

USCC 2016 ANNUAL REPORT



2016
REPORT TO CONGRESS
of the
**U.S.-CHINA ECONOMIC AND
SECURITY REVIEW COMMISSION**

ONE HUNDRED FOURTEENTH CONGRESS
SECOND SESSION

NOVEMBER 2016

Printed for the use of the
U.S.-China Economic and Security Review Commission
Available via the World Wide Web: <http://www.uscc.gov>



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U.S. GOVERNMENT PUBLISHING OFFICE
WASHINGTON : 2016



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The Commission was created on October 30, 2000, by the Floyd D. Spence National Defense Authorization Act for 2001 §1238, Pub. L. No. 106-398, (Oct. 30, 2000) (codified at 22 U.S.C. §7002 (2001)); as amended by the Treasury and General Government Appropriations Act for 2002 §645 (regarding employment status of staff) & §648 (regarding changing annual report due date from March to June), Pub. L. No. 107-67, (Nov. 12, 2001); as amended by Division P of the “Consolidated Appropriations Resolution, 2003,” Pub. L. No. 108-7 (Feb. 20, 2003) (regarding Commission name change, terms of Commissioners, and responsibilities of Commission); as amended by the Science, State, Justice, Commerce, and related agencies Appropriations Act of 2006, Pub. L. No. 109-108 (Nov. 22, 2005) (regarding responsibilities of Commission and applicability of FACA); as amended by Pub. L. No. 110-161 (Dec. 26, 2007) (regarding changes in annual report due date; submission of financial reports; printing and binding of Congressional reports; employee compensation and performance reviews; and applicability of House rules for travel by members and staff); as amended by the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 §1259b, Pub. L. No. 113-291 (Dec. 19, 2014) (regarding changes to matters for discussion in the annual reports of the Commission).

The Commission’s full charter <http://www.uscc.gov/about/uscc-charter> and Statutory Mandate http://www.uscc.gov/about/fact_sheet are available via the World Wide Web.

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

NOVEMBER 16, 2016

The Honorable Orrin G. Hatch

President Pro Tempore of the U.S. Senate, Washington, DC 20510

The Honorable Paul D. Ryan

Speaker of the U.S. House of Representatives, Washington, DC 20510

DEAR SENATOR HATCH AND SPEAKER RYAN:

On behalf of the U.S.-China Economic and Security Review Commission, we are pleased to transmit the Commission's 2016 Annual Report to the Congress—the fourteenth major Report presented to Congress by the Commission—pursuant to Public Law 106-398 (October 30, 2000), as amended by Public Law No. 109-108 (November 22, 2005); as amended by Public Law No. 110-161 (December 26, 2007); as amended by Public Law No. 113-291 (December 19, 2014). This Report responds to the mandate for the Commission “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, approving the Report by a vote of 11 ayes to 1 nay.

In accordance with our mandate, this Report, which is current as of October 7, includes detailed treatment of our investigations of the areas identified by Congress for our examination and recommendation. These areas are:

- The role of the People’s Republic of China in the proliferation of weapons of mass destruction and other weapon systems (including systems and technologies of a dual use nature), including actions the United States might take to encourage the People’s Republic of China to cease such practices.
- The qualitative and quantitative nature of the transfer of United States production activities to the People’s Republic of China, including the relocation of manufacturing, advanced technology and intellectual property, and research and development facilities, the impact of such transfers on the national security of the United States (including the dependence of the national security industrial base of the United States on imports from China), the economic security of the United States, and employment in the United States, and the adequacy of United States export control laws in relation to the People’s Republic of China;
- The effects of the need for energy and natural resources in the People’s Republic of China on the foreign and military policies of the People’s Republic of China, the impact of the large and growing economy of the People’s Republic of China on world energy and natural resource supplies, prices, and the environment, and the role the United States can play (including

through joint research and development efforts and technological assistance) in influencing the energy and natural resource policies of the People's Republic of China;

- Foreign investment by the United States in the People's Republic of China and by the People's Republic of China in the United States, including an assessment of its economic and security implications, the challenges to market access confronting potential United States investment in the People's Republic of China, and foreign activities by financial institutions in the People's Republic of China;
- The military plans, strategy and doctrine of the People's Republic of China, the structure and organization of the People's Republic of China military, the decision-making process of the People's Republic of China military, the interaction between the civilian and military leadership in the People's Republic of China, the development and promotion process for leaders in the People's Republic of China military, deployments of the People's Republic of China military, resources available to the People's Republic of China military (including the development and execution of budgets and the allocation of funds), force modernization objectives and trends for the People's Republic of China military, and the implications of such objectives and trends for the national security of the United States;
- The strategic economic and security implications of the cyber capabilities and operations of the People's Republic of China;
- The national budget, fiscal policy, monetary policy, capital controls, and currency management practices of the People's Republic of China, their impact on internal stability in the People's Republic of China, and their implications for the United States;
- The drivers, nature, and implications of the growing economic, technological, political, cultural, people-to-people, and security relations of the People's Republic of China's with other countries, regions, and international and regional entities (including multilateral organizations), including the relationship among the United States, Taiwan, and the People's Republic of China;
- The compliance of the People's Republic of China with its commitments to the World Trade Organization, other multilateral commitments, bilateral agreements signed with the United States, commitments made to bilateral science and technology programs, and any other commitments and agreements strategic to the United States (including agreements on intellectual property rights and prison labor imports), and United States enforcement policies with respect to such agreements; and
- The implications of restrictions on speech and access to information in the People's Republic of China for its relations with the United States in economic and security policy, as well as any potential impact of media control by the People's Republic of China on United States economic interests.

- The safety of food, drug, and other products imported from China, the measures used by the People's Republic of China Government and the United States Government to monitor and enforce product safety, and the role the United States can play (including through technical assistance) to improve product safety in the People's Republic of China.

The Commission conducted six public hearings, taking testimony from 52 witnesses that included industry, academia, think tanks and research institutions, and other experts. For each of these hearings, the Commission produced a transcript (posted on its website at www.uscc.gov). The Commission received a number of briefings by executive branch agencies and the Intelligence Community, including classified briefings on China's industrial espionage activities, military reforms, aviation industry, and cyber activities. The Commission is preparing a classified report to Congress on these and other topics. The Commission also received briefs by foreign diplomatic and military officials as well as U.S. and foreign nongovernmental experts.

Commissioners made official delegation visits to Taiwan, China, and India 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 in accordance with our mandate.

The Report includes 20 recommendations for Congressional action. Our ten most important recommendations appear on page 29 at the conclusion of the Executive Summary.

We offer this Report to Congress in the hope that it will be useful as an updated baseline 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 you in the upcoming year to address issues of concern in the U.S.-China relationship.

Yours truly,



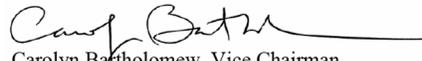
Dennis C. Shea
Chairman



Carolyn Bartholomew
Vice Chairman

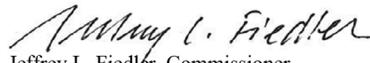
Commissioners Approving the 2016 Report


Dennis C. Shea, Chairman


Carolyn Bartholomew, Vice Chairman

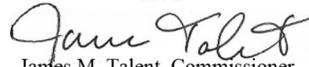

Peter Brookes, Commissioner


Byron L. Dorgan, Commissioner

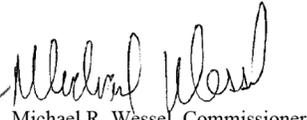

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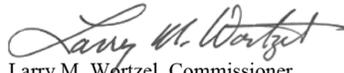

Carte P. Goodwin, Commissioner


Daniel M. Slane, Commissioner

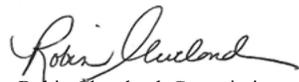

James M. Talent, Commissioner


Katherine C. Tobin, Commissioner


Michael R. Wessel, Commissioner


Larry M. Wörtzel, Commissioner

Commissioner Dissenting from the 2016 Report


Robin Cleveland, Commissioner

CONTENTS

	Page
TRANSMITTAL LETTER TO THE CONGRESS	iii
COMMISSIONERS APPROVING THE REPORT	vi
EXECUTIVE SUMMARY	1
KEY RECOMMENDATIONS	29
INTRODUCTION	31

2016 REPORT TO CONGRESS OF THE U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

Chapter 1: U.S.-China Economic and Trade Relations	35
Section 1: Year in Review: Economics and Trade	35
Introduction	35
China's Domestic Rebalancing	36
U.S.-China Bilateral Trade and Investment	46
United States and China at the WTO	70
Conclusions	75
Section 2: State-Owned Enterprises, Overcapacity, and China's Market Economy Status	91
Introduction	91
China's State Capitalism in the Global Context	92
Overcapacity and Global Markets	103
Evaluation of China's Nonmarket Economy Status	114
Implications for the United States	119
Conclusions	120
Recommendations	126
Section 3: 13th Five-Year Plan	137
Introduction	137
China's 13th FYP: Blueprint for 2016–2020	138
Urbanization	141
China's Energy Sector and Environmental Reforms	144
China's Industrial Policies	148
China's Fiscal and Financial Reforms	161
Implications for the United States	171
Conclusions	174
Recommendations	180
Chapter 2: U.S.-China Security Relations	193
Section 1: Year in Review: Security and Foreign Affairs	193
Introduction	193
Major Developments in China's National Security and Military Modernization in 2016	193
PLA Exercises and Training in 2016	216
China's Global Security Activities in 2016	218
U.S.-China Security Relations in 2016	229
Conclusions	235
Section 2: China's Force Projection and Expeditionary Capabilities	255
Introduction	255
Factors Driving China's Interest in Expeditionary Capabilities	256
Evolving PLA Missions	260

VIII

	Page
Military Modernization: Implications for Developing an Expeditionary Capability	263
Joint Training and Operational Deployments: Lessons Learned for Developing China's Expeditionary Capability	269
Implications for the United States and U.S. Allies and Partners	273
Conclusions	278
Recommendations	279
Section 3: China's Intelligence Services and Espionage Threats to the United States	289
Introduction	289
China's Intelligence Services	289
China's Intelligence Collection Capabilities	292
China's Intelligence Process	293
China's Intelligence Collection Operations against U.S. National Security Entities	294
U.S. Responses to Chinese Espionage	300
Implications for U.S. National Security	302
Conclusions	303
Recommendations	304
Chapter 3: China and the World	313
Section 1: China and South Asia	313
Introduction	313
China's Objectives in South Asia	313
China-India Relations	323
China-Pakistan Relations	333
Implications for the United States	339
Conclusions	344
Section 2: China and Taiwan	356
Introduction	356
Cross-Strait Relations	356
Taiwan's International Engagement	369
Taiwan Military and Security Issues	375
U.S.-Taiwan Relations	382
Implications for the United States	388
Conclusions	389
Recommendations	391
Section 3: China and Hong Kong	404
Introduction	404
Hong Kong's Changing Political Landscape	404
Disappearance of Hong Kong Booksellers	409
Declining Freedom of Expression in Hong Kong	413
Hong Kong's Economy and its Economic Ties with Mainland China	418
Hong Kong's Security Ties with Mainland China	422
Implications for Taiwan of Beijing's Control over Hong Kong's Political Development	425
Implications for the United States	425
Conclusions	427
Recommendations	429
Section 4: China and North Korea	437
Introduction	437
Overview of Contemporary China-North Korea Relations	438
Recent Developments in China-North Korea Relations	439
Evolution in China's Policies and Perceptions Regarding North Korea	449
Differences between China and the United States on North Korea Policy	458
Implications for the United States	460
Conclusions	461
Recommendations	463
Chapter 4: China and the U.S. Rebalance to Asia	475
Introduction	475
The U.S. Rebalance to Asia Strategy	475
China's Regional Activities since the Rebalance	485
Conclusions	495

	Page
Recommendations	496
Comprehensive List of the Commission's Recommendations	507
Dissenting Views of Commissioners	511
 Appendices:	
Appendix I: Charter	513
Appendix II: Background of Commissioners	525
Appendix III: Public Hearings of the Commission During 2016	535
Appendix IIIA: List of Witnesses Testifying Before the Commission During 2016	539
Appendix IV: List of Research Material	543
Appendix V: Acronyms and Abbreviations	549
2016 Commission Staff and Acknowledgements	553

EXECUTIVE SUMMARY

Chapter 1: U.S.-China Economic and Trade Relations

Section 1: Year in Review: Economics and Trade

In the first half of 2016, China's gross domestic product (GDP) grew at 6.7 percent, according to official Chinese statistics. Facing a more pronounced slowdown in growth, Chinese policymakers leaned heavily on stimulus measures and infrastructure spending to boost the economy. In the first quarter of 2016, China's state-controlled banks released a record \$701 billion (renminbi [RMB] 4.7 trillion) of credit, rivaling the \$687 billion (RMB 4.6 trillion) released in 2009 during the global financial crisis. Government stimulus has largely accrued to the inefficient state sector while the private sector struggles to secure credit. In the first half of 2016, state sector investment grew by over 20 percent year-on-year, while private investment growth dropped to a record low of 2.8 percent. China's rapidly rising corporate debt—which stands at 169 percent of GDP—also raises questions about the sustainability of the country's economic growth. The International Monetary Fund warned in its annual review of China's economy that China's rising corporate debt was a “serious and growing problem that must be addressed immediately,” estimating the potential losses from bad corporate loans to be worth 7 percent of GDP.

