures with significant implications for the U.S. relationship with Hong Kong and mainland China. On July 14, 2020, President Donald Trump issued an executive order to "suspend or eliminate different and preferential treatment for Hong Kong to the extent permitted by [U.S.] law and in the national security, foreign policy, and economic interest" and directing his Administration to sanction mainland and Hong Kong officials and entities responsible for implementing the law or eroding the territory's autonomy.*[64]

The specific parts of Hong Kong's special status included in the executive order covered the following: passports, export license exceptions, exports of controlled defense articles, the bilateral extradition treaty, the bilateral agreement on transferring sentenced persons, training for Hong Kong law enforcement, science and academic cooperation, and taxation on income from international shipping.† In addition, the order lifted the U.S. quota on accepting Hong Kong refugees on humanitarian grounds.[65] Based on the executive order, the United States imposed sanctions on 11 senior CCP and Hong Kong officials, including Chief Executive Lam, responsible for using the national security law to undermine the territory's autonomy and restrict Hong Kong residents' freedom of expression.‡ This move led the Chinese government to sanction a group of 11 members of Con-

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to justify special treatment under U.S. law. This process does not require the Administration to take any further action. Only the president has the authority to make decisions on implementing the U.S.-Hong Kong Policy Act of 1992, which outlines the key aspects of U.S. policy toward the territory. U.S.-China Economic and Security Review Commission, *Hong Kong's Special Status*, May 29, 2020, 1–3.

*The executive order did not call for a wholesale suspension of all aspects of special treatment defined in the Hong Kong Policy Act. It left in place agreements on mutual legal assistance, civil aviation, and some financial services regulation. Various agencies with jurisdiction over aspects of this special treatment have also maintained some continuity in their implementation of the order. For instance, U.S. Customs and Border Protection (CBP) ordered a change in country of origin labels for Hong Kong goods but did not change the tariff rates and duties previously applied to Hong Kong, meaning U.S. imports from Hong Kong are not subject to the Section 301 tariffs currently applied to U.S. imports from China. On August 11, CBP issued a Federal Register Notice mandating that products imported from Hong Kong must be prominently labeled to show "China" as the country of origin, drawing the ire of trade officials in Hong Kong. On August 21, CBP postponed the effective date to November 9, 2020, granting companies additional transition time to comply with the labelling change. U.S. Customs and Border Protection, *Frequently Asked Questions—Guidance on Marking of Goods of Hong Kong—Executive Order 13936*; Alexandra Baj et al., "Assessing the Impacts of Executive Order 13936 on Hong Kong's Status, One Month Later," *Steptoe*, August 25, 2020; U.S. Customs and Border Protection, "CSMS #43729326 - Guidance: Additional 45-day Compliance Period for Executive Order 13936—Hong Kong Normalization," *Cargo Messaging Systems Service*, August 21, 2020; Eric Lam, "Hong Kong Denounces U.S. 'Made in China' Label Demand to WTO," *Bloomberg,* October 14, 2020.

†Concerning science and academic cooperation, the executive order (1) suspended cooperation between the U.S. Geological Survey and the Institute of Space and Earth Information Science at the Chinese University of Hong Kong on earth science cooperation and (2) eliminated the Fulbright program in China and Hong Kong. White House, *The President's Executive Order on Hong Kong Normalization*, July 14, 2020.

‡In addition to Chief Executive Lam, those sanctioned include: Xia Baolong, director of the Hong Kong and Macau Affairs Office; Zhang Xiaoming, deputy director of the Hong Kong and Macau Affairs Office; Luo Huining, director of the Hong Kong Liaison Office; the current and former commissioners of the Hong Kong police; Hong Kong Secretary for Security John Lee; Hong Kong Secretary for Justice Teresa Cheng; Hong Kong Secretary for Constitutional and Mainland Security Affairs Erick Tseng; and the director and secretary general of the Office for Safeguarding National Security in Hong Kong, the new Mainland-led office with arrest and investigation powers under the national security law. U.S. Department of the Treasury, *Treasury Sanctions Individuals for Undermining Hong Kong's Autonomy*, August 7, 2020.

gress and heads of U.S.-based nongovernmental organizations that promote democracy and human rights internationally.*[66]

Pursuant to the Hong Kong Autonomy Act, on October 14, the U.S. Department of State released a report identifying persons involved in the erosion of the obligations of China under the Joint Declaration or the Basic Law, which comprised the same group of officials previously sanctioned with the exception of former Hong Kong Police Force Commissioner Stephen Lo.[67] The publication of the report also triggered a maximum 60-day countdown to the release of a further report identifying foreign financial institutions that knowingly conduct significant transactions with any of those ten officials.[68]

Before the law's implementation, the G7 foreign ministers issued a joint statement calling China's move "not in conformity" with the Basic Law and its international commitments under the legally binding Sino-British Joint Declaration.[69] The statement also noted the decision "risk[ed] seriously undermining the one country, two systems principle… [jeopardizing] the system which has allowed Hong Kong to flourish and made it a success over many years."[70] Over 900 current and former parliamentarians from Australia, the United Kingdom, Canada, the European Parliament, Germany, Japan, the United States, and other countries† as well as from Hong Kong and Taiwan signed a statement denouncing Beijing's decision, calling it a "flagrant breach" of the Joint Declaration.[71] Taiwan President Tsai Ing-wen was the first foreign leader to announce policies designed to help Hong Kong asylum seekers, announcing in June 2020 that Taiwan would establish a dedicated office to assist Hong Kong residents fleeing the city.[72]

After Beijing implemented the law, several countries adopted policies to accommodate refugees forced to leave Hong Kong due to the new law. The UK announced visa policies to allow nearly three million Hong Kong residents to live and work in the UK.‡ In addition, Canada revoked its special treatment of Hong Kong over China in sensitive dual-use and military exports and suspended its extradition treaty with the territory.[73] Meanwhile, Australia decided to extend visas for Hong Kong residents to five years with a path to permanent residency and suspended its extradition treaty with Hong Kong.§[74]

It is not clear that all Hong Kong residents who might prefer to emigrate will be able to, due to cumbersome and potentially politicized

*Sanctioned members of Congress include Senators Tom Cotton, Ted Cruz, Josh Hawley, Marco Rubio, and Patrick Toomey, and Representative Chris Smith. Sanctioned organization heads include Michael Abramowitz, President of Freedom House; Carl Gershman, President of the National Endowment for Democracy; Derek Mitchell, President of the National Democratic Institute; Kenneth Roth, Executive Director of Human Rights Watch; and Daniel Twining, President of the International Republican Institute. *Associated Press*, "China Sanctions 11 US Politicians, Heads of Organizations," August 10, 2020.

†These included Albania, Austria, Belgium, the Czech Republic, Denmark, France, the Gambia, Ireland, Italy, Kosovo, Lithuania, the Netherlands, New Zealand, Nigeria, Norway, Poland, Slovakia, Sweden, Uganda, Ukraine, Malaysia, Myanmar, the Philippines, and South Korea. Hong Kong Watch, "[Updated] Patten-Led Group of 904 International Parliamentarians Decry 'Flagrant Breach of the Sino-British Joint Declaration,'" July 2, 2020.

‡This policy will apply to Hong Kong residents who currently hold a British National (Overseas) passport or who are eligible to apply for one: those born before the handover of Hong Kong to China in July 1997. It will allow for visa-free travel to the UK for a renewable period of five years, and eligibility to apply for citizenship after an additional 12-month period. Government of the United Kingdom, *UK to Extend Residence Rights for British Nationals (Overseas) Citizens in Hong Kong*, July 1, 2020; Government of the United Kingdom, *PM Boris Johnson Article on Hong Kong: 3 June 2020*, June 3, 2020.

§Germany and the UK also suspended their extradition treaties with Hong Kong. Kate Day, "Germany Suspends Extradition Agreement with Hong Kong," *Politico*, July 31, 2020.

emigration procedures required for residents of Hong Kong to exit the territory combined with threats and coercion from the Chinese government. Convictions under the national security law would affect Hong Kong residents' ability to secure police certificates, a document required to obtain an entry visa for many countries, opening the door to political persecution. Chinese ambassador to the UK Liu Xiaoming also warned in July that the Chinese government would not recognize British National (Overseas) passports as valid travel documents for Hong Kong residents.* In February, about 350,000 Hong Kong residents held these passports, while another 2.6 million were eligible.[75] In addition to bureaucratic and legal barriers, Chinese authorities have demonstrated a willingness to forcibly prevent emigration, such as when the China Coast Guard captured fleeing residents in September.[76]

Hong Kong's Future as a Global Financial Hub at Risk

The Chinese government's decision to introduce national security legislation represented a deliberate choice to assert authoritarian control over Hong Kong, accepting any potential risk to the territory's status as one of the top global financial hubs. Hong Kong provides the Mainland with access to international capital and advanced technology exports. Neither advantage is currently directly replaceable. The Chinese government's gamble risks Hong Kong's reputation for strong, independent institutions and rule of law, the foundation of the territory's financial preeminence and export control cooperation with the United States. The law and the subsequent fallout present significant political and personal risks to U.S. companies with investments, operations, and personnel in Hong Kong. Its implementation may lead Hong Kong-based multinational enterprises to shift from serving international clients toward more Mainland-focused operations, moving internationally connected operations and information technology out of the territory.

Hong Kong's Financial Success Rests on the Strength of Its Institutions

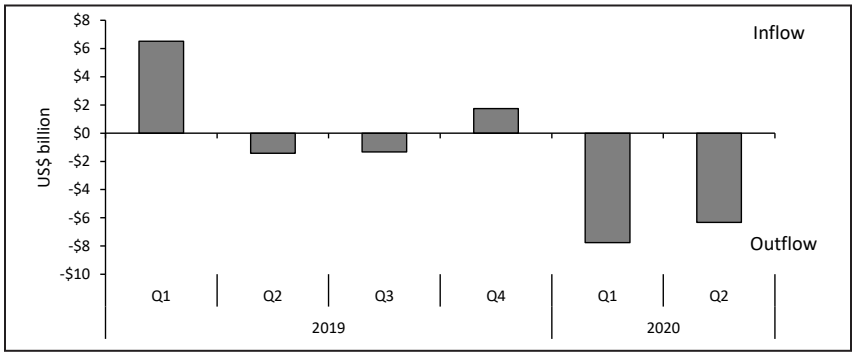
Hong Kong's continuing status as a global financial center rests on institutional guarantees necessary for conducting financial research, operations, and transactions. Analysts have unrestricted access to information and may make negative assessments without fear of reprisal, investors trust that their legal rights will be protected by rule of law and defended by local courts, and capital moves freely. The national security law has voided these guarantees. Andrew Collier, managing director at Oriental Capital Research, said foreign banks that already tread cautiously on negative reporting will become even more reluctant to publish financial analyses or other materials "that reflect badly on Chinese or Hong Kong issues."[77] Nor is the potential range of action on national security concerns limited to restricting freedom of information. Victor Shih, longtime observer of China's political economy, cautioned that the national security law may enable Beijing to intervene in Hong Kong's banking system by weighing in on court decisions, freezing bank accounts, and seizing assets.[78] In mid-April 2020, Fitch

*As of late September 2020, the Chinese government had not made a formal policy announcement to this effect. Patrick Wintour, "Hong Kong: China Says It Will Not Recognise UK Overseas Passports," *Guardian*, July 30, 2020.

Ratings downgraded Hong Kong's credit rating from "AA" to "AA-,"* reflecting in part Hong Kong's "gradual integration into China's national governance system" necessitating ratings' "closer alignment" as investors see risks in Hong Kong converge with those in the Mainland.[79]

The heightened uncertainty created by the national security law risks shaking investor confidence needed to sustain foreign portfolio flows into the future. Logan Wright, director at Rhodium Group, noted that as foreign direct investment (FDI) flows into mainland China are unlikely to accelerate significantly; only portfolio flows represent a potential growing source of foreign capital.[80] Investors' willingness to move capital through Hong Kong and into the Mainland depends on their confidence in the strength of Hong Kong's institutional frameworks. Even before the law was announced, portfolio inflows to Hong Kong had slowed, likely driven by a variety of factors including the spread of COVID-19 and foreign investors' "flight to safety" into cash (see Figure 1).† According to the Hong Kong Census and Statistics Department, foreign portfolio investment had flowed into Hong Kong nearly every quarter between mid-2016 and early 2019.‡

Figure 1: Foreign Portfolio Flows into and out of Hong Kong, Q1 2019–Q2 2020



Note: Positive values show a capital inflow into Hong Kong. Negative values show a capital outflow out of Hong Kong. A (positive) foreign capital inflow occurs as foreign entities purchase assets in Hong Kong and pay Hong Kong entities for those assets. A (negative) foreign capital outflow occurs as foreign entities sell their Hong Kong assets and repatriate their payment from the sale. Note these amounts only show portfolio investment, not FDI.

Source: Hong Kong Census and Statistics Department, Balance of Payments Branch, *Table 043*, accessed in September 2020.

*As Fitch Ratings explains, investors use credit ratings to gauge the likelihood they will be paid according to the terms agreed upon when entities, including sovereign nations, issue debt. These ratings represent investor risk in a ranked order system of letters, with lower risk "investment grade" ratings ranging from "AAA" to "BBB." China's sovereign debt is currently rated as "A+." Fitch Ratings, "Fitch Downgrades Hong Kong to 'AA-' from 'AA'; Outlook Stable," April 20, 2020; Peter Patrino, "Rating Definitions," *Fitch Ratings*, March 26, 2020.

†The Hong Kong Census and Statistics Department noted that in the first quarter, foreign portfolio outflows were due to "decreased holdings of [Hong Kong] equity and investment fund shares and [Hong Kong banking] debt securities," and in the second quarter foreign portfolio outflows were due to "decreased holdings of [Hong Kong] long-term debt securities… partly offset by the increased holdings of [Hong Kong] equity and investment fund shares of other sectors." Hong Kong Census and Statistics Department, *Balance of Payments, Balance of Payments, International Investment Position, and External Debt Statistics of Hong Kong, Second Quarter 2020*, September 22, 2020; Hong Kong Census and Statistics Department, Balance of Payments, *Balance of Payments, International Investment Position, and External Debt Statistics of Hong Kong, First Quarter 2020*, June 22, 2020.

‡Only the fourth quarter of 2016 and the fourth quarter of 2018 had seen outflows of foreign portfolio investment prior to 2020. Hong Kong Census and Statistics Department, Balance of Payments Branch, *Table 043*, accessed in September 2020.

Hong Kong as a Financing Hub for Mainland Firms

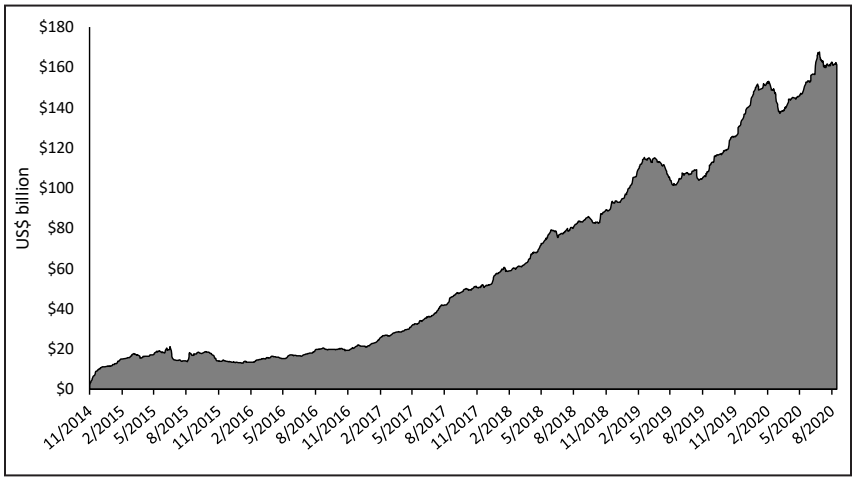
Hong Kong's financial markets have served as a conduit connecting the Mainland to international capital markets. In the wake of the national security law, however, Hong Kong's business makeup and clientele may shift from its previous international orientation toward mainland-centered operations. China's reliance on Hong Kong's intermediation could grow as the Chinese government moves to open the country's financial market, raising foreign capital to address longstanding but increasingly imminent economic challenges (e.g., a looming debt burden, an aging population, undercapitalized banks, and nonperforming assets). (For more on Chinese financial markets, see Chapter 2, Section 2, "Vulnerabilities in China's Financial System and Risks for the United States.")

