Executive Summary and Recommendations

One Hundred Sixteenth Congress
First Session
November 2019

Printed for the use of the
U.S.-China Economic and Security Review Commission
Available online at: https://www.uscc.gov
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The Commission’s full charter and statutory mandate are available online at: https://www.uscc.gov/about/uscc-charter.
November 14, 2019

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 2019 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 4, includes the results and recommendations of our hearings, research, travel, 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 eight public hearings, taking testimony from 77 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:

- What Keeps Xi Up at Night: Beijing’s Internal and External Challenges;
- Risks, Rewards, and Results: U.S. Companies in China and Chinese Companies in the United States;
- An Emerging China-Russia Axis? Implications for the United States in an Era of Strategic Competition;
- China in Space: A Strategic Competition?;
- Technology, Trade, and Military-Civil Fusion: China’s Pursuit of Artificial Intelligence, New Materials, and New Energy;
- Exploring the Growing U.S. Reliance on China’s Biotech and Pharmaceutical Products; and
- U.S.-China Relations in 2019: A Year in Review

The Commission received a number of briefings by executive branch agencies and the Intelligence Community, including both unclassified and classified briefings on China’s military modernization, the China-Russia relationship, U.S.-Hong Kong relations, China’s ambitions in space, and U.S. strategy for responding to China’s Belt and Road Initiative. The Commission is preparing a classified report to Congress on these and other topics. The Commission also received briefings by foreign diplomatic and military officials as well as U.S. and foreign nongovernmental experts.

Commissioners made official visits to Australia, Singapore, Hong Kong, and China to hear and discuss perspectives on China and its global and regional activities. In these visits, the Commission delegation met with U.S. diplomats, host government officials, business representatives, academics, journalists, and other experts.

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 38 recommendations for congressional action, which appear at the conclusion of the Executive Summary. 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

Carolyn Bartholomew
Chairman

Robin Cleveland
Vice Chairman
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EXECUTIVE SUMMARY AND RECOMMENDATIONS

Three significant anniversaries occurred in 2019. Seventy years ago, on October 1, 1949, Mao Zedong declared the founding of the People’s Republic of China and, as Chairman of the Chinese Communist Party (CCP), was anointed the country’s paramount leader. Forty years ago, on January 1, 1979, the United States and the People’s Republic of China established diplomatic relations. And thirty years ago, on June 4, 1989, the leadership of the CCP, having declared martial law, sent troops to violently extinguish a peaceful protest, resulting in the Tiananmen Square massacre.

The relationship between the United States and China has seen its ups and downs over the years. This year, 2019, has been one of the most tumultuous. Early in the year, many had hopes that negotiators would successfully conclude a trade deal that would address longstanding concerns about China’s unfair trade practices and industrial policy, and set the trajectory of bilateral relations for years to come. Instead, the year was dominated by a breakdown in talks, followed by escalations and setbacks. The year looks set to conclude with the clash over China’s trade-distorting practices mostly unresolved and the broader political, technological, and security differences between the two sides solidifying into prolonged strategic competition.

The U.S.-China trade tensions have come at a bad time for Beijing. General Secretary of the CCP Xi Jinping and other senior CCP leaders face multiple internal and external challenges. On the economic front, Beijing is struggling to deliver economic growth—a key pillar of its legitimacy. In 2019, China’s officially reported gross domestic product growth fell to its lowest rate in nearly 30 years. Although the government claims growth at over 6 percent, some experts believe the real growth stood around 4.5 percent. Much of this slowdown can be attributed to structural weaknesses in China’s economy, including a growing debt burden, wasteful investment, demographic changes, and the government-supported resurgence of inefficient state-owned enterprises. Any one of these challenges would be sufficient to rattle an economy. Taken together, they could undermine Beijing’s long-term economic, political, and military goals. Chinese leaders’ attempts to tackle domestic economic problems do not address the underlying structural problems of the centrally-controlled, government-managed economy. Needed economic reform has not happened.

China faces rising debt, which includes corporate debt (held both by state-owned and small- and medium-sized enterprises), local government debt (much of which was accumulated off books and cannot be accounted fully), and household debt. Concerned that debt was reaching unstable levels, China’s government cut off companies’ access to informal financing. This had the effect of starving small- and medium-sized enterprises of credit, compounding China’s growth slowdown, and adding to rising unemployment. Meanwhile, state-owned enterprises, protected and nurtured by the government, continue to receive unimpeded financing access. Once again, the state is ascendant, while the private sector retreats.

Beijing’s concerns are not limited to the economic domain. In the Commission’s first hearing for 2019, we looked specifically at “Beijing’s Internal and External Challenges,” where expert witnesses attested to the CCP’s growing unease over perceptions of its weakening political authority and legitimacy at home, China’s geopolitical setbacks abroad, and military shortfalls.

The top priority of the CCP is ensuring its own survival. To do so, it strives for total control over the economy and society. This emphasis on CCP dominance comes at the expense of the welfare of China’s citizens. The government has either blocked efforts to improve safety standards and regulation or failed to fund and invest in systems and procedures to protect the health and wellbeing of its citizens. Last year, a Chinese-made blood pressure medication was contaminated with a cancer-causing chemical, triggering recalls in the United States and around the world. This year, amid the ongoing African swine fever outbreak, nearly one-third of China’s pig population had to be culled, leading average prices for pork—a staple food—to jump nearly 50 percent. In both instances, the government ignored effective safety and surveillance practices, procedures, and regulation. It is noteworthy that these nationwide risks to the health and safety of Chinese citizens occur at the same time the CCP is investing substantial resources to build a comprehensive security surveillance state designed to silence any dissent. The CCP has built prison camps to control Uyghur and other Muslim minorities and rolled out a vast national surveillance system to track all its citizens instead of addressing their urgent needs related to poverty reduction, employment, and environmental safeguards.

The CCP’s approach to legitimate domestic concerns is matched by its efforts to rally support for its position in trade negotiations. This year, China’s government stepped up an ideological and nationalistic messaging campaign to unite the domestic population against perceived opponents abroad. Beijing has adopted new measures to increase its ideological influence over government bodies, media, educational institutions, state-owned enterprises, and private businesses—both domestic and foreign. The CCP’s efforts to stamp out opposition to its authority mask deep-seated fears over the appeal of democratic values and a weakening of commitment to China’s socialist system by Party cadres and the broader populace.

As it clamps down at home, the CCP has advanced a more aggressive approach to its relationships abroad. Central to these efforts is Beijing’s unambiguous declaration of its intent to revise and reorder the international system in ways more befitting its interests and repressive vision of governance. The CCP has taken new steps to promote itself globally as a model worthy of emulation, attempting to cast its political system and approach to economic development as superior alternatives to that of the United States and other democratic countries. As part of this approach, Beijing has increased pressure on foreign countries, companies, and even individuals to conform to its worldview. Meanwhile, it has used state-directed influence organizations overseas, including Chinese student groups, as tools to silence dissenting views.

This year, Beijing reiterated its call to build the People’s Liberation Army...
(PLA) into a “world-class” military, issuing a new defense white paper that clearly marked China’s intent to position the PLA as a globally-oriented and activist military force. Chinese leaders also reinforced a sense of urgency in the PLA’s preparations for a potential military conflict, focusing the force on improving its combat readiness and urging it not to fear “the powerful enemy adversary”—referring to the United States. Meanwhile, China used the PLA and paramilitary forces to coerce its neighbors in the Indo-Pacific region while warning of its readiness to take military action to defend its interests.

Despite their bold talk, CCP leaders admitted a number of serious shortfalls in the PLA’s ability to accomplish its assigned missions. This recognition reinforces Beijing’s concern that the PLA will still require decades before it is a world-class peer of the United States. As the PLA continues its modernization drive, countries across the Indo-Pacific are also accelerating their own military improvements and banding closer together to counter China’s assertive behavior.

The high degree of economic integration that has brought the United States and China closer together since China’s World Trade Organization accession in 2001 is showing signs of stress. U.S. companies, increasingly concerned about the unfriendly business environment and uncertain policy direction, are delaying new investment. Both U.S. exports to and imports from China are falling, and some U.S. companies are reconsidering their supply chains. It is not just restricted market access that drives companies’ worries—the Chinese government’s pursuit of technological leadership at any cost means foreign companies often fall victim to theft of intellectual property or coercive technology transfer requirements to gain access to the China market. The Chinese government is also using illicit means such as cybertheft and industrial espionage to acquire U.S. data, which are both commercially valuable and important to U.S. national security.

Externally, China faced increasing resistance to its ambition to shape the regional and global order. Some countries, both Belt and Road Initiative (BRI) recipients and other donors alike, have questioned the structure of BRI projects, challenging the lack of transparency, inconsistency with global standards of governance, risks of unsustainable financial terms, and corrupt bidding and loan practices. Even as China promised this year to reform its lending practices, there is growing concern that BRI projects may undermine national sovereignty of recipient countries.

There is also rising concern regarding the CCP’s increasingly brazen attempts to influence and interfere with internal political processes and social freedoms in other countries. Chinese diplomats in countries including Australia, New Zealand, and Lithuania openly praise and encourage Chinese students seeking to suppress pro-Hong Kong peaceful protesters, no longer bothering to conceal their involvement in this political interference. These actions are one outgrowth of the CCP’s increasing attempts to manipulate the overseas Chinese population into serving China’s national goals. Beijing is also applying informal economic sanctions against countries that make decisions contrary to its interests, while openly threatening others considering doing so in the future.

In this year of internal and external challenges, millions of Hong Kong residents took to the streets in unprecedented mass protests against the CCP’s attack on Hong Kong’s autonomy. The protestors’ courageous fight to defend their values and freedoms has captured the world’s attention for its commitment to peaceful resistance and unwavering defense of basic human rights. The protest movement also exposes Beijing’s flagrant violations of its promise, inked in an international agreement, to ensure Hong Kong’s autonomy. Hong Kong is powerful proof for Taiwan that Beijing’s “one country, two systems” model of unification is an empty promise. The CCP’s decision to deploy thousands of paramilitary troops near the Hong Kong border in an implied threat reflects its fear that the calls for democracy in Hong Kong pose a direct threat to its own survival. Rather than displaying strength, in engaging in what it calls a “life or death” struggle over Hong Kong, the CCP has instead betrayed a profound weakness.

Amid these pressures, Xi Jinping is projecting an image of confidence and control. As China celebrates the 70-year anniversary of the founding of the People’s Republic, the CCP is reinforcing its political and economic model at home while making its most forceful case yet for the legitimacy of its leadership on the world stage. It is also steeling itself to prevail in what it expects to be a protracted, multidecade confrontation with Washington and its allies. China’s leadership clearly harbors no illusion of calm waters ahead. Xi Jinping himself declared in an internal speech to the Central Party School in September 2019, “We [China] face increasingly complex hazardous tests to the point of facing unimaginably stormy seas.”

If there were glimmers of political opening in China, they have been firmly extinguished. It is for this reason that this year the Commission made the decision to start referring to Xi Jinping using the title by which he derives his authority: General Secretary of the Chinese Communist Party. China is not a democracy, and its citizens have no right to vote, assemble, or speak freely. Giving General Secretary Xi the unearned title of “President” lends a veneer of democratic legitimacy to the CCP and Xi’s authoritarian rule.

As Beijing promotes its “China dream,” which it promises to grow into the “world’s dream,” Washington must plan for worst-case scenarios while trying to achieve the best ones. The courageous calls in Hong Kong for an elected government accountable to the people, as well as Taiwan’s upcoming presidential election, are clear reminders of the compatibility of Chinese civilization with democratic values. As we look ahead to the future of U.S.-China relations, Congress should bear this promise in mind while not forgetting the people of Xinjiang, Tibet, and elsewhere who are displaced, abused, harassed, or threatened to make way for the CCP’s global ambitions.
The Commission’s Key Recommendations

The Commission considers 10 of its 38 recommendations to Congress to be of particular significance. The complete list of recommendations appears on page 25.