Chinese leaders recognize these challenges, but have not yet taken steps to decisively address them. In 2016, Chinese President and General Secretary of the Chinese Communist Party (CCP) Xi Jinping made “supply-side structural reform” the dominant theme of economic policy. This concept includes cutting excess industrial capacity and housing inventories, deleveraging, and reducing business costs—reforms that increase economic efficiency, but leave the government firmly in charge. The central government has put the onus of implementing these broad policy planks on local governments.

Beijing's ongoing failure to uphold its World Trade Organization (WTO) commitments, ineffective efforts to cut industrial overcapacity, and unfair treatment of U.S. companies are straining the bilateral relationship. In 2015, the U.S. goods trade deficit with China increased by 6.5 percent year-on-year to \$367.2 billion, a new record; in the first eight months of 2016, the goods deficit was \$225 billion. U.S. companies are finding it increasingly difficult to operate in China, citing unclear laws and inconsistent regulatory enforcement, policies that favor domestic competitors, and industrial overcapacity. According to the American Chamber of Commerce in China's 2016 Business Climate Survey, more than three-fourths of surveyed U.S. companies reported they felt foreign businesses are less welcome in China than in years past. Meanwhile, Chinese investment in the United States is growing rapidly, driven by the Chinese gov-

ernment's "going out" strategy, a generally more open policy environment for outbound investment, and capital flight. The increased acquisition of U.S. assets by Chinese companies, which often receive state funding, has led to growing concern over the economic and national security implications of such acquisitions.

Conclusions

- In 2015, the U.S. goods trade deficit with China increased by 6.5 percent year-on-year to \$367.2 billion, a new record. Over the same period, the U.S. deficit with China in advanced technology products reached \$120.7 billion, a decrease of \$3 billion from 2014. In the first eight months of 2016, the U.S. goods deficit with China fell 5.7 percent year-on-year to \$225.2 billion due to weaker imports. The United States has a substantial but much smaller trade surplus with China in services: in 2015, the U.S. trade surplus in services with China totaled \$29.5 billion. China continues to stall on liberalizing key sectors in which the United States is competitive globally, such as services.
- The Chinese government has made "supply-side structural reform" the dominant theme of economic policy. This concept includes cutting excess industrial capacity and housing inventories, deleveraging, and reducing business costs. Early signs suggest the central government's supply-side focus has not yet translated into a serious change of course. Facing a slowdown in growth, Chinese policymakers have leaned on stimulus measures to boost growth. Government stimulus has largely accrued to the state sector while the private sector struggles to secure credit, endangering China's rebalancing.
- China's rapidly rising debt levels heighten risks to the stability of the country's financial markets, which can quickly spill over into global markets. Beijing continues to increase the flexibility of its exchange rate, driven in part by its goal of internationalizing the renminbi (RMB). Despite this progress, the People's Bank of China still carefully manages the value of the RMB, intervening in foreign exchange markets to keep the currency's external value stable.
- China's foreign investment climate continues to worsen for companies in strategic industries because of the Xi Administration's focus on domestic industrial innovation goals. In addition, Beijing has forcefully argued that the country must reduce its dependence on foreign technology due to national security concerns, and introduced stricter information and communications technology requirements and stronger cybersecurity policies.
- While Chinese investment remains a small percentage of total inward foreign direct investment in the United States, it is rising rapidly and will continue to rise, driven by the Chinese government's "going out" strategy, capital flight, and a generally more open policy environment for outbound investment. Chinese companies' record acquisition of U.S. assets—in particular, their drive to acquire U.S. technology firms—has led to growing political concern. However, some major Chinese acquisition deals have fallen apart due to regulatory concerns or questions over

Chinese buyers' ability to pay. The Committee on Foreign Investment in the United States (CFIUS) reviews foreign investments in the United States for national security implications. In 2014, the latest year for which data are available, China led foreign countries in CFIUS reviews with 24 reviewed transactions out of more than 100 total acquisition deals. Although the number of Chinese transactions reviewed increased in absolute terms, it declined as a share of all Chinese acquisitions, and the vast majority of reviewed transactions proceed.

- China appears to be conducting a campaign of commercial espionage against U.S. companies involving a combination of cyber espionage and human infiltration to systematically penetrate the information systems of U.S. companies to steal their intellectual property, devalue them, and acquire them at dramatically reduced prices.
- The U.S. government's efforts to address tensions in the U.S.-China relationship continue to yield only limited results. At the final round of the Strategic and Economic Dialogue talks under the Obama Administration, participants failed to achieve any major breakthroughs but left with some deliverables on financial sector cooperation. Industrial overcapacity topped the U.S. economic agenda, replacing currency as its primary concern, but China only made a vague pledge with regard to steel overcapacity. The unwelcoming investment climate for U.S. companies in China, along with China's recently passed law restricting foreign nongovernmental organizations, also added friction to the talks.
- China's adherence to the World Trade Organization (WTO) principles and its Protocol of Accession remains mixed, partly due to China's opaque subsidy regime. Recently, the United States initiated WTO cases on China's aircraft taxation, export restrictions on raw materials, and agricultural subsidies. The United States also requested consultations over China's continued imposition of antidumping duties on U.S. broiler chicken products, in violation of an earlier WTO ruling.

Section 2: State-Owned Enterprises, Overcapacity, and China's Market Economy Status

Although Beijing has taken superficial steps toward meaningful state-owned enterprise (SOE) reform, including pursuing plans for mixed-ownership and SOE consolidation, it has effectively abandoned its boldest reform proposals. Rather than restructuring the state sector to reduce corporate debt and increase efficiency, the Chinese government continues to prop up nonviable companies with government subsidies, discounted production inputs, and favorable lending from state banks. As a result, SOEs remain the driving force behind key sectors of the Chinese economy despite incurring significant losses. Under President Xi, the Chinese government has not only expanded its control over SOEs, but also exerted its influence over private companies. By enhancing government oversight, centralizing bureaucratic coordination, and regulating market entry in

economically and politically strategic sectors, Beijing is able to direct both private and public firms to promote state goals.

China's stalled economic reform agenda presents a particularly acute problem in the country's heavy industries, where years of government subsidies and preferential loans have created pervasive overcapacity and market distortions. Despite Chinese officials' repeated promises to cut production in industries like steel, aluminum, and coal, reforms have taken a backseat to policies aimed at maintaining employment and economic growth. Without production capacity reductions, utilization rates for a variety of products have declined below optimization levels, while a surge of Chinese exports has suppressed commodity prices and flooded global markets. The ramifications of China's overcapacity are particularly evident in the U.S. steel industry, where U.S. producers posted net losses of \$1.43 billion in the fourth quarter of 2015 and \$233 million in the first quarter of 2016. Although the U.S. International Trade Commission authorized imposition of new tariffs on Chinese steel dumping in 2016, many dominant U.S. steelmakers have still been forced to shutter capacity and lay off employees, with as many as 19,000 U.S. steel and iron workers facing layoffs as a result of Chinese overcapacity.

Over the last 20 years, antidumping (AD) and countervailing duty (CVD) cases have frequently been brought against China, with over 1,000 AD cases initiated against China globally since 1995. The United States has been a leading complainant, launching 28 AD and CVD investigations—out of a total 48 AD/CVD cases globally—against China in the first nine months of 2016. On December 11, 2016, a provision of China's WTO accession agreement will expire, ending a 15-year period during which trade partners were automatically authorized to treat China as a nonmarket economy for the purposes of AD and CVD enforcement. The U.S. government has clarified that the expiration of the accession protocol provision does not mandate automatic conferral of market economy status to China. The U.S. Department of Commerce is responsible for determining whether a country is a market economy for the purposes of AD investigations, and whether market economy status will apply to the whole country or on a sector-by-sector basis. If the Department of Commerce designates China as a market economy, the margins of U.S. dumping duties imposed on Beijing will be significantly reduced, allowing China's anticompetitive activities to further harm U.S. companies.

Conclusions

- Despite repeated pledges to let the market play a “decisive role” in resource allocation, Beijing continues to use state-owned enterprises (SOEs) as a tool to pursue social, industrial, and foreign policy objectives, offering direct and indirect subsidies and other incentives to influence business decisions and achieve state goals. While proposed SOE reforms have made little progress incorporating market drivers into SOE activities or addressing the country's growing credit crisis, they have taken steps to strengthen state control—particularly in sectors involving the government's political or economic interests.

- For the foreseeable future, it is highly unlikely that the Chinese Communist Party (CCP) will subject SOEs to free market reforms. Such reform would diminish the CCP's control in strategic sectors, through which it directs the economy. In addition, real structural reforms would substantially increase unemployment in the short term and undermine entrenched interests within the CCP leadership.
- In China's state capitalist system, government ownership is not the sole measure of Beijing's economic influence. Beijing has fostered a unique ecosystem whereby the government is at the center of the economy, with state control extended through an array of measures, including financial support, political connections, and extralegal control to SOEs and private enterprises alike. As such, all Chinese companies' economic activity—not just the activity of state-owned firms—is conducted in support of the state's goals and policies. This is particularly true for Chinese firms operating in strategic sectors.
- The CCP continues to use SOEs as the primary economic tool for advancing and achieving its national security objectives. Consequently, there is an inherently high risk that whenever an SOE acquires or gains effective control of a U.S. company, it will use the technology, intelligence, and market power it gains in the service of the Chinese state to the detriment of U.S. national security.
- China's economic policies have fueled a commodity boom, which, coupled with the recent economic slowdown, has created a vast oversupply of industrial goods like steel, aluminum, and coal. Beijing has repeatedly stated its commitment to eliminating excess capacity, yet progress has been extremely slow—and in some cases nonexistent.
- Rather than closing industrial production facilities and laying off workers, Beijing is exporting its surplus production to the detriment of U.S. and other foreign competitors. As a result, U.S. industries are struggling, with steel and aluminum producers shedding capacity, cutting employment, and reducing capital expenditures.
- Amid an influx of unfairly priced steel imports from China, U.S. steel manufacturing jobs are being eliminated, dramatically reducing the United States' critically important defense industrial base. If the U.S. steel industry is hollowed out, U.S. manufacturers of military equipment and machinery will be forced to import components from China and elsewhere, raising the possibility that products of subpar or compromised quality could endanger U.S. military personnel and limit the country's ability to respond to a military threat.
- China argues it should be automatically granted market economy status (MES) after a provision in its World Trade Organization (WTO) accession protocol expires on December 11, 2016. A review of the U.S. statutory test for determining whether an economy can be classified as a market economy—including the extent to which the currency is convertible, the extent to which

wage rates are determined by free bargaining between labor and management, the extent to which joint ventures or other investments by foreign firms are permitted, the extent of government ownership or control of the means of production, and the extent of government control over the allocation of resources—reveals that China is not currently a market economy and is not on the path to become one in the near future.

- To address global economic imbalances created by China’s state-led economic model, the United States has relied on trade remedies consistent with its WTO obligations. However, if China is granted MES in December 2016, dumping margins for anti-dumping cases will be significantly reduced, removing an important tool U.S. businesses rely on to limit losses taken from price distortions in China’s economy.

Section 3: China’s 13th Five-Year Plan

In March 2016, China’s National People’s Congress, China’s legislature, ratified the 13th Five-Year Plan (FYP) (2016–2020), which sets targets to rebalance the economy toward higher-value-added manufacturing and domestic consumption, reform SOEs, increase urbanization, enhance indigenous innovation, and improve quality of life for its citizens through improvements to health, education, and social welfare. The Chinese government’s ability to reach these targets is a political question, not an economic one, and relies on its willingness to relinquish a substantial degree of state control, overcome entrenched interests, and endure the short-term and medium-term economic pain that structural reform creates. In addition, the costs of the 13th FYP are high: just meeting the urbanization, healthcare, and clean energy and environmental objectives is expected to cost around \$8.1 trillion (RMB 54 trillion) over the next five years in public and private sector investment. It remains unclear how these objectives will be funded, especially as local governments are overburdened by debt taken on during the 12th FYP and incentives for private sector investment remain limited.