Unlike mainland China, Hong Kong allows for the free flow of capital, making it an ideal location for this opening to occur. The Hong Kong-based Stock and Bond Connect platforms, as well as listings on the Hong Kong Stock Exchange, support foreign portfolio investment in Chinese financial markets. These traits made the territory ideal for global financial institutions. As the details of the national security law became clearer, Alicia Garcia-Herrero, chief Asia Pacific economist at investment bank Natixis S.A., stated that Hong Kong may evolve into "a Chinese offshore center… [not] a global financial center" as financial service clientele in Hong Kong "turn increasingly China-centric and away from a regional bias."[81] Several anonymous U.S. multinational companies surveyed by the American Chamber of Commerce (AmCham) in Hong Kong in early July concurred with this projection, stating "international firms will slowly leave the city for other [Asian] headquarter cities."*

In equity fundraising, Hong Kong serves as a platform for the Shanghai and Shenzhen Stock Connect programs begun in 2014 and 2016, respectively, which allow foreign investors holding accounts in Hong Kong to trade stocks directly in Shanghai and Shenzhen. Nicholas Borst, vice president at Seafarer Capital, referred to the Stock Connect as the "most important reform affecting China's stock markets."[82] In 2017, the Bond Connect program permitted foreign investors to trade sovereign, local government, policy bank, and corporate bonds in China through Hong Kong.[83] Net foreign inflows through the Stock Connect rose to $143 billion (about renminbi [RMB] 1 trillion) by the end of 2019 (see Figure 2).[84] The International Monetary Fund reported that in the first half of 2019, mainland Chinese firms accounted for 77 percent of equity raised in Hong Kong exchanges.[85] Mainland firms also issued 56 percent of their U.S. dollar-denominated bonds in Hong Kong.[86]

*This survey received 183 responses and was conducted between July 6 and July 9, 2020. AmCham Hong Kong, "AmCham Temperature Survey Findings National Security Law," July 2020, 4–6.

Figure 2: Stock Connect Accumulated Net Inflows, November 2014–August 2020

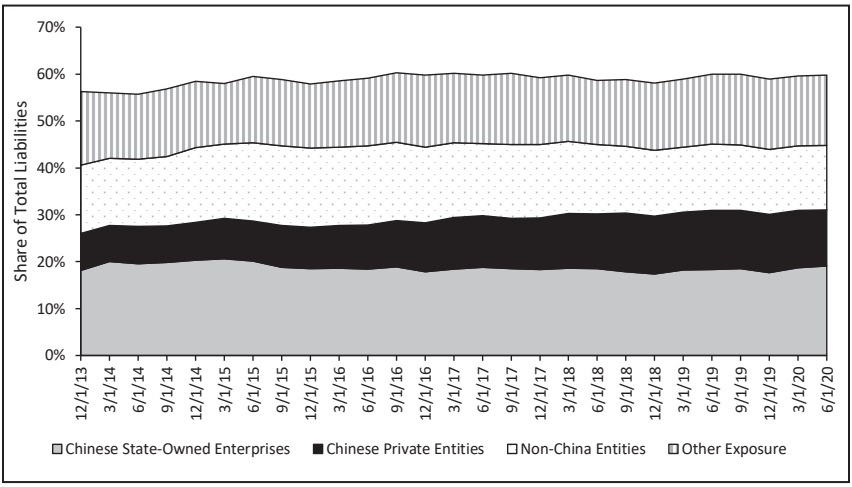


Source: Nicholas Borst, "The China Investment Dilemma: Risks for U.S. Investors during a Turbulent Time," *Seafarer*, April 2020, 7. Series converted to U.S. dollars and extended to August 2020.

Apart from the Connect platforms, mainland Chinese companies can also access international capital by listing on Hong Kong Stock Exchange. At the end of 2019, 1,241 mainland firms had listed on Hong Kong exchanges, about half of all listed companies.[87] Hong Kong listings add about $2.9 trillion in additional market capitalization to Chinese companies.[88] Firms, including NetEase and JD.com, continued to list in Hong Kong as of June 2020.[89] Some firms with secondary listings in Hong Kong are heavily weighted in major emerging market indices (e.g., Alibaba and China Mobile, both listed in Hong Kong and New York).

Beyond portfolio investment, global banks in Hong Kong dedicate a substantial share of their lending to investing in activities in the Mainland. As of June 2020, around 60 percent of lending from banks in Hong Kong was put toward mainland Chinese business activity.[90] About 19 percent was channeled to Chinese state-owned enterprises, which the Hong Kong Monetary Authority defined as central or local government-owned entities, their subsidiaries, and their majority-owned joint ventures (see Figure 3).[91]

Figure 3: Hong Kong Banks' Exposure to Nonbank Chinese Entities, by Borrower Type, Q4 2013–Q2 2020



Source: Hong Kong Monetary Authority, *Monthly Statistical Bulletin (August 2020)*, Series 3.4.1 "Loans and Advances by Type—Authorized Institutions," Series 3.13.3 "Mainland-Related Lending by Type of Borrowers," Series 3.13.4 "Other Mainland-Related Non-Bank Exposures."

Finally, Hong Kong remains the largest offshore clearing center and trading location for RMB. According to the SWIFT global payments processing service, in October 2020 about 74.7 percent of offshore RMB-denominated payments were cleared in Hong Kong.[92] Hong Kong also accounted for the highest share of offshore RMB trading in 2019 at 41 percent, nearly double that of the UK (22 percent), which ranked second.[93]

U.S. Advanced Technologies Exports to Hong Kong, Restricted in China

U.S. export control laws require exporters of sensitive U.S. technologies to obtain a license from the U.S. Department of Commerce Bureau of Industry and Security before shipment. Under the U.S.-Hong Kong Policy Act of 1992, Hong Kong's status as a separate customs territory allowed it differentiated treatment under U.S. export control laws, less restrictive relative to mainland China. On July 14, President Trump issued the Executive Order on Hong Kong Normalization that, among other changes to Hong Kong's status, suspended differential treatment for exports to Hong Kong under U.S. export control laws.*

In 2018, 1.2 percent of exports to Hong Kong were subject to Bureau of Industry and Security license requirements, compared with 3 percent of exports to mainland China.† According to Nigel Inkster,[94] former assistant chief and director of operations and intelli-

*The executive order also suspended differential treatment of Hong Kong in the Committee on Foreign Investment in the United States' annual report to Congress under Section 721(m) of the Defense Production Act of 1950, CFIUS' statutory authority. Cleary Gottlieb, "Executive Order Eliminates Differential Treatment for Hong Kong," July 21, 2020, 7; White House, *The President's Executive Order on Hong Kong Normalization*, July 14, 2020.

†Worldwide, 1.6 percent of U.S. exports were subject to Bureau of Industry and Security license requirements in 2018. Data for 2018 represents the most recent data available. U.S. Department

gence for the UK Secret Intelligence Service, thousands of mainland Chinese companies maintain a presence in Hong Kong to access U.S.-controlled technologies.[95] A change in the export control regime may curtail this access.

U.S. and International Businesses Grapple with Rising Political Risk

In the face of rising political risks, U.S. and other multinational businesses acknowledged Beijing's increased control over the territory as a new status quo. On July 2, as the national security law text was released, AmCham Hong Kong reaffirmed its commitment to the territory as a center for international business, stated the business community required time to review the law's details, and expressed hope that the law would not "impact [Hong Kong's] dynamism and benefits."[96] After pressure from Hong Kong and mainland officials, multinational banks HSBC* and Standard Chartered publicly supported Beijing's national security law in June 2020.[97] In November 2019, citing banking regulations, HSBC reportedly closed a corporate account of the nonprofit Spark Alliance, which had helped fund protest-related activities.[98] In July 2020, Reuters reported Credit Suisse, HSBC, Julius Baer, and UBS, among others, were broadening reviews to screen clients for political and government ties.[99] This process to flag "politically exposed" people—a designation that could hinder or prevent access to banking services—identified two groups of clients: (1) those perceived as violating the national security law and subject to penalties by the Hong Kong government and (2) Hong Kong and mainland Chinese officials who could be subject to U.S. sanctions.[100]

Despite the passage of the national security law, U.S. businesses and financial services providers may still see opportunities in Hong Kong, particularly on the strength of its deep capital markets and financial links to the Mainland.[101] Hong Kong continues to place at or near the top of global economic freedom indices. For example, it was the highest-ranked jurisdiction in the Fraser Institute report on economic freedom,† while the Heritage Foundation placed it second in its Index of Economic Freedom‡ and the World Bank placed it third in its Ease of Doing Business ranking.§ In discussing Hong Kong's continued financial stability following the law's announcement, Christopher Wiegand, Royal Bridge Capital Co-Founder, said, "Until you see some signs that contract law is actually being chal-

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of Commerce Bureau of Industry and Security, *U.S. Trade with China*, 2018; U.S. Department of Commerce Bureau of Industry and Security, *U.S. Trade with Hong Kong*, 2018.

*Although HSBC has taken steps to express public support for the national security law, according to media reports it has been penalized by Beijing nevertheless. In October 2020, HSBC was left off the list of banks arranging China's dollar-denominated sovereign bond offering for the first time since 2017. *Bloomberg,* "HSBC Is Left Off First China Dollar Bond Deal Since 2017," October 13, 2020.

†The 2020 Fraser Institute ranking is based on 2018 data. In its explanation, the Fraser Institute noted that "it will be surprising if the apparent increase in the insecurity of property rights and the weakening of the rule of law caused by the interventions of the Chinese government in 2019 and 2020 do not result in lower scores… for Hong Kong in future reports." James Gwartney et al., "Economic Freedom of the World Annual Report 2020," *Fraser Institute*, 2020, 7–8.

‡The Heritage Foundation's 2020 assessment appeared to rely on data from 2019. Heritage Foundation, "2020 Index of Economic Freedom: Hong Kong," 2020; Heritage Foundation, "Hong Kong," 2020.

§The World Bank Doing Business report for Hong Kong stated the most recent round of data collection "was completed in May 2019." World Bank, "Doing Business 2020: Economy Profile: Hong Kong SAR, China," 2020.

lenged in Hong Kong," there may continue to be "a sense of complacency."*

As U.S. companies with operations in Hong Kong have been reluctant to state any plans publicly, U.S. business sentiment has primarily been communicated through industry polls. In July and August, AmCham Hong Kong conducted two surveys gauging its members' views of the national security law and the U.S. response, including the removal of Hong Kong's special status in U.S. law and potential financial sanctions.† When asked how the company had been impacted by the law and a potential U.S. response, over half of survey respondents reported they were "in 'wait and see' mode."[102] The surveys also cited a number of anonymous comments reflecting some companies' views that Hong Kong retains its economic importance. For example, one respondent said, "Nowhere else in Asia can replace [Hong Kong] with its [U.S. dollar] liquidity, capital markets, talent, etc."[103] Another anonymous respondent said, "Hong Kong is still well above Singapore, Bangkok, Tokyo, Seoul, Taipei, or certainly anywhere else on the Mainland for ease of doing business."[104] Still other businesses stated the national security law's passage would restore calm to the city after months of social unrest.[105]

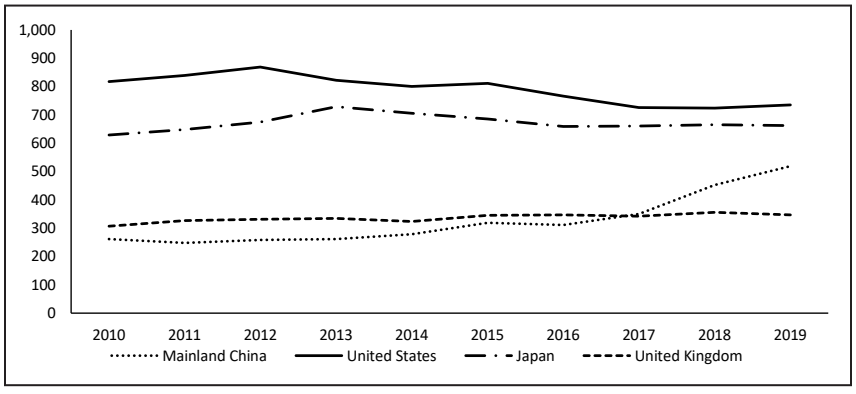
The business community's public acceptance of the national security legislation was accompanied by private expressions of dismay. City University of Hong Kong law professor Wang Jiangyu said businesses were "scared, including the biggest financial institutions."[106] An early July survey of AmCham Hong Kong members found that 76 percent of respondents were somewhat or extremely concerned about the national security law.‡ Anonymous comments from respondents highlighted fear of the law's ambiguity, wide scope, extraterritoriality, "extensive and arbitrary powers," and potential loss of protection from Hong Kong's courts.[107] Several respondents commented that the law "accelerates the shift of Hong Kong from an international business center into a Mainland-focused business center."[108] This shift has been underway for some time: as the number of U.S. regional headquarters and regional offices began to decline after 2012, mainland Chinese companies' regional headquarters and regional offices roughly doubled from 258 in 2012 to 519 in 2019 (see Figure 4).[109]

*Mr. Wiegand made these remarks before the text of the national security law was released. Christopher Wiegand, *Odd Lots*, "Why Investors Keep Losing Money Betting Against the Hong Kong Dollar Peg," *Bloomberg*, Podcast, August 3, 2020.

†AmCham Hong Kong surveyed its members on the national security law between July 6 and July 9, and on the combined effect of the national security law and potential U.S. sanctions between August 7 and August 11. A total of 183 members (15 percent of its membership) responded to its survey in July, and 154 of its members (13 percent) responded to its survey in August. American Chamber of Commerce in Hong Kong, "OFAC's Sanction on Hong Kong and National Security Law," August 2020, 1; American Chamber of Commerce in Hong Kong, "AmCham Temperature Survey Findings: National Security Law," July 2020, 1.

‡This survey received 183 respondents and was conducted between July 6 and July 9, 2020. AmCham Hong Kong, "AmCham Temperature Survey Findings National Security Law," July 2020, 4–6.