The Commission recommends:

1. Congress enact legislation to preclude Chinese companies from issuing securities on U.S. stock exchanges if:
   ▶ The Public Company Accounting Oversight Board is denied timely access to the audit work papers relating to the company’s operations in China;
   ▶ The company disclosure procedures are not consistent with best practices on U.S. and European exchanges;
   ▶ The company utilizes a variable interest entity (VIE) structure;
   ▶ The company does not comply with Regulation Fair Disclosure, which requires material information to be released to all investors at the same time.

2. Congress enact legislation stating that all provisions and the special status of Hong Kong included in the U.S.-Hong Kong Policy Act of 1992 will be suspended in the event that China’s government deploys People’s Liberation Army or People’s Armed Police forces to engage in armed intervention in Hong Kong.

3. Congress enact legislation requiring the following information to be disclosed in all issuer initial public offering prospectuses and annual reports as material information to U.S. investors:
   ▶ Financial support provided by the Chinese government, including: direct subsidies, grants, loans, below-market loans, loan guarantees, tax concessions, government procurement policies, and other forms of government support.
   ▶ Conditions under which that support is provided, including but not limited to: export performance, input purchases manufactured locally from specific producers or using local intellectual property, or the assignment of Chinese Communist Party (CCP) or government personnel in corporate positions.
   ▶ CCP committees established within any company, including: the establishment of a company Party committee, the standing of that Party committee within the company, which corporate personnel form that committee, and what role those personnel play.
   ▶ Current company officers and directors of Chinese companies and U.S. subsidiaries or joint ventures in China who currently hold or have formerly held positions as CCP officials and/ or Chinese government officials (central and local), including the position and location.

4. Congress hold hearings assessing the productive capacity of the U.S. pharmaceutical industry, U.S. dependence on Chinese pharmaceuticals and active pharmaceutical ingredients (APIs), and the ability of the U.S. Food and Drug Administration (FDA) to guarantee the safety of such imports from China, with a view toward enacting legislation that would:
   ▶ Require the FDA to compile a list of all brand name and generic drugs and corresponding APIs that: (1) are not produced in the United States; (2) are deemed critical to the health and safety of U.S. consumers; and (3) are exclusively produced—or utilize APIs and ingredients produced—in China.
   ▶ Require Medicare, Medicaid, the U.S. Department of Veterans Affairs, the U.S. Department of Defense, and other federally funded health systems to purchase their pharmaceuticals only from U.S. production facilities or from facilities that have been certified by the FDA to be in compliance with U.S. health and safety standards and that actively monitor, test, and assure the quality of the APIs and other components used in their drugs, unless the FDA finds the specific drug is unavailable in sufficient quantities from other sources.

5. Congress require the relevant departments and agencies of jurisdiction—including the U.S. Department of the Treasury, the U.S. Department of Commerce, and the U.S. Securities and Exchange Commission—to prepare a report to Congress on the holdings of U.S. investors in Chinese bonds and other debt instruments. Such a report shall include information on the direct, indirect, and derivative ownership of any of these instruments.

6. Congress direct the National Space Council to develop a strategy to ensure the United States remains the preeminent space power in the face of growing competition from China and Russia, including the production of an unclassified report with a classified annex containing the following:
7. Congress direct the U.S. Department of Justice to reestablish a higher education advisory board under the Federal Bureau of Investigation. In concert with the U.S. Department of Commerce’s Bureau of Industry and Security, U.S. Department of Homeland Security, and U.S. Department of State, the higher education advisory board would convene semiannual meetings between university representatives and relevant federal agencies to review the adequacy of protections for sensitive technologies and research, identify patterns and early warning signs in academic espionage, assess training needs for university faculty and staff to comply with export controls and prevent unauthorized transfer of information, and share other areas of concern in protecting national security interests related to academic research.

8. Congress direct the U.S. secretary of state to submit to Congress a report on actions that have been and will be taken by the United States to counter Beijing’s attempts to isolate Taiwan’s democratically-elected leaders and to strengthen support for Taiwan’s engagement with the international community, including actions the Administration will take should Beijing increase its coercion against Taiwan. The report should:

   ▶ List measures the U.S. government has taken and will take to expand interactions between U.S. and Taiwan government officials in accordance with the Taiwan Travel Act.

   ▶ Formulate a strategy to expand development aid and security assistance to countries that maintain diplomatic ties with Taiwan.

9. Congress direct the Office of the Director for National Intelligence to prepare a National Intelligence Estimate of China’s and Russia’s approaches to competition with the United States and revision of the international order. The assessment would consider the influence of both countries’ ideologies on their foreign policies, including areas both of overlap and of divergence; potential “wedge issues” the United States might exploit; and the implications for the North Atlantic Treaty Organization of a two-front conflict involving both China and Russia.

10. Congress amend the U.S.-Hong Kong Policy Act of 1992 to direct the U.S. Department of State to develop a series of specific benchmarks for measuring Hong Kong’s maintenance of a “high degree of autonomy” from Beijing. Such benchmarks should employ both qualitative and quantitative measurements to evaluate the state of Hong Kong’s autonomy in the State Department’s annual Hong Kong Policy Act Report.
Executive Summary

Chapter 1: 2019 in Review

SECTION 1: YEAR IN REVIEW: ECONOMICS AND TRADE

In 2019, the trade dispute between the United States and China entered its second year and remains mostly unresolved. The Chinese government’s unwavering commitment to state management of its economy remains a major stumbling block. In response to decades of unfair economic practices, the United States wants the Chinese government to codify commitments to strengthen intellectual property protection, prohibit forced technology transfer, and remove industrial subsidies. But these practices are core features of China’s economic system, and the Chinese government views U.S. demands as an attack on its national development. China continues to ignore the letter and the spirit of its World Trade Organization (WTO) commitments. The resulting impasse has led to multiple rounds of mutual tariff actions impacting more than $500 billion in bilateral goods trade, and reducing trade between the two countries (see Figure 1). In response to U.S. measures to address illegal activities of Chinese technology firms, China’s government strengthened pursuit of technological self-reliance and its state-led approach to innovation, which uses licit and illicit means to achieve its goals. This will continue to pose a threat to U.S. economic competitiveness and national security.

Escalating trade tensions with the United States compounded China’s domestic economic challenges, with the Chinese economy growing at its slowest pace in nearly 30 years in 2019. High debt levels constrain Beijing’s ability to respond to the slowdown, and stimulus measures have so far been modest in comparison with past programs. The economic slowdown has disproportionately affected China’s small and medium enterprises, which do not enjoy the same preferential treatment, access to credit, and government subsidies as state-owned or -supported enterprises. Meanwhile, regional banks have emerged as a key source of risk in China’s financial system due to the high number of nonperforming loans on their balance sheets. China’s government has also pursued limited market and financial system opening over the last year in an effort to attract foreign capital. These measures remain narrowly designed to address specific pressures facing China’s economy and do not appear to herald a broader market liberalization of the kind that U.S. companies and policymakers have long advocated.

Key Findings

▶ On-and-off trade negotiations between the United States and China to resolve a years-long trade dispute have failed to produce a comprehensive agreement. The impasse in negotiations underscores, in part, China’s commitment to preserving the government’s dominant role in determining economic outcomes.

▶ The United States is confronting China in response to decades of unfair Chinese economic policies and trade-distorting practices. The Chinese Communist Party (CCP) increasingly perceives U.S. actions as an attack on its vision for China’s national development. China’s government has intensified nationalist rhetoric criticizing the United States, applied pressure on U.S. companies, and targeted key U.S. export sectors with tariffs in response.

▶ U.S. measures to address illegal activities by Chinese technology companies are leading China’s government to push harder on technological self-reliance. The reinvigoration of the state-driven approach to innovation will pose a sustained threat to U.S. global economic competitiveness and national security.

▶ A range of domestic factors and trade tensions with the United States have slowed China’s economic growth. In response, China’s government has deployed infrastructure spending, tax cuts, and targeted monetary stimulus. While the stimulus enabled a modest recovery during the first half of 2019, China’s rate of growth continues to slow (see Figure 2 on next page).

▶ China’s government continues to falsify official economic statistics, obscuring the true extent of its current economic slowdown. Independent observers estimate that China’s true growth rate is at least 0.5 percentage points—and possibly as much as 3 percentage points—lower than Beijing’s published figures.
Beijing’s deleveraging campaign has succeeded in containing China’s corporate debt growth, but local governments continue to borrow. Expanding household debt and a rapid increase in the value of nonperforming loans also pose significant risks to China’s financial system and are a major challenge for Chinese policymakers.

China’s state sector is strengthening and private companies are struggling. The deleveraging campaign and related crackdown on shadow banking had the unintended effect of cutting off credit to the private sector, which traditionally relies on informal finance.

China’s government has taken limited market opening steps, including incremental liberalization of China’s foreign investment regime and financial system. However, these measures have been pursued in terms favorable to the Chinese government as opposed to the market, underscoring that any changes in China’s economic practices will continue to be controlled by the state.

**FIGURE 2: CHINA’S OFFICIAL GDP GROWTH, 2009–Q2 2019 (YEAR-ON-YEAR)**

Note: In 2016, the target was set at a range of 6.5–7.0 percent GDP growth. In 2019, the target is set at a range of 6.0–6.5 percent.

Source: China’s National Bureau of Statistics via CEIC database.
SECTION 2: YEAR IN REVIEW: SECURITY, POLITICS, AND FOREIGN AFFAIRS

In 2019, Beijing stepped up its efforts to promote itself as a global political and economic leader, offering the clearest evidence yet of its ambition to reshape the international order so it benefits Chinese interests and makes the world safe for the CCP. General Secretary of the CCP Xi Jinping continued to tout the CCP’s model and “Chinese wisdom” as solutions for the world’s problems and vowed to build a “community of common human destiny,” a CCP formulation for a China-led global governance regime. In the security realm, Beijing exhorted the People’s Liberation Army (PLA) to prepare itself for challenges in the years ahead while it continues its transformation into a “world-class” military able to conduct combat operations within and beyond the Indo-Pacific region. Meanwhile, as trade tensions between China and the United States deepened, General Secretary Xi declared that the CCP was now engaged in a “New Long March” and must prepare for a protracted, multidecade confrontation with Washington and its allies. At home, the CCP expanded its campaign of indoctrination and repression against Uyghurs, Tibetan Buddhists, Hui Muslims, Christians, and other religious groups and individuals the CCP considers to be politically unreliable.

Beijing also took new steps in 2019 to advance the aggressive approach to foreign and security policy it has taken in recent years. In the Indo-Pacific region, Beijing used displays of military force to intimidate its neighbors while applying informal economic sanctions against countries making decisions contrary to its interests. China also continued its efforts to influence or interfere with other countries’ political processes as well as global perceptions of its rise, including through United Front covert propaganda and co-optation activities, the targeting of U.S. and other foreign universities and media, arbitrary detentions of foreign citizens, and the export of censorship and surveillance technologies. Beijing also sought to shore up ties with key partners, such as North Korea and Iran, while growing its influence across the Western Hemisphere, Africa, and the Middle East.

The U.S.-China relationship deteriorated significantly over the past year as both sides blamed the other for issues such as the breakdown in trade negotiations and militarization of the South China Sea. Beijing’s views of the United States hardened as Chinese leaders took few meaningful steps to address issues of concern raised by Washington and Chinese state media intensified anti-U.S. propaganda. Meanwhile, the U.S. government increased its efforts to curb China’s influence and espionage activities in academic and commercial settings.

Key Findings

► Chinese leaders took a more strident tone in their discussion of military affairs, reinforcing a sense of urgency in the PLA’s preparations for a potential military conflict while indicating Beijing’s intent to position the PLA as a globally-oriented military force. General Secretary Xi urged the PLA to make preparations for a possible conflict with the “powerful enemy adversary”—a phrase the CCP uses to refer to the United States—central to its modernization and training efforts.