The Chinese government’s efforts under the 13th FYP to expand the middle class, improve the quality of public services, reduce the country’s environmental footprint, and open up the service sector could provide numerous opportunities for U.S. businesses and open avenues for U.S.-China bilateral cooperation. However, the Chinese government’s sustained commitment to technonationalism is a growing challenge for U.S. and foreign firms seeking to enter China’s market or compete with its state-supported firms abroad. To gain and then maintain market access in China, U.S. and other foreign firms often must transfer technology, move manufacturing and assembly facilities to China, and collaborate with their Chinese competitors, displacing U.S. workers and impacting U.S. firms’ profitability, operations, and future competitiveness. Thus far, the Chinese government’s efforts to establish national champions in high-tech sectors such as automotive, aviation, and semiconductors have resulted in the successful creation of lower-end producers and suppliers, but China’s firms continue to lag behind U.S. competitors in terms of quality, reliability, and technological edge. Since 2015, the Chinese government has been attempting to address these gaps and

develop globally competitive domestic firms by investing in foreign firms to meet industrial policy goals (U.S. semiconductor firms are a notable example), rolling out the “Made in China 2025” and “Internet Plus” initiatives, and creating government-controlled venture capital firms. The scale and volume of resources the Chinese government has directed toward expanding domestic production capacity and creating globally competitive domestic firms may undermine fair competition, erode U.S. commercial and military technological advantages, displace U.S. workers, and increase U.S. dependence on foreign production.

The Chinese government is also attempting to boost domestic consumption and provide a higher quality of life for its citizens by increasing urbanization, reforming the *hukou* household registration system, improving citizens’ access to healthcare, and cleaning up severe environmental degradation. To finance this ambitious reform agenda, the Chinese government wants to attract greater domestic and foreign private sector investment and improve capital allocation efficiency through fiscal and financial reforms. These reforms would permit a greater role for the market while simultaneously maintaining state control. This year’s fiscal reforms were successful at restructuring existing local government debt obligations through debt-for-bond swaps and clarifying central-local tax collection and expenditure responsibilities, but announced reforms are not creating new, sustainable sources of funding such as a property tax needed by local governments.

In the financial sector, the People’s Bank of China liberalized deposit rates, reopened its securitization market, widened foreign access to interbank bond market, loosened quotas and remittance restrictions for capital accounts, and promoted green finance and the internationalization of the RMB. But reforms necessary to increase the liquidity of financial markets and attract foreign investors—strengthening auditing and accounting standards, regulatory frameworks, and corporate governance—have proceeded more slowly. The Chinese government’s gradual steps toward loosening capital controls and promoting the internationalization of the RMB are increasing China’s presence in the international financial system as more global investors are able to invest in China’s stock and bond markets, and more Chinese investors are able to invest internationally. While China’s continued use of capital controls and slow progress on strengthening financial institutions and governance have ensured U.S. exposure to China’s financial system remains limited, the impact of China’s slowing growth and economic reforms on international trade, commodities demand, and investor confidence is affecting global markets.

Conclusions

- The 13th Five-Year Plan (FYP) (2016–2020) seeks to address China’s “unbalanced, uncoordinated, and unsustainable growth” and create a “moderately prosperous society in all respects” through innovative, open, green, coordinated, and inclusive growth. This agenda strengthens the Chinese Communist Party’s and Chinese government’s roles in managing the economy

while allowing a greater role for markets to determine the allocation of resources in some sectors of the economy.

- The success of the 13th FYP agenda hinges on the Chinese government’s willingness to make politically difficult trade-offs between contradictory policy objectives, overcome entrenched interests, and allow for greater volatility. While senior leadership has repeatedly reiterated its commitment to enacting reforms, it remains averse to the market volatility and social instability that reforms create.
- The Chinese government is increasing urbanization, expanding public services such as healthcare and education, and pursuing limited reforms to its household registration system to alleviate poverty, boost domestic consumption, improve quality of life, and create new drivers of economic growth. This transition is fueling enormous demand in urban infrastructure and services, but strict market entry criteria, opaque regulations, compulsory joint ventures, and China-specific technical regulations limit the market opportunities for U.S. and other foreign firms in China.
- The Chinese government is building on its success under the 12th FYP to reduce greenhouse gas and air pollution and address the more technically difficult soil and water contamination under the 13th FYP. In 2016, the Ministry of Environmental Protection stepped up enforcement of its environmental standards—a key weakness of environmental reform efforts under the 12th FYP—through its new authority to conduct random inspections of provincial and municipal governments and its expansion of national, real-time monitoring systems.
- China’s renewed focus on indigenous innovation and creation of globally competitive firms in key emerging industries, such as integrated circuits, biomedicines, cloud computing, and e-commerce, targets sectors in which the United States is a global leader. Continued preferential government treatment and financial support of state-owned enterprises and designated industries have lowered these firms’ cost of capital and production, creating a competitive advantage over U.S. and other private firms both within China and abroad.
- The 13th FYP requires an estimated \$8.1 trillion (RMB 54 trillion) of public and private capital just to fund portions of its agenda focused on urbanization, healthcare, and clean energy and environmental remediation. To attract sufficient investment, the Chinese government is pursuing fiscal reform, encouraging public-private partnerships, increasing its government debt, and loosening capital controls. Despite repeated pledges to allow the market to play a bigger role, the Chinese government continues to reinforce the state’s central role in the economy. In addition, fiscal and financial reforms have yet to impose discipline and hard budget constraints on borrowers.

Chapter 2: U.S.-China Security Relations

Section 1: Year in Review: Security and Foreign Affairs

China's aggressive pursuit of control in the South China Sea was the dominant feature of China's security and foreign affairs in 2016. The most high-profile development was the July ruling by an arbitral tribunal at the Permanent Court of Arbitration in The Hague for a case filed by the Philippines in 2013. In a blow to China's credibility, the tribunal ruled that several of China's actions and claims in the South China Sea were unlawful. Predictably, Beijing immediately rejected and sought to discredit the ruling. Meanwhile, China continued building military and civilian infrastructure on the 3,200 acres of artificial islands it has created since 2013, completing runways and building reinforced aircraft hangars on three outposts. This and other infrastructure will serve to improve China's ability to detect and track foreign maritime forces and fishing boats. As in 2015, China's dispute with Japan and Taiwan in the East China Sea received less official and media attention, though China continued to patrol contested East China Sea waters with its increasingly capable coast guard; on one occasion, six Chinese coast guard ships and 230 Chinese fishing boats sailed out to waters near the disputed Senkaku Islands.

Another major development in 2016 was the initiation of the People's Liberation Army's (PLA) most sweeping reform and reorganization since the 1950s, aimed at enhancing the CCP's control over the military and improving the force's capability to fight regional conflicts at greater distances from China through integrated joint operations. The reforms will restructure China's leading military authority, the Central Military Commission; reorganize the military services into the PLA Army, Navy, Air Force, Rocket Force, and Strategic Support Force; transition from a military region to a joint theater command structure; and eventually reduce the force size by 300,000 troops.

Supported by a still-growing military budget (announced to be \$146.67 billion for 2016), the PLA is rolling out several new weapons systems for force projection in air, sea, and amphibious missions. Among these are: China's first squadron of J-20 multirole stealth jet fighters (expected delivery in late 2016); China's second aircraft carrier (officially confirmed in December 2015 and apparently nearly complete as of August 2016); additional frigates, destroyers, and tank landing ships commissioned or entering service; and China's first operational Y-20 heavy transport aircraft (inducted into service in 2016). China also signed a contract for 24 Su-35 multirole jet fighters from Russia, which could enter service in 2018. Additionally, China tested new space launch vehicles and launched more intelligence, surveillance, and reconnaissance and navigation satellites in 2016, in an effort to further augment the capabilities of its military forces.

The PLA continues to be active overseas. In 2016, China launched its 24th antipiracy deployment to the Gulf of Aden, announced it would increase its contributions to UN peacekeeping operations, and conducted humanitarian assistance and disaster relief operations in Nepal and in search of Malaysia Airlines flight MH370. China also

began construction on its first overseas military facility in Djibouti. In addition to its own increasingly sophisticated training and exercises at home, China has increased the number and type of military exercises it conducts with other countries. Since late 2015, China has participated in 11 major bilateral or multilateral exercises with countries around the world. Military sales are another growing component of China's global security engagement: China was the world's third-largest arms exporter between 2011 and 2015 (behind the United States and Russia).

U.S.-China security relations benefited from meaningful cooperation in 2016, though tensions over several issues continued to plague the relationship. In July, China joined the United States and other countries in signing the Joint Comprehensive Plan of Action to remove UN sanctions on Iran in exchange for the imposition of restrictions on Tehran's nuclear program. China's involvement in this effort was crucial. The two countries also took steps to enhance nuclear safety and security during the March 2016 Nuclear Security Summit. U.S.-China military-to-military ties continued to benefit from regular exchanges, high-level visits, port calls, and other activities. Unfortunately, China's continued assertiveness in the South China Sea, and its resentment of the U.S. military presence there, fueled mistrust, as did ongoing Chinese cyber espionage against U.S. entities, the December 2015 announcement of a U.S. arms sale to Taiwan, and the decision by the United States and South Korea to deploy a Terminal High Altitude Area Defense ballistic missile defense system in South Korea.

Conclusions

- In 2016, an international tribunal ruled overwhelmingly in the Philippines' favor in its case regarding China's South China Sea claims and activities; Beijing expectedly rejected the ruling. One of the most significant findings of the ruling was that China's claims to historic rights and resources within the "nine-dash line" have no legal basis. The strength of the ruling will be in its support from and enforcement by the international community, as the ruling itself has no enforcement mechanism. Aside from the arbitration ruling, tensions remained high in the South China Sea, as China landed several aircraft in the Spratly Islands and conducted military deployments to the Paracel Islands, both of which are disputed territories.
- The risk of escalation in tensions between China and Japan in the East China Sea and miscalculation or an accidental collision between Chinese and Japanese ships and aircraft has grown with the first instances of the Chinese navy sailing within 24 nautical miles of the disputed Senkaku Islands, the increased size of Chinese coast guard ships patrolling there, and the growing frequency of scrambles of Japanese fighter aircraft against Chinese aircraft.
- The ongoing People's Liberation Army (PLA) reorganization, the most sweeping structural reorganization of the PLA since the 1950s, seeks to address operational and developmental challenges Beijing believes have prevented the PLA from meeting

the needs of modern warfare. Operational challenges addressed by flattening command and control between Beijing and the theaters could improve the PLA's capability to conduct joint integrated operations against a range of perceived threats along China's periphery and within western China. Though China seeks to complete reforms by 2020, it will likely take longer. However, once reforms are fully realized the PLA will be better positioned to execute the contingency operations assigned to each theater.

- China's reported 2016 military budget grew relative to the previous year at the lowest rate in six years, with slowing economic growth likely playing a role. Future defense spending increases should be sustainable in the near term, however. China is acquiring a growing number of increasingly advanced multi-mission ships, fighter aircraft, heavy transport aircraft, and space assets, which will increase its ability to project power both near and far from its shores. The PLA's improving force projection capabilities will strengthen its hand in regional military conflicts and support its imperative to protect its overseas interests.
- China's increasing overseas military presence reflects its interest and willingness to use military force to defend its growing overseas assets. China's global security activities likely will continue to increase as the population of Chinese nationals overseas grows along with Chinese overseas economic activity and national interests.
- China's military exercises will continue to expand in complexity and scale as the PLA works to overcome its lack of combat experience. As exercises increase in complexity they will reveal insights into specific missions or contingency operations the PLA may be preparing to conduct along China's periphery or beyond. China has also increased the number and type of military exercises it holds with other countries; many of these exercises focused on nontraditional security challenges, including counterterrorism, antipiracy, and humanitarian assistance/disaster relief, helping the PLA improve its capacity to conduct such operations and ease other countries' anxieties about China's military modernization.
- Despite cooperation on several areas of mutual interest and the continued expansion of security ties, U.S.-China relations over the past year continued to be strained. Points of tension included China's activities in the South China Sea, the planned deployment of a U.S. Terminal High Altitude Area Defense (THAAD) missile defense system to South Korea, the U.S. arms sale to Taiwan, Chinese cyber espionage activities, and the U.S. Rebalance to Asia strategy.

Section 2: Developments in China's Military Expeditionary and Force Projection Capabilities

Chinese defense and national security writings highlight multiple military missions that would require the PLA to conduct operations beyond the territorial boundaries of—and at greater distances

from—the People’s Republic of China. These missions, aimed at safeguarding and securing China’s overseas interests, include antipiracy, noncombatant evacuation, and humanitarian assistance and disaster relief operations. This nascent capability to conduct what China refers to as “non-war” missions will also improve the PLA’s ability to conduct some warfighting missions. Enablers of China’s growing expeditionary capability include its overall military modernization program, lessons learned from joint training, and experience gained from operational deployments.

In terms of military modernization, China continues to construct large amphibious ships, such as the YUZHAO-class amphibious transport dock, suitable for carrying equipment and forces in support of long-distance operations. The PLA Navy is integrating its *Liaoning* aircraft carrier into the fleet, and China is nearing completion of its first indigenously produced aircraft carrier. The PLA will likely use its carriers to defend ships conducting expeditionary operations. China also continues to build multi-mission-capable ships, such as the LUYANG III-class guided missile destroyer, which is able to conduct anti-air, antisurface, and antisubmarine warfare. Moreover, China is producing large transport aircraft, such as the Y-20, to bolster its strategic airlift capacity.