Figure 4: Multinational Regional Headquarters and Regional Offices in Hong Kong, 2010–2019



Source: Various.[110]

Since the national security law was implemented, multinational companies began taking steps to mitigate new risks. U.S. technology giants Google, Amazon Web Services, Microsoft, Facebook, and Twitter have refused to allow Hong Kong securities regulators access to customer financial records and other data, which an anonymous commentator termed "politically impossible."[111] Business consulting firm Teneo advised in a report that "whatever precautions businesses take in mainland China—for example, ensuring that laptops and mobile devices do not contain sensitive, unencrypted data of interest to Chinese authorities—should now be extended to Hong Kong."[112] Preliminary reports noted more businesses began removing servers from Hong Kong in June.[113]

Companies might also mitigate risk by restructuring or relocating some operations or choose to pull out altogether. Political consultancy Eurasia Group Director Todd Mariano said that though "the drip-by-drip process of companies leaving had already begun," the national security law "[threw] fuel on that fire."[114] According to an August 2020 AmCham Hong Kong survey of 154 member firms in the territory, about 36 percent said they would consider moving capital, assets, or business operations out of Hong Kong in the future due to the law and the subsequent threat of U.S. sanctions.[115] This decision-making extended to international employees' families, which could also harm business operations. As early as March, AmCham Hong Kong President Tara Joseph noted international families residing in Hong Kong had begun drawing up contingency plans for leaving the territory as living in Hong Kong became a "riskier undertaking."[116]

Beijing's Long-Term Plans to Absorb Hong Kong and Replicate Its Benefits Fall Flat

China's leaders consider unrest in Hong Kong a matter of internal security. They believe this unrest stems primarily from socioeconomic and livelihood matters which can be resolved by offering Hong Kong residents more economic opportunities. As noted by Yun Sun, senior fellow at the Stimson Center, as early as October 2019 the

CCP Fourth Plenum communiqué demonstrated the Chinese government had made the decision to "promote comprehensive control" of Hong Kong, though the form of this control was not specified.[117] According to Ms. Sun, in the economic sphere, asserting control over Hong Kong meant perfecting "the absorption and integration of Hong Kong and Macau into the national economy," allowing mainland China to "tie Hong Kong more closely into [China's] orbit."[118] By this time, long-term plans to absorb Hong Kong by incorporating it into the Greater Bay Area and replicating its financial functions elsewhere in the Mainland were already underway.

Hong Kong's incorporation into the Greater Bay Area is a roadmap for its integration into the mainland economy. Released in February 2019, the plan aims to streamline regulation and allow the free flow of people, goods, and services across Hong Kong, Macau, and nine cities in Guangdong Province.[119] The plan takes advantage of Hong Kong's financial position to support Guangdong Province's development while also reorienting the city toward the Mainland.

The State Council's moves to improve the position of Shenzhen relative to Hong Kong represent high-level efforts to absorb Hong Kong into the Mainland's economic framework. In July 2020, Shenzhen authorities issued plans to bolster the city's position in fintech and sustainable finance, mirroring a raft of reforms that had been rolled out in August 2019.[120] Willy Lam, professor at the Chinese University of Hong Kong, had summarized the Chinese government's message to Hong Kong: "If [Hong Kong doesn't] toe Beijing's line, then Beijing will give preferential policies to Shenzhen instead of Hong Kong, and Hong Kong's status as an international business center might someday be replaced by Shenzhen."[121]

Beijing's plans to integrate Hong Kong do not preclude utilizing the city's financial advantages, however. The Chinese and Hong Kong governments have made assurances that Hong Kong will continue to hold its position as a financial hub following the national security law's implementation.[122] In addition, between May and June 2020, Chinese financial regulators announced plans for a Wealth Management Connect scheme, a raft of 26 measures to support cross-border lending, overseas investment by local private equity firms, and permission for financial institutions and insurers to provide cross-border services and bond issuance.*

While this integration is ongoing, Chinese government authorities simultaneously seek to replicate Hong Kong's unique financial functions in mainland cities like Shanghai in the long term. Thus far, however, mainland Chinese cities have encountered significant hurdles in competing directly with Hong Kong's financial primacy. The Shanghai-London Connect platform, which bypasses Hong Kong, was first announced in 2015 but only came into use in June 2019, when state-owned brokerage Huatai Securities raised $1.54 billion

*Financial regulatory agencies involved include the People's Bank of China—China's central bank—as well as the China Banking and Insurance Regulatory Commission, the China Securities Regulatory Commission, and the State Administration of Foreign Exchange. Wei Yiyang and Denise Jia, "China to Link Wealth Management Markets in Greater Bay Area," *Caixin*, June 30, 2020; *China Banking News*, "Beijing Unveils Bold Plans for Financial Integration of Guangdong, Hong Kong and Macau 'Greater Bay Area,'" May 15, 2020.

by listing depository receipts* on the London Stock Exchange.[123] Observers note this platform has yet to fulfill its promise.† A March 2019 survey conducted by AmCham Shanghai concluded, "Few respondents indicated confidence that Shanghai will become a significant global financial center anytime soon" due to capital controls, arbitrary government intervention in the market, insufficient internationalization of the RMB, RMB inconvertibility, and the lack of the rule of law.‡ Wang Jiangyu, professor at City University of Hong Kong, noted, "The biggest challenge for Shanghai will be the rule of law and independent judiciary," an insurmountable challenge as long as those in the CCP, government, and other positions of power remain above the law in China.[124]

Erasing the Political Lines between Beijing and the Hong Kong Government

While Beijing's introduction of national security legislation marked a new low in Hong Kong's autonomy and freedoms, it comes at the end of steps taken by Hong Kong and the mainland authorities to cement control. The two increasingly coordinated action, particularly through Beijing adding mainland security forces that could supplement the Hong Kong police, the Hong Kong authorities using legal tools to punish the prodemocracy movement, and both sides denying Hong Kong's long-held civil liberties.

Personnel Appointments Reflect Beijing's Hardening Stance

Key personnel appointments to China's leading Hong Kong policy bodies previewed Beijing's push to implement the national security law in Hong Kong and reflected its shift to a more uncompromising approach to governing the territory. General Secretary Xi's dissatisfaction with the officials who oversaw failed efforts to turn Hong Kong public sentiment against the protest movement was also evident in these moves. In early 2020, General Secretary Xi appointed trusted officials Xia Baolong and Luo Huining, both of whom have experience leading crackdowns against religious and ethnic minority groups elsewhere in China, to head China's leading offices coordinating Hong Kong policy.[125] Before the law's announcement, these officials made repeated statements warning against "external forces" infiltrating Hong Kong and the need to strengthen the territory's national security apparatus.[126]

General Secretary Xi's close ally Mr. Xia, selected to lead the HKMAO in February 2020, most recently served in China's Zhejiang Province where he oversaw a crackdown on the local Christian community and implemented stricter social controls.[127] He concurrently held the position of secretary-general in the top CCP advisory body, the Chinese People's Political Consultative Conference, before

*Depository receipts represent shares in foreign companies that have been deposited with a bank, which can then issue depository receipts like shares of a stock. They allow investors to invest in foreign companies and enable foreign companies to raise capital abroad. U.S. Securities and Exchange Commission Office of Investor Education and Advocacy, "Investor Bulletin: American Depository Receipts," August 2012.

†The Shanghai-London Connect platform was temporarily suspended after political tensions in late 2019, and the platform saw no activity for a year after Huatai's use, finally reviving in June 2020. Julia Fioretti, "Shanghai-London Stock Link Could Finally Revive After Year Halt," *Bloomberg,* June 3, 2020.

‡This report surveyed 26 executives in financial services and affiliated sectors. American Chamber of Commerce in Shanghai, "Shanghai 2020: A Financial Vision Unfulfilled," March 2019, 6.

stepping down in May 2020, becoming the highest-ranking official to head the HKMAO in a decade.[128] Mr. Luo, whom Beijing tapped in January to lead the Hong Kong Liaison Office, spent tours in western China suppressing Tibetan Buddhist communities and in Shaanxi Province rooting out corrupt officials with ties to General Secretary Xi's political opponents.[129]

In tandem with these appointments, Beijing made key organizational changes to Hong Kong policy bodies likely designed to centralize decision-making and help implement the national security law. General Secretary Xi upgraded China's coordinating group on Hong Kong and Macau Affairs to a central leading small group, making Mr. Xia and Minister of Public Security Zhao Kezhi deputy directors under Vice Premier Han Zheng.[130] This move appeared to indicate Beijing's intent to closely coordinate mainland security bodies' operations in Hong Kong. Mr. Xia's appointment to the HKMAO helped General Secretary Xi streamline control over Hong Kong policy, according to Willy Lam. "Since Xia reports directly to [General Secretary] Xi, the means and mechanisms that Beijing will adopt to materialize 'comprehensive rule' in [Hong Kong] could become swifter and more efficacious than before," Dr. Lam assessed.[131]

Heightened Presence of Mainland and Hong Kong Security Forces

From August to December 2019, Beijing increased the size of its security forces in Hong Kong to intimidate demonstrators and unsuccessfully deter large-scale protests. According to four foreign diplomats in the territory, up to 4,000 People's Armed Police personnel were reportedly deployed to Hong Kong in late 2019 and joined Hong Kong police in an observational role on the front lines of the demonstrations.[132] Taking these new security personnel together with the doubling of the PLA's presence in Hong Kong in 2019 to an estimated 10,000–12,000, the current total marks the largest-ever mainland security force stationed in the territory.[133] China's Ministry of National Defense denied that People's Armed Police troops were stationed in Hong Kong or that mainland law enforcement agencies were observing the protests or visiting the territory.[134] In July 2020, the Office for Safeguarding National Security, the new security agency established by the national security law, occupied a large hotel as its new headquarters. The new agency is reportedly staffed by mainland security officials, including those from the Ministries of State and Public Security, and is tasked with overseeing the Hong Kong government's national security and intelligence work.[135]

The PLA's presence in Hong Kong has also become increasingly visible. Before a mass protest on New Year's Day 2020, the PLA Hong Kong Garrison conducted its quarterly joint exercise in Hong Kong's Victoria Harbor, seen as an attempt at deterring protest participation.[136] The drill was larger and longer than previous exercises and simulated real combat scenarios involving around 1,000 army, navy, and air force personnel as well as ships, helicopters, infantry, and special forces.[137] This followed an incident in November 2019 when PLA soldiers left their barracks without notifying the Hong Kong authorities—for the first time since the start of the

protest movement and second time since the handover—to clear protester-built roadblocks outside Hong Kong Baptist University.* [138] Prodemocracy lawmakers argued this PLA action violated the Basic Law and Garrison Law, which forbid PLA interference in Hong Kong affairs and require it to give advance notice to the Hong Kong government.[139]

The Hong Kong authorities adopted mainland-style policing techniques through its harder-line approach against the protest movement. In late 2019, Chris Tang, who was appointed as the new Hong Kong chief of police and approved by Beijing, reinforced Beijing's talking points and refused to accept an independent investigation into police abuses.[140] In an interview before being sworn in, Mr. Tang called protester actions "very close to terrorism."[141] Police actions under Mr. Tang's leadership have continued to flout international norms on policing and the force's own guidelines.[142]

Chief Executive Lam's so-called "independent" investigation into police abuses, responding to one of the protest movement's core demands, resulted in a May 2020 report that cleared the police of any wrongdoing.[143] The prodemocracy camp widely dismissed the report as political propaganda and criticized the body's lack of independence and enforcement power.[144] Just a month after joining the study in November 2019, international observers appointed to the body (a major part of Chief Executive Lam's insistence that the commission was impartial) left, citing its shortfalls in "powers, capacity, and independent investigative capability."[145]

Hong Kong Government's "Rule by Law"

Since Beijing imposed the national security law, Hong Kong's judicial system, which rests upon the British common law system, has been thrown into a state of crisis. The Hong Kong authorities increasingly are adopting the Mainland's approach of "rule by law"—using legal means to target political opponents. Mainland officials have insisted that judges must toe the CCP's line and apply mainland Chinese legal traditions when ruling on national security cases.[146] Foreign judges from common law countries† serving on the Hong Kong Court of Final Appeal—the territory's highest appellate court—form an important part of the territory's legal tradition that is now at risk.[147] In July, Robert Reed, the president of the UK Supreme Court, who also serves on the Court of Final Appeal, said that the ability of UK judges to serve on the Court of Final Appeal would "depend on whether such service remains compatible with judicial independence and the rule of law" and noted the court would

*Since the 1997 handover of Hong Kong to China, PLA soldiers in Hong Kong have left their barracks without a request from the Hong Kong government on only one other occasion. In October 2018, PLA garrison troops cleaned up a trail in a remote area of the territory after Typhoon Mangkhut. Su Xinqi and Alvin Lum, "400 Uniformed PLA Soldiers Help with Country Park Clean-Up after Typhoon Mangkhut, in First for Hong Kong," *South China Morning Post*, October 14, 2018; Lily Kuo, "Hong Kong: Protesters Wary over Elite Troops Clearing Roadblocks," *Guardian*, November 18, 2019.

†Current nonpermanent judges for the Court of Final Appeal include those from the UK, Australia, and Canada. As many as a third of the world's legal systems use either the common law or an element of the common law. Hong Kong Court of Final Appeal, *The Judges*, July 20, 2020; Kwai Hang Ng and Brynna Jacobson, "How Global Is the Common Law? A Comparative Study of Asian Common Law Systems—Hong Kong, Malaysia, and Singapore, *Asian Journal of Comparative Law* 12:2 (December 2017): 209–232.

"continue to assess the position in Hong Kong as it develops, in discussion with the UK government."[148]

In a sign acknowledging growing tensions between the prosecution and the Hong Kong government, in late July 2020 Hong Kong's top prosecutor resigned over being sidelined from national security cases.[149] In September, an Australian judge resigned from the Court of Final Appeal for reasons "related to the content of the national security laws."[150] In October, the Hong Kong government ultimately announced the appointment of a Scottish judge to the Court of Final Appeal, effectively replacing the Australian judge and restoring the number of foreign judges from 13 to 14.[151] The Hong Kong judiciary confirmed on October 13 that a permanent magistrate with the West Kowloon court would be reassigned to other work following accusations in Chinese state media that his rulings on protest-related cases were sympathetic to the prodemocracy movement.[152]

Even before the new law, the Hong Kong authorities took to using broad, poorly defined laws to target prodemocracy supporters. While Hong Kong's courts have historically remained impartial, the Lam Administration—under Beijing's active encouragement—is using legal tactics to apply growing pressure on Hong Kong judges to fall in line with its policies and punish prodemocracy activists.[153] This pressure has been evident in recent cases that drew public commentary from Chinese media and pro-Beijing lawmakers criticizing court rulings not in Beijing's favor and appointments of judges not conforming to the CCP's agenda.[154]

Beyond the growing pressures on Hong Kong's judicial branch, the Hong Kong government's rule by law approach resulted in a number of blows to the territory's traditional common law system:

China's Liaison Office Claims Ability to Interfere in Hong Kong's Affairs: In April 2020, China's Liaison Office in Hong Kong made a rare public statement accusing prodemocracy legislator Dennis Kwok of violating his oath of office by filibustering proceedings of a key LegCo House Committee (which determines when bills can proceed to a final vote).*[155] Responding to the prodemocracy camp's criticism that its interference violated the Basic Law, the Liaison Office claimed it had authority to "supervise" Hong Kong and could be exempted from legal provisions intended to bar its interference. The Liaison Office argued that it did not qualify as a department of the central government, therefore exempting it from the Basic Law.[156] This move was significant because it set precedent for the Liaison Office to openly exert pressure on LegCo and the judiciary to act according to the CCP's wishes.

Pro-Beijing Lawmakers Pass Legislation Restricting Freedom of Expression: On June 4—the anniversary of the Tiananmen Square massacre—at the behest of Beijing pro-Beijing lawmakers in LegCo passed controversial legislation banning disrespect to China's national anthem. Following Beijing's passage of its own national anthem law, in 2017 China's National People's Congress Standing

*Mr. Kwok took charge of the committee in October 2019 after pro-Beijing legislator Starry Lee stepped down to seek reelection as committee chair. Without an elected chair, most bills were unable to proceed to a vote. Alvin Lum, "More Arguments as Hong Kong's Gridlocked House Committee Meets for 16th Time and Again Is Unable to Elect Chair," *South China Morning Post*, April 24, 2020.