► Despite signs of outward confidence, CCP leadership also revealed a growing unease over the mounting external resistance to its ambitions, which it viewed as threatening its objectives abroad and rule at home. In response to these challenges, the CCP deepened its control over the Chinese government and Chinese society and stepped up an ideological and nationalistic messaging campaign instructing key groups to “win the ideological war” against Western and other democratic countries.

► China continued its efforts to coerce or interfere in the domestic affairs of countries acting in ways contrary to its interests, detaining foreign citizens and carrying out an extensive influence campaign targeting foreign universities, media, and the Chinese diaspora. Beijing also expanded its global promotion of the Belt and Road Initiative (BRI), increasing military cooperation and exporting its censorship and surveillance technologies to countries under BRI auspices.

► In the Indo-Pacific region, China made new use of “gray zone” activities and military intimidation of its neighbors to secure its expansive sovereignty claims. Military tensions between China and Japan persisted in the East China Sea despite attempts by both countries to reset bilateral relations, while an annual poll of respondents in Southeast Asian countries found that fewer than one in ten saw China’s regional influence as benign.

► The U.S.-China relationship grew markedly more confrontational as tensions increased over political, economic, and security issues and polls reflected a significant drop in the U.S. public’s favorability toward China. Chinese leaders showed few signs of willingness to compromise on issues raised by Washington.
Chapter 2: Beijing’s Internal and External Challenges

The CCP faces a number of significant internal and external challenges as it seeks to ensure its hold on power while sustaining economic growth, maintaining control at home, and advancing its regional and increasingly global ambitions. Despite a lengthy campaign to clean up its ranks, the CCP has growing concerns over widespread corruption, weakened control and cohesion, and ideological decay. Chinese policymakers credit their state-led economic model for the country’s rapid growth, but the contradictions in China’s approach are increasingly apparent as it faces a struggling private sector, high debt levels, and a rapidly-aging population. China remains deeply dependent on foreign technology and vulnerable to supply chain disruption, but is pouring vast amounts of resources toward encouraging domestic innovation.

Externally, BRI has come under growing international skepticism over China’s opaque lending practices, accusations of corruption, and encroachment on host countries’ sovereignty. CCP leaders are also worried about the PLA’s lack of recent warfighting experience and have long harbored concerns about the loyalty, capabilities, and responsiveness of their security forces. Furthermore, Beijing’s military modernization efforts, coercion of its neighbors, and interference in other countries’ internal affairs have generated global apprehension about its geopolitical ambitions.

China’s leadership is acutely aware of these challenges and is making a concerted effort to overcome them. Ultimately, the extent to which Beijing can address these vulnerabilities affects its ability to contest U.S. leadership and carve out a place for its own model of global governance. In the economic realm, Beijing’s commitment to its state-led economic model likely will prolong U.S.-China trade frictions and worsen China’s domestic challenges. Chinese leaders’ concerns over the PLA’s readiness for war will continue to influence their willingness to initiate a conflict that could prompt the intervention of a modern, capable adversary such as the United States, at least in the near term. Finally, General Secretary Xi’s consolidation of power has created a dangerous echo chamber for decision making, which could lead to domestic policy missteps and complicate U.S.-China relations during times of heightened tensions or crisis.

Key Findings

- The CCP is facing internal and external challenges as it attempts to maintain power at home and increase its influence abroad. China’s leadership is acutely aware of these challenges and is making a concerted effort to overcome them.
- The CCP perceives Western values and democracy as weakening the ideological commitment to China’s socialist system of Party cadres and the broader populace, which the Party views as a fundamental threat to its rule. General Secretary Xi has attempted to restore the CCP’s belief in its founding values to further consolidate control over nearly all of China’s government, economy, and society. His personal ascendancy within the CCP is in contrast to the previous consensus-based model established by his predecessors. Meanwhile, his signature anticorruption campaign has contributed to bureaucratic confusion and paralysis while failing to resolve the endemic corruption plaguing China’s governing system.
- China’s current economic challenges include slowing economic growth, a struggling private sector, rising debt levels, and a rapidly-aging population. Beijing’s deleveraging campaign has been a major drag on growth and disproportionately affects the private sector. Rather than attempt to energize China’s economy through market reforms, the policy emphasis under General Secretary Xi has shifted markedly toward state control.
- Beijing views its dependence on foreign intellectual property as undermining its ambition to become a global power and a threat to its technological independence. China has accelerated its efforts to develop advanced technologies to move up the economic value chain and reduce its dependence on foreign technology, which it views as both a critical economic and security vulnerability.
- China’s senior leaders are concerned over perceived shortfalls in the PLA’s warfighting experience and capabilities and its failure to produce an officer corps that can plan and lead. These concerns undermine Chinese leaders’ confidence in the PLA’s ability to prevail against a highly-capable adversary. The CCP has also long harbored concerns over the loyalty and responsiveness of the PLA and internal security forces to Beijing and the potential for provincial officials to co-opt these forces to promote their own political ambitions.
- China’s BRI faces growing skepticism due to concerns regarding corruption, opaque lending practices, and security threats. However, this criticism has not been followed by an outright rejection of BRI because significant infrastructure gaps persist globally and China has few competitors in infrastructure financing.
- Beijing’s military modernization efforts, coercion of its neighbors, and interference in other countries’ internal affairs have generated resistance to its geopolitical ambitions. Countries in the Indo-Pacific and outside the region are accelerating their military modernization programs, deepening cooperation, and increasing their military presence in the region in an attempt to deter Beijing from continuing its assertive behavior.
Chapter 3: U.S.-China Competition

SECTION 1: U.S.-CHINA COMMERCIAL RELATIONS

Chinese firms operate with far greater freedom in the United States than U.S. firms are permitted in China. The lack of reciprocity in market access, investment openness, regulatory treatment, and other areas have led to an environment where U.S. companies are disadvantaged in China’s domestic market. Protected in their domestic market, Chinese companies are increasingly empowered to compete in third country markets. For this reason, many U.S. companies with operations in China, historically supportive of deepening engagement, have grown increasingly pessimistic about their ability to expand and participate in the Chinese market. The Chinese government’s inbound foreign direct investment (FDI) regime has restricted foreign entry into some segments of the Chinese market, such as cloud computing and e-commerce. For high-priority sectors, China’s government has made market entry conditional on transfer of technology and other concessions from U.S. and other foreign companies.

Much analysis has been done on Chinese FDI and capital raising in the United States, but little is known about Chinese companies’ U.S. operations, governance, and impact on the broader U.S. economy. Chinese FDI in the United States peaked in 2016 and has subsequently fallen. By comparison, Chinese venture capital (VC) investment has not fallen as significantly. U.S. policymakers remain concerned about VC investment that might be directed by the Chinese government, as access to early-stage technologies could put U.S. national security and economic competitiveness at risk (see Figure 3).

FIGURE 3: COMPLETED CHINESE VC INVESTMENT IN THE UNITED STATES, JANUARY 2009–H1 2019

Note: Pro-rata value determined as the Chinese proportional share of each funding round’s value based on the number of participating investors. Data from H1 2019 are preliminary only.

Beyond FDI, many Chinese companies raise capital on U.S. financial markets. Because Chinese companies frequently list in the United States using a variable interest entity, investments in U.S.-listed Chinese companies are inherently risky, in part because the variable interest entity structure has been ruled unenforceable by China’s legal system. The lack of disclosure by and oversight of U.S.-listed Chinese companies opens the door to adverse activities, such as insider trading, accounting fraud, and corporate governance concerns that could put U.S. investors, including pension funds, at risk (see Figure 4).

Key Findings

- The nature of Chinese investment in the United States is changing. While Chinese FDI in the United States fell in 2018, VC investment in cutting-edge sectors has remained more stable (see Figure 5 on next page). Broad trends in FDI from China mask VC investment. While lower than FDI, VC investment from Chinese entities could have more impact as it has prioritized potentially sensitive areas, including early-stage advanced technologies. This sustained Chinese investment raises concern for U.S. policymakers, as Beijing has accelerated its comprehensive effort to acquire a range of technologies to advance military and economic goals.

- U.S. laws, regulations, and practices afford Chinese companies certain advantages that U.S. companies do not enjoy. Chinese firms that raise capital on U.S. stock markets are subject to lower disclosure requirements than U.S. counterparts, raising risks for U.S. investors. The Chinese government continues to block the Public Company Accounting Oversight Board from inspecting auditors’ work papers in China despite years of negotiations. As of September 2019, 172 Chinese firms were listed on major U.S. exchanges, with a total market capitalization of more than $1 trillion.
China’s laws, regulations, and practices disadvantage U.S. companies relative to Chinese companies. China’s foreign investment regime has restricted and conditioned U.S. companies’ participation in the Chinese market to serve industrial policy aims. In addition, recent reports by the American and EU Chambers of Commerce in China suggest technology transfer requests have continued unabated. Technology transfer requests continue to compromise U.S. firms’ operations.

Chinese firms’ U.S. operations may pose competitive challenges if they receive below-cost financing or subsidies from the Chinese state or if they can import inputs at less than fair value. There are serious gaps in the data that prevent a full assessment of the U.S.-China economic relationship. Analysis of Chinese companies’ participation in the U.S. economy is constrained by the absence of empirical data on companies’ operations, corporate governance, and legal compliance.

FIGURE 5: ANNUAL FDI FLOWS BETWEEN CHINA AND THE UNITED STATES, 1990–2018

Note: This figure excludes all annual investment amounts below $50 million.
Source: Rhodium Group and the National Committee on U.S.-China Relations, “The U.S.-China Investment Hub.”
SECTION 2: EMERGING TECHNOLOGIES AND MILITARY-CIVIL FUSION: ARTIFICIAL INTELLIGENCE, NEW MATERIALS, AND NEW ENERGY

U.S. economic competitiveness and national security are under threat from the Chinese government’s broad-based pursuit of leadership in artificial intelligence (AI), new materials, and new energy. Because these technologies underpin many other innovations, China’s government has prioritized their development, aiming to encourage transfer of foreign technology and know-how, build national champions, and attain self-sufficiency. Beijing’s enhanced program of military-civil fusion seeks to mobilize civilian technological advances in support of China’s military modernization and spur broader economic growth and innovation by eliminating barriers between the commercial and defense sectors.

Chinese military planners view AI in particular as an advantage that could allow China to surpass U.S. military capabilities. In seeking to become the dominant manufacturer of new energy vehicles, Chinese firms have established control over substantial portions of the global lithium-ion battery supply chain. China’s efforts to localize high-value industries that use new and advanced materials, particularly aerospace manufacturing, jeopardize critical U.S. exports and position China to develop and deploy commercial and military advances ahead of the United States.

Compared to past technological modernization efforts, China’s current initiatives pose far greater challenges to U.S. interests. China’s ability to capitalize on new technology has been enhanced by what it learned or stole from foreign firms. By creating complex and opaque ties between China’s civilian institutions and its defense sector, military-civil fusion increases the risk that U.S. firms and universities may advance China’s military capabilities while endangering future U.S. economic leadership.

China’s industrial planners coordinate policy across China’s economy to channel resources to targeted industries and spur demand for domestic products, harnessing the strengths of China’s robust manufacturing base and a network of government-led investment funds, while disadvantaging foreign firms. Outside China’s borders, the state is financing Chinese state-owned enterprises’ acquisitions of leading foreign robotics, machine tooling, and other firms; promoting Chinese influence in international standards-setting bodies; and cultivating export markets for Chinese goods and services around the world.

Key Findings

► The Chinese government’s military-civil fusion policy aims to spur innovation and economic growth through an array of policies and other government-supported mechanisms, including venture capital funds, while leveraging the fruits of civilian innovation for China’s defense sector. The breadth and opacity of military-civil fusion increase the chances civilian academic collaboration and business partnerships between the United States and China could aid China’s military development.

► China’s robust manufacturing base and government support for translating research breakthroughs into applications allow it to commercialize new technologies more quickly than the United States and at a fraction of the cost. These advantages may enable China to outpace the United States in commercializing discoveries initially made in U.S. labs and funded by U.S. institutions for both mass market and military use.