Regarding exercises and training, to date the PLA has focused exercises on China’s most important conflict scenarios: contingencies involving Taiwan or along China’s periphery. However, the long-range mobility training occurring during exercises such as Stride, Mission Action, and Joint Action provide the PLA some experience that would apply to conducting expeditionary operations.

The PLA has also gained valuable experience from its own operational deployments around the region and the world, such as antipiracy operations in the Gulf of Aden, sending aircraft to participate in search and rescue operations for missing Malaysia Airlines Flight 370, peacekeeping operations in South Sudan, and a noncombatant evacuation operation in Yemen. These types of deployments provide opportunities for the PLA to improve coordination, planning, and logistics associated with expeditionary operations. The PLA Navy’s underway replenishment capability, which will improve its ability to sustain long-distance operations, will be augmented by China’s first overseas military support facility in Djibouti.

China’s growing expeditionary capability presents the United States and its regional allies and partners with a conundrum: the same expeditionary capabilities that could allow China to contribute to regional security could enable the PLA to pose a military threat and spur military competition. For example, training for visit, board, search, and seizure operations in conjunction with at-sea intercept training could be applied to a blockade operation against Taiwan. Additionally, these capabilities will provide Beijing a wider range of options for using force to resolve territorial disputes in the East and South China seas. The prospect of an expanded PLA expeditionary presence could also result in U.S. and Chinese forces conducting missions within the same operational space, putting their military forces in closer proximity and raising the risk of miscalculation or escalation should an incident occur.

Conclusions

- The military capabilities China is developing will expand or improve the ability of the People's Liberation Army to conduct a range of externally focused operations, to include combat insertion, island landing operations, humanitarian assistance/disaster relief operations, noncombatant evacuation operations, and peacekeeping missions. Improvements in these areas can also strengthen China's traditional warfighting capabilities against weaker neighbors. Given its enhanced strategic lift capability, strengthened employment of special operations forces, increasing capabilities of surface vessels and aircraft, and more frequent and sophisticated experience operating abroad, China may also be more inclined to use force to protect its interests.
- China's pursuit of expeditionary capabilities, coupled with the aggressive trends that have been displayed in both the East and South China seas, are compounding existing concerns about China's rise among U.S. allies and partners in the greater Asia. This also is driving additional increases in defense acquisitions throughout the region.
- The People's Liberation Army will continue to modernize in the area of logistics, with implications for expeditionary operations. The air force will continue to see additional strategic airlift aircraft incorporated into the air order of battle, particularly once the Y-20 heavy lift aircraft enters serial production. Furthermore, China is likely to continue to seek opportunities to secure military facilities abroad, such as the one it has begun constructing in Djibouti, to facilitate a range of operations.
- Regardless of China's interest in developing a more robust expeditionary capability, regional contingencies, such as a conflict with Taiwan or concerning maritime disputes in the East or South China seas, will remain the focus of Chinese war planning.

Section 3: Chinese Intelligence Services and Espionage Threats to the United States

Chinese intelligence collection operations against the United States pose a large and increasing threat to U.S. national security. Reports of these operations have increased sharply over the past 15 years. China has targeted a wide range of U.S. national security organizations, including military forces, defense industrial entities, national security decision makers and government organizations, and critical infrastructure entities. Given rising U.S.-China competition and China's increasing military might, China's extraction of U.S. national security information through these operations has significant implications for U.S. military superiority in the Western Pacific and the security of U.S. plans and decision-making processes related to potential conflicts with China.

The two most prominent organizations in China's intelligence community are the Ministry of State Security (MSS) and intelligence units within the PLA. Both organizations conduct a range of intelligence collection operations against the United States, in-

cluding cyber and human intelligence collection operations. In many reported cases in recent years, espionage operations by both the MSS and PLA have targeted national security organizations in the United States and in U.S. ally and partner countries. Chinese intelligence services seek to collect a wide range of information, from second-hand and unclassified information to classified information extracted directly from operatives within leading U.S. national security organizations. Through the use of financial incentives and coercion, MSS and PLA intelligence units build networks of agents within and outside of China working as diplomats, defense attachés, and academics, among other roles. These organizations are pursuing more aggressive human intelligence operations and—in a significant departure from their past approach to human intelligence operations—increasingly are recruiting agents outside of mainland China.

China's military technical intelligence collection capabilities are growing as well. China operates an increasingly sophisticated and extensive array of intelligence, surveillance, and reconnaissance assets capable of monitoring U.S. forces deployed to the Western Pacific. To coordinate and synthesize the use of these assets, the PLA appears to be moving toward greater jointness between intelligence units in different branches of the PLA. Moreover, as part of the broader reform of the PLA, China has reorganized many elements of PLA intelligence and created the Strategic Support Force, a new branch of the PLA that most likely will take on and centralize components of the PLA's intelligence mission.

The U.S. government response to the threat from Chinese intelligence collection has suffered from the lack of an integrated, coordinated effort within the U.S. Intelligence Community. The U.S. government's efforts to counter Chinese intelligence collection operations have manifested largely as a series of espionage prosecutions rather than a strategic, whole-of-government response. The Obama Administration has taken steps to improve cybersecurity among U.S. government agencies and defense contractors, but these measures could mitigate, not eliminate, the significant cyber espionage threats to these organizations.

Conclusions

- Chinese intelligence has repeatedly infiltrated U.S. national security entities and extracted information with serious consequences for U.S. national security, including information on the plans and operations of U.S. military forces and the designs of U.S. weapons and weapons systems. This information could erode U.S. military superiority by aiding China's military modernization and giving China insight into the operation of U.S. platforms and the operational approaches of U.S. forces to potential contingencies in the region.
- China's growing technical intelligence collection capabilities could strengthen China's hand in a contingency. Its extensive network of intelligence, surveillance, and reconnaissance (ISR) assets and continued development and deployment of increasingly advanced ISR platforms will increase the People's Liberation Army's (PLA) ability to monitor U.S. forces. Moreover, the enhanced jointness of PLA intelligence at the theater level will

facilitate the integration of data collected by these platforms to form a more comprehensive, real-time battlefield picture.

- Chinese intelligence reportedly has repeatedly targeted and succeeded in infiltrating the personal e-mail accounts of leading U.S. government officials. These infiltrations could give China insight into highly sensitive U.S. national security decision making processes.
- China's infiltration of the national security establishments of U.S. allies and partners could allow China to indirectly access sensitive U.S. national security information. Moreover, these breaches could undermine the strength and stability of U.S. alliances by causing the United States to hesitate to share sensitive information with its partners.

Chapter 3: China and the World

Section 1: China and South Asia

China is actively engaged in cultivating influence in South Asian countries (Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka). China has not publicly articulated a formal South Asia "strategy," although Beijing's key objectives and interests in the region can be observed in its activities in and diplomacy toward these countries. The key interests, concerns, and objectives of China's South Asia strategy fall into four broad categories: (1) checking India's rise, primarily by exploiting the India-Pakistan rivalry, (2) expanding economic activity and influence in the region, (3) enhancing access to the Indian Ocean, and (4) countering terrorism and religious extremism (often at the expense of religious freedom and other human rights). These objectives enable China to compete with potential rivals and increase China's overall influence in the region, as well as diminish the influence of the United States.

The overall balance of power between China and India currently is in China's favor, and Beijing intends to keep it that way. China's primary mechanism in this regard is its support for Pakistan. Beijing has long exploited the longstanding rivalry between India and Pakistan, aiming to keep India so preoccupied with its western neighbor that it will not have the ability to mount a serious challenge to China's power and influence in Asia. To this end, Beijing has supported Pakistan's military modernization for decades. It helped Pakistan build its first nuclear bomb, was instrumental in enabling its indigenous ballistic missile capability, and currently exports more arms to Pakistan than to any other country in the world. According to some observers, China's support for Pakistan—coupled with Chinese military superiority along the disputed China-India land border and the growing Chinese naval presence in the Indian Ocean—is indicative of a Chinese strategy to encircle or contain India.

Until recently, China has lagged far behind India in terms of economic engagement with South Asia, forging a relationship with Pakistan but otherwise remaining a minor player. However, over the past decade China's economic engagement (including trade, loans, and investment) with countries in the region has expanded dramatically, challenging India's position. China has been a particularly prolific

exporter of manufactured goods, an area where India cannot keep up due to its lagging manufacturing capacity (in fact, India's persistent trade deficit with China contributes to bilateral frictions). China's efforts to expand its global influence, embodied by infrastructure investment under the "One Belt, One Road" (OBOR) initiative, are gaining traction in South Asia, which is one of the least economically integrated regions in the world. To the extent that Chinese-driven transportation and other connectivity infrastructure projects can help alleviate these regional divisions, OBOR would make a positive contribution to the region. On the other hand, China's activities in the region may exacerbate tensions and revive long-simmering conflicts. For example, India's government is particularly troubled by the China-Pakistan Economic Corridor, a \$46 billion infrastructure investment plan under OBOR, because it would pass through the territory India claims in the disputed Kashmir region.

Though India has long been the dominant military power in the Indian Ocean, China has been seeking a greater presence and more influence there, primarily to protect the sea lines of communication upon which its economy depends. In recent years, this trend has been illustrated by PLA antipiracy patrols in the Gulf of Aden, submarine deployments and a combat readiness patrol in the Indian Ocean, and the announcement that China will establish its first overseas military logistics facility in Djibouti. China has also been investing in port facilities in strategic locations in the Indian Ocean (including Chittagong in Bangladesh, Gwadar in Pakistan, Colombo and Hambantota in Sri Lanka, Marao in the Maldives, and Kyaukpyu in Burma [Myanmar]), which is viewed by many in India as a geopolitical "string of pearls" to contain India. As both countries grow their maritime presence and capabilities, the Indian Ocean is likely to become an area of increasing competition between them.

As the threat of extremism and terrorism facing China grows, counterterrorism has become an increasingly important facet of Beijing's engagement with South Asia. Chinese leaders have for decades been concerned about Islamic extremism and terrorism in Xinjiang, China's westernmost region and home to a large Muslim minority, as well as links between terrorist activities in China and groups based in Pakistan and—to a lesser extent—Afghanistan and Central Asia. In recent years, Beijing has been more willing to increase pressure on Islamabad to take steps to eliminate any Pakistan-based activities that could potentially be directed at China or Chinese citizens abroad. China has also been enhancing bilateral and multilateral security engagement with Afghanistan, recognizing that it must shoulder greater responsibility in shaping the country's future. This is driven by the following factors: desire to ensure Afghanistan does not provide safe haven for extremists targeting China; fear that the departure of U.S. and coalition forces could leave Afghanistan in turmoil; and hope that Afghanistan can provide opportunities for Chinese companies, whose engagement in the country could encourage greater stability and security.

Conclusions

- China's key interests, concerns, and objectives in South Asia fall into four broad categories: (1) checking India's rise by exploit-

ing the India-Pakistan rivalry, (2) expanding economic activity and influence in the region, (3) enhancing access to the Indian Ocean, and (4) countering terrorism and religious extremism. China's engagement in South Asia serves to expand its influence in the region and on the global stage.

- By virtue of its size, location, and historical and cultural influence, India has been the traditional regional power in South Asia. China, on the other hand, has forged a strong relationship with Pakistan since the 1960s, but otherwise has been a minor player in the region. Over the past decade, however, China's economic engagement (including trade, loans, and investment) with South Asia has expanded dramatically, challenging India's position. China has also been investing in infrastructure in the region, particularly ports in the Indian Ocean littoral states. South Asian countries take advantage of the Sino-Indian competition for influence in the region by playing the two countries against one another.
- Although China and India have begun to cooperate on issues of mutual interest, including Afghanistan and global economic integration, mutual suspicions undermine deeper engagement. Tensions in the relationship are driven by China's close relations with Pakistan, China's growing regional presence, the border dispute, and Tibet. To a lesser extent, tensions are aggravated by competition in the Indian Ocean and economic imbalances. Many of these trends have led Indians to perceive China is pursuing a strategy to encircle or contain India.
- In response to China's expanding activities in South Asia, India appears to have moved away from its traditional strategy of nonalignment toward more proactive engagement with its neighbors and countries in broader Asia, as well as the United States. Indian Prime Minister Narendra Modi's "Act East" and "Neighborhood First" policy initiatives, which include diplomatic, security, and economic components, are part of this effort.
- China's security concerns in South Asia historically have centered on its desire to enable Pakistan to thwart India's rise as a challenger to China's dominance in broader Asia. While this remains the most important determinant of Chinese security support to Pakistan, the rise of terrorism as a major perceived threat to China's security may be prompting a shift in this calculus as Beijing grows more concerned about Pakistan's complicated relationship with terrorist groups.
- Although China's relationship with Pakistan continues to be primarily based on shared security concerns, it has recently expanded to encompass economic and diplomatic components. China's economic commitment to Pakistan got a boost with the launch of the China-Pakistan Economic Corridor (CPEC), a \$46 billion infrastructure investment plan under the One Belt, One Road umbrella. For China, the goals of CPEC are threefold: (1) to create an alternative trade route through Pakistan and gain access to ports on the Arabian Sea; (2) to contain Islamic terrorism and insurgency in Xinjiang, and in Pakistan and Afghanistan through economic development; and (3) to stabilize

Pakistan's economic and security environment. For Pakistan, CPEC presents an opportunity to address major infrastructure shortfalls, particularly energy shortages.