Committee changed the Basic Law requiring Hong Kong to pass its own local version, though the legislative process had been delayed due to the protest movement.[157] The new law imposes a maximum three-year jail sentence for affronting the anthem, frequently booed as a form of protest during public events. The imposition of the law came after the pro-Beijing camp violated legislative rules to take away control of the LegCo House Committee from Mr. Kwok.[158]

Use of Colonial-Era Laws to Make Arrests: The Hong Kong government conducted a series of high-profile arrests of democracy activists in February, April, and June 2020 under the colonial-era 1967 Public Order Ordinance, a law banning "illegal assembly" and "rioting" that until 2016 was used to prosecute cases of extreme violence.* One of those arrested for alleged involvement in banned protests in 2019 was 81-year-old Martin Lee, founder of Hong Kong's Democratic Party and the long-time leader of the prodemocracy movement in the territory. Many observers viewed Mr. Lee's arrest as symbolic of the Hong Kong government's shift in using law to target political opponents.[159]

In October 2019, another colonial-era law, the Emergency Regulations Ordinance, was used to implement a ban on face masks in public assemblies.[160] Chief Executive Lam said this ordinance and the antimask ban were necessary to end escalating violence, while critics asserted the move represented Lam's first step toward authoritarianism.[161] Under the antimask ban, Hong Kong police arrested 682 people until a court declared the ban unconstitutional in December 2019.[162] In September 2020, Mr. Wong was arrested during his appearance at a regular police check-in, on charges he had violated the mask ban and attended an unauthorized gathering in October 2019.[163] Mr. Wong claimed that in bringing overlapping charges in this way, the government was trying to "confine all activists within Hong Kong's borders."[164] No trials have been held for those charged as of this writing, though in October a prosecutor moved the case of Tong Ying-kit, who was the first be arrested under the new law and who is accused of driving a motorcycle into a group of police on July 1, to the High Court instead of the lower court, meaning there will be no sentence cap if he is convicted.[165]

Denial of Civil Liberties

In June 2020, the Hong Kong authorities banned the annual vigil in memory of the Tiananmen Square massacre, though more than 10,000 Hong Kong residents defied the ban at risk of arrest. By comparison, roughly 180,000 Hong Kong residents participated in 2019, the last year the vigil was permitted.[166] As many Hong Kong residents view the vigil as symbolic of the territory's autonomy, the ban represented a significant blow to freedom of assembly.

Together with the vigil's cancellation, the Hong Kong government was responsible for the most severe erosion of civil liberties in the territory since the 1997 handover:

*Under Hong Kong's Public Order Ordinance, all protests in Hong Kong require a letter of no objection from the Commissioner of Police. If the organizer of the protest receives an objection letter, they are able to submit an appeal letter to the Appeal Board on Public Meetings and Processions. Cap. 245 Public Order Ordinance, November 17, 1967.

Academic Freedom: The Hong Kong government acted in line with CCP guidance by escalating its suppression of anti-Beijing ideas and protest activities among young people, the traditional center of political activism in the territory. In May 2020 a Hong Kong test administrator for a high school history exam removed a question about whether Japan did more good than harm to China from 1900 to 1945. The move, which was the first of its kind, followed arguments from the Hong Kong government and mainland China that the question was unpatriotic.[167] To clamp down on further protests, in June 2020 Hong Kong Secretary for Education Kevin Yeung sent a letter to the principals of all primary and secondary schools in Hong Kong directing them to punish students and teachers for participating in protest activities.[168]According to Hong Kong scholars network Progressive Scholars Group's *2019 Academic Freedom Report*, the CCP also continued to tighten its control over Hong Kong academic institutions through its use of influence-building methods such as appointing pro-China elites onto university councils and censoring research that shows the CCP in a negative light.[169]

Since the national security law's implementation, the CCP and Hong Kong authorities have been actively degrading academic freedom in the territory in an attempt to undermine support for the prodemocracy movement and any future opposition. In late July 2020, Hong Kong University legal scholar and prodemocracy activist Benny Tai was fired by the pro-CCP university council for his activism, representing a significant blow to academic freedom. Mainland officials had long condemned Professor Tai's activities and viewed him as a threat dating back to his organization of the 2016 Occupy Central prodemocracy protests.[170] Professor Tai said his firing "[marked] the end of academic freedom in Hong Kong," stating that "[i]f there is still any doubt of the advancement of one country, one system in the territory, my case should be able to remove it."[171]

Other teachers have been fired and reprimanded for their support of the prodemocracy movement. The growing pressure upon educators, combined with the Education Bureau's guidance to remove any teaching materials that could promote activities that "endanger national security," has led many to self-censor their teaching, such as by only using government-issued materials.[172] Shortly after the national security law went into effect, Secretary Yeung said no school activities should be held allowing students to express their political views and banned the popular protest song "Glory to Hong Kong" in schools.[173]

Freedom of Assembly: Since late March 2020, Chief Executive Lam has instituted bans on public gatherings to contain the spread of COVID-19 restricting the ability of Hong Kong residents to protest.[174] This policy, which has limited gatherings to no more than 50 people when new COVID-19 cases were at their lowest level and to as few as two during the most severe outbreak, resulted in denials from the Hong Kong police for every request to hold a major protest, even those promising to abide by social distancing restrictions.[175] Evidence suggests Hong Kong law enforcement used these measures to selectively target protestors. During a number of demonstrations, participants were fined for violating social distancing rules even when adhering to the regulations. Conversely, Hong

Kong law enforcement reportedly did not fine pro-Beijing groups that violated the policy when forming counterprotests.[176]

Freedom of the Press: For journalists in the territory, the CCP and Hong Kong authorities' actions created a more repressive environment that increasingly emulated reporting conditions in mainland China. During protests, documented cases showed police utilizing multiple methods to prevent press reporting on protests, including physical engagement (e.g., shooting with pepper spray, pushing), obstruction (e.g., stopping and searching, damaging equipment), and arrest of media personnel.[177] In March 2020, Beijing expelled all New York Times, Wall Street Journal, and Washington Post journalists from the Mainland, also barring them from working in Hong Kong.[178] In May 2020, after the Hong Kong authorities criticized a popular Radio Television Hong Kong (RTHK) satirical show for mocking the police, RTHK suspended the show while the Hong Kong government formed an oversight committee to review the public broadcaster's operations, a move seen by many observers as an attempt to control RTHK.[179] Restricted press freedom and growing violence against journalists—even before the law's implementation—prompted the World Press Freedom Index to downgrade Hong Kong's ranking from 73rd place to 80th place of 180 countries and territories.[180] This marks Hong Kong's lowest position since the index's creation in 2002, when it placed 18th.[181]

After Beijing implemented the national security law, the deterioration of Hong Kong's media freedom accelerated. The first arrests of media personnel under the law, prodemocracy media mogul Jimmy Lai and those affiliated with his media company Next Digital, showed the extent of the CCP's repression of media freedom.[182] Just days after the law's implementation, Hong Kong businessman and CCP advisor Charles Ho warned foreign journalists in Hong Kong that being seen to promote pro-independence sentiment would cross a red line and result in expulsion.[183] In July 2020, New York Times journalist Chris Buckley was denied a visa renewal and had to surrender his press credentials, the second such prominent foreign journalist barred from Hong Kong in recent years.[184] The newspaper also decided to relocate its digital news operations—representing about one-third of its Hong Kong-based staff—to South Korea due to growing uncertainty about how the national security law would impact its operations.[185] In addition, the Hong Kong government ordered public libraries to remove from circulation some prodemocracy figures' books that were deemed in violation of the law, including those by Mr. Wong and prodemocracy lawmaker Tanya Chan.[186]

Implications for the United States

The Chinese government's swift and comprehensive implementation of its national security law for Hong Kong brought the territory's 7.5 million residents under full and direct authoritarian rule within hours. This move fit into a growing pattern of Chinese leaders exploiting opportunities, such as those presented by the COVID-19 pandemic, to advance its interests without regard for consequence or international opposition. The law fundamentally altered the character of Hong Kong and its relations with the United States by removing the distinct freedoms and legal protections the territory had

previously enjoyed. Even more than transforming Hong Kong into "just another Chinese city," the move has led governance in the territory to more closely resemble that of Xinjiang and Tibet, regions where residents are subjected to particularly intrusive surveillance and human rights abuses. Compounding these abuses, Hong Kong residents may not even be able to flee for safer havens due to legal barriers and threats of force.

Developments in Hong Kong prove that the international community must now reckon with a Chinese government that is increasingly indifferent to its reputation abroad. When asked his view on a potential U.S. response to the new law, HKMAO Deputy Director Zhang declared, "The era when the Chinese cared what others thought and looked up to others is in the past, never to return."[187] Taiwan viewed the new measures in Hong Kong with alarm, as China has long proposed the same, now defunct "one country, two systems" model for a future unification arrangement with the democratic, self-governing island. The case of Hong Kong demonstrates plainly to Taiwan that the CCP will not hesitate to forcibly impose its authoritarian rule on them, too, even in the face of widespread popular opposition.[188]

The changed status of Hong Kong demonstrates that the CCP will adopt forceful measures to squash any dissent despite intense pressure from the international community. Left unchecked, the national security law could grant China's government broad powers to censor global discourse. The law's extraterritorial provision extends Beijing's reach internationally and puts in jeopardy any individual deemed by Beijing or the Hong Kong authorities to have violated the law's vague statutes. Its reference to offenses committed outside Hong Kong implies that Beijing has asserted jurisdiction to arrest anyone in the world for opposing the CCP.[189] The July 2020 warrant issued by the Hong Kong police for the arrest of activists abroad—including a U.S. citizen—confirms the law's intent to silence dissent internationally. In this environment, the United States and other democracies began to issue travel warnings to Hong Kong.[190]

Beijing's imposition of the national security law has shattered the foundation for special treatment the United States has afforded Hong Kong for nearly 30 years. Outlined in the 1992 U.S.-Hong Kong Policy Act, U.S. policy toward Hong Kong had been predicated on the territory's continued autonomy from mainland China, including the rule of law and protected civil liberties. Secretary Pompeo, in announcing pending U.S. actions responding to the law on the eve of its passage, said, "Given Beijing now treats Hong Kong as 'one country, one system,' so must we."[191]

The United States has maintained deep, longstanding economic and social ties to Hong Kong. More than 1,300 U.S. companies have offices in Hong Kong, including 278 regional headquarters and "nearly every major U.S. financial firm," according to the State Department.* U.S. cumulative outbound FDI in Hong Kong stood at approximately $81.9 billion at the end of 2019.[192] Beyond the commercial considerations, approximately 85,000 U.S. citizens are Hong

*This figure from 2019 represents the latest available data. U.S. Department of State, *2019 Hong Kong Policy Act Report*, March 21, 2019; Hong Kong Census and Statistics Department, "Companies in Hong Kong with Parents Companies Located Outside HK," October 21, 2019.

Kong residents.* In 2018, 1.3 million U.S. visitors traveled to Hong Kong, while an estimated 127,000 Hong Kong residents came to the United States.[193] The swift imposition of the national security law may have fundamentally destroyed the cosmopolitan vibrancy, dynamism, and openness that characterized the city and made these longstanding ties possible. Port calls in Hong Kong by U.S. Navy ships, which had been subject to increased restrictions even before the passage of the national security law, could now instead occur in nearby countries with stronger rule of law and friendlier relations with the United States.[194]

As China seeks international support for its suppression of human rights in Hong Kong, its actions have provided an opportunity for the United States to bolster policy coordination with democracies from Europe to Oceania.[195] Australia, Canada, Taiwan, and the UK have joined the United States in voicing support for Hong Kong, adopting measures to accept political asylum seekers from the territory. Taiwan's leaders and citizens have also hardened their rejection of the "one country, two systems" formula.[196] Conversely, 54 countries issued a statement at the UN Human Rights Council in support of China's national security law.†

The events of the past year in Hong Kong demonstrate to the international community the empty value of China's promises. In responding with repression to Hong Kong residents' calls to uphold the territory's autonomy, Beijing failed a major litmus test for its role as a responsible global actor.

*This figure from 2019 represents the latest available data. U.S. Department of State, *2019 Hong Kong Policy Act Report*, March 21, 2019.

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COMPREHENSIVE LIST OF THE COMMISSION'S RECOMMENDATIONS

Chapter 1: U.S.-China Global Competition

Section 1: A Global Contest for Power and Influence: China's View of Strategic Competition with the United States

The Commission recommends:

1. Congress adopt the principle of reciprocity as foundational in all legislation bearing on U.S.-China relations. Issues to be considered in applying this principle should include but are not limited to the following:
   - The ability of journalists and online media to operate without undue restriction;
   - The ability of nongovernmental organizations to conduct meaningful engagement with civil society;
   - Access to information, including but not limited to financial and research data;
   - Access for social media and mobile apps from U.S. companies;
   - Access for diplomatic personnel, including but not limited to diplomats' freedom of travel and ability to meaningfully exchange views with the host country public; and
   - Market access and regulatory parity, including but not limited to companies' ability to participate in trade, investment, and financial market transactions, cross-border capital transfer, and protections of intellectual property.
2. Congress direct the U.S. Department of State to produce an annual report detailing China's actions in the United Nations and its subordinate agencies that subvert the principles and purposes of the United Nations. Such a report would at a minimum document the following:
   - China's actions violating United Nations treaties to which it is a party;
   - China's actions to influence the votes of United Nations members, including through coercive means;
   - China's actions to nominate or support candidates for United Nations leadership positions that do not adhere to United Nations standards for impartiality or are subject to the influence of the Chinese government;
   - Actions by nationals of the People's Republic of China and others currently holding United Nations leadership positions

that appear to support the interests of the Chinese government in violation of United Nations impartiality standards;

- Actions by nationals of the People's Republic of China serving in functional positions in United Nations organizations impacting hiring practices, internal policies, and other functions that appear to support the interests of the Chinese government in violation of United Nations impartiality standards;
- Actions by Chinese military and support personnel engaged in United Nations peacekeeping operations that are inconsistent with the principles governing these missions, including China's deployment of these personnel to protect its economic interests and improve the power projection capabilities of the People's Liberation Army; and
- The number and positions of United States personnel employed by the United Nations and its agencies.

3. Congress expand the authority of the Federal Trade Commission (FTC) to monitor and take foreign government subsidies into account in premerger notification processes.
   - The FTC shall develop a process to determine to what extent proposed transactions are facilitated by the support of foreign government subsidies.
   - The definition of foreign government subsidies shall encompass direct subsidies, grants, loans, below-market loans, loan guarantees, tax concessions, governmental procurement policies, and other forms of government support.
   - Companies operating in the United States that benefit from the financial support of a foreign government must provide the FTC with a detailed accounting of these subsidies when undergoing FTC premerger procedures.
   - If the FTC finds foreign subsidies have facilitated the transaction, the FTC can either propose a modification to remedy the distortion or prohibit the transaction under Section 7 of the Clayton Act, which prohibits mergers and acquisitions where the effect "may be substantially to lessen competition, or to tend to create a monopoly."
4. Congress direct the Administration, when sanctioning an entity in the People's Republic of China for actions contrary to the economic and national security interests of the United States or for violations of human rights, to also sanction the parent entity.
5. Congress amend the Immigration and Nationality Act to clarify that association with a foreign government's technology transfer programs may be considered grounds to deny a nonimmigrant visa if the foreign government in question is deemed a strategic competitor of the United States, or if the applicant has engaged in violations of U.S. laws relating to espionage, sabotage, or export controls. Association with a foreign government's technology transfer programs can include any of the following:
   - Participation in a foreign government-sponsored program designed to incentivize participants to transfer fundamental re-

search to a foreign country via a talent recruitment program or in a foreign government-sponsored startup competition;

- Acceptance of a government scholarship that requires recipients to study specific strategic scientific and technological fields, to return to the foreign country for a government work requirement after the scholarship term ends, or facilitates coordination with talent programs;
- Association with a university or a department of a university that the U.S. government has designated as a participant in the foreign government's military-civil fusion efforts; or
- Status (current or past) as a scientist, technician, or officer for a foreign military, if the applicant does not disclose such information when applying for a visa.