► Artificial intelligence: Chinese firms and research institutes are advancing uses of AI that could undermine U.S. economic leadership and provide an asymmetrical advantage in warfare. Chinese military strategists see AI as a breakout technology that could enable China to rapidly modernize its military, surpassing overall U.S. capabilities and developing tactics that specifically target U.S. vulnerabilities (see Table 1).

► New materials: Chinese firms and universities are investing heavily in building up basic research capabilities and manufacturing capacity in new and advanced materials, including through acquisition of overseas firms, talent, and intellectual property. These efforts aim to close the technological gap with the United States and localize production of dual-use materials integral to high-value industries like aerospace. They could also enable China to surpass the United States in applying breakthrough discoveries to military hardware.

► Energy storage: China has quickly built up advanced production capacity in lithium-ion batteries and established control over a substantial portion of the global supply chain, exposing the United States to potential shortages in critical materials, battery components, and batteries. China’s heavily subsidized expansion in lithium-ion batteries will likely lead to excess capacity and drive down global prices. If Chinese producers flood global markets with cheaper, technologically inferior batteries, it would jeopardize the economic viability of more innovative energy storage technologies currently under development in the United States.

► Nuclear power: China is positioning itself to become a leader in nuclear power through cultivating future nuclear export markets along the BRI, particularly in sub-Saharan Africa, and attracting advanced nuclear reactor designers to build prototypes in China.

EXECUTIVE SUMMARY AND RECOMMENDATIONS
### TABLE 1: CHINA’S DEVELOPMENT OF AI TECHNOLOGIES

<table>
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<tr>
<th>AI Technology</th>
<th>Applications</th>
<th>Key Industrial Policies</th>
<th>China’s Current Capabilities</th>
<th>Key Companies</th>
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<tr>
<td>Machine Learning, which includes Deep Learning</td>
<td>Foundational for other areas of AI</td>
<td>Cultivating talent in advanced machine learning and leading in machine learning theory are cornerstones of China’s Strategy to dominate in global AI by 2030, unveiled in 2017. The National Development and Reform Commission has also tapped search engine giant Baidu to lead a nationwide online deep learning lab in coordination with Tsinghua and Beihang Universities.</td>
<td>Chinese researchers have closed the gap with the United States in publication volume, but China lacks talent in the top echelon. Engineers focus mostly on commercial gains, not fundamental breakthroughs. China's advantages in sheer volume of data are curtailed by its ability to label and analyze this data. China also lags in producing chips optimized for machine learning.</td>
<td>General: Alibaba, Tencent, Baidu&lt;br&gt;Chips: Cambricon (used in Huawei phones), Horizon Robotics</td>
</tr>
<tr>
<td>Natural Language Processing (NLP)</td>
<td>Speech/voice recognition, translation, information retrieval/ extraction, query answering, sentiment analysis</td>
<td>NLP is listed as one of eight “key common technologies” to be developed in China’s AI strategy. Chinese universities are partnering with companies to develop NLP applications, and several Chinese industry associations have launched respected conferences.</td>
<td>In research, China has been second behind the United States for five years. In industry, China is leading in chatbots and is developing machine translation for Chinese to languages in BRI countries. iFlytek is a leader in speech recognition for spoken Chinese.</td>
<td>Baidu, iFlytek; Microsoft Research Asia is a major player for machine translation and chatbots</td>
</tr>
<tr>
<td>Computer Vision and Biometrics</td>
<td>Facial and other image recognition, machine vision (analyzing images for inspection and process control)</td>
<td>China’s smart cities initiative promotes surveillance technology, and many companies have contracts with public security bureaus. Computer vision accounted for 35 percent of China’s AI market in 2017.</td>
<td>Numerous facial recognition companies, including many startups, are powering China’s surveillance state. In turn, internet giants like Huawei are integrating this tech into—and exporting—“Safe City” systems.</td>
<td>SenseTime, Yitu, Megvii (Face++), Xloong, Zoolz, DeepGlint, Huawei</td>
</tr>
<tr>
<td>Robotics</td>
<td>Industrial robots, commercial service robots, and personal service robots</td>
<td>China’s Intelligent Manufacturing Plan, a supplement to Made in China 2025, called for extensive investment in industrial robots; numerous provincial funds have been set up to upgrade China's manufacturing capabilities.</td>
<td>China’s domestic sales of industrial robots have increased significantly, but it remains heavily dependent on the United States, Europe, and Japan for robotics components. It has formed joint ventures with several EU-based firms.</td>
<td>Siasun, GSK CNC Equipment, Effort, Estun, Wuhan Huazhong</td>
</tr>
<tr>
<td>Autonomous Vehicles (AVs) and other Unmanned Autonomous Systems</td>
<td>Passenger vehicles, delivery vehicles, unmanned aerial vehicles like drones</td>
<td>AVs: China legalized AV testing in 2017 and launched a national strategy in December 2018 emphasizing research funding and special test zones. It may also pursue protectionist measures. Drones: Policy supports developing industrial application (e.g., in agriculture).</td>
<td>AVs: China is three to five years behind global leadership in algorithms that enable successful driving, but likely to catch up. It is farther behind in sensors, computing platforms, and systems integration. Drones: DJI controls 70 percent of the global consumer market.</td>
<td>AVs: Baidu, Pony.AI, SAIC&lt;br&gt;Drones: China Electronics Technology Group Corporation, DJI</td>
</tr>
</tbody>
</table>

Note: Other notable applications of AI technologies include virtual and augmented reality, healthcare, and finance. Underlying these applications are chips optimized for AI and sensors. Source: Various. See the full Annual Report for complete list of sources.
SECTION 3: GROWING U.S. RELIANCE ON CHINA’S BIOTECH AND PHARMACEUTICAL PRODUCTS

China is the largest producer of active pharmaceutical ingredients (APIs) in the world, and millions of U.S. consumers take life-saving drugs that contain ingredients made in China, even if the finished drugs themselves are not made in China. There are serious deficiencies in health and safety standards in China’s pharmaceutical sector, and inconsistent and ineffective regulation by China’s government. Nevertheless, U.S. imports of these health products—either directly from China or indirectly through companies in third countries—continue to increase (see Figure 6). As the largest source of fentanyl, China also plays a key role in the ongoing U.S. opioid epidemic. Beijing’s weak regulatory and enforcement regime allows chemical and pharmaceutical manufacturers to export dangerous controlled and uncontrolled substances.

U.S. consumers, including the U.S. military, are reliant on drugs or active ingredients sourced from China, which presents economic and national security risks, especially as China becomes more competitive in new and emerging therapies. The Chinese government is investing significant resources into the development of biotechnology products and genomics research, accumulating private and medical data on millions of U.S. persons in the process. The Chinese government also encourages mergers and acquisitions—as well as venture capital investments—in U.S. biotech and health firms, leading to technology transfer that has enabled the rapid development of China’s domestic industry (see Figure 7). U.S. health and biotech firms in China, meanwhile, continue to face regulatory and other market barriers.

While the Chinese government has taken steps in recent years to streamline regulatory procedures and allow foreign medical products to enter the market more quickly, concerns remain over China’s weak commitment to protecting intellectual property rights and willingness to favor domestic providers of health products.

Key Findings

► China is the world’s largest producer of APIs. The United States is heavily dependent on drugs that are either sourced from China or include APIs sourced from China. This is especially true for generic drugs, which comprise most prescriptions filled in the United States. Drug companies are not required to list the API country of origin on their product labels; therefore, U.S. consumers may be unknowingly accepting risks associated with drugs originating from China.

► The Chinese government has designated biotechnology as a priority industry as part of its 13th Five-Year Plan and the Made in China 2025 initiative. The development of China’s pharmaceutical industry follows a pattern seen in some of its other industries, such as chemicals and telecommunications, where state support promotes domestic companies at the expense of foreign competitors.

► China’s pharmaceutical industry is not effectively regulated by the Chinese government. China’s regulatory apparatus is inadequately resourced to oversee thousands of Chinese drug manufacturers, even if Beijing made such oversight a greater priority. This has resulted in significant drug safety scandals.

► The U.S. Food and Drug Administration (FDA) struggles to guarantee the safety of drugs imported from China because of the small number of FDA inspectors in country, the large number of producers, the limited cooperation from Beijing, and the fraudulent tactics of many Chinese manufacturers. Because of U.S. dependency on China as a source of many critical drugs, banning certain imports due to contamination risks creating drug shortages in the United States.

► As a result of U.S. dependence on Chinese supply and the lack of effective health and safety regulation of Chinese producers, the American public, including its armed forces, are at risk of exposure to contaminated and dangerous medicines. Should Beijing opt to use U.S. dependence on China as an economic weapon and cut supplies of critical drugs, it would have a serious effect on the health of U.S. consumers.
• Lack of data integrity in China presents challenges for U.S. and Chinese health regulators. In 2016, the China Food and Drug Administration investigated 1,622 drug clinical trial programs and canceled 80 percent of these drug applications after it found evidence of fraudulent data reporting and submissions of incomplete data, among other problems.

• China places great emphasis on genomic and other health-related data to enhance its biotech industry. Domestically, China established national and regional centers focused on big data in health and medicine. Investment and collaborations in the U.S. biotech sector give Chinese companies access to large volumes of U.S. medical and genomic data, but U.S. companies do not get reciprocal access.

• Foreign firms continue to face obstacles in China’s health market. These obstacles include drug regulatory approval delays, drug pricing limitations, reimbursement controls, and intellectual property theft. U.S. companies must also compete with Chinese drug companies that introduce generic products or counterfeit drugs to the Chinese market shortly after a foreign patented drug is introduced (see Figure 8 and Figure 9).

• China is the largest source of fentanyl, a powerful synthetic opioid, in the United States. Although the Chinese government made multiple commitments to curtail the flow of illicit fentanyl to the United States, it has failed to carry out those commitments.

Chapter 4: China’s Global Ambitions

SECTION 1: BEIJING’S “WORLD-CLASS” MILITARY GOAL

In remarks before the CCP’s 19th National Congress in October 2017, General Secretary Xi pledged to build the PLA into a “world-class” force by the middle of the 21st century. This milestone established a timeline for and helps define the goal of the CCP’s sweeping ambition for growing China’s military power—what General Secretary Xi declared shortly after assuming power in 2012 as China’s “Strong Military Dream.” This force would support the CCP’s efforts to place China at the center of world affairs.

Beijing has instructed the PLA to remain primarily focused on a potential conflict with Taiwan, but has also directed the force to increase preparations for conflicts elsewhere around China’s periphery, including with the United States, Japan, India, and other countries in the region. At the same time, it has given the PLA guidance to increase its operations beyond the Indo-Pacific region. One goal of this strategy is to defend China’s overseas interests, which Beijing describes as being “crucial” and in recent years has elevated to a similar level of importance for the PLA as defending China’s own territory. Another of Beijing’s goals is to increase the difficulty the United States would face in intervening in a regional conflict.

Beijing’s ambition to develop the PLA into a world-class force will create challenges for the United States and its allies and partners. It would increase the confidence of Chinese leaders to employ the PLA to coerce China’s neighbors into forfeiting their territorial claims and other sovereign interests. A military that is truly world-class in technology, training, and personnel would likely also allow China to prevail in a military conflict with any regional adversary. Moreover, Beijing could decide to initiate a military conflict even if it calculated the United States would intervene due to its confidence it would be able to effectively deter or defeat intervening U.S. military forces. Beyond armed conflict, a more robust overseas military presence will provide Beijing additional tools to support and influence countries around the world that pursue policies injurious to U.S. interests.

Key Findings

• In 2017, Beijing announced its goal to build the PLA into a world-class military, overcoming remaining shortfalls in the force’s capabilities to establish China firmly among the ranks of the world’s leading military powers. This objective is guided by CCP leaders’ view that China is approaching the “world’s center stage” and represents the military component of a multifaceted goal to establish China’s leading global position in every important element of national power.
Beijing views a world-class PLA as achieving parity in strength and prestige with the world’s other leading militaries, especially with the U.S. armed forces, and being capable of preventing other countries from resisting China’s pursuit of its national goals. Deterring outside intervention will be especially important in the Indo-Pacific region, where China aims to resolve territorial disputes with a number of important U.S. allies and partners—including through the use of military force if necessary—but will also extend to China’s overseas interests.