- Recent U.S.-China tensions in the Asia Pacific and Sino-Indian rivalry in South Asia have nurtured a much closer relationship between the United States and India. In 2015, the United States and India issued a "Joint Strategic Vision for the Asia-Pacific and Indian Ocean Region," emphasizing cooperation in economics and security. The relationship was further enhanced during Prime Minister Modi's visit to Washington, DC, in 2016, which culminated in extensive agreements to enhance defense technology sharing, begin a Maritime Security Dialogue, deepen cooperation on cybersecurity and outer space, and strengthen economic and trade ties. This, in turn, has led China to perceive that the United States and India are seeking to counter China's influence in the region.
- Despite these agreements, U.S.-India cooperation in the economic, diplomatic and security realms is expected to develop slowly due to India's adherence to the principle of "strategic autonomy," or the idea that India should not rely on other countries.

Section 2: China and Taiwan

In January 2016, Taiwan citizens elected Tsai Ing-wen of the Democratic Progressive Party to the presidency, reflecting dissatisfaction with the previous eight years under the leadership of the Chinese Nationalist Party (the Kuomintang, or KMT) and concerns about the potential negative impact of growing ties with China on Taiwan's economy and political autonomy. Despite President Tsai's pragmatic cross-Strait policy of "maintaining the status quo" since taking office in May, Beijing has been displeased with her unwillingness to endorse the "one China" framework for cross-Strait relations (a framework Taipei and Beijing endorsed during the previous administration in Taiwan that acknowledges there is "one China," but that each side may maintain its own interpretation of the meaning of "one China").

As a result, Beijing is using several levers to pressure President Tsai, including suspending official communication with Taipei and, according to one Taiwan official, reducing the number of Chinese tourists going to Taiwan. In addition, since President Tsai's election, Beijing has increased its pressure on Taiwan in the international arena. For example, the UN's International Civil Aviation Organization (ICAO) did not invite Taiwan to participate in the 2016 ICAO Council Assembly, unlike the previous assembly held in 2013 when Taiwan was allowed to attend as a guest of the council's president. Beijing also is no longer cooperating with Taipei to bring Taiwan citizens who were suspected of committing crimes in countries with which Taiwan does not have official diplomatic relations back to Taiwan. Between April and September, around 200 Taiwan citizens living in Armenia, Cambodia, Kenya, and Malaysia who were accused of committing telecommunications fraud against people in China were deported to China, rather than to Taiwan, in a break from a pattern of cross-Strait cooperation that began in 2011.

Despite this pressure, Taiwan continues to pursue greater participation in the international community through its official diplomatic relations with 22 countries, efforts to expand its participation in international organizations, such as the International Criminal Police Organization (INTERPOL), and initiatives to strengthen economic and unofficial diplomatic partnerships with countries other than China. For example, one of the Tsai Administration's main initiatives to expand Taiwan's international participation is its "New Southbound Policy" of enhanced engagement with Southeast Asia, South Asia, and Oceania.

Taiwan's economic dependence on China—its largest trading partner—makes it vulnerable to fluctuations in China's economy. As of August 2016, China remains Taiwan's biggest export market and top source of imports. However, compared to 2014, total cross-Strait trade in 2015 decreased by about 11 percent, with Taiwan's exports to China shrinking by 13.2 percent, and its trade surplus with China decreasing by 21.5 percent. Taiwan's exports were hurt by China's economic slowdown and increased competition from Chinese high-tech suppliers, which undercut them on cost.

The Tsai Administration also faces the challenge of a Chinese military modernization program that has increased dramatically despite eight years of enhanced cross-Strait economic, people-to-people, and government ties. Broadly, the cross-Strait military balance has shifted toward China. To meet this challenge, Taiwan has sought to enhance its military capabilities in part by indigenously developing platforms and weapons systems. Advanced antiship cruise missiles, air defense missiles, and fast attack and stealthy catamaran-style patrol ships are among the newest platforms and weapons systems Taiwan has produced. Taiwan also seeks to enhance its military capabilities through procurement of military equipment from the United States. In December 2015, the U.S. Department of State notified Congress of its approval of the potential sale of \$1.83 billion in arms to Taiwan, including two OLIVER HAZARD PERRY-class guided missile frigates, AAV-7 amphibious assault vehicles, and antitank missiles, among other platforms and weapons systems. Meanwhile, Taiwan and the United States continue to move forward with the upgrade of Taiwan's F-16 A/B fighter aircraft.

Beyond security ties, the U.S.-Taiwan economic relationship remains strong. In 2015, bilateral trade totaled \$66.6 billion, and Taiwan became the United States' ninth-largest trading partner, surpassing India, Italy, and Brazil. U.S.-Taiwan cooperation spans many other areas as well, including environmental protection, public health, and cybersecurity. Taiwan's robust democracy, civil society, and technology sector, and its vast expertise and experience in areas such as humanitarian assistance and disaster relief make it a strong partner for the United States in facing global challenges.

Conclusions

- In 2016, Taiwan held historic elections, in which Tsai Ing-wen of the Democratic Progressive Party (DPP), was elected Taiwan's first female president and the DPP gained an absolute legislative majority for the first time. Despite President Tsai's pragmatic cross-Strait policy focused on maintaining the status quo,

Beijing appears to remain skeptical of President Tsai and has applied pressure on her administration with various statements and actions.

- China remains Taiwan's largest trading partner, biggest export market, and top source of imports. However, cross-Strait trade has slowed, in large part due to the negative impact of China's economic slowdown and the emergence of Chinese competitors on Taiwan's information technology exports to China, which underscores the vulnerability of Taiwan's export-dependent economy to developments in China.
- Taiwan's ability to participate in the international community is not only crucial to the wellbeing of its people but is also key to Taiwan's ability to contribute to international safety, security, and prosperity. Beijing restricts Taiwan's participation in international organizations and has placed additional limitations on Taiwan's international activities since President Tsai was elected. Should Beijing seek to further increase pressure on Taipei, it may take additional steps to restrict Taiwan's international space, including by enticing some countries with which Taiwan has diplomatic relations to cut ties and establish diplomatic relations with China.
- China's military modernization remains focused on preparing for a range of Taiwan contingencies, and the advancement in the capabilities of the People's Liberation Army (PLA) presents a significant challenge to Taiwan's ability to defend itself and the U.S. military's ability to effectively intervene in a cross-Strait conflict. Taiwan is engaged in a robust program to enhance its defensive capabilities through its domestic defense industrial production, the procurement of U.S. weapons systems, and its transition to an all-volunteer force, efforts which the Tsai Administration seeks to refine and build upon. However, the cross-Strait military balance has shifted toward China, and the PLA possesses both a quantitative and a qualitative military advantage over the Taiwan military.
- U.S.-Taiwan relations have transitioned smoothly from the Ma Administration to the Tsai Administration and continue to strengthen and expand in scope. Security cooperation remains a robust area of the U.S.-Taiwan relationship.

Section 3: China and Hong Kong

In a trend that has worsened since last year, mainland China has sought to exercise greater control over Hong Kong despite Hong Kong citizens' desire for more autonomy and democratic governance. Beijing's insistence on an electoral system that ensures the continuity of a pro-Beijing Hong Kong government and legislature has contributed to mounting feelings of frustration and disillusionment among prodemocracy advocates—particularly among young people. In the run-up to Hong Kong's September 2016 legislative election, the Hong Kong government, with Beijing's backing, banned six pro-independence candidates from running in the elections. Mainland China's heavy-handed efforts to limit support for the prode-

mocracy camp backfired, however: a record 58 percent voter turnout saw prodemocracy candidates capture 30 of 70 total seats, earning a net gain of three seats.

Hong Kong continues to face a steady erosion of the freedoms guaranteed under Hong Kong's mini constitution, the Basic Law. Many incidents have contributed to this trend, but perhaps none has had as significant a chilling effect as the mainland authorities' apparent abduction and detention of five Hong Kong sellers of political gossip books banned in mainland China. The disappearance of the booksellers, whose whereabouts were unknown for six months, raised concerns about Hong Kong's autonomy and rule of law among Hong Kong citizens, including those not previously worried about such issues, and demonstrated the deterioration of the "one country, two systems" framework. (The "one country, two systems" framework grants Hong Kong and Macau the right to self-govern their economy and political system to a certain extent, excluding foreign affairs and defense.) While the long-term effects of the incident are unclear, immediate impacts have already been felt throughout the book publishing industry, including self-censorship and bookstore closures. In addition to the booksellers incident, Hong Kong continues to face pressure on press and academic freedoms. Mainland e-commerce giant Alibaba's December 2015 acquisition of Hong Kong-based English-language newspaper *South China Morning Post* demonstrated Beijing's growing influence in Hong Kong media. In schools, Beijing and the Hong Kong government are applying pressure on prodemocracy activism and attempting to restrict the discussion of pro-independence ideas.

Regarding economic issues, Beijing is seeking to leverage Hong Kong's status as a leading global financial hub to facilitate the Mainland's economic priorities. Hong Kong continues to play a key part in Beijing's push to internationalize the RMB. Mainland and Hong Kong stock markets are also growing more integrated. Although the Shanghai-Hong Kong Stock Connect has not lived up to expectations (with money flowing to Hong Kong far outpacing flows to the Mainland), the opening of the Shenzhen-Hong Kong Stock Connect, planned for November 2016, is expected to attract more global investors since Shenzhen is the center for the Mainland's high-tech companies.

As Hong Kong's sole provider of defense under the Basic Law, the PLA over time has gradually expanded its presence but has maintained a relatively low profile compared to its activities and operations in and around mainland China. The PLA has worked to expand its outreach efforts to Hong Kong citizens and has conducted increasingly complex exercises. Many of these exercises have occurred during particularly sensitive periods, leading prodemocracy advocates and other observers to argue the CCP is using the PLA as a coercive tool to pressure Hong Kong citizens.

U.S. policy toward Hong Kong is based on the U.S.-Hong Kong Policy Act of 1992, which outlines U.S. support for Hong Kong's democratization, human rights, and autonomy under the "one country, two systems" framework. Hong Kong's 2016 legislative election serves as a vivid example of Hong Kong's democratic progress, particularly in resisting interference from Beijing. However, the recent downward

trends in Hong Kong with regard to electoral reform, press freedom, and academic freedom run counter to U.S. interests and values. The case of Hong Kong—particularly as it relates to the booksellers incident and encroachment on press and academic freedoms—reflects a broader pattern of behavior in which Beijing disregards norms, agreements, or laws (either in spirit or in letter) in pursuit of its objectives. Moreover, Hong Kong’s traditional standing as a global financial hub has economic implications for the United States, as U.S. trade and investment ties with Hong Kong are substantial. Many in the Hong Kong business community, including U.S.-based and global firms, are beginning to question Hong Kong’s future as a global financial center due to the apparent threat to rule of law and the deterioration of the “one country, two systems” model, particularly in the aftermath of the booksellers incident over the past year.

Conclusions

- In the highest voter turnout to date for the 2016 Legislative Council elections, Hong Kong citizens rejected Beijing’s heavy-handed efforts to limit support for prodemocracy candidates, resulting in the pan-democrats winning 30 out of 70 total seats (a net gain of three) and maintaining their ability to block pro-Beijing legislation. The election of five candidates from political parties founded in the aftermath of the 2014 Occupy protests demonstrated progress in Hong Kong’s democratic development, particularly the increasing involvement and influence of young people in the political process.
- The case of the five Hong Kong sellers of political gossip books banned in mainland China who appeared to have been abducted and detained by Chinese authorities led many, including those not previously concerned, to call into question the state of Hong Kong’s ability to maintain its independent legal system; Hong Kong’s autonomy under the “one country, two systems” model; and the city’s standing as a global financial center. Although long-term impacts are unclear at this time, the incident has already caused a chill throughout the book publishing industry, leading to bookstore closures and increased self-censorship.
- Beijing’s refusal in 2014 to allow democratic reforms to the chief executive nomination process along with increased pressure on Hong Kong’s political discourse over the past year, have led to greater disillusionment and pessimism among Hong Kong prodemocracy advocates regarding China’s commitment to the “one country, two systems” framework.
- Hong Kong continues to face pressure on press and academic freedoms guaranteed under its mini constitution, the Basic Law. Schools in Hong Kong are facing increasing pressure, limiting open debate about democratic ideas and independence. Chinese e-commerce giant Alibaba’s acquisition of the Hong Kong-based English-language newspaper *South China Morning Post* demonstrated Beijing’s increasing reach into Hong Kong. Hong Kong citizens and international press freedom watchdogs have expressed their concern regarding these developments.