Section 2: The China Model: Return of the Middle Kingdom

The Commission recommends:

6. Congress hold hearings to consider the creation of an interagency executive Committee on Technical Standards that would be responsible for coordinating U.S. government policy and priorities on international standards. This Committee would consist of high-level political appointees from executive departments with equities relating to international technical standards, including the Department of Commerce, the Department of State, the Department of Defense, the Department of Energy, the Office of Science and Technology Policy, and other agencies or government stakeholders with relevant jurisdiction. The Committee's mandate would be to ensure common purpose and coordination within the executive branch on international standards. Specifically, the Committee would:
   - Identify the technical standards with the greatest potential impact on American national security and economic competitiveness;
   - Coordinate government efforts relating to those standards;
   - Act as a liaison between government, academia, and the private sector to coordinate and enhance joint efforts in relation to standards;
   - Manage outreach to counterpart agencies among U.S. allies and partners;
   - Set funding priorities and recommendations to Congress; and
   - Produce annual reports to Congress on the status of technical standards issues and their impact on U.S. national security and economic competitiveness.

Section 3: China's Strategic Aims in Africa

The Commission recommends:

7. Congress require the Office of the U.S. Trade Representative, within 180 days, to prepare a report on China's use of rules of origin intended to benefit countries eligible for the African Growth and Opportunity Act (AGOA) to ensure AGOA countries

obtain the benefit of favorable trade policies and China is not using them to circumvent U.S. trade policies.

Chapter 2: U.S.-China Economic and Trade Relations

Section 2: Vulnerabilities in China's Financial System and Risks for the United States

The Commission recommends:

8. Congress enact legislation establishing a China Economic Data Coordination Center (CEDCC) at the Bureau of Economic Analysis at the U.S. Department of Commerce. The Center would be mandated to collect and synthesize official and unofficial Chinese economic data on developments in China's financial markets and U.S. exposure to risks and vulnerabilities in China's financial system, including:
   - Data on baseline economic statistics (e.g., gross domestic product [GDP]) and other indicators of economic health;
   - Data on national and local government debt;
   - Data on nonperforming loan amounts;
   - Data on the composition of shadow banking assets;
   - Data on the composition of China's foreign exchange reserves; and
   - Data on bank loan interest rates.
9. Congress request that the Administration prepare a report on the research and development activities of the affiliates of U.S. multinational enterprises operating in China and the implications of such activities for U.S. production, employment, and the economy.

Section 3: U.S.-China Links in Healthcare and Biotechnology

The Commission recommends:

10. Congress enact legislation to require ancestry and health testing services to (1) require explicit consent from customers to provide, sell, lease, or rent to any party individual data that is aggregated for the purposes of research; and (2) disclose to customers any parent company or subsidiary relationship.
11. Congress establish a new U.S. national laboratory focusing on biotechnology or designate an existing U.S. national laboratory to focus on biotechnology.
12. Congress consider establishing a "Manhattan Project"-like effort to ensure that the American public has access to safe and secure supplies of critical lifesaving and life-sustaining drugs and medical equipment, and to ensure that these supplies are available from domestic sources or, where necessary, trusted allies. Such a project would supplement the recommendation the Commission made in its 2019 Annual Report that Congress hold hearings with a view toward enacting legislation requiring the U.S. government to procure medicines only from U.S.

production facilities or from facilities that have been certified compliant with U.S. standards.

Chapter 4: Taiwan

The Commission recommends:

13. Congress consider enacting legislation to make the Director of the American Institute in Taiwan a presidential nomination subject to the advice and consent of the United States Senate.
14. Congress amend the TAIPEI Act to provide that the United States, as a member of any international organization, should oppose any attempts by China to resolve Taiwan's status by distorting the language, policies, or procedures of the organization.
15. Congress evaluate the opportunity to strengthen economic relations with Taiwan in key sectors where there are unique reciprocal opportunities, with technology as the initial sector for evaluation.
16. Congress encourage the Administration to include Taiwan in multilateral efforts to coordinate and strengthen supply chain cooperation and security. This could be done through the expansion of Global Cooperation and Training Framework programming or a new multilateral arrangement with likeminded democracies. This multilateral engagement should focus on securing critical inputs and assuring supply chain resilience in strategic industries critical to economic competitiveness and national security, including information and communications technology, integrated circuits, and electronic components.

Chapter 5: Hong Kong

The Commission recommends:

17. Congress direct the Administration to identify and remove barriers to receiving United States visas for Hong Kong residents attempting to exit Hong Kong for fear of political persecution.
18. Congress consider legislation extending political asylum to residents of Hong Kong born on or after June 30, 1997, who currently cannot apply for a second form of identification beyond a Hong Kong Special Administrative Region passport.
19. Congress direct the Office of the U.S. Trade Representative to produce a report within 90 days assessing the risk of mainland China using Hong Kong to evade or circumvent Section 301 trade enforcement actions or other U.S. trade remedies.

APPENDIX I
CHARTER

The Commission was created on October 30, 2000, by the Floyd D. Spence National Defense Authorization Act of 2001, Pub. L. No. 106–398 (codified at 22 U.S.C. § 7002), as amended by:

- The Treasury and General Government Appropriations Act, 2002, Pub. L. No. 107–67 (Nov. 12, 2001) (regarding employment status of staff and changing annual report due date from March to June);
- The Consolidated Appropriations Resolution, 2003, Pub. L. No. 108–7 (Feb. 20, 2003) (regarding Commission name change, terms of Commissioners, and responsibilities of the Commission);
- The Science, State, Justice, Commerce, and Related Agencies Appropriations Act, 2006, Pub. L. No. 109–108 (Nov. 22, 2005) (regarding responsibilities of the Commission and applicability of FACA);
- The Consolidated Appropriations Act, 2008, Pub. L. No. 110–161 (Dec. 26, 2007) (regarding submission of accounting reports, printing and binding, compensation for the executive director, changing annual report due date from June to December, and travel by members of the Commission and its staff);
- The Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113–291 (Dec. 19, 2014) (regarding responsibilities of the Commission).

22 U.S.C. § 7002. United States-China Economic and Security Review Commission

(a) Purposes

The purposes of this section are as follows:

(1) To establish the United States-China Economic and Security Review Commission to review the national security implications of trade and economic ties between the United States and the People's Republic of China.

(2) To facilitate the assumption by the United States-China Economic and Security Review Commission of its duties regarding the review referred to in paragraph (1) by providing for the transfer to that Commission of staff, materials, and infrastructure (including leased premises) of the Trade Deficit Review Commission that are appropriate for the review upon the submittal of the final report of the Trade Deficit Review Commission.

(b) Establishment of United States-China Economic and Security Review Commission

(1) In general

There is hereby established a commission to be known as the United States-China Economic and Security Review Commission (in this section referred to as the "Commission").

(2) Purpose

The purpose of the Commission is to monitor, investigate, and report to Congress on the national security implications of the bilateral trade and economic relationship between the United States and the People's Republic of China.

(3) Membership

The Commission shall be composed of 12 members, who shall be appointed in the same manner provided for the appointment of members of the Trade Deficit Review Commission under section 127(c)(3) of the Trade Deficit Review Commission Act (19 U.S.C. 2213 note), except that—

(A) appointment of members by the Speaker of the House of Representatives shall be made after consultation with the chairman of the Committee on Armed Services of the House of Representatives, in addition to consultation with the chairman of the Committee on Ways and Means of the House of Representatives provided for under clause (iii) of subparagraph (A) of that section;

(B) appointment of members by the President pro tempore of the Senate upon the recommendation of the majority leader of the Senate shall be made after consultation with the chairman of the Committee on Armed Services of the Senate, in addition to consultation with the chairman of the Committee on Finance of the Senate provided for under clause (i) of that subparagraph;

(C) appointment of members by the President pro tempore of the Senate upon the recommendation of the minority leader of the Senate shall be made after consultation with the ranking minority member of the Committee on Armed Services of the Senate, in addition to consultation with the ranking minority member of the Committee on Finance of the Senate provided for under clause (ii) of that subparagraph;

(D) appointment of members by the minority leader of the House of Representatives shall be made after consultation with the ranking minority member of the Committee on Armed Services of the House of Representatives, in addition to consultation with the ranking minority member of the Committee on Ways and Means of the House of Representatives provided for under clause (iv) of that subparagraph;

(E) persons appointed to the Commission shall have expertise in national security matters and United States-China relations, in addition to the expertise provided for under subparagraph (B)(i)(I) of that section;

(F) each appointing authority referred to under subparagraphs (A) through (D) of this paragraph shall—

(i) appoint 3 members to the Commission;

(ii) make the appointments on a staggered term basis, such that—

(I) 1 appointment shall be for a term expiring on December 31, 2003;

(II) 1 appointment shall be for a term expiring on December 31, 2004; and

(III) 1 appointment shall be for a term expiring on December 31, 2005;

(iii) make all subsequent appointments on an approximate 2-year term basis to expire on December 31 of the applicable year; and

(iv) make appointments not later than 30 days after the date on which each new Congress convenes;

(G) members of the Commission may be reappointed for additional terms of service as members of the Commission; and

(H) members of the Trade Deficit Review Commission as of October 30, 2000, shall serve as members of the Commission until such time as members are first appointed to the Commission under this paragraph.

(4) Retention of support

The Commission shall retain and make use of such staff, materials, and infrastructure (including leased premises) of the Trade Deficit Review Commission as the Commission determines, in the judgment of the members of the Commission, are required to facilitate the ready commencement of activities of the Commission under subsection (c) or to carry out such activities after the commencement of such activities.

(5) Chairman and Vice Chairman

The members of the Commission shall select a Chairman and Vice Chairman of the Commission from among the members of the Commission.

(6) Meetings

(A) Meetings

The Commission shall meet at the call of the Chairman of the Commission.

(B) Quorum

A majority of the members of the Commission shall constitute a quorum for the transaction of business of the Commission.

(7) Voting

Each member of the Commission shall be entitled to one vote, which shall be equal to the vote of every other member of the Commission.

(c) Duties

(1) Annual report

Not later than December 1 each year (beginning in 2002), the Commission shall submit to Congress a report, in both unclassified and classified form, regarding the national security implications and impact of the bilateral trade and economic relationship between the United States and the People's Republic of China. The report shall include a full analysis, along with conclusions and recommendations for legislative and administrative actions, if any, of the national security implications for the United States of the trade and current balances with the People's Republic of China in goods and services, financial transactions, and technology transfers. The Commission shall also take into account patterns of trade and transfers through third countries to the extent practicable.

(2) Contents of report

Each report under paragraph (1) shall include, at a minimum, a full discussion of the following:

(A) The role of the People's Republic of China in the proliferation of weapons of mass destruction and other weapon systems (including systems and technologies of a dual use nature), including actions the United States might take to encourage the People's Republic of China to cease such practices.

(B) The qualitative and quantitative nature of the transfer of United States production activities to the People's Republic of China, including the relocation of manufacturing, advanced technology and intellectual property, and research and development facilities, the impact of such transfers on the national security of the United States (including the dependence of the national security industrial base of the United States on imports from China), the economic security of the United States, and employment in the United States, and the adequacy of United States export control laws in relation to the People's Republic of China.

(C) The effects of the need for energy and natural resources in the People's Republic of China on the foreign and military policies of the People's Republic of China, the impact of the large and growing economy of the People's Republic of China on world energy and natural resource supplies, prices, and the environment, and the role the United States can play (including through joint research and development efforts and technological assistance) in influencing the energy and natural resource policies of the People's Republic of China.

(D) Foreign investment by the United States in the People's Republic of China and by the People's Republic of China in the United States, including an assessment of its economic and security implications, the challenges to market access confronting potential United States investment in the People's Republic of China, and foreign activities by financial institutions in the People's Republic of China.

(E) The military plans, strategy and doctrine of the People's Republic of China, the structure and organization of the People's Republic of China military, the decision-making process of the People's Republic of China military, the interaction between the civilian and military leadership in the People's Republic of China, the development and promotion process for leaders in the People's Republic of China military, deployments of the People's Republic of China military, resources available to the People's Republic of China military (including the development and execution of budgets and the allocation of funds), force modernization objectives and trends for the People's Republic of China military, and the implications of such objectives and trends for the national security of the United States.

(F) The strategic economic and security implications of the cyber capabilities and operations of the People's Republic of China.

(G) The national budget, fiscal policy, monetary policy, capital controls, and currency management practices of the People's Republic of China, their impact on internal stability in the People's Republic of China, and their implications for the United States.

(H) The drivers, nature, and implications of the growing economic, technological, political, cultural, people-to-people, and security relations of the People's Republic of China's with other countries, regions, and international and regional entities (including multilateral organizations), including the relationship among the United States, Taiwan, and the People's Republic of China.

(I) The compliance of the People's Republic of China with its commitments to the World Trade Organization, other multilateral commitments, bilateral agreements signed with the United States, commitments made to bilateral science and technology programs, and any other commitments and agreements strategic to the United States (including agreements on intellectual property rights and prison labor imports), and United States enforcement policies with respect to such agreements.

(J) The implications of restrictions on speech and access to information in the People's Republic of China for its relations with the United States in economic and security policy, as well as any potential impact of media control by the People's Republic of China on United States economic interests.

(K) The safety of food, drug, and other products imported from China, the measures used by the People's Republic of China Government and the United States Government to monitor and enforce product safety, and the role the United States can play (including through technical assistance) to improve product safety in the People's Republic of China.

(3) Recommendations of report

Each report under paragraph (1) shall also include recommendations for action by Congress or the President, or both, including specific recommendations for the United States to invoke Article XXI (relating to security exceptions) of the General Agreement on Tariffs and Trade 1994 with respect to the People's Republic of China, as a result of any adverse impact on the national security interests of the United States.

(d) Hearings

(1) In general

The Commission or, at its direction, any panel or member of the Commission, may for the purpose of carrying out the provisions of this section, hold hearings, sit and act at times and places, take testimony, receive evidence, and administer oaths to the extent that the Commission or any panel or member considers advisable.

(2) Information

The Commission may secure directly from the Department of Defense, the Central Intelligence Agency, and any other Federal department or agency information that the Commission considers necessary to enable the Commission to carry out its duties under this section, except the provision of intelligence information to the Commission shall be made with due regard for the protection from unauthorized disclosure of classified information relating to sensitive intelligence sources and methods or other exceptionally sensitive matters, under procedures approved by the Director of Central Intelligence.

(3) Security

The Office of Senate Security shall—

(A) provide classified storage and meeting and hearing spaces, when necessary, for the Commission; and

(B) assist members and staff of the Commission in obtaining security clearances.

(4) Security clearances

All members of the Commission and appropriate staff shall be sworn and hold appropriate security clearances.

(e) Commission personnel matters

(1) Compensation of members

Members of the Commission shall be compensated in the same manner provided for the compensation of members of the Trade Deficit Review Commission under section 127(g)(1) and section 127(g)(6) of the Trade Deficit Review Commission Act (19 U.S.C. 2213 note).

(2) Travel expenses

Travel expenses of the Commission shall be allowed in the same manner provided for the allowance of the travel expenses of the Trade Deficit Review Commission under section 127(g)(2) of the Trade Deficit Review Commission Act.