Once focused on territorial defense, China’s military strategy has evolved in recent years to encompass a concept PLA strategists refer to as “forward defense,” which would create greater strategic depth by extending China’s defensive perimeter as far as possible from its own shores. China is developing key capabilities necessary for force projection centered on a sophisticated blue-water navy that Chinese naval leadership plans to use to combat the U.S. Navy in the far seas.

To support this strategy, Beijing is expanding its military presence inside and beyond the Indo-Pacific, including by building a network of overseas “strategic strongpoints” consisting of military bases and commercial ports that can support military operations. China established its first permanent overseas military presence in Djibouti in 2017 and Argentina in 2018, and reportedly has reached an agreement for the PLA to operate from a naval base in Cambodia. The PLA is increasingly training and fielding capabilities for expeditionary operations, including by developing a third aircraft carrier and improving its amphibious assault capabilities.

The PLA continues to prioritize the modernization of its maritime, air, information warfare, and long-range missile forces, and is developing or has fielded cutting-edge capabilities in space, cyberspace, hypersonics, electronic warfare, and AI. Beijing is attempting to establish a leading position in the next global “revolution in military affairs” and is employing its “military-civil fusion” strategy to gain advantage in key emerging technologies. U.S. companies that partner with Chinese technology firms may be participants in this process.

Notwithstanding its long-held policy of maintaining a “minimal nuclear deterrent,” Beijing is growing, modernizing, and diversifying its nuclear arsenal and delivery systems. China doubled the size of its nuclear arsenal over the last decade and U.S. officials estimate it will double it again in the next decade, while Beijing has increased the readiness and improved the accuracy of its nuclear forces.

China continues to devote ample financial resources to its military modernization, with its officially-reported defense budget ranking second only to the United States since 2002. China’s overall defense spending has seen a nearly eight-fold increase over the past two decades, dwarfing the size and growth rate of other countries in the Indo-Pacific (see Figure 10).

SECTION 2: AN UNEASY ENTENTE: CHINA-RUSSIA RELATIONS IN A NEW ERA OF STRATEGIC COMPETITION WITH THE UNITED STATES

China-Russia relations have strengthened considerably over the last decade in the face of what both countries perceive to be an increasingly threatening external environment. Beijing and Moscow believe the United States and the international liberal order pose a threat to their regime survival and national security. At the same time, they view the United States and other democracies as in decline and see an opportunity to expand their geopolitical influence at the expense of Washington and its allies. The two countries frame their relationship as the best it has ever been, but insist that it is not an alliance. However, China and Russia’s common expectation of diplomatic support in a dispute, shared antipathy to democratic values, opposition to the U.S. alliance system, and deepening diplomatic and military cooperation have already begun to challenge U.S. interests around the globe.

Nevertheless, Russia chafes at being a weaker partner in this relationship and fears becoming a mere “raw materials appendage” of China. Already scarred by historical enmity, the China-Russia relationship remains constrained by divergence over key national interests including differing stances on territorial disputes and partnerships with countries regarded as rivals by the other. Each country also harbors concerns over the potential military and geopolitical threat posed by the other. Finally, China’s growing influence in regions Russia perceives as its traditional sphere of influence—such as Central Asia and the Arctic—complicates the creation of a formal alliance (see Figure 11).
Despite their differences, Moscow and Beijing work either independently or together to counter the United States and erode the values underpinning U.S. global leadership. China’s and Russia’s use of influence operations, cyberwarfare, and disinformation have the potential to destabilize the United States and democracies around the world. Moreover, coordinated Sino-Russian military activity has created new security challenges for the United States and its allies. Russian sales of advanced military technology to China have bolstered PLA capabilities, while combined exercises have sought to improve interoperability. Coordinated military activity between both countries in a single theater or separate theaters could test the ability of the United States and its allies to respond. One country’s success in pursuing its interests in opposition to the United States may also embolden the other to take similar actions.

Key Findings

- China and Russia both object to the current international order and the interests it promotes, including human rights, democracy, and a rules-based economic system that imposes on them obligations they wish to evade. Both countries see the values of that order as a threat to their authoritarian models and view the United States as the leader and primary defender, along with its alliance networks, of that order. Based on that common perception and their mutual interest in opposing the United States and its allies, an entente between China and Russia has emerged in recent years as the two have increased their diplomatic, military, and economic cooperation.
China and Russia perceive threats to their regime security emanating from democracy movements—which they allege are “color revolutions” instigated by the United States—and from the free, open internet. Both countries seek to combat these challenges by interfering in democratic countries’ political processes and jointly championing the idea that the internet should be subject to sovereign states’ control. The two countries have also coordinated efforts to act as a counterweight to the United States by supporting rogue or authoritarian regimes and opposing U.S.-led votes in the UN Security Council. More broadly, China and Russia's promotion of norms conducive to authoritarianism aims to subvert key elements of the international order.

Beijing and Moscow’s view that the United States and its allies are in decline has emboldened both countries to take more assertive action in their regions in ways inimical to U.S. interests. These actions include military and paramilitary activities pursued separately by China and Russia that threaten the sovereignty of their neighbors as well as coordinated activity that creates new challenges for the United States and its allies in responding to combined Sino-Russian military operations.

China and Russia’s trade in oil and gas is an important avenue by which both countries circumvent U.S. tariffs and international sanctions. Russia is China’s top source of imported oil, and is poised to become a major provider to China of natural gas over the next decade. Major energy deals and high-level contacts serve to soften the blow of sanctions and tariffs on both countries’ products, while signaling that China and Russia can rely on each other if alienated by the United States and other countries.

Nonetheless, the China-Russia relationship remains scarred by historical enmity and constrained by Moscow’s concerns over its increasingly subordinate role in the partnership. Divergence in key national interests, such as different stances on territorial disputes and support for regional rivals, further limits bilateral cooperation. Each country also harbors concerns over the potential military and geopolitical threat posed by the other. Moreover, China’s growing influence in regions Russia perceives as its traditional sphere of influence—such as Central Asia and the Arctic—complicates the creation of a formal alliance.

**SECTION 3: CHINA’S AMBITIONS IN SPACE: CONTESTING THE FINAL FRONTIER**

China’s government and military are determined to meet ambitious goals for space leadership, if not dominance, and China has connected its space program with its broader ambitions to become a terrestrial leader in political, economic, and military power. Beijing aims to establish a leading position in the future space-based economy and capture important sectors of the global commercial space industry, including promoting its space industry through partnerships under what it has termed the “Space Silk Road.” Meanwhile, China has jumpstarted its domestic space industry by engaging in an extensive campaign of intellectual property theft, generous state support to commercial startups, and predatory pricing for Chinese space services in the global space market. Beijing has also used front companies to invest in U.S. space companies as part of its efforts to acquire U.S. technology by both licit and illicit means, while Chinese universities involved in developing space-related technology for the PLA have proactively pursued research collaboration with U.S. and other foreign universities.

China has aggressively pursued the development of counterspace weapons, which are inherently destabilizing. Chinese strategic writings on space warfare also appear to favor dangerously escalatory offensive tactics, raising concerns about whether it is possible to deter China from attacking U.S. space assets. China believes space is a “new commanding height in strategic competition” and views seizing dominance in space as a priority in a conflict. Beijing has also fought to promote its leadership role in international space governance institutions and indicated it may extend its vision of governance and sovereignty to outer space.

The United States retains many advantages in space, such as its international partnerships and its organizational and technical expertise, and China is in some ways attempting to follow in the footsteps of past U.S. achievements. Still, China’s single-minded focus and national-level commitment to establishing itself as a global space leader harms other U.S. interests and threatens to undermine many of the advantages the United States has worked so long to establish. China is well-positioned to assume a commanding role in a future space-based economy, as its steps to dominate the global commercial launch and satellite sectors through generous subsidies and other advantages have already threatened to hollow out the U.S. space industrial base. Should the China Space Station proceed as planned and the International Space Station be retired, China may also replace the United States as many countries’ default partner in human spaceflight.

**Key Findings**

- China’s goal to establish a leading position in the economic and military use of outer space, or what Beijing calls its “space dream,” is a core component of its aim to realize the “great rejuvenation of the Chinese nation.” In pursuit of this goal, China has dedicated high-level attention and ample funding to catch up to and eventually surpass other spacefaring countries in terms of space-related industry, technology, diplomacy, and military power. If plans hold to launch its first long-term space station module in 2020, it will have matched the United States’ nearly 40-year progression from first human spaceflight to first space station module in less than 20 years.

- China views space as critical to its future security and economic interests due to its vast strategic and economic potential. Moreover, Beijing has specific plans not merely to explore space, but to industrially dominate the space within the moon’s orbit of Earth. China has invested significant resources in exploring the national security and economic value of this area, including its potential for space-based manufacturing, resource extraction, and power generation, although experts differ on the feasibility of some of these activities.

**EXECUTIVE SUMMARY AND RECOMMENDATIONS**
Beijing uses its space program to advance its terrestrial geopolitical objectives, including cultivating customers for BRI, while also using diplomatic ties to advance its goals in space, such as by establishing an expanding network of overseas space ground stations. China’s promotion of launch services, satellites, and the Beidou global navigation system under its Space Silk Road is deepening participants’ reliance on China for space-based services (see Figure 12).

China is taking steps to establish a commanding position in the commercial launch and satellite sectors relying in part on aggressive state-backed financing that foreign market-driven companies cannot match. China has already succeeded in undercutting some U.S. and other foreign launch and satellite providers in the international market, threatening to hollow out these countries’ space industrial bases.

The emergence of China’s indigenous space sector has been an early and notable success of Beijing’s military-civil fusion strategy. The aggressive pursuit of foreign technology and talent gained through joint research and other means, especially from the United States and its allies and partners, continues to be central to this strategy and to China’s space development goals in general.

The Chinese government and military use Hong Kong-based companies to exploit legal loopholes and uneven enforcement in U.S. export controls to gain access to space capabilities which U.S. law prohibits Beijing from purchasing outright. Collaboration with foreign universities, including in the United States, is another important avenue in China’s drive to acquire space technology. Chinese students enrolled in foreign science, technology, engineering, and mathematics programs are treated like employees of China’s defense industrial base, with defense enterprises regularly funding their studies in return for service commitments following graduation.

China views space as a critical U.S. military and economic vulnerability, and has fielded an array of direct-ascent, cyber, electromagnetic, and co-orbital counterspace weapons capable of targeting nearly every class of U.S. space asset. The PLA has also developed doctrinal concepts for the use of these weapons encouraging escalatory attacks against an adversary’s space systems early in a conflict, threatening to destabilize the space domain. It may be difficult for the United States to deter Beijing from using these weapons due to China’s belief the United States has a greater vulnerability in space.

**FIGURE 12: NATIONAL CAPITALS WHERE POSITIONING SATELLITES CAN BE OBSERVED**

Note: As of June 28, 2019.
SECTION 4: CHANGING REGIONAL DYNAMICS: OCEANIA AND SINGAPORE

China aims to replace the United States as a leading security and economic power in the Indo-Pacific region. While most countries in the region are aware of the risks posed by Beijing’s increased assertiveness, they have struggled to effectively respond, due in part to a desire to continue benefiting from economic engagement with China.

Australia, a steadfast U.S. ally, maintains economic ties with China even as concern over Beijing’s interference in its domestic politics has increased. As Australia’s top trading partner, China wields significant economic leverage over Australia, which it has used during diplomatic disputes. Canberra has passed laws to address foreign political interference and economic espionage and is trying to address China’s interference in Australian universities, but progress has been mixed. It has also taken measures to prevent Chinese investment in Australia’s infrastructure that could harm Australia’s national interest, while launching its largest military modernization effort since the Cold War to respond to China’s growing military threat.