- In 2016, Hong Kong played an increasing role in Beijing’s push to internationalize the renminbi. Although the existing Shanghai-Hong Kong Stock Connect has not lived up to expectations thus far due in part to regulatory deficiencies, as it matures over the coming years the platform could help facilitate greater investment into mainland stock markets. In November, Beijing plans to establish a second stock connect between Shenzhen and Hong Kong, which is expected to have greater appeal to global investors as Shenzhen is a base for the Mainland’s emerging industries and its most active stock exchange.
- As Hong Kong’s sole provider of defense under the Basic Law, the People’s Liberation Army (PLA) has retained a relatively low-key presence, but has gradually expanded its outreach efforts to Hong Kong citizens. The PLA has also conducted increasingly sophisticated exercises in recent years, particularly during sensitive periods in Hong Kong, leading some to accuse Beijing of using the exercises to pressure Hong Kong citizens.
- China’s efforts to exert influence over Hong Kong in ways that undermine Hong Kong’s autonomy under the Basic Law reflect a broader pattern of reliance on tools of pressure and coercion—rather than norms, laws, and agreements—to advance its interests vis-à-vis its neighbors. This pattern is also evident in China’s relations with Taiwan and its recent behavior in the South China Sea.
- Hong Kong’s standing as a global financial hub has significant economic implications for the United States, as U.S. trade and investment ties with Hong Kong are substantial. Nonetheless, some observers in Hong Kong are beginning to question its future as a global financial center due to the deterioration of the “one country, two systems” framework resulting in large part from the booksellers incident over the past year.

Section 4: China and North Korea

Following North Korea’s fourth nuclear test in January 2016, Beijing agreed to UN Security Council Resolution (UNSCR) 2270, the most stringent set of sanctions on North Korea to date. The sanctions notably restricted, among other things, coal and other mineral imports from North Korea, which are a significant source of hard currency for Pyongyang and one of the major areas of China-North Korea trade (North Korean revenue from coal exports exceeds \$1 billion per year). Although it is too early to judge China’s complete enforcement of UNSCR 2270, evidence suggests Beijing has not stopped the trade of all banned items with North Korea and has not fully maintained its commitments under the resolution. This behavior follows China’s historical pattern of strictly enforcing sanctions in the months immediately following new rounds of sanctions and then loosening enforcement. For example, in the aftermath of the resolution the Chinese government issued new restrictions on certain trade with North Korea, banned North Korean remittances in Dandong (a Chinese border city through which an estimated 70 percent of China-North Korea trade passes), and took other actions in compliance with

UNSCR 2270. However, in May and June some banned vessels listed in UNSCR 2270 were seen entering and leaving Chinese ports, while others have been observed operating close to Chinese ports and then disappearing from radar, raising questions about whether these vessels were conducting banned trade with China. Moreover, in August, China imported a record amount of coal in a single month, amounting to a 74 percent jump compared to the same month in 2015. In the wake of North Korea's fifth nuclear test in September, its second in 2016 and most powerful to date, China pledged to work with the United States and other UN Security Council members to further tighten North Korea sanctions. As this Report went to print, it was unclear how this cooperation would unfold.

Whether UNSCR 2270 and the forthcoming round of sanctions are effective will depend in large part on how China manages its economic relationship with North Korea going forward. China now accounts for over 90 percent of North Korea's legitimate foreign trade and approximately 95 percent of foreign direct investment in North Korea. Chinese firms also import North Korean labor to circumvent investment restrictions. As of August 2016, at least 70,000 North Koreans were estimated to have been working in China, providing several hundred million dollars annually to the Kim regime. Another critical area of support for North Korea is Chinese energy assistance, including an estimated 500,000 tons of oil per year. Chinese entities play a central role in illicit North Korean economic activity as well. The international community hopes that China will use this immense economic influence over North Korea to pressure Pyongyang to cease its provocations and eventually pursue denuclearization.

Such an outcome is unlikely, however. Even as Beijing's frustrations with Pyongyang have grown in recent years, Beijing continues to emphasize stability above denuclearization as its guiding strategy regarding North Korea policy. Given its fear of instability in North Korea making its way into China and of losing its strategic buffer with U.S.-allied South Korea, Beijing will almost certainly not cut off trade of critical resources with Pyongyang, including coal and oil, and other sources of hard currency for North Korea.

The July decision by South Korea and the United States to deploy the United States' Terminal High Altitude Area Defense (THAAD) ballistic missile system in South Korea by late 2017 appears to be reinforcing Beijing's long-held suspicion of U.S. intentions on the Korean Peninsula. Despite U.S. assurances that THAAD is not directed at China, Beijing sees the planned THAAD deployment complicating its security environment by expanding U.S.-allied radar into mainland China and facilitating broader strategic cooperation between the United States, South Korea, and Japan, including closer intelligence sharing.

As the North Korean threat to U.S. security interests grows, U.S. engagement with China on North Korea is of increased importance. However, China's views of the U.S. role in the region pose obstacles to the productive engagement necessary to achieve the goal of denuclearization of the Korean Peninsula. Moreover, Beijing's unwillingness to apply the full force of its economic influence on Pyongyang

necessarily leaves the United States and the international community hamstrung in encouraging change in North Korea. Beijing's public statements prioritizing denuclearization in addressing the North Korea problem are unsupported by its actions.

Conclusions

- Following a series of missile and weapons systems tests demonstrating alarming advances in capabilities, in September 2016 North Korea conducted its fifth nuclear test, which was the most powerful to date. Beijing's diplomatic response to the test was its strongest yet, condemning the test and emphasizing that Pyongyang abide by UN resolutions. As of the publication of this Report, Beijing has said it will cooperate in a forthcoming UN resolution tightening sanctions on North Korea, but given its track record China can be expected to unevenly enforce sanctions in a way that will not seriously destabilize the Kim regime.
- Since 2012, when President Xi Jinping took office and Kim Jong-un became leader of North Korea, persistent North Korean belligerence has contributed to a noticeable downturn in China's relations with North Korea. This trend continued in 2016 when, after North Korea's fourth nuclear test, China supported the most stringent UN Security Council resolution to date on North Korea. Beijing appears to be attempting to maintain some stability in the relationship, but notably high-level exchanges (at the vice ministerial-level and above) between China and North Korea have decreased since the beginning of 2015 compared to the previous two-year period, continuing a negative trend from years prior.
- As North Korea increases the frequency of its missile tests, especially those using ballistic missile technology, and the UN Security Council and countries in Northeast Asia call for increased pressure on Pyongyang, Beijing continues to emphasize stability and the status quo above denuclearization as its guiding strategy regarding North Korea policy. Given its fear of instability in North Korea making its way into China and its desire to retain a strategic buffer between itself and U.S.-allied South Korea, Beijing will almost certainly not cut off trade of critical resources with Pyongyang, including coal and oil, or other sources of hard currency for North Korea.
- Although it is still too early to judge the full extent of China's enforcement of UN Security Council Resolution 2270, thus far Beijing has unevenly enforced sanctions and used to its advantage a significant loophole that allows China an exception to continue importing North Korean coal, iron, and iron ore for "livelihood purposes." While certain areas of progress and gaps are evident in Chinese enforcement thus far, China's lack of accountability and transparency in enforcing sanctions increases the difficulty for international observers to determine its level of enforcement.
- In accordance with the North Korea Sanctions and Policy Enhancement Act of 2016 (which became law in February 2016), the U.S. Department of the Treasury in September for the first time sanctioned Chinese entities with economic ties to North

Korea, designating Dandong Hongxiang Industrial Development Co. and four Chinese nationals who directed and managed the firm for sanctions evasion activities and froze their assets. In addition, the U.S. Department of Justice indicted the individuals and entity for sanctions violations, conspiracy, and money laundering. It also confiscated funds in 25 Chinese bank accounts allegedly belonging to the firm and its front companies. These actions could compel Beijing to increase regulatory measures on Chinese firms doing business with North Korea, but such measures will probably be constrained by China's desire to support the Kim regime.

- China claims the decision by South Korea and the United States to deploy the U.S. Terminal High Altitude Area Defense (THAAD) ballistic missile defense system to South Korea to defend against North Korea's increased nuclear and missile capabilities is a direct threat complicating its own security environment. Beijing has used the announced deployment to obstruct international and regional cooperation on North Korea and to reduce certain areas of economic cooperation with South Korea. Over the near term, THAAD is likely to encourage China to move closer to North Korea, while increasing frictions between China, the United States, and South Korea.
- China's close economic ties with North Korea are unlikely to diminish significantly in the near term. In 2015, China accounted for approximately 91 percent of North Korea's legitimate foreign trade of \$6.25 billion (excluding trade with South Korea). One of North Korea's main sources of hard currency (which is not covered by sanctions) is from foreign labor, which generates revenue in the low hundreds of millions of dollars annually, mainly in China and Russia. According to an estimate in August 2016, approximately 70,000–80,000 North Korean workers are employed in China, and around 34,000 North Koreans work in two Chinese border cities, with this number set to rise in the coming years.
- As the North Korean threat increases, placing U.S. alliances and security interests at risk, China's skepticism about the U.S. role in the region poses obstacles to the productive engagement necessary to achieve the goal of denuclearization of the Korean Peninsula. Chief among these obstacles is Beijing's view that U.S. policy on North Korea is designed to strengthen U.S. alliances to contain China, and that U.S. military exercises with South Korea incite Pyongyang to conduct further provocations.

Chapter 4: China and the U.S. Rebalance to Asia

Since its inception in 2011, the Rebalance to Asia strategy has been a defining feature of U.S. international relations and of U.S.-Asia Pacific and U.S.-China relations in particular. Following on efforts begun under the previous administration, the Obama Administration adopted this strategy in order to bolster U.S. engagement and leadership in a region of growing importance to U.S. interests, and thereby promote a rules-based international order featuring security, shared economic prosperity, and good governance. Although

China's aggressive and coercive behavior intensified preceding the Rebalance, the Administration has sought to tie the strategy to defending international norms rather than to any one country in particular, and affirmed repeatedly that it welcomes "the rise of a peaceful and prosperous China."

The Rebalance strategy includes security, diplomatic, and economic components. To increase and sustain its regional security presence, the United States has most notably begun rotations of U.S. marines to Australia; strengthened deployments on Guam; implemented new access agreements with Australia, the Philippines, and Singapore; announced an initiative to fund maritime capacity building in Southeast Asia; and planned to base 60 percent of its Navy in the region by 2020. These initiatives will likely be affected by future U.S. budget decisions and resulting total force numbers. In diplomatic terms, the Rebalance has increased the number of visits to the region by senior officials, expanded engagement in regional governance institutions, and invested heavily in regional bilateral relationships, notably upgrading relations with Burma and Vietnam. The Asia Pacific still receives only a small fraction of total U.S. funding for diplomatic engagement, foreign assistance, and security assistance funding, however. The United States has also sought to increase its regional economic engagement and establish an economic framework for the region through new agreements such as the Trans-Pacific Partnership (TPP), which is regarded by administration officials as the centerpiece of the economic side of the Rebalance. Although other initiatives have been launched, none have been of a scale comparable to that of TPP. U.S. trade with Asia has increased during the Rebalance, but China has claimed the lion's share of the growth in U.S. regional trade.

China's rhetorical response to the Rebalance and its policy decisions since the strategy was announced indicate how its regional approach may unfold in the long term. China at first officially responded to the Rebalance by welcoming it cautiously, but Beijing has since criticized the military component in particular and increasingly sought to attribute tensions in the South China Sea to the strategy. Official statements aside, many in China appear to hold deeply suspicious and negative views of the Rebalance, describing the strategy as pursuing "containment" or reflective of a "Cold War mentality." Concurrent with the Rebalance, China has promoted the Conference on Interaction and Confidence-Building Measures in Asia (CICA) as a potential alternative regional security framework to that offered by the United States; continued its rapid military buildup and investments in conventional regional strike capabilities targeting U.S. facilities in the Asia Pacific; and, most significantly, persisted in its coercive actions against neighboring states in the maritime realm. In 2016 alone, China conducted exercises in disputed waters; continued to warn off U.S. aircraft and warships; militarized its artificial islands in the South China Sea contrary to public commitments; declared the July 2016 ruling by the Permanent Court of Arbitration on the disputes "null and void"; and reportedly conducted activities around Scarborough Reef (a strategically important disputed area) that raised concerns it might begin land reclamation, among other actions. Beijing's willingness to challenge the rules-based interna-

tional order—both before and after the United States initiated the Rebalance—remains a key point of friction between the two countries and their respective visions for the region.