(3) Staff

An executive director and other additional personnel for the Commission shall be appointed, compensated, and terminated in the same manner provided for the appointment, compensation, and termination of the executive director and other personnel of the Trade Deficit Review Commission under section 127(g)(3) and section 127(g)(6) of the Trade Deficit Review Commission Act. The executive director and any personnel who are employees of the United States-China Economic and Security Review Commission shall be employees under section 2105 of title 5 for purposes of chapters 63, 81, 83, 84, 85, 87, 89, and 90 of that title. [Amended by P.L. 111–117 to apply section 308(e) of the United States China Relations Act of 2000 (22 U.S.C. 6918(e)) (relating to the treatment of employees as Congressional employees) to the Commission in the same manner as such section applies to the Congressional-Executive Commission on the People's Republic of China.]

(4) Detail of government employees

Federal Government employees may be detailed to the Commission in the same manner provided for the detail of Federal Government employees to the Trade Deficit Review Commission under section 127(g)(4) of the Trade Deficit Review Commission Act.

(5) Foreign travel for official purposes

Foreign travel for official purposes by members and staff of the Commission may be authorized by either the Chairman or the Vice Chairman of the Commission.

(6) Procurement of temporary and intermittent services

The Chairman of the Commission may procure temporary and intermittent services for the Commission in the same manner provided for the procurement of temporary and intermittent services for the Trade Deficit Review Commission under section 127(g)(5) of the Trade Deficit Review Commission Act.

(f) Authorization of appropriations

(1) In general

There is authorized to be appropriated to the Commission for fiscal year 2001, and for each fiscal year thereafter, such sums as may be necessary to enable the Commission to carry out its functions under this section.

(2) Availability
Amounts appropriated to the Commission shall remain available until expended.

(g) Applicability of FACA
The provisions of the Federal Advisory Committee Act (5 U.S.C. App.) shall apply to the activities of the Commission.

(h) Effective date
This section shall take effect on the first day of the 107th Congress.

(Pub. L. 106–398, § 1 [[div. A], title XII, § 1238], Oct. 30, 2000, 114 Stat. 1654 , 1654A–334; Pub. L. 107–67, title VI, §§ 645(a), 648, Nov. 12, 2001, 115 Stat. 556; Pub. L. 108–7, div. P, § 2(b)(1), (c)(1), Feb. 20, 2003, 117 Stat. 552; Pub. L. 109–108, title VI, § 635(b), Nov. 22, 2005, 119 Stat. 2347; Pub. L. 110–161, div. J, title I, Dec. 26, 2007, 121 Stat. 2285; Pub. L. 113–291, div. A, title XII, § 1259B(a), Dec. 19, 2014, 128 Stat. 3578.)

Amendments

2014—Subsec. (c)(2). Pub. L. 113–291 added subpars. (A) to (K) and struck out former subpars. (A) to (J) which described required contents of report.

2007—Subsec. (c)(1). Pub. L. 110–161 substituted "December" for "June".

2005—Subsec. (g). Pub. L. 109–108 amended heading and text of subsec. (g) generally. Prior to amendment, text read as follows: "The provisions of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the Commission."

2003—Pub. L. 108–7, § 2(b)(1)(A), inserted "Economic and" before "Security" in section catchline.

Subsec. (a)(1), (2). Pub. L. 108–7, § 2(b)(1)(B), inserted "Economic and" before "Security".

Subsec. (b). Pub. L. 108–7, § 2(b)(1)(C)(i), inserted "Economic and" before "Security" in heading.

Subsec. (b)(1). Pub. L. 108–7, § 2(b)(1)(C)(ii), inserted "Economic and" before "Security".

Subsec. (b)(3). Pub. L. 108–7, § 2(b)(1)(C)(iii)(I), which directed the amendment of introductory provisions by inserting "Economic and" before "Security", could not be executed because "Security" does not appear.

Subsec. (b)(3)(F). Pub. L. 108–7, § 2(c)(1), added subpar. (F) and struck out former subpar. (F) which read as follows: "members shall be appointed to the Commission not later than 30 days after the date on which each new Congress convenes;".

Subsec. (b)(3)(H), (4), (e)(1), (2). Pub. L. 108–7, § 2(b)(1)(C)(iii)(II), (iv), (D)(i), (ii), which directed insertion of "Economic and" before "Security", could not be executed because "Security" does not appear.

Subsec. (e)(3). Pub. L. 108–7, § 2(b)(1)(D)(iii)(II), inserted "Economic and" before "Security" in second sentence.

Pub. L. 108–7, § 2(b)(1)(D)(iii)(I), which directed the amendment of first sentence by inserting "Economic and" before "Security", could not be executed because "Security" does not appear.

Subsec. (e)(4), (6). Pub. L. 108–7, §2(b)(1)(D)(iv), (v), which directed the amendment of pars. (4) and (6) by inserting "Economic and" before "Security", could not be executed because "Security" does not appear.

2001—Subsec. (c)(1). Pub. L. 107–67, §648, substituted "June" for "March".

Subsec. (e)(3). Pub. L. 107–67, §645(a), inserted at end "The executive director and any personnel who are employees of the United States-China Security Review Commission shall be employees under section 2105 of title 5 for purposes of chapters 63, 81, 83, 84, 85, 87, 89, and 90 of that title."

APPENDIX II
BACKGROUND OF COMMISSIONERS

Robin Cleveland, PhD, Chairman

Chairman Robin Cleveland was reappointed by Senate Republican Leader Mitch McConnell for a two-year term expiring December 31, 2020. After three decades of government service, Chairman Cleveland received her PhD in Counseling and is now in private practice. Previously, she served as the Executive Director of the Office of Student Life at the Graduate School of Education and Human Development at The George Washington University. Chairman Cleveland worked for U.S. Senator Mitch McConnell in a number of positions in his personal office, on the Senate Select Committee on Intelligence, the Senate Foreign Relations Committee, and the Senate Appropriations Committee. In addition, Chairman Cleveland served as the Counselor to the President of the World Bank, and as the Associate Director of the Office of Management and Budget in the Executive Office of the President. During her tenure serving President Bush, Chairman Cleveland co-led the interagency effort to develop and implement two Presidential initiatives: the Millennium Challenge Corporation and the President's Emergency Plan for AIDS Relief. These efforts reflect her commitment to link policy, performance, and resource management.

Chairman Cleveland graduated from Wesleyan University with honors and received her Masters and PhD in Counseling from The George Washington University.

Carolyn Bartholomew, Vice Chairman

Vice Chairman Carolyn Bartholomew was reappointed to the Commission by House Speaker Nancy Pelosi for a two-year term expiring on December 31, 2021. She previously served as the Commission's Chairman for the 2007, 2009, 2017, and 2019 report cycles and served as Vice Chairman for the 2006, 2008, 2010, 2016, and 2018 report cycles.

Vice Chairman Bartholomew has worked at senior levels in the U.S. Congress, serving as counsel, legislative director, and chief of staff to now Speaker Nancy Pelosi. She was a professional staff member on the House Permanent Select Committee on Intelligence and also served as a legislative assistant to then U.S. Representative Bill Richardson.

In these positions, Vice Chairman Bartholomew was integrally involved in developing U.S. policies on international affairs and security matters. She has particular expertise in U.S.-China relations, including issues related to trade, human rights, and the proliferation of weapons of mass destruction. Vice Chairman Bartholomew led efforts in the establishment and funding of global AIDS pro-

grams and the promotion of human rights and democratization in countries around the world. She was a member of the first Presidential Delegation to Africa to Investigate the Impact of HIV/AIDS on Children and a member of the Council on Foreign Relations' Congressional Staff Roundtable on Asian Political and Security Issues.

In addition to U.S.-China relations, her areas of expertise include terrorism, trade, proliferation of weapons of mass destruction, human rights, U.S. foreign assistance programs, and international environmental issues. She is a consultant to non-profit organizations and served on the board of directors of the Kaiser Aluminum Corporation from 2007 to 2020.

Vice Chairman Bartholomew received a Bachelor of Arts degree from the University of Minnesota, a Master of Arts in Anthropology from Duke University, and a Juris Doctorate from Georgetown University Law Center. She is a member of the State Bar of California.

Andreas Borgeas, PhD

Commissioner Andreas Borgeas is an educator with expertise on China and Central Asia. He has worked overseas in numerous academic and professional capacities, including as a Fulbright Scholar, Marshall Memorial Fellow, Contributing Fellow for the Woodrow Wilson Center, and a Policy Specialist Fellow at the U.S. Embassy in Kazakhstan. He conducted his graduate and doctoral field research in, and published extensively on, China and the neighboring Central Asian Republics, receiving his graduate education at Harvard University, Georgetown Law School and Panteion University of Political Sciences. After clerking for a federal district judge he practiced international law at Luce Forward before entering academia. Elected to serve in the California State Senate, he is also a scholar in residence at the San Joaquin College of Law and an adjunct professor of international security at the Middlebury Institute of International Studies. Commissioner Borgeas was appointed by House Republican Leader Kevin McCarthy for a term expiring December 31, 2020.

Bob Borochoff

Commissioner Bob Borochoff is a successful businessman and community leader with over four decades of creating, operating and consulting with small businesses. As Chairman and CEO of The Borochoff Group, Inc., he has owned and managed restaurants, special events and catering ventures providing outstanding food, entertainment and logistical arrangements for major events. Borochoff provides a myriad of services for the restaurant industry, including real estate consulting, marketing, strategy development, concept design, management and operational services. Borochoff serves as a Commissioner on the Texas Finance Commission, which oversees and coordinates the three government departments responsible for the state's financial services industry, including banking, savings and loans, and consumer credit. He is a member of the Board of Directors of the Greater Houston Partnership, currently serves on the Public Policy Steering Committee, and for ten years was a member of the Executive Committee for one of the nation's largest Chambers of Commerce. He is an emeritus member of the board of the National Restaurant Association, and his volunteer community service

also includes serving as a past Vice-Chairman of the Mental Health Mental Retardation Authority of Harris County. He and his wife, Jane, have three children and reside in Houston, Texas. Commissioner Borochoff was appointed by House Republican Leader Kevin McCarthy for a term expiring December 31, 2021.

Jeffrey Fiedler

Commissioner Jeffrey Fiedler was reappointed to the Commission by House Democratic Leader Nancy Pelosi for a term expiring December 31, 2020. He is the National Strategic Retail Director for United Food and Commercial Workers International Union. Before that he was Assistant to the General President, and Director, Special Projects and Initiatives, for the International Union of Operating Engineers. Previously, he was President of Research Associates of America (RAA) and the elected president of the Food and Allied Service Trades Department, AFL–CIO ("FAST"). This constitutional department of the AFL–CIO represented ten unions with a membership of 3.5 million in the United States and Canada. The focus of RAA, like FAST before it, was organizing and bargaining research for workers and their unions.

He served as a member of the AFL–CIO Executive Council committees on International Affairs, Immigration, Organizing, and Strategic Approaches. He also served on the board of directors of the Consumer Federation of America and is a member of the Council on Foreign Relations. In 1992, Mr. Fiedler co-founded the Laogai Research Foundation (LRF), an organization devoted to studying the forced labor camp system in China. When the foundation's Executive Director, Harry Wu, was detained in China in 1995, Mr. Fiedler coordinated the campaign to win his release. He no longer serves as director of the LRF.

Mr. Fiedler has testified on behalf of the AFL–CIO before the Senate Foreign Relations Committee and the House International Affairs Committee and its various subcommittees, as well as the Trade Subcommittee of the House Ways and Means Committee concerning China policy. He attended three of the American Assembly conferences on China sponsored by Columbia University and has participated in a Council on Foreign Relations task force and study group on China. He has been interviewed on CBS, NBC, ABC, CNN, and CNBC on China policy, international trade issues, human rights, and child labor.

A Vietnam veteran, he served with the U.S. Army in Hue in 1967–1968. He received his BA in Political Science from Southern Illinois University. He is married with two adult children and resides in California.

The Honorable Carte P. Goodwin

Senator Carte P. Goodwin was appointed to the Commission by Senate Democratic Leader Chuck Schumer for a two-year term expiring on December 31, 2021.

He is an attorney with the law firm of Frost Brown Todd, LLC where he serves as the Member-in-Charge of its Charleston office, vice chair of the Appellate Practice Group, and a member of Civic Point, the firm's government affairs subsidiary. Goodwin's practice

includes litigation and appellate advocacy, and advising clients on government relations, regulatory matters and commercial transactions.

In July of 2010, West Virginia Governor Joe Manchin III appointed Goodwin to the United States Senate to fill the vacancy caused by the passing of Senator Robert C. Byrd, where he served until a special election was held to fill the remainder of Senator Byrd's unexpired term.

From 2005 to 2009, Goodwin served four years as General Counsel to Governor Manchin, during which time he also chaired the Governor's Advisory Committee on Judicial Nominations. In addition, Goodwin chaired the West Virginia School Building Authority and served as a member of the State Consolidated Public Retirement Board. Following his return to private practice in 2009, Goodwin was appointed to chair the Independent Commission on Judicial Reform, along with former Supreme Court Justice Sandra Day O'Connor, which was tasked with evaluating the need for broad systemic reform to West Virginia's judicial system.

Goodwin also previously worked as a law clerk for the Honorable Robert B. King of the United States Court of Appeals for the Fourth Circuit. A native of Mt. Alto, West Virginia, Goodwin received his Bachelor of Arts degree in Philosophy from Marietta College in Marietta, Ohio, in 1996 and received his Doctor of Law degree from the Emory University School of Law, graduating Order of the Coif in 1999.

Goodwin currently resides in Charleston, West Virginia, with his wife, Rochelle; son, Wesley Patrick; and daughter, Anna Vail.

Roy D. Kamphausen

Commissioner Roy Kamphausen was appointed by Senate Republican Leader Mitch McConnell for a two-year term expiring December 31, 2021. He is President of The National Bureau of Asian Research (NBR). He is the author, contributing author, or co-editor of numerous publications, including chapters in NBR's *Strategic Asia* series; the Carlisle People's Liberation Army Conference series and its most recent volume, *The People in the PLA, 2.0* (2015); and the IP Commission's *Report on the Theft of American Intellectual Property* (2013, 2017, 2019). His areas of expertise include China's People's Liberation Army, U.S.-China defense relations, East Asian security issues, and intellectual property protection. He has presented on these topics throughout the United States, Asia, and Europe to government and corporate decision-makers. Mr. Kamphausen is frequently cited in U.S. and international media, including CNN, the *Financial Times*, *Foreign Policy*, National Public Radio, *Newsweek*, and the *New York Times*.

Mr. Kamphausen is a senior adviser on East Asia for the University of Connecticut's Office of Global Affairs. He has previously served as an adjunct associate professor at Columbia University's School of International and Public Affairs. He lectures regularly at leading U.S. military institutions, including the U.S. Military Academy (West Point) and the U.S. Army War College. Mr. Kamphausen regularly briefs members of Congress and advises the U.S. Department of Defense.

Prior to joining NBR, Mr. Kamphausen served as a career U.S. Army officer. A China foreign area officer, his career included assignments as China policy director in the Office of the Secretary of Defense, China strategist for the chairman of the Joint Chiefs of Staff, and a military attaché at the U.S. Embassy in Beijing.

Mr. Kamphausen holds a BA in Political Science from Wheaton College and an MA in International Affairs from Columbia University. He studied Chinese at both the Defense Language Institute and Beijing's Capital Normal University. He is a member of the National Committee on U.S.-China Relations.

Thea Mei Lee

Commissioner Thea Mei Lee was appointed by Senate Democratic Leader Chuck Schumer for a two-year term expiring December 31, 2020. Commissioner Lee is currently the president of the Economic Policy Institute.