In recent years, Beijing has increased outreach to the Pacific Islands due to the region’s strategic significance and voting power in the UN. Beijing’s efforts have won it political support, including establishing diplomatic relations this year with the Solomon Islands and Kiribati, previously two of Taiwan’s remaining diplomatic partners. Nevertheless, some South Pacific policymakers have grown concerned Chinese engagement could overwhelm these small countries and result in an excessive accumulation of debt to Beijing. China has also sought to raise its military profile in the Pacific Islands, while Australia and the United States have increased their engagement in the region in response to China’s advances.

Singapore has pursued close relationships with both the United States and China while attempting to protect its autonomy in foreign affairs rather than side exclusively with either country. It remains dedicated to its relationship with the United States, as exemplified by its robust economic and security ties. At the same time, Beijing seeks a closer economic and military relationship with Singapore. Rhetorical commitment to greater security ties with China, as well as its role as a financial hub for China’s BRI, demonstrates the challenges Singapore faces in hedging between the United States and China.

Beijing has benefited from popular conceptions that China is the most important economic partner to these Indo-Pacific countries, even as U.S. investment exceeds that from China (see Figure 13). While Indo-Pacific countries understand the importance of the United States’ continued presence, China’s increasing influence threatens to alter the trajectory of U.S. relations with these countries absent strong U.S. involvement in the region.

Key Findings

- Beijing has used economic coercion, acquired strategically-significant assets, and interfered in the domestic politics of neighboring countries to advance its interests in the Indo-Pacific region. China seeks closer engagement with its neighbors not only for economic gain but also to gain influence over their decision making to eventually achieve regional dominance and replace the United States as a vital economic partner and preeminent regional security guarantor.

- Some targeted countries are becoming increasingly aware of these risks and are taking steps to respond to China’s political interference and growing military strength. Still, countries have struggled to formulate comprehensive and effective responses.

- Australia wants to maintain positive economic ties with China, but is also wary of Beijing’s increasing regional assertiveness and outright interference in Australia’s political affairs. Its steps to mitigate the risks of engagement with China, including tightening foreign investment restrictions and cracking down on political interference, have had mixed success. The Australian business community still favors greater economic engagement with China while downplaying national security concerns.

- To address the growing military threat posed by China, Australia has launched its largest military modernization effort since the Cold War. Central to this effort are large-scale investments in new warships, submarines, and fighter aircraft. Australia is also standing up a new military unit dedicated to improving military coordination with Pacific Island countries and is working with the United States and Papua New Guinea to develop a naval base in the latter’s territory, which will complement the already substantial U.S. military presence in Australia.
China seeks engagement with the Pacific Islands to establish military access to the region, gain the benefit of these countries’ voting power in the UN, undermine regional diplomatic support for Taiwan, and gain access to natural resources, among other goals. Pacific Island countries view China as a vital economic partner and source of infrastructure investment and aid, but some Pacific Island officials have expressed reservations about Beijing’s increasing influence and presence in the region, particularly over growing indebtedness to China. As a result of China’s growing inroads in the Pacific Islands, Australia has also increased its engagement in the region, though its efforts have also encountered some pushback (see Figure 14).

As a small country and regional economic hub, Singapore continues to work to maintain the balance between its relationships with the United States and China amid heightening U.S.-China tensions. Singapore is also concerned about China’s attempts to undermine ASEAN’s unity and its own ability to play a leading role in Southeast Asia. While Singapore remains a dedicated security partner of the United States, it also has close economic ties to China, including serving as an increasingly important financial and legal intermediary for BRI projects.

**FIGURE 14: THE PACIFIC ISLANDS REGION**

Note: Names in bold indicate the independent and freely associated countries in the region.
Chapter 5: Taiwan

The Taiwan Relations Act, which set the foundation for ties between the United States and Taiwan following the United States’ severing of diplomatic ties with the Republic of China (Taiwan), celebrated its 40th anniversary in 2019. In the 40 years since the Taiwan Relations Act’s signing, Taiwan has become a thriving multiparty democracy. Taiwan has a robust civil society and rule of law that protects universal human rights, open public discourse, and a free and independent media. The vibrancy of Taiwan’s democratic system is on display in the ongoing campaigns for the 2020 presidential and legislative elections. In addition to being a model of a successful democracy for the Indo-Pacific region, Taiwan has become an increasingly important economic and geostrategic partner for the United States.

Meanwhile, throughout 2019 Beijing adopted a more coercive policy toward Taiwan, seeking to isolate and intimidate Taipei into unification on Beijing’s terms. In January 2019, General Secretary Xi delivered a major speech on Beijing’s Taiwan policy in which he claimed that Taiwan’s unification with the People’s Republic of China was inevitable and indicated that the “one country, two systems” model was the only acceptable arrangement for unification. That model has been roundly rejected by the Taiwan public and multiple Taiwan presidential administrations.

In implementing its more coercive approach, Beijing sharply escalated its military, diplomatic, and economic pressure against Taiwan, including interfering in Taiwan’s media to shape public opinion on China and cross-Strait relations. In the Taiwan Strait area, the PLA carried out a series of provocative operations not seen in 20 years, while Beijing enticed two more of Taiwan’s remaining 17 diplomatic partners to switch recognition to Beijing. It also severely curtailed cross-Strait tourism flows by suspending all approvals for individual tourists to visit Taiwan. Beijing’s multipronged pressure campaign limits Taipei’s ability to fully engage with the international community and diversify its economy away from deep reliance on China (see Figure 15).

The people of Taiwan are now observing Beijing’s unification model unfold in Hong Kong, where millions of people are fighting for their civil liberties against an unbending authoritarian regime. Should Beijing succeed in coercing Taiwan into submitting to a similar unification agreement, it not only would damage U.S. national security interests but also could undermine the progress of democratic values and institutions in the region.

Key Findings

► In 2019, General Secretary Xi made clear his increasingly uncompromising stance toward Taiwan’s independent status and sense of urgency regarding unification. Beijing intensified its multipronged campaign to coerce and isolate Taiwan, including by supporting Taiwan politicians Beijing finds palatable, while opposing and seeking to discredit those it does not, particularly Taiwan’s elected government headed by President Tsai Ing-wen. Guided by this policy, Beijing redoubled its efforts to bypass Taiwan’s central government by conducting negotiations with unelected political parties, groups, and individuals.

► The deliberate crossing of the Taiwan Strait median line by Chinese fighter aircraft in March 2019 was the first such crossing in 20 years and marked a sharp escalation in the military pressure Beijing has increasingly applied against Taiwan since General Secretary Xi assumed power in 2012. China signaled that its intensifying campaign of military coercion have become official policy in a key policy document released in July 2019, while the continued growth of the PLA’s capabilities and budget threatened to overturn any remaining semblance of cross-Strait military balance.

► As Beijing escalated diplomatic, economic, cultural, and political warfare against Taiwan, evidence emerged that it sought to influence Taiwan’s November 2018 local elections, including through traditional Taiwan media and disinformation spread through social media to exacerbate social divisions and undermine public confidence in the ruling Democratic Progressive Party government. Allegations that Beijing intervened on behalf of Taiwan presidential challenger Han Kuo-yu of the Nationalist Party (Kuomintang, or KMT) in his 2018 Kaohsiung mayoral campaign raised questions over whether it may be doing so again in the lead-up to Taiwan’s presidential election in January 2020.
The CCP adopted new tactics to leverage Taiwan media in support of its political goals, with evidence building that Beijing has shaped coverage of cross-Strait relations and potentially Taiwan’s presidential election through direct partnerships with some major Taiwan media outlets. These partnerships have included China’s Taiwan Affairs Office commissioning stories and giving instructions to editorial managers.

Concerns in Taiwan over Beijing’s desired “one country, two systems” unification model for Taiwan were amplified by 2019’s massive protest movement in Hong Kong, which is governed by the same model and has seen the autonomy the model promises steadily erode. Presidential contenders from both major political parties in Taiwan assailed the “one country, two systems” model as unacceptable for any future sovereign agreement between the two sides.

Taiwan took a series of steps to enhance its military capabilities and implement its new Overall Defense Concept. These measures included the island’s largest increase in its defense budget in almost a decade, breaking ground on the facility that will build Taiwan’s indigenous submarines, allocating funding for the procurement of 60 new small fast-attack missile boats, and expediting production of new missile defense systems and mobile land-based antiship missile platforms.

U.S.-Taiwan cooperation expanded into new areas as the United States took significant steps to support Taiwan, including the Trump Administration’s approval of a landmark arms sale of new fighter aircraft to Taiwan, the first meeting between U.S. and Taiwan national security advisors since 1979, and a more assertive approach to U.S. Navy transits of the Taiwan Strait. However, talks under the Trade and Investment Framework Agreement have stalled since October 2016.
Chapter 6: Hong Kong

In 2019, the Hong Kong government’s controversial bill that would allow for extradition to mainland China sparked a historic protest movement opposing the legislation and the Mainland’s growing encroachment on the territory’s autonomy. Millions of Hong Kong citizens participated in unprecedented mass demonstrations against the bill, causing its formal withdrawal, paralyzing the Hong Kong government, and dealing a major blow to Beijing (see Table 2). In the face of the Hong Kong authorities’ intransigence and growing police violence against demonstrators, the movement’s demands expanded while protesters strengthened their resolve to achieve Beijing’s long-delayed promise of credible democratic elections. The protesters declared that democratic elections are essential to a truly representative government.

Instead of heeding the movement’s calls for the preservation of Hong Kong’s “high degree of autonomy,” the CCP has used numerous tools to try to quell the demonstrations, including economic coercion, disinformation, and the apparent encouragement of pro-Beijing thugs to attack protesters. Meanwhile, the Hong Kong government, backed by Beijing, took new steps to erode the territory’s freedom of expression, press freedom, rule of law, and freedom of assembly, making the territory more like any other Chinese city. These moves are having a harmful effect on Hong Kong’s attractiveness as one of the world’s preeminent trade and financial hubs. Hong Kong acts as a unique conduit for investment flows between mainland China and global financial markets, a role underpinned by international confidence in the strength of its institutions and the rule of law.

U.S. policy toward Hong Kong, as outlined in the U.S.-Hong Kong Policy Act of 1992, underscores U.S. support for Hong Kong’s human rights and democratization, and is predicated on the territory retaining its autonomy under the “one country, two systems” framework. Beijing’s growing encroachment on Hong Kong’s autonomy in violation of its legal commitments has thus raised serious concerns for U.S. policymakers. The future direction of Hong Kong—and with it U.S.-Hong Kong policy—will rest upon the outcome of the anti-extradition bill protest movement and the extent to which the Hong Kong government and Beijing respect the aspirations of Hong Kong citizens.

Key Findings

► The Hong Kong government’s proposal of a bill that would allow for extraditions to mainland China sparked the territory’s worst political crisis since its 1997 handover to the Mainland from the United Kingdom. China’s encroachment on Hong Kong’s autonomy and its suppression of prodemocracy voices in recent years have fueled opposition, with many protesters now seeing the current demonstrations as Hong Kong’s last stand to preserve its freedoms. Protesters voiced five demands: (1) formal withdrawal of the bill; (2) establishing an independent inquiry into police brutality; (3) removing the designation of the protests as “riots;” (4) releasing all those arrested during the movement; and (5) instituting universal suffrage.

► After unprecedented protests against the extradition bill, Hong Kong Chief Executive Carrie Lam suspended the measure in June 2019, dealing a blow to Beijing which had backed the legislation and crippling her political agenda. Her promise in September to formally withdraw the bill came after months of protests and escalation by the Hong Kong police seeking to quell demonstrations. The Hong Kong police used increasingly aggressive tactics against protesters, resulting in calls for an independent inquiry into police abuses.

► Despite millions of demonstrators—spanning ages, religions, and professions—taking to the streets in largely peaceful protest, the Lam Administration continues to align itself with Beijing and only conceded to one of the five protester demands. In an attempt to conflate the bolder actions of a few with the largely peaceful protests, Chinese officials have compared the movement to “terrorism” and a “color revolution,” and have implicitly threatened to deploy its security forces from outside Hong Kong to suppress the demonstrations.