In economic terms, China has worked over the course of the Rebalance to create new institutions such as the Asian Infrastructure Investment Bank to enhance its role in regional economic development. It has also sought to establish new trade agreements such as the Regional Comprehensive Economic Partnership and bilateral free trade agreements with U.S. allies such as Japan, Australia, and South Korea. These agreements may lessen the negative trade distortion effects on China that might arise if TPP were approved and impose fewer constraints on China than would a U.S.-led trade agreement, due to their weaker provisions. China has also sought to place itself at the center of a new network of regional infrastructure projects by pledging massive resources to its OBOR initiative.

Conclusions

- U.S. government statements have tied the Rebalance strategy to the upholding of the “liberal, rules-based international order” in the Asia Pacific, viewing the preservation of this order as broadly aligning with U.S. interests. It represents a tactical adjustment rather than a strategic shift in U.S. policy, seeking to maintain U.S. commitments to the region in an era of new challenges to these interests.
- Although China has voiced measured criticism of the Rebalance in official statements, opposition at other levels indicates a deeply negative perception overall. China has also expressed support for alternative regional security and economic frameworks, pursued coercive actions against neighboring countries in violation of its international commitments, and sought to promote its own free trade agreements since the Rebalance began.
- China alternately supports or challenges the international order based on varying interests, a point of friction in the Asia Pacific, where proximity and core territorial interests factor into Beijing’s views. China’s current leaders probably do not have foreign policy goals that are fundamentally different from those in the past, but are more assertive in making tactical decisions. These observations shed light on why Beijing has undertaken its current regional approach.
- The United States has attempted to emphasize that the Rebalance is focused on upholding principles, not on countering China for its own sake.
- To date, the Trans-Pacific Partnership is the only fully-developed significant economic component under the Rebalance. By its very nature as a free trade agreement, it does not address all U.S. economic interests and objectives in the region.
- Other economic initiatives under the Rebalance have been relatively small. Trade with Asia has increased under the Rebalance, and U.S. trade with China has grown faster than in other Asian countries.

THE COMMISSION'S KEY RECOMMENDATIONS

The Commission considers 10 of its 20 recommendations to Congress to be of particular significance. The complete list of recommendations appears at the Report's conclusion on page 507.

The Commission recommends:

- Congress direct the U.S. Government Accountability Office to prepare a report examining the extent to which large-scale outsourcing of manufacturing activities to China is leading to the hollowing out of the U.S. defense industrial base. This report should also detail the national security implications of a diminished domestic industrial base (including assessing any impact on U.S. military readiness), compromised U.S. military supply chains, and reduced capability to manufacture state-of-the-art military systems and equipment.
- Congress amend the statute authorizing the Committee on Foreign Investment in the United States to bar Chinese state-owned enterprises from acquiring or otherwise gaining effective control of U.S. companies.
- Congress direct the U.S. Department of Defense to include a permanent section in its *Annual Report on Military and Security Developments Involving the People's Republic of China* on the role and activities of China's maritime militia and the implications for U.S. naval operations.
- Congress enact legislation requiring its approval before China—either the country as a whole or individual sectors or entities—is granted status as a market economy by the United States.
- Congress require that under antidumping and countervailing duty laws, Chinese state-owned and state-controlled enterprises are presumed to be operating on behalf of the state and, as a result, do not have standing under U.S. laws against unfair trade to block a case from proceeding.
- Congress direct the Federal Bureau of Investigation to provide a classified report to Congress on what risks and concerns have been identified as associated with information systems acquired by the U.S. government, and how those risks are being mitigated. This report should identify information systems or components that were produced, manufactured, or assembled by Chinese-owned or -controlled entities.
- Congressional committees of jurisdiction hold hearings to:
 - Analyze the impact of China's state-directed plans such as "Made in China 2025" and "Internet Plus" on U.S. economic competitiveness and national security, and examine the steps Congress can take to strengthen U.S. high-tech and high-value-added industries such as artificial intelligence, autonomous vehicles and systems, and semiconductors.
 - Ensure that U.S. government agencies such as the U.S. Department of the Treasury, U.S. Department of Commerce, and the Office of the U.S. Trade Representative have sufficient personnel, funding, and Chinese-language capabilities

to examine China's economic and trade policies and China's compliance with its bilateral and multilateral commitments, including to the World Trade Organization.

- Examine U.S. access to China's domestic market, particularly for the service and high-tech sectors. This hearing should assess how U.S. government agencies such as the U.S. Department of Commerce and the Office of the U.S. Trade Representative are seeking to increase market access for U.S. firms and explore what additional policy options could be pursued.
- Congress require the U.S. Department of Defense to conduct a study indentifying the risks and gains associated with the United States pursuing a burden sharing strategy that utilizes emerging People's Liberation Army expeditionary capabilities to help stabilize the Asia Pacific region during a crisis or to counter a shared threat such as the spread of terrorism in Southeast Asia.
- Congress express support for more frequent U.S. freedom of navigation operations in the South China Sea in conjunction with U.S. allies and partners.
- Congress direct the U.S. Department of State to develop educational materials to alert U.S. citizens living and traveling abroad about recruitment efforts by Chinese intelligence agents, and to make these materials available to U.S. universities and other institutions sending U.S. students to China. Congress should also direct the U.S. Department of Defense to develop and implement a program to prepare U.S. students studying in China through Department of Defense National Security Education Programs to recognize and protect themselves against recruitment efforts by Chinese intelligence agents.

INTRODUCTION

This year marks the 15th anniversary of China's World Trade Organization (WTO) accession. While China's transformation has accelerated over the past decade and a half, its economic liberalization has fallen far short of global expectations. The reality of the U.S.-China economic relationship, too, has turned out to be much different than many had hoped. In 2015, the U.S. trade deficit with China was \$365.7 billion, the highest on record; in the first eight months of 2016, the deficit was \$225 billion. The cumulative U.S. trade deficit with China since it joined the WTO is a staggering \$3.5 trillion. As it protects its domestic industry from foreign competition, China continues to dump its massive overcapacity in U.S. and other global markets, materially damaging U.S. industries, including steel.

Some Western observers were optimistic when China announced its latest economic reform agenda in November 2013, viewing it as an overdue but welcome sign of commitment by the Chinese government to market reform. In the intervening years, however, it has become increasingly apparent that under the leadership of Chinese President and General Secretary of the Chinese Communist Party (CCP) Xi Jinping, China's domestic reform agenda is aimed at strengthening the hand of the state and maintaining CCP control—not promoting economic liberalization.

China continues to violate the spirit and the letter of its international obligations by pursuing import substitution policies, imposing forced technology transfers, engaging in cyber-enabled theft of intellectual property, and obstructing the free flow of information and commerce. China is also becoming a less welcoming market for foreign investors, with a host of restrictions and anticompetitive laws that proscribe foreign participation in broad swathes of the economy and promote domestic companies. At the same time, the extensive subsidization of and policy support for favored companies and sectors puts international competitors wishing to export to China at a distinct disadvantage. It has become all too apparent that the CCP has no intention of opening up what it considers key sectors of its economy to significant U.S. or foreign competition and control.

China's economic slowdown adds another dimension to the CCP's complicated economic calculus. In 2015, China's officially reported gross domestic product (GDP) growth rate fell to 6.9 percent, the lowest in 25 years. Far from allowing the market to determine optimal outcomes and letting weak firms go out of business, the government has been employing its previously used growth-boosting methods, including excessive emphasis on credit growth, support for state-owned enterprises, and infrastructure spending. While these measures help achieve short-term growth targets, they risk worsening resource misallocation, exacerbating ballooning local government

debt, and jeopardizing long-term growth. The harmful effects of the slowdown extend beyond China's economy: these trends also negatively impact countries along the Asian and global supply chains. Censorship and repression are on the rise in China, with adverse consequences for the Chinese people, foreign companies, and foreign and domestic nongovernmental organizations.

Similarly, hopes that China would stick to its path of "peaceful development" and become a global power that upholds and strengthens the rules-based liberal world order have not been met. China's leaders have taken advantage of the existing international order when convenient and sought to rewrite the rules when it benefits them. This was starkly illustrated this year by an international tribunal's ruling that many of China's activities in the South China Sea are unlawful—and by China's obstinate rejection of the proceedings. On North Korea, although China signed on to the UN Security Council's strictest sanctions on Pyongyang to date, there are already indications that China does not intend to enforce them in a way that might deter Kim Jong-un from his increasingly dangerous behavior, illustrated by two nuclear tests and a dozen ballistic missile tests in 2016 alone. Closer to home, China has been employing new levers of coercion in Taiwan and Hong Kong in ways that infringe upon longstanding practices and agreements, and which threaten to erode autonomy and democratic values in both places.

China's willingness to reshape the economic, geopolitical, and security order to accommodate its interests are of great concern as China's global influence grows. This influence has been manifesting most recently with China's "One Belt, One Road" initiative aimed at connecting China with great portions of the rest of the world via a wide range of investments and infrastructure projects. Last year, the Commission tracked the initiative's impact in Central Asia. This year, as part of our examination of China's rise and South Asia, we considered its impact on some of the countries in that region. China's emergence as a major player in South Asia is affecting the geopolitics of the region, and is causing the region's traditional major power, India, to grow increasingly concerned about the prospect of Chinese encirclement.

Meanwhile, China's military modernization—fueled by a growing defense budget—continues to emphasize capabilities that are designed to challenge the United States and intimidate China's neighbors. For example, China's ability to conduct conventional strikes against U.S. regional facilities recently reached an inflection point with the fielding of new ballistic missiles capable of reaching Guam. The Chinese military's pursuit of force projection and expeditionary capabilities, while enabling it to provide public goods in the form of antipiracy, peacekeeping, and humanitarian assistance and disaster relief operations, will also strengthen China's traditional warfighting capabilities against its weaker neighbors, many of whom are U.S. allies or partners. These developments are underpinned by advancements in China's naval, air force, cyber, and space capabilities. In response to conflicting claims in the East and South China seas, China has increased its military deployments there. Moreover, China's expanding intelligence collection capabilities, including in the cyber realm, have enabled many infiltrations of U.S. national secu-

rity entities. The information China has extracted could strengthen its hand in a conflict with the United States.

China's actions in the economic, foreign policy, and military realms suggest China's leaders have decided the time has come for China to leave behind its long-held strategy, espoused by Deng Xiaoping, of "hide your strength, bide your time." China is showing itself to the world now, and the outcome is not what many had hoped for 15 years ago when the country was welcomed into the WTO and the global economic system. Our Report and recommendations reflect the China that is, not the China for which some have hoped.

CHAPTER 1

U.S.-CHINA ECONOMIC AND TRADE RELATIONS

SECTION 1: YEAR IN REVIEW: ECONOMICS AND TRADE

Introduction

China is navigating a complex economic transformation as it experiences a slower pace of growth. The Chinese leadership proclaimed during the 2013 Third Plenary Session of the 18th Chinese Communist Party (CCP) Central Committee (hereafter, “Third Plenum”) that it is working toward a more market-based economic system. However, Party documents and official actions indicate the Chinese government’s approach to reform is different from the liberal market reform Western observers expect. By “reform,” China’s leaders mean an economy that more efficiently achieves the strategic goals of the state. While reform in the Chinese sense allows for incremental movements toward a free market in certain areas, it precludes any changes that substantially reduce the government’s power over the economy.

Beijing’s state-directed approach raises questions about the sustainability of China’s economic growth. Government stimulus has largely accrued to the state sector while the private sector struggles to secure credit, endangering China’s rebalancing. Within China’s economic downturn, a tale of two Chinas is emerging. In one, traditional drivers of growth—heavy industry and low-end manufacturing—are in decline, while in another, newer sectors—services, consumer goods, and technology—are burgeoning. Still, the old economy remains critical for some provinces, and the new economy—so vital to China’s future growth—is nascent, underfunded, and not pulling its weight. National-level economic data also belie sharp discrepancies between the northeastern and western provinces dependent on the old economy and the southern and eastern regions with more diversified economies.¹ Externally, China’s rebalancing has proceeded slowly as the country continues to run massive global trade surpluses: in 2015, China’s global trade surplus in goods and services reached \$595 billion, up from \$382 billion in 2014.²

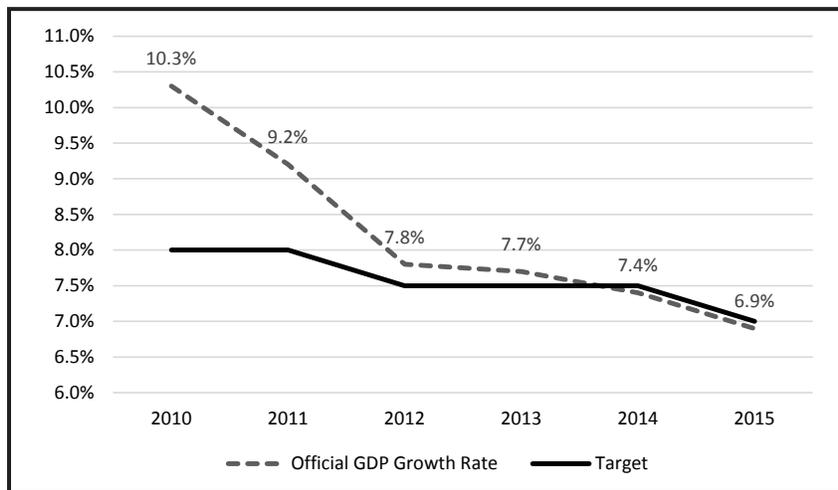
This section examines China’s domestic and external rebalancing as well as key developments in U.S.-China bilateral and multilateral engagement since the Commission’s *2015 Annual Report to Congress*. For analysis of some of the key challenges China faces as it seeks to rebalance its economy, see Chapter 1, Section 2, “State-Owned Enterprises, Overcapacity, and China’s Market Economy

Status.” For an in-depth examination of China’s reform agenda, see Chapter 1, Section 3, “13th Five-Year Plan.”