Before joining the Economic Policy Institute, Commissioner Lee served as the deputy chief of staff at the AFL-CIO, a voluntary federation of 56 national and international labor unions. She joined the AFL-CIO in 1997 as chief international economist, then assumed the role of policy director before becoming deputy chief of staff. She is co-author of *The Field Guide to the Global Economy*, published by The New Press, and has authored numerous publications on the North American Free Trade Agreement, the impact of international trade on U.S. wage inequality, and the domestic steel and textile industries.

Commissioner Lee has testified before congressional committees and in television and radio appearances—including on PBS News Hour, Good Morning America, NPR's All Things Considered and Marketplace, Fox Business, and the PBS documentary Commanding Heights. She has also served on the State Department Advisory Committee on International Economic Policy, the Export-Import Bank Advisory Committee, and the Board of Directors of the National Bureau of Economic Research, among others.

Lee holds a master's degree in economics from the University of Michigan at Ann Arbor and a bachelor's degree in economics from Smith College. Lee lives in Washington, DC, with her husband and two dogs. She has one daughter, who teaches middle school in Brooklyn.

Kenneth Lewis

Commissioner Kenneth Lewis, an original member of the U.S.-China Economic and Security Review Commission, was appointed by Senate Democratic Leader Chuck Schumer for a term expiring on December 31, 2020.

Commissioner Lewis was born in 1934 in New York, New York. He received his undergraduate degree, with honors, from the School of Public and International Affairs at Princeton University in 1955, and his JD, with honors, from Harvard Law School in 1958. He clerked for a U.S. Federal judge in the Southern District of New York (SDNY) after graduation from Law School. He then moved to Portland, Oregon, where he practiced law. In 1963 he joined Lasco Shipping Co., which he had incorporated as an attorney, which op-

erated a fleet of ocean-going vessels carrying cargoes throughout the world.

Commissioner Lewis was President of Lasco Shipping Co., from 1979 until his retirement in 1994. He served on the Board of Directors of two international marine insurance organizations: the Britannia Steam Ship Insurance Association, Ltd., of London, England (1986–1994); and the Swedish Club (of which he was Deputy Chairman) of Gothenburg, Sweden (1987–1989). He has traveled extensively in Asia, beginning in 1963 to Japan and Korea and in 1979 to the People's Republic of China, making over a hundred business visits to these countries.

He previously served on the Presidential Commission on U.S.-Pacific Trade and Investment Policy (appointed by President William J. Clinton in 1996). Commissioner Lewis also served as a member of the U.S. Trade Deficit Review Commission in 1999–2000, a congressionally created commission charged with studying the nature, causes, and consequences of the U.S. merchandise trade and current account deficits.

He is past president of the Port of Portland Commission to which he was appointed by both Republican and Democratic Governors.

He served on the Board of Trustees of Pacific University, the Board of Visitors of the University of Oregon School of Law and the Board of Directors of the Oregon Shakespeare Festival. He was the national Chairman of the "I Have a Dream" Foundation of New York, and was the founding Chairman of the "I Have A Dream" Foundation in Oregon and the founding President of the "I Have A Dream" Foundation in Idaho. He also served on the Board of Directors of the Oregon Ballet Theatre, of which he was Chairman and President, and the Board of Directors of the World Affairs Council of Oregon, of which he was President. He previously served on the Board of the Oregon Community Foundation.

Commissioner Lewis received the President's Public Service Award in 1991 from the Oregon State Bar Association, and the Equal Opportunity Award from the Urban League of Portland in 1997.

The Honorable James M. Talent

Senator Jim Talent was appointed by Senate Republican Leader Mitch McConnell for a two-year term expiring December 31, 2021. Senator Jim Talent is a national security leader who specializes in issues related to the Department of Defense. He has been active in Missouri and national public policy for over 25 years.

Senator Talent's public service began in 1984, when at the age of 28 he was elected to the Missouri House of Representatives where he served eight years, the last four as the Republican leader in the Missouri House.

In 1992, he was elected to the first of four terms in the U.S. House of Representatives where he represented Missouri's Second Congressional District. During his eight years in the U.S. House of Representatives, Talent co-authored the historic welfare reform bill, championed national security issues on the House Armed Services Committee, and enacted legislation to help revitalize distressed neighborhoods, both urban and rural. He was the Chairman of the House Small Business Committee from 1997–2001, where he worked

on regulatory reform issues and on legislation to lower health care costs for small business people and their employees. Under Senator Talent's leadership, the Small Business Committee became one of the most prolific and bipartisan in the House of Representatives, passing numerous bills without a single dissenting vote.

In 2002, Missourians elected Talent to serve in the United States Senate where he worked with Republicans and Democrats to enact critical legislation for Missouri. He served on the Senate Armed Services, Energy and Natural Resources, and Agriculture Committees. Working with Oregon Democrat Ron Wyden, Senator Talent was successful in securing critical funding through construction bonding in the highway bill. He and Senator Dianne Feinstein (D-CA) succeeded in passing the most comprehensive anti-methamphetamine bill ever enacted into law. Senator Talent was a leader on energy issues and was instrumental in the passage of the renewable fuel standard.

After leaving the Senate in 2007, Senator Talent joined The Heritage Foundation as a Distinguished Fellow specializing in military affairs and conservative solutions to poverty. In 2008, he served as Vice Chairman of the Commission on Prevention of Weapons of Mass Destruction Proliferation and Terrorism. In 2010, he served on the independent panel that reviewed the Quadrennial Defense Review of the Department of Defense. He also served on the independent panel that reviewed the Quadrennial Defense Review of 2014. He also has been a member of the executive panel advising the Chief of Naval Operations. Senator Talent was the first national figure outside Massachusetts to endorse Governor Mitt Romney for president in 2007 and was Governor Romney's senior policy advisor in both the 2008 and 2012 campaigns for president.

Senator Talent is an attorney and currently a Senior Fellow at the Bipartisan Policy Center and a Visiting Senior Fellow and Director, National Security 2020 Project, Marilyn Ware Center for Security Studies at the American Enterprise Institute. He earned his BA from Washington University in St. Louis and his JD from the University of Chicago Law School.

Michael R. Wessel

Commissioner Michael R. Wessel, an original member of the U.S.-China Economic and Security Review Commission, was reappointed by House Democratic Leader Nancy Pelosi for a term expiring on December 31, 2021.

Commissioner Wessel served on the staff of former House Democratic Leader Richard Gephardt for more than two decades, leaving his position as general counsel in March 1998. In addition, Commissioner Wessel was Congressman Gephardt's chief policy advisor, strategist, and negotiator. He was responsible for the development, coordination, management, and implementation of the Democratic leader's overall policy and political objectives, with specific responsibility for international trade, finance, economics, labor, and taxation.

During his more than 20 years on Capitol Hill, Commissioner Wessel served in a number of positions. As Congressman Gephardt's principal Ways and Means aide, he developed and implemented numerous tax and trade policy initiatives. He participated in the en-

actment of every major trade policy initiative from 1978 until his departure in 1998. In the late 1980s, he was the executive director of the House Trade and Competitiveness Task Force, where he was responsible for the Democrats' trade and competitiveness agenda as well as overall coordination of the Omnibus Trade and Competitiveness Act of 1988. He currently serves as staff liaison to the Labor Advisory Committee to the USTR and Secretary of Labor.

Commissioner Wessel was intimately involved in the development of comprehensive tax reform legislation in the early 1980s and every major tax bill during his tenure. Beginning in 1989, he became the principal advisor to the Democratic leadership on economic policy matters and served as tax policy coordinator to the 1990 budget summit.

In 1988, he served as national issues director for Congressman Gephardt's presidential campaign. During the 1992 presidential campaign, he assisted the Clinton presidential campaign on a broad range of issues and served as a senior policy advisor to the Clinton Transition Office. In 2004, he was a senior policy advisor to the Gephardt for President Campaign and later co-chaired the Trade Policy Group for the Kerry presidential campaign. In 2008, he was publicly identified as a trade and economic policy advisor to the Obama presidential campaign and advised the Clinton campaign in 2016.

He has coauthored a number of articles with Congressman Gephardt and a book, *An Even Better Place: America in the 21st Century*. Commissioner Wessel served as a member of the U.S. Trade Deficit Review Commission in 1999–2000, a congressionally created commission charged with studying the nature, causes, and consequences of the U.S. merchandise trade and current account deficits.

Today, Commissioner Wessel is President of The Wessel Group Incorporated, a public affairs consulting firm offering expertise in government, politics, and international affairs. Commissioner Wessel holds a Bachelor of Arts and a Juris Doctorate from The George Washington University. He is a member of the Bars of the District of Columbia and of Pennsylvania and is a member of the Council on Foreign Relations. He and his wife Andrea have four children.

Larry M. Wortzel, PhD

Commissioner Larry Wortzel is Senior Fellow in Asian Security at the American Foreign Policy Council. A veteran Asia scholar with extensive government and military experience, Dr. Wortzel served two tours of duty as a military attaché in the American Embassy in China, and also was assigned in Singapore, Thailand, and on the demilitarized zone in South Korea. On the faculty of the U.S. Army War College, Dr. Wortzel was Director of the Strategic Studies Institute and concurrently professor of Asian studies. He retired from the U.S. Army as a colonel at the end of 1999. After his retirement from the military, Dr. Wortzel was director of the Asian Studies Center at The Heritage Foundation and also vice president for foreign policy and defense studies at Heritage. Dr. Wortzel was appointed to the U.S.-China Economic and Security Review Commission for a term ending December 31, 2020. Previously he was Chairman of the Commission for two years. Dr. Wortzel is also an adjunct research

fellow at the U.S. Army War College Strategic Studies Institute. He is a member of the Council on Foreign Relations and the International Institute of Strategic Studies. A graduate of the U.S. Army War College, Dr. Wortzel earned his Doctor of Philosophy degree in Political Science from the University of Hawaii-Manoa.

Daniel W. Peck, Executive Director

Mr. Peck leads the Commission's full-time professional staff. He is responsible for execution of the Commission's annual hearing cycle and development and publication of the Annual Report to Congress, as well as staff development and overseeing all other activities of the Commission.

Mr. Peck has previously served in senior policy positions at the Office of the Secretary of Defense (OSD) and the American Institute in Taiwan (AIT) Washington Office. His 22 years of service in the U.S. Army include 12 years as a Foreign Area Officer (FAO) focused on China and the Asia-Pacific, with tours as a military attaché at the U.S. Embassy in Beijing, as a senior military analyst at the Defense Intelligence Agency, and as a visiting scholar at Beijing's Capital Normal University. His military service includes two combat tours in Afghanistan, operational deployments to Kuwait and Bosnia, and service in Korea and China.

APPENDIX III

PUBLIC HEARINGS OF THE COMMISSION

Full transcripts and written testimonies are available online at the Commission's website: www.uscc.gov.

January 23, 2020: Public Hearing on "China's Quest for Capital: Motivations, Methods, and Implications" Washington, DC

Commissioners present: Carolyn Bartholomew, Vice Chairman; Robin Cleveland, Chairman (Hearing Co-Chair); Jeffrey Fiedler; Hon. Carte P. Goodwin; Thea Mei Lee; Kenneth Lewis; Hon. James M. Talent; Michael R. Wessel (Hearing Co-Chair); Larry M. Wortzel.

Witnesses: Nazak Nikakhtar, U.S. Department of Commerce; Dinny McMahon, author; Leland Miller, China Beige Book; Zhiguo He, Fuji Bank and University of Chicago; Carl Walter, independent consultant and author; Gabriel Wildau, Teneo; Brian McCarthy, Macrolens; Andy Rothman, Matthews Asia; Derek Scissors, American Enterprise Institute; David Loevinger, TCW.

February 20, 2020: Public Hearing on "China's Military Power Projection and U.S. National Interests" Washington, DC

Commissioners present: Carolyn Bartholomew, Vice Chairman; Bob Borochoff; Robin Cleveland, Chairman; Jeffrey Fiedler (Hearing Co-Chair); Hon. Carte P. Goodwin; Roy D. Kamphausen; Thea Mei Lee; Kenneth Lewis; Hon. James M. Talent; Larry M. Wortzel (Hearing Co-Chair).

Witnesses: Chad Sbragia, U.S. Department of Defense; Dennis Blair, Sasakawa Peace Foundation USA; Kristen Gunness, Vantage Point Asia, LLC and RAND Corporation; Chad Peltier, Janes; Kevin McCauley, independent analyst; Isaac Kardon, U.S. Naval War College; Greg Poling, Center for Strategic and International Studies; Paul Nantulya, National Defense University; Cynthia Watson, National Defense University.

March 13 and April 27, 2020: Public Hearing and Roundtable on "A 'China Model?' Beijing's Promotion of Alternative Global Norms and Standards" Washington, DC

Note: The full Commission received written testimony and considered it along with written responses to questions for the record in place of an in-person hearing that was postponed during the closure of the Capitol to the public as part of the initial response to the COVID-19 pandemic. In April, the Commission conducted a roundtable focusing on the first panel of the originally scheduled hearing to supplement previously submitted testimony and responses to questions for the record.

Commissioners participating: All 12 Commissioners participated in review of the testimony originally submitted for the postponed March 13 Hearing and questions for the record. Commissioners participating in the April 27 Roundtable included: Carolyn Bartholomew, Vice Chairman; Andreas Borgeas; Bob Borochoff; Robin Cleveland, Chairman; Hon. Carte P. Goodwin (Hearing Co-Chair); Thea Mei Lee; Hon. James M. Talent (Hearing Co-Chair); Michael R. Wessel; Larry M. Wortzel.

Witnesses: Nadège Rolland,* National Bureau of Asian Research; David Shullman,* International Republican Institute; Elizabeth Economy,* Council on Foreign Relations; Daniel Tobin,* National Intelligence University and Center for Strategic and International Studies; Melanie Hart, Center for American Progress; Jonathan Hillman, Center for Strategic and International Studies; Bradley Murg, Seattle Pacific University; Naomi Wilson, Information Technology Industry Council; Adam Segal, Council on Foreign Relations; Ray Bowen, Pointe Bello.

May 7, 2020: Public Hearing on "China's Evolving Healthcare Ecosystem: Challenges and Opportunities" Washington, DC

Commissioners present: Carolyn Bartholomew, Vice Chairman; Andreas Borgeas; Bob Borochoff; Robin Cleveland, Chairman (Hearing Co-Chair); Jeffrey Fiedler; Hon. Carte P. Goodwin; Roy D. Kamphausen; Thea Mei Lee (Hearing Co-Chair); Kenneth Lewis; Hon. James M. Talent; Michael R. Wessel; Larry M. Wortzel.

Witnesses: Karen Eggleston, Stanford University; Tara O'Toole, In-Q-Tel; Jennifer Bouey, RAND Corporation; John Balzano, Covington & Burling LLP.

May 8, 2020: Public Hearing on "China's Strategic Aims in Africa" Washington, DC

Commissioners present: Carolyn Bartholomew, Vice Chairman (Hearing Co-Chair); Andreas Borgeas (Hearing Co-Chair); Bob Borochoff; Robin Cleveland, Chairman; Jeffrey Fiedler; Roy D. Kamphausen; Thea Mei Lee; Kenneth Lewis; Hon. James M. Talent; Michael R. Wessel; Larry M. Wortzel.

*Participated in hearing and roundtable.

Witnesses: Christopher Maloney,† U.S. Agency for International Development; David Shinn, George Washington University; Yun Sun, Stimson Center; Steven Feldstein, Carnegie Endowment for International Peace; Emily de La Bruyère, Horizon Advisory; Scott Morris, Center for Global Development; Aubrey Hruby, Atlantic Council; Joshua Meservey, Heritage Foundation; Paul Nantulya, National Defense University; Judd Devermont, Center for Strategic and International Studies.