► In 2019, assessment of press freedom fell to its lowest point since the handover, while other civil liberties protected by the Basic Law (Hong Kong’s mini constitution), including freedom of expression and assembly, faced increasing challenges.

► Throughout 2019, the CCP stepped up its efforts to intervene in Hong Kong’s affairs, using an array of tools to increase its influence in the territory, most clearly by co-opting local media, political parties, and prominent individuals. Beijing also used overt and covert means to intervene in Hong Kong’s affairs, such as conducting a disinformation campaign and using economic coercion in an attempt to discredit and intimidate the protest movement. These efforts included alleging without evidence that U.S. and other foreign “black hands” were fomenting the protests; directing and organizing pro-Beijing legislators, businesses, media, and other influential individuals against the movement; allegedly encouraging local gangs and mainland community groups to physically attack protesters and prodemocracy figures; and conducting apparent cyberattacks against Hong Kong protesters’ communications and a prodemocracy media outlet.

► Hong Kong has a unique role as a conduit between Chinese companies and global financial markets. As Chinese companies are increasingly represented in key benchmark indices, analysts anticipate greater capital flows from the United States and other countries into Chinese companies through the stock and bond Connect platforms between mainland exchanges and Hong Kong. However, due to diminished confidence resulting from the extradition bill proposal and subsequent fallout, some foreign businesses are reportedly considering moving their operations away from Hong Kong.

► Hong Kong’s status as a separate customs territory, distinct from mainland China, is under pressure. U.S. and Hong Kong officials cooperate on enforcing U.S. export controls of dual-use technologies, though U.S. officials continue to raise concerns about diversion of controlled items. Beijing’s more assertive imposition of sovereign control over Hong Kong undermines the “high degree of autonomy” that underwrites trust in the Hong Kong government’s ability to restrict sensitive U.S. technologies from being diverted to mainland China.
### TABLE 2: SELECTED LIST OF DEMONSTRATIONS, JUNE–OCTOBER 1, 2019

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Organizers’ Estimated Turnout</th>
<th>Hong Kong Police Estimated Turnout</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 9</td>
<td>Civil Human Rights Front (CHRF)-organized march</td>
<td>1,030,000</td>
<td>240,000</td>
</tr>
<tr>
<td>June 12</td>
<td>Surrounding of LegCo and government headquarters</td>
<td>100,000</td>
<td>N/A</td>
</tr>
<tr>
<td>June 16</td>
<td>CHRF-organized march</td>
<td>2,000,000</td>
<td>338,000</td>
</tr>
<tr>
<td>July 1</td>
<td>CHRF-organized march</td>
<td>550,000</td>
<td>190,000</td>
</tr>
<tr>
<td>July 1</td>
<td>Anti-flag-raising ceremony protest and LegCo break-in</td>
<td>30,000</td>
<td>N/A</td>
</tr>
<tr>
<td>July 7</td>
<td>LIHKG internet forum-organized Kowloon march</td>
<td>230,000</td>
<td>56,000</td>
</tr>
<tr>
<td>July 14</td>
<td>Journalists’ silent march against police violence</td>
<td>1,500</td>
<td>1,100</td>
</tr>
<tr>
<td>July 16</td>
<td>Retiree/elderly march in support of young protesters</td>
<td>9,000</td>
<td>1,500</td>
</tr>
<tr>
<td>July 21</td>
<td>Social workers’ silent march to government headquarters</td>
<td>4,000</td>
<td>N/A</td>
</tr>
<tr>
<td>July 21</td>
<td>CHRF-organized march</td>
<td>430,000</td>
<td>138,000</td>
</tr>
<tr>
<td>July 27</td>
<td>Yuen Long protest (unauthorized by police)</td>
<td>288,000</td>
<td>N/A</td>
</tr>
<tr>
<td>August 2</td>
<td>Medical workers’ protest</td>
<td>10,321</td>
<td>N/A</td>
</tr>
<tr>
<td>August 2</td>
<td>Civil servants’ protest</td>
<td>40,000</td>
<td>13,000</td>
</tr>
<tr>
<td>August 5</td>
<td>General strike gatherings in seven areas of the territory</td>
<td>290,000</td>
<td>N/A</td>
</tr>
<tr>
<td>August 7</td>
<td>Lawyers’ silent march against politicized prosecutions</td>
<td>3,000</td>
<td>N/A</td>
</tr>
<tr>
<td>August 8</td>
<td>Catholics’ march</td>
<td>1,200</td>
<td>N/A</td>
</tr>
<tr>
<td>August 9–13</td>
<td>Airport sit-in and protests</td>
<td>Thousands</td>
<td>N/A</td>
</tr>
<tr>
<td>August 16</td>
<td>Hong Kong universities’ student unions-organized rally</td>
<td>60,000</td>
<td>7,100</td>
</tr>
<tr>
<td>August 17</td>
<td>Teachers’ march</td>
<td>22,000</td>
<td>8,300</td>
</tr>
<tr>
<td>August 18</td>
<td>CHRF-organized rally and march (unauthorized by police)</td>
<td>1,700,000</td>
<td>128,000</td>
</tr>
<tr>
<td>August 23</td>
<td>&quot;Hong Kong Way&quot; 37 mile-long human chain protest</td>
<td>210,000</td>
<td>N/A</td>
</tr>
<tr>
<td>August 23</td>
<td>Accountants’ silent march</td>
<td>5,000</td>
<td>N/A</td>
</tr>
<tr>
<td>August 28</td>
<td>Anti-police sexual harassment rally</td>
<td>30,000</td>
<td>11,500</td>
</tr>
<tr>
<td>September 2</td>
<td>Secondary students from around 230 schools strike and hold rally</td>
<td>4,000</td>
<td>N/A</td>
</tr>
<tr>
<td>September 8</td>
<td>Support for Hong Kong Human Rights and Democracy Act march to U.S. Consulate Hong Kong</td>
<td>250,000</td>
<td>N/A</td>
</tr>
<tr>
<td>September 9–12</td>
<td>&quot;Glory to Hong Kong&quot; singalong protests at various malls, campuses, and public spaces</td>
<td>Tens of thousands</td>
<td>N/A</td>
</tr>
<tr>
<td>September 15</td>
<td>Causeway Bay to Central march (original route planned by CHRF; unauthorized by police)</td>
<td>490,000</td>
<td>N/A</td>
</tr>
<tr>
<td>September 28</td>
<td>CHRF rally</td>
<td>200,000</td>
<td>8,440</td>
</tr>
<tr>
<td>September 29</td>
<td>Anti-totalitarianism march</td>
<td>200,000</td>
<td>N/A</td>
</tr>
<tr>
<td>October 1</td>
<td>March from Causeway Bay to Central</td>
<td>200,000</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: According to Hong Kong writer and activist Kong Tsung-gan, as of October 1, some 482 demonstrations were held since the start of the protest movement.
Source: Adapted from Kong Tsung-gan, “Hong Kong Anti-Extradition Demonstrations and Arrests,” October 2, 2019; Various. See the full Annual Report for complete list of sources.
Chapter 2: Beijing’s Internal and External Challenges

The Commission recommends:

1. Congress provide resources for programs that support independent media and the free flow of information to prioritize Indo-Pacific countries in their efforts to counter China’s influence and propaganda efforts.

2. Congress require the relevant departments and agencies of jurisdiction—including the U.S. Department of the Treasury, the U.S. Department of Commerce, and the U.S. Securities and Exchange Commission—to prepare a report to Congress on the holdings of U.S. investors in Chinese bonds and other debt instruments. Such a report shall include information on the direct, indirect, and derivative ownership of any of these instruments.

3. Congress require the U.S. Department of the Treasury to prepare a report to Congress on the operation of China’s Cross-Border International Payment System. As part of such a report, the department shall include information on the extent to which the Cross-Border International Payment System could be used to bypass international sanctions regimes.

Chapter 3: U.S.-China Competition

SECTION 1: U.S.-CHINA COMMERCIAL RELATIONS

The Commission recommends:

4. Congress enact legislation to preclude Chinese companies from issuing securities on U.S. stock exchanges if:
   - The Public Company Accounting Oversight Board is denied timely access to the audit work papers relating to the company’s operations in China;
   - The company disclosure procedures are not consistent with best practices on U.S. and European exchanges;
   - The company utilizes a variable interest entity (VIE) structure;
   - The company does not comply with Regulation Fair Disclosure, which requires material information to be released to all investors at the same time.

5. Congress enact legislation requiring the following information to be disclosed in all issuer initial public offering prospectuses and annual reports as material information to U.S. investors:
   - Financial support provided by the Chinese government, including: direct subsidies, grants, loans, below-market loans, loan guarantees, tax concessions, government procurement policies, and other forms of government support.

   - Conditions under which that support is provided, including but not limited to: export performance, input purchases manufactured locally from specific producers or using local intellectual property, or the assignment of Chinese Communist Party (CCP) or government personnel in corporate positions.

   - CCP committees established within any company, including: the establishment of a company Party committee, the standing of that Party committee within the company, which corporate personnel form that committee, and what role those personnel play.

   - Current company officers and directors of Chinese companies and U.S. subsidiaries or joint ventures in China who currently hold or have formerly held positions as CCP officials and/or Chinese government officials (central and local), including the position and location.

6. Congress enact legislation requiring the collection of data on U.S.-China economic relations. This legislation would:
   - Direct U.S. economic statistics-producing agencies, including the U.S. Census Bureau, the U.S. Department of Commerce’s Bureau of Economic Analysis, and the U.S. International Trade Commission, to review methodologies for collecting and publishing not only gross trade flows data, but also detailed supply chain data to better document the country of origin for components of each imported good before it reaches U.S. consumers.

   - Direct the U.S. Census Bureau to restart data releases in its Current Industrial Reports at the ten-digit industry level.

   - Direct the U.S. Department of the Treasury to coordinate with the U.S. Census Bureau to match U.S. firm-level data with their U.S. employees’ data.

SECTION 2: EMERGING TECHNOLOGIES AND MILITARY-CIVIL FUSION: ARTIFICIAL INTELLIGENCE, NEW MATERIALS, AND NEW ENERGY

The Commission recommends:

7. Congress direct the U.S. Department of Justice to reestablish a higher education advisory board under the Federal Bureau of Investigation. In concert with the U.S. Department of Commerce’s Bureau of Industry and Security, U.S. Department of Homeland Security, and U.S. Department of State, the higher education advisory board would convene semiannual meetings between university representatives and relevant federal agencies to review the adequacy of protections for sensitive technologies and research, identify patterns and early warning signs in academic espionage, assess training needs for university faculty and staff to comply with export controls and prevent unauthorized transfer of information, and share other areas of concern in protecting national security interests related to academic research.
8. Congress direct the U.S. Government Accountability Office to conduct an assessment on the risks posed by Beijing’s efforts to co-opt foreign researchers or students at U.S. universities to unlawfully appropriate research and other knowledge for the benefit of the government, companies, or interests of the People’s Republic of China. This report should:

- Include the number of foreign students and researchers from China studying in science, technology, engineering, and mathematics fields; past and current affiliations; primary areas of research; duration of stay in the United States; and subsequent employment;
- Identify whether federally funded university research related to emerging technologies may have been unlawfully appropriated by individuals acting on behalf of Chinese entities; and
- Evaluate the efficacy and ability of the U.S. Department of State’s visa screening mechanism to mitigate the risk of inappropriate technology transfer to China, including but not limited to: assessing the ability of that process to identify students, researchers, and research entities, through a visa disclosure requirement, that are receiving funding from the government of China or an intermediary entity acting in support of China’s government.

9. Congress amend Internal Revenue Code Section 41 to extend the research and development tax credit to initial stages of deployment for new products, processes, computer software, techniques, formulae, or inventions that increase the production of final and intermediary goods manufactured primarily in the United States. The tax credit should also extend to precompetitive commercial development of basic and applied research performed in the United States, particularly in industrial sectors where the People’s Republic of China threatens the technological leadership of the United States.