June 24, 2020: Public Hearing on "The Chinese View of Strategic Competition with the United States" Washington, DC

Commissioners present: Carolyn Bartholomew, Vice Chairman; Andreas Borgeas; Bob Borochoff; Robin Cleveland, Chairman; Jeffrey Fiedler; Hon. Carte P. Goodwin; Roy D. Kamphausen (Hearing Co-Chair); Thea Mei Lee; Kenneth Lewis (Hearing Co-Chair); Hon. James M. Talent; Michael R. Wessel; Larry M. Wortzel.

Witnesses: Barry Naughton, University of California San Diego; David Finkelstein, CNA; John Pomfret, author, formerly Washington Post; Kristine Lee, Center for a New American Security; Satu Limaye, East-West Center; R. Evan Ellis, U.S. Army War College; Janka Oertel, European Council on Foreign Relations; Alison Kaufman, CNA; Michèle Flournoy, WestExec Advisors, formerly U.S. Department of Defense.

September 9, 2020: Public Hearing on "U.S.-China Relations in 2020: Enduring Problems and Emerging Challenges" Washington, DC

Commissioners present: Carolyn Bartholomew, Vice Chairman (Hearing Co-Chair); Andreas Borgeas; Bob Borochoff; Robin Cleveland, Chairman (Hearing Co-Chair); Jeffrey Fiedler; Hon. Carte P. Goodwin; Roy D. Kamphausen; Thea Mei Lee; Kenneth Lewis; Hon. James M. Talent; Larry M. Wortzel.

Witnesses: Kerry Brown, King's College London; Andrew Scobell, RAND Corporation (on leave) and Marine Corps University; Anthony Saich, Ash Center for Democratic Governance and Innovation and Harvard University; Andrew Small, German Marshall Fund of the United States; Joel Wuthnow, National Defense University; Dexter Roberts, Atlantic Council and University of Montana; Roger Cliff, independent analyst; Bill Hayton, Chatham House; Tanvi Madan, Brookings Institution; Jonathan Fulton, Zayed University; John Calabrese,† American University and Middle East Institute.

†Did not appear in person but submitted material for the record.

APPENDIX IIIA

LIST OF WITNESSES TESTIFYING BEFORE THE COMMISSION

2020 Hearings

Full transcripts and written testimonies are available online at the Commission's website: www.uscc.gov.

Alphabetical Listing of Panelists Testifying before the Commission

Panelist Name	Panelist Affiliation	Commission Hearing
Balzano, John	Covington & Burling LLP	May 7, 2020
Blair, Dennis	Sasakawa Peace Foundation USA	February 20, 2020
Bouery, Jennifer	RAND Corporation	May 7, 2020
Bowen, Ray	Pointe Bello	March 13, 2020*
Brown, Kerry	King's College London	September 9, 2020
Calabrese, John†	American University and Middle East Institute	September 9, 2020
Cliff, Roger	Independent Analyst	September 9, 2020
de La Bruyère, Emily	Horizon Advisory	May 8, 2020
Devermont, Judd	Center for Strategic and International Studies	May 8, 2020
Economy, Elizabeth	Council on Foreign Relations	March 13, 2020* April 27, 2020
Eggleston, Karen	Stanford University	May 7, 2020
Ellis, R. Evan	U.S. Army War College	June 24, 2020
Feldstein, Steven	Carnegie Endowment for International Peace	May 8, 2020
Finkelstein, David	CNA	June 24, 2020

*Hearing postponed during the closure of the Capitol to the public as part of the initial response the COVID-19 pandemic, conducted by submission of written testimony without in-person attendance at a hearing.

†Did not attend in person but submitted material for the record.

Alphabetical Listing of Panelists Testifying before the Commission—*Continued*

Panelist Name	Panelist Affiliation	Commission Hearing
Flournoy, Michèle	WestExec Advisors, formerly U.S. Department of Defense	June 24, 2020
Fulton, Jonathan	Zayed University	September 9, 2020
Gunness, Kristen	Vantage Point Asia, LLC and RAND Corporation	February 20, 2020
Hart, Melanie	Center for American Progress	March 13, 2020*
Hayton, Bill	Chatham House	September 9, 2020
He, Zhiguo	Fuji Bank and University of Chicago	January 23, 2020
Hillman, Jonathan	Center for Strategic and International Studies	March 13, 2020*
Hruby, Aubrey	Atlantic Council	May 8, 2020
Kardon, Isaac	U.S. Naval War College	February 20, 2020
Kaufman, Alison	CNA	June 24, 2020
Lee, Kristine	Center for a New American Security	June 24, 2020
Limaye, Satu	East-West Center	June 24, 2020
Loevinger, David	TCW	January 23, 2020
Madan, Tanvi	Brookings Institution	September 9, 2020
Maloney, Christopher†	U.S. Agency for International Development	May 8, 2020
McCarthy, Brian	Macrolens	January 23, 2020
McCauley, Kevin	Independent Analyst	February 20, 2020
McMahon, Dinny	Author	January 23, 2020
Meservey, Joshua	Heritage Foundation	May 8, 2020
Miller, Leland	China Beige Book	January 23, 2020
Morris, Scott	Center for Global Development	May 8, 2020
Murg, Bradley	Seattle Pacific University	March 13, 2020*
Nantulya, Paul	National Defense University	February 20, 2020 May 8, 2020
Naughton, Barry	University of California San Diego	June 24, 2020
Nikakhtar, Nazak	U.S. Department of Commerce	January 23, 2020
Oertel, Janka	European Council on Foreign Relations	June 24, 2020
O'Toole, Tara	In-Q-Tel	May 7, 2020

Alphabetical Listing of Panelists Testifying before the Commission—*Continued*

Panelist Name	Panelist Affiliation	Commission Hearing
Peltier, Chad	Janes	February 20, 2020
Poling, Greg	Center for Strategic and International Studies	February 20, 2020
Pomfret, John	Author, formerly Washington Post	June 24, 2020
Roberts, Dexter	Atlantic Council and University of Montana	September 9, 2020
Rolland, Nadège	National Bureau of Asian Research	March 13, 2020* April 27, 2020
Rothman, Andy	Matthews Asia	January 23, 2020
Saich, Anthony	Ash Center for Democratic Governance and Innovation and Harvard University	September 9, 2020
Sbragia, Chad	U.S. Department of Defense	February 20, 2020
Scissors, Derek	American Enterprise Institute	January 23, 2020
Scobell, Andrew	RAND Corporation (on leave) and Marine Corps University	September 9, 2020
Segal, Adam	Council on Foreign Relations	March 13, 2020*
Shinn, David	George Washington University	May 8, 2020
Shullman, David	International Republican Institute	March 13, 2020* April 27, 2020
Small, Andrew	German Marshall Fund of the United States	September 9, 2020
Sun, Yun	Stimson Center	May 8, 2020
Tobin, Daniel	National Intelligence University and Center for Strategic and International Studies	March 13, 2020* April 27, 2020
Walter, Carl	Independent Analyst	January 23, 2020
Watson, Cynthia	National Defense University	February 20, 2020
Wildau, Gabriel	Teneo	January 23, 2020
Wilson, Naomi	Informational Technology Industry Council	March 13, 2020*
Wuthnow, Joel	National Defense University	September 9, 2020

APPENDIX IV
LIST OF RESEARCH MATERIAL

Contracted and Staff Research Reports Released in Support of the 2020 Annual Report

Disclaimer

The reports in this section were prepared at the request of the Commission to supports its deliberations. They have been posted to the Commission's website in order to promote greater public understanding of the issues addressed by the Commission in its ongoing assessment of U.S.-China economic relations and their implications for U.S. security, as mandated by Public Law No. 106–398, and amended by Public Laws No. 107–67, No. 108–7, No. 109–108, No. 110–161, and No. 113–291. The posting of these reports to the Commission's website does not imply an endorsement by the Commission or any individual Commissioner of the views or conclusions expressed therein.

Contracted Reports

China's Space and Counterspace Capabilities and Activities
Prepared for the Commission by Mark Stokes, Gabriel Alvarado, Emily Weinstein, and Ian Easton
Project 2049 Institute and Pointe Bello
May 2020
https://www.uscc.gov/research/chinas-space-and-counterspace-activities

China's Smart Cities Development
Prepared for the Commission by Katherine Atha, Jason Callahan, John Chen, Jessica Drun, Ed Francis, Kieran Green, Brian Lafferty, Joe McReynolds, James Mulvenon, Benjamin Rosen, and Emily Walz
SOS International LLC
April 2020
https://www.uscc.gov/research/chinas-smart-cities-development

China's Logistic Capabilities for Expeditionary Operations
Prepared for the Commission by Chad Peltier, Tate Nurkin, and Sean O'Connor
Janes
April 2020
https://www.uscc.gov/research/chinas-logistics-capabilities-expeditionary-operations

Staff Research Reports, Issue Briefs, and Backgrounders

Overseas Chinese Students and Scholars in China's Drive for Innovation
Written by Policy Analyst Anastasya Lloyd-Damnjanovic and Policy Analyst Alexander Bowe
October 2020
https://www.uscc.gov/research/overseas-chinese-students-and-scholars-chinas-drive-innovation

Chinese Companies Listed on Major U.S. Stock Exchanges
October 2020
https://www.uscc.gov/research/chinese-companies-listed-major-us-stock-exchanges

Conflict on the Sino-Indian Border: Background for Congress
Written by Policy Analyst Will Green
July 2020
https://www.uscc.gov/research/conflict-sino-indian-border-background-congress

Trends in U.S. Multinational Enterprise Activity in China, 2000–2017
Written by Policy Analyst Kaj Malden and Former Research Assistant Ann Listerud
July 2020
https://www.uscc.gov/research/trends-us-multinational-enterprise-activity-china-2000-2017

Hong Kong's Special Status
May 2020
https://www.uscc.gov/research/hong-kongs-special-status

China's Banking Sector Risks and Implications for the United States
Written by Policy Analyst Virgilio Bisio
May 2020
https://www.uscc.gov/research/chinas-banking-sector-risks-and-implications-united-states

Beijing's Deadly Game: Consequences of Excluding Taiwan from the World Health Organization during the COVID-19 Pandemic
Written by Policy Analyst Anastasya Lloyd-Damnjanovic
May 2020
https://www.uscc.gov/research/beijings-deadly-game-consequences-excluding-taiwan-world-health-organization-during-covid

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Written by Policy Analyst Will Green, Policy Analyst Leyton Nelson, and Congressional and Policy Fellow Brittney Washington
May 2020
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Cascading Economic Impacts of the COVID-19 Outbreak in China
Written by Policy Analyst Kaj Malden and Policy Analyst Suzanna Stephens
April 2020
https://www.uscc.gov/research/cascading-economic-impacts-covid-19-outbreak-china

The U.S.-China "Phase One" Deal: A Backgrounder
Written by Economics and Trade Staff
February 2020
https://www.uscc.gov/research/us-china-phase-one-deal-backgrounder

Economics and Trade Bulletins

Every month the Commission publishes an Economics and Trade Bulletin written by the Economics and Trade Staff. The Bulletins are accessible on the Commission's website at: *https://www.uscc.gov/trade-bulletins*.

APPENDIX V

CONFLICT OF INTEREST AND LOBBYING DISCLOSURE REPORTING

The Commission seeks to hold itself to the highest standards of transparency in carrying out its mission. In accordance with its policy for avoiding conflicts of interest, Commissioners who believe they have an actual or perceived conflict of interest must recuse themselves from the source or subject matter of the conflict. The following Commissioners recused themselves from the portions of the 2020 Report cycle below:

- Commissioner James M. Talent recused himself from deliberations which relate specifically to Jimmy Lai and Next Animation.

Lobbying disclosure reports filed by any Commissioners who engage in "lobbying activities" as defined by the Lobbying Disclosure Act in connection with their outside employment activities may be accessed via public databases maintained by the House (*http://disclosures.house.gov/ld/ldsearch.aspx*) and Senate (*https://soprweb.senate.gov/index.cfm?event=selectfields*).

APPENDIX VI

ACRONYMS AND ABBREVIATIONS

5G	fifth-generation cellular network technology
ADIZ	air defense identification zone
AI	artificial intelligence
AIIB	Asian Infrastructure Investment Bank
AIT	American Institute in Taiwan
AMC	asset management company
API	active pharmaceutical ingredient
ASEAN	Association of Southeast Asian Nations
AU	African Union
Biotech	biotechnology
BIS	Bureau of Industry and Security (U.S. Department of Commerce)
BRI	Belt and Road Initiative
C4ISR	command, control, communications, computers, intelligence, surveillance, and reconnaissance
CBIRC	China Banking and Insurance Regulatory Commission
CBP	U.S. Customs and Border Protection
CCP	Chinese Communist Party
CDC	U.S. Centers for Disease Control and Prevention
CETC	China Electronic Technology Group Corporation
China CDC	China Center for Disease Control and Prevention
CNIPA	China National Intellectual Property Administration
COVID-19	novel coronavirus pandemic
CSRC	China Securities Regulatory Commission
DOD	U.S. Department of Defense
DOJ	U.S. Department of Justice
DPP	Democratic Progressive Party (Taiwan)
EEZ	exclusive economic zone
EPA	U.S. Environmental Protection Administration
EU	European Union
FDA	U.S. Food and Drug Administration
FDI	foreign direct investment
FIRRMA	Foreign Investment Risk Review Modernization Act of 2018
FTC	U.S. Federal Trade Commission
GDP	gross domestic product
GPS	Global Positioning System
HIPAA	Health Insurance Portability and Accountability Act
HKMAO	Hong Kong and Macau Affairs Office
ICAO	International Civil Aviation Organization
ICT	information and communications technology
IDDS	innovation-driven development strategy

IMF	International Monetary Fund
IP	intellectual property
IPO	initial public offering
ISO	International Organization for Standardization
IT	information technology
JLSF	Joint Logistic Support Force
KMT	Kuomintang (Taiwan)
LAC	Line of Actual Control
LegCo	Legislative Council (Hong Kong)
LGFV	local government financing vehicle
LPR	loan prime rate
MLF	medium-term lending facility
MNE	multinational enterprise
MOEA	Ministry of Economic Affairs (Taiwan)
NCD	negotiable certificate of deposit
NIH	National Institutes of Health
NIST	National Institute of Standards and Technology
NPC	National People's Congress
NPCSC	National People's Congress Standing Committee
NYSE	New York Stock Exchange
OHGRA	Office of Human Genetic Resources Administration
OMO	open market operations
OTC	over the counter
PBOC	People's Bank of China
PCAOB	Public Company Accounting Oversight Board
PKO	peacekeeping operations
PLA	People's Liberation Army
PPE	personal protective equipment
PRC	People's Republic of China
R&D	research and development
RMB	renminbi
RRR	reserve requirement ratio
SARS	Severe Acute Respiratory Syndrome
SCO	Shanghai Cooperation Organization
SEC	U.S. Securities and Exchange Commission
SEI	strategic and emerging industry
SEP	standard essential patent
SLOC	sea line of communication
SMEs	small- and medium-sized enterprises
SOE	state-owned enterprise
TECRO	Taipei Economic and Representative Office
TRA	Taiwan Relations Act
TSP	Thrift Savings Plan
TTP	Thousand Talents Program
UAV	unmanned aerial vehicle
UK	United Kingdom
UN	United Nations
USDA	U.S. Department of Agriculture
USTR	Office of the U.S. Trade Representative
VC	venture capital
VIE	variable interest entity
WHO	World Health Organization
WTO	World Trade Organization

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