10. Congress direct the U.S. Geological Survey, in coordination with the U.S. Department of Energy, U.S. Department of Commerce, U.S. Department of the Interior, and U.S. International Trade Commission to develop and maintain a risk assessment framework that identifies materials used in manufacturing industries critical to both national security and commercial vitality. Such a framework should provide an early warning mechanism for any threats to the U.S. supply of these critical materials, including an increasing concentration of extraction and processing by another country or entity and acquisition of significant mining and processing facilities; increasing export restrictions by another country; large gaps between domestic prices for these materials in another country versus prices on international markets; sharp increases or volatility in price; and substantial control in supply of minerals used within the same industry or related minerals that serve as substitutes by another country.

11. Congress direct the National Science Foundation, in coordination with other agencies, to conduct a study on the impact of the activities of Chinese government, state-sponsored organizations, or entities affiliated or supported by the state in international bodies engaged in developing and setting standards for emerging technologies. The study should examine whether standards are being designed to promote Chinese government interests to the exclusion of other participants.

SECTION 3: GROWING U.S. RELIANCE ON CHINA’S BIOTECH AND PHARMACEUTICAL PRODUCTS

The Commission recommends:

12. Congress hold hearings assessing the productive capacity of the U.S. pharmaceutical industry, U.S. dependence on Chinese pharmaceuticals and active pharmaceutical ingredients (APIs), and the ability of the U.S. Food and Drug Administration (FDA) to guarantee the safety of such imports from China, with a view toward enacting legislation that would:

- Require the FDA to compile a list of all brand name and generic drugs and corresponding APIs that: (1) are not produced in the United States; (2) are deemed critical to the health and safety of U.S. consumers; and (3) are exclusively produced—or utilize APIs and ingredients produced—in China.
- Require Medicare, Medicaid, the U.S. Department of Veterans Affairs, the U.S. Department of Defense, and other federally funded health systems to purchase their pharmaceuticals only from U.S. production facilities or from facilities that have been certified by the FDA to be in compliance with U.S. health and safety standards and that actively monitor, test, and assure the quality of the APIs and other components used in their drugs, unless the FDA finds the specific drug is unavailable in sufficient quantities from other sources.
- Require the FDA, within six months, to investigate and certify to Congress whether the Chinese pharmaceutical industry is being regulated for safety, either by Chinese authorities or the FDA, to substantially the same degree as U.S. drug manufacturers and, if the FDA cannot so certify, forward to Congress a plan for protecting the American people from unsafe or contaminated drugs manufactured in China.

14. Congress consider legislation requiring generic drug manufacturers that sell medicines to the U.S. Department of Defense and U.S. Department of Veterans Affairs to disclose which essential drugs are at risk of shortage or supply disruption because the relevant products, active pharmaceutical ingredients, chemical intermediates, and raw materials contained in them are sourced from China.

15. Congress enact legislation requiring drug companies to list active pharmaceutical ingredients and their countries of origin on labels of imported and domestically produced finished drug products.

16. Congress enact legislation creating a risk-based system making importers of active pharmaceutical ingredients (APIs) and finished products liable for any health risks incurred by consumers in the event the product is proven unsafe due to contamination, mislabeling, or other defects. Special attention should be paid to finished drug products imported from China or containing APIs sourced from China.

17. Congress direct the U.S. Department of Defense to incorporate an assessment in its Annual Report on Military and Security Developments Involving the People’s Republic of China of China’s progress toward achieving its goal to build a “world-class” military. The report should also include an explanation of how the department defines this term.

18. Congress direct a classified assessment identifying where China has undertaken activities that may be aimed at establishing a military presence, operating location, or storage depot. This assessment would include Chinese state-owned enterprises or other commercial interests tied to the Chinese government investing in strategic assets, such as ports and airfields, and should suggest options that could be employed to dissuade host countries from agreeing to host a Chinese military presence.

19. Congress direct the U.S. Government Accountability Office to conduct an assessment of the U.S. government’s ability to hire and retain Chinese-language-capable employees. The study would examine U.S. government agencies’ processes for determining Chinese-language-designated positions and hiring and clearing employees, assess the extent to which the agencies are meeting their language proficiency requirements for these positions, measure the effects of language proficiency and gaps on the agencies’ ability to perform their missions, and develop recommendations to address identified shortfalls.

20. Congress direct the Office of the Director of National Intelligence to restore the unclassified Open Source Enterprise website to all of its original functions for U.S. government employees. Access to the Open Source Enterprise should also be expanded by making appropriate materials available to U.S. academic and research institutions.

SECTION 2: AN UNEASY ENTENTE: CHINA-RUSSIA RELATIONS IN A NEW ERA OF STRATEGIC COMPETITION WITH THE UNITED STATES

The Commission recommends:

21. Congress direct the Office of the Director for National Intelligence to prepare a National Intelligence Estimate of China’s and Russia’s approaches to competition with the United States and revision of the international order. The assessment would consider the influence of both countries’ ideologies on their foreign policies, including areas both of overlap and of divergence; potential “wedge issues” the United States might exploit; and the implications for the North Atlantic Treaty Organization of a two-front conflict involving both China and Russia.

22. Members of Congress promote U.S. interests in the Arctic by participating in congressional delegations to Arctic Council member states and attending the biennial Conference of Parliamentarians of the Arctic Region to discuss economic and security concerns regarding China and Russia.

SECTION 3: CHINA’S AMBITIONS IN SPACE: CONTESTING THE FINAL FRONTIER

The Commission recommends:

23. Congress direct the National Space Council to develop a strategy to ensure the United States remains the preeminent space power in the face of growing competition from China and Russia, including the production of an unclassified report with a classified annex containing the following:

► Identify a long-term economic space resource policy strategy, including an assessment of the viability of extraction of space-based precious minerals, onsite exploitation of space-based natural resources, and space-based solar power. It would also include a comparative assessment of China’s programs related to these issues.

► An assessment of U.S. strategic interests in or relating to cislunar space.

► An assessment of the U.S. Department of Defense’s current ability to guarantee the protection of commercial communications and navigation in space from China’s growing counterspace capabilities, and any actions required to improve this capability.

► A plan to create a space commodities exchange to ensure the United States drives the creation of international standards for interoperable commercial space capabilities.
A plan to streamline and strengthen U.S. cooperation with allies and partners in space.

An interagency strategy to defend U.S. supply chains and manufacturing capacity critical to competitiveness in space.

24. Congress direct the U.S. Department of Defense to take the following steps to ensure it is prepared to counter China’s and Russia’s destabilizing approaches to military operations in space:

- Ensure U.S. Space Command and any future space-oriented service are responsible for protecting freedom of navigation and keeping lines of communication open, safe, and secure in the space domain, as the U.S. Navy does for U.S. interests in the maritime commons.

- Strengthen the credibility of U.S. deterrence in space by fully integrating the space domain into policy, training, and exercises.

- Ensure that programs designed to increase survivability, redundancy, reusability, resilience, rapid replacement, and disaggregation of critical U.S. space assets receive continued support, including those programs ordered in the National Defense Authorization Act for 2019 Title XVI, Subtitle A.

25. Congress urge the Administration to actively participate in international space governance institutions to shape their development in a way that suits the interests of the United States and its allies and partners and to strengthen U.S. engagement with key coalitional allies and partners in the space domain.

SECTION 4: CHANGING REGIONAL DYNAMICS: OCEANIA AND SINGAPORE

The Commission recommends:

26. Congress direct the Administration to assess the viability and impact of establishing new military training centers hosted by Indo-Pacific allies and partners to increase connectivity, interoperability, and shared professional military education among countries throughout the region.

27. Congress support the implementation of the Indo-Pacific Stability Initiative to align U.S. budgetary commitments with national security objectives and build the confidence of allies concerning U.S. commitment to security in the Indo-Pacific region.

28. Congress direct the U.S. Department of State to reinstate Peace Corps programs in Palau and the Federated States of Micronesia and consider expanding their presence in other Pacific Island countries to promote U.S. values while counteracting the spread of China’s authoritarian influence in the Pacific Islands.

Chapter 5: Taiwan

The Commission recommends:

29. Congress direct the U.S. secretary of state to submit to Congress a report on actions that have been and will be taken by the United States to counter Beijing’s attempts to isolate Taiwan’s democratically-elected leaders and to strengthen support for Taiwan’s engagement with the international community, including actions the Administration will take should Beijing increase its coercion against Taiwan. The report should:

- List measures the U.S. government has taken and will take to expand interactions between U.S. and Taiwan government officials in accordance with the Taiwan Travel Act.

- Formulate a strategy to expand development aid and security assistance to countries that maintain diplomatic ties with Taiwan.

- Detail steps to expand multilateral collaboration involving Taiwan and other democracies to address global challenges, such as the Global Cooperation and Training Framework’s workshops on epidemics, cybersecurity, and media literacy.

30. Congress direct the Office of the Director of National Intelligence to conduct a study on the impact of a Taiwan Strait contingency on the supply of high-technology products to the United States from Taiwan, China, Japan, and South Korea.

31. Congress direct the U.S. Department of Defense to prepare a classified study on how People’s Liberation Army modernization targets to be met by 2035 will impact the ability of the United States to uphold its obligation established in the Taiwan Relations Act to maintain the ability to resist any resort to force that would jeopardize the security of Taiwan. This study would be briefed to all relevant committees of jurisdiction and provide the basis for a 15-year plan of action aimed at deterring Beijing from making a military attempt to unify Taiwan with China.

32. Congress enact legislation to enhance U.S.-Taiwan security cooperation. Such legislation should contain provisions to:

- Clarify that direct interactions between uniformed members of the armed forces of the United States and Taiwan in support of Taiwan’s self-defense capability are fully consistent with the Taiwan Relations Act and the U.S. position of maintaining relations with the people of Taiwan.

- Direct the Administration to increase military exchanges and training with Taiwan, including but not limited to humanitarian assistance and disaster relief, search and rescue, and any other skills supporting regional peace and security.

- Direct the Administration to permit active-duty Taiwan military officers to wear their uniforms during visits to the United States.

- Direct the Administration to permit active-duty U.S. military officers to wear their uniforms during visits to Taiwan.
33. Congress raise the threshold of congressional notification on sales of defense articles and services to Taiwan to the highest tier set for U.S. allies and partners. Congress also terminate any requirement to provide prior notification of maintenance and sustainment of military equipment and capabilities previously sold to Taiwan.

Chapter 6: Hong Kong

The Commission recommends:

34. Congress amend the U.S.-Hong Kong Policy Act of 1992 to direct the U.S. Department of State to develop a series of specific benchmarks for measuring Hong Kong’s maintenance of a “high degree of autonomy” from Beijing. Such benchmarks should employ both qualitative and quantitative measurements to evaluate the state of Hong Kong’s autonomy in the State Department’s annual Hong Kong Policy Act Report.

35. Congress enact legislation stating that all provisions and the special status of Hong Kong included in the U.S.-Hong Kong Policy Act of 1992 will be suspended in the event that China’s government deploys People’s Liberation Army or People’s Armed Police forces to engage in armed intervention in Hong Kong.

36. Congress enact legislation directing the U.S. Department of Commerce’s Bureau of Industry and Security to extend export control measures currently in place for mainland China to subsidiaries of Chinese companies established or operating in Hong Kong.

37. Congress hold hearings examining technologies subject to export controls for mainland China, but not controlled for Hong Kong. These hearings should request that the U.S. Department of Commerce’s Bureau of Industry and Security and the U.S. Consulate General in Hong Kong assess the effectiveness of current export controls in preventing unauthorized transshipment to the Mainland or other destinations.

38. Members of Congress participate in congressional delegations to Hong Kong and meet with Hong Kong officials, legislators, civil society, and business representatives in the territory and when they visit the United States. They should also continue to express support for freedom of expression and rule of law in Hong Kong.
Executive Summary and Recommendations