China’s Domestic Rebalancing

In 2015, China’s officially reported gross domestic product (GDP) growth fell to 6.9 percent—a 25-year low—in line with the official GDP target of “around 7 percent” (see Figure 1).³ The Chinese government announced a 6.5 percent to 7 percent growth target for 2016.⁴ The range acknowledges China’s “new normal” of slower growth and gives it more flexibility to meet its target. In the second quarter of 2016, China’s economy grew 6.7 percent, the same rate as in the previous quarter, its weakest pace of expansion since 2009.⁵ Key economic indicators show the government’s hand in stabilizing the economy through large-scale stimulus. Industrial production and retail sales rose, buoyed by government stimulus measures, while fixed asset investment (FAI)* weakened.

Figure 1: China’s GDP Growth, 2010–2015
(year-on-year)



Source: Various.⁶

Statistics with Chinese Characteristics: The Reliability of China’s GDP Data

In the first half of 2016, the Chinese government reported GDP growth of 6.7 percent, but many foreign economists believe official statistics overstate the economy’s performance. There has been longstanding skepticism among economists, investors, and analysts about the reliability of Chinese official economic data, par-

* FAI is a measure of capital spending referring to any investment by government and businesses in physical assets, such as buildings, machinery, and equipment.

Statistics with Chinese Characteristics: The Reliability of China's GDP Data—Continued

ticularly the politically sensitive GDP growth rate.* They point to inconsistencies with official statistics—discrepancies between GDP data published at the national and provincial levels and the headline GDP and sectoral data—which raise the likelihood of inaccurate statistics.⁷ Moreover, China's quarterly and annual GDP data are unusually smooth compared to other major economies, evincing “little or no volatility compared to growth targets.”⁸

Most unofficial estimates of China's growth in the first half of 2016 fall below the reported 6.7 percent.⁹ For example, economic research consultancy Capital Economics estimates China's GDP grew at 4.5 percent in the second quarter of 2016.¹⁰ Preliminary estimates from Lombard Street Research, another research consultancy, assess China's GDP growth at 6 percent in the second quarter of 2016.¹¹ However, estimates struggle to accurately capture the rising role of services in China's economy due to the dearth of available data.¹² The International Monetary Fund's (IMF) annual review of China's economic and financial policies finds that while “there is some evidence pointing to possible overstatement of growth recently ... the overstatement is likely moderate and the official national accounts data—while there is much room for improvement—likely provides a broadly reliable picture.”¹³

Top officials, including Premier Li Keqiang and Ning Jizhe, the new head of China's National Bureau of Statistics,† have pushed for better data on the country's “new economy” industries.‡ Official data focus on measuring industrial activity and fail to reflect newer economic drivers, such as online retail sales, because they do not fit neatly into existing categories.¹⁴ China's National Bureau of Statistics is expected to issue guidelines for compiling data across new economy sectors by the end of 2016.¹⁵

In the second quarter of 2016, FAI grew 9 percent from the second quarter of 2015 (year-on-year), its slowest pace since 2000.¹⁶ Conditions in China's industrial sector were weaker than in the first quarter. Unofficial estimates by Caixin, a Chinese financial media group, showed China's manufacturing Purchasing Managers' Index (PMI)§

*For an in-depth examination of the reliability of China's economic statistics, see Jacob Koch-Weser, “The Reliability of China's National Economic Data: An Analysis of National Output,” *U.S.-China Economic and Security Review Commission*, January 28, 2013.

†Ning Jizhe's predecessor was ousted in January 2016 over unspecified corruption allegations after less than a year on the job. Gabriel Wildau, “China's Statistics Chief Wang Baoan Accused of Corruption,” *Financial Times*, January 26, 2016.

‡In a press conference after the conclusion of the National People's Congress in March 2016, Premier Li said, “The concept of the new economy covers a wide range of areas and has many dimensions.... It's not just about emerging forms of business and industries such as e-commerce, cloud computing, the Internet of things and Internet. It can also be found in smart manufacturing, large-scale customer-made production in the industrial sector.” State Council of the People's Republic of China, *Premier Li Keqiang Meets the Press: Full Transcript of Questions and Answers*, March 16, 2016.

§The PMI measures the level of economic activity in the manufacturing sector based on five sub-indicators: production level, new orders, inventories, supplier deliveries, and employment level. The Caixin-Markit China manufacturing PMI is compiled by Markit Economics, a global financial information services provider, based on monthly responses to questionnaires sent to purchasing executives from over 420 manufacturing firms, including small and medium-sized enterprises. The China Mixin PMI, a less high-profile private gauge of manufacturing activity,

Continued

at 48.6 in June 2016, down from 49.2 in May, the third consecutive monthly decline (a reading below 50 points indicates contraction of the manufacturing sector).¹⁷ Value-added industrial growth—viewed by markets as a proxy for economic growth—expanded 6.2 percent year-on-year in June.¹⁸ The recovery in the property market during the first half of 2016 helped to cushion the slowdown in the broader economy; housing sales rose 44.4 percent year-on-year in the first half of 2016.¹⁹ However, slowing property investment growth in the first half of 2016 indicates the stimulus-driven recovery in the property sector is tapering off.*

Consumption's contribution to GDP in 2016 continued to increase, accounting for 73.4 percent of growth in the first half of 2016, compared to 60 percent of growth in the first half of 2015.²⁰ Retail sales of domestic goods and services, a proxy measure for overall consumption, grew at a better-than-expected 10.6 percent year-on-year in June 2016, the highest reading since December 2015.²¹ However, because China's retail sales figures include private and government purchases, disposable personal income† can be a more accurate indicator of household spending.²² In the first half of 2016, China's national per capita disposable income, adjusted for inflation, grew 6.5 percent year-on-year to \$1,774 (renminbi [RMB] 11,886).‡²³ (For comparison, the U.S. national per capita disposable income was \$43,095 in the second quarter of 2016.)²⁴ Despite strong retail sales data, growth in consumer spending is likely to weaken, as income gains slow§ and household savings rates remain high—the average Chinese household saves as much as 40 percent of its income.¶²⁵

Beijing is relying on a stronger service sector to help offset the contraction in its manufacturing sector and to provide jobs for laid-off factory workers.²⁶ In 2015, services grew 8.3 percent, generating for the first time more than half of China's GDP (50.5 percent).²⁷ The sector expanded at a slightly slower pace in 2016—in the second quarter, it grew 7.5 percent, surpassing a 6.3 percent increase in the secondary industry, and accounted for 54.1 percent of GDP,

was suspended "indefinitely" in July 2016 by its publishers, the China Minsheng Bank and the government-affiliated China Academy of New Supply-Side Economics. China's official PMI, compiled by the National Bureau of Statistics, tracks larger state-owned companies and generally shows a stronger reading than the private PMIs. *Financial Times*, "Independent Chinese PMI Gauge Suspended Indefinitely," July 20, 2016; Caixin Purchasing Managers' Index, "Caixin China General Manufacturing PMI," July 1, 2016.

*The decline in property investment growth is due in part to weak property developer sentiment and housing inventory oversupply. Property investment from January to June 2016 rose 6.1 percent year-on-year, slowing from an increase of 7 percent from January to May 2016. Property investment for June 2016 increased a mere 3.5 percent from a year ago, compared with 6.6 percent in May. Clare Jim, "China Property Investment Growth Slows, Recovery Seen at an End," Reuters, July 15, 2016; Elias Glenn and Kevin Yao, "Government Spending Steadies China's Economy in Second-Quarter but Risks Grow," Reuters, July 15, 2016; and *Financial Times*, "Real Estate to Remain a Growth Lifeline for China through 2016," July 10, 2016.

†Disposable personal income is the amount of income households have for spending and saving after income tax.

‡Unless otherwise specified, this Report uses the following exchange rate throughout: 1 U.S. dollar = 6.70 RMB.

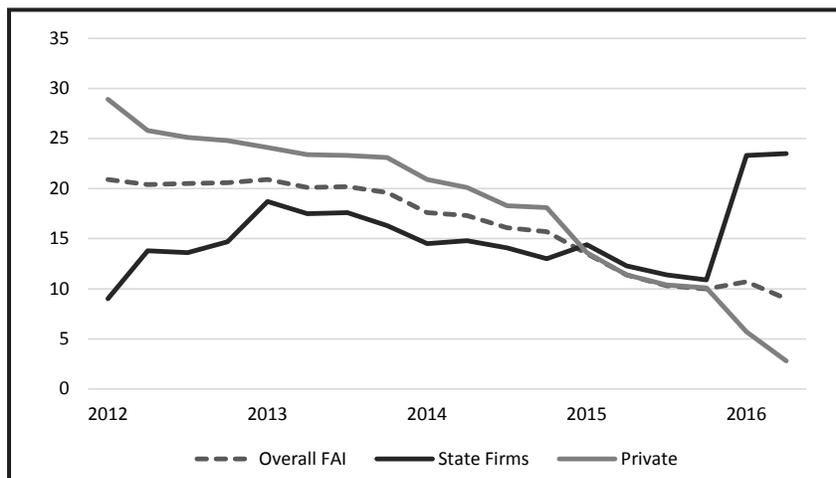
§In July 2016, Xin Changxing, vice minister of China's Ministry of Human Resources and Social Security, called for a slowdown in wage increases to maintain competitiveness. Several provinces have slowed or halted increases to minimum wages this year, as Chinese companies face increasing pressure from weakening demand and rising expenses. Nick Heath and Winni Zhou, "China Will Struggle to Maintain Growth Pace for Wages: Statistics Bureau," Reuters, July 16, 2016.

¶In comparison, the U.S. household savings rate is 5.2 percent. Chinese officials, meeting with Commission, Beijing, China, June 24, 2016; China's National Bureau of Statistics, *China Had a Good Start in the First Quarter of 2016*, April 15, 2016; and Alexandra Stevenson, "As Growth Slows, China Pins Hopes on Consumer Spending," *New York Times*, January 19, 2015.

up from 52.3 percent in the second quarter of 2015.²⁸ The fastest growth has come from “other” services, a broad category that includes business services, education, entertainment, and healthcare.* While financial services was the main contributor to overall service growth in the first half of 2015, its share has been in decline since the stock bubble burst last June.²⁹

Although China’s state-owned economy has declined in relative importance, it remains significant, accounting for 16 percent of GDP and more than half of corporate debt.³⁰ The Xi Administration has identified state-owned enterprise (SOE) reform as an essential step to restructuring the economy.³¹ Concentrated in heavy industry and construction, and burdened by overcapacity and debt, the state sector is tied to the old growth model from which Beijing says it has been trying to move away. China’s political reality, however, shows that the government continues to support SOEs. Even as Beijing states its intent to promote a productive private sector, it largely channels credit to the inefficient state sector.³² (In 2015, industrial SOEs had a return on assets of 2.9 percent, compared with 10.3 percent for private industrial enterprises.)^{†33} During the second quarter of 2016, state sector investment expanded 23 percent year-on-year, while private investment growth slowed to a record low of 2.8 percent (see Figure 2).³⁴ Meanwhile, SOE profits fell 6.7 percent year-on-year in 2015 and 8.5 percent year-on-year in the first half of 2016, despite the government’s efforts to boost economic growth.³⁵ (For more on China’s efforts to restructure its SOEs, see Chapter 1, Section 2, “State-Owned Enterprises, Overcapacity, and China’s Market Economy Status.”)

Figure 2: China’s Fixed Asset Investment
(% change year-on-year, year-to-date)



Source: China’s National Bureau of Statistics via CEIC database.

*A lack of detail on “other” services makes it difficult to assess which service industries within that category are driving growth. Gabriel Wildau, “China Services Sector Key to Growth,” *Financial Times*, December 6, 2015.

†For comparison, the average 2015 year-end return on assets of the top 20 U.S. companies listed on the Fortune 500 was 4.9 percent. Return on assets data were compiled from YCharts, a financial data and analytics provider. YCharts. <https://ycharts.com/companies>.

Key Government Statements on Economic Reform

Third Plenum Decision (November 2013):³⁶

We must deepen economic system reform by centering on the decisive role of the market in allocating resources, adhere to and improve the basic economic system, accelerate the improvement of the modern market system, macro-control system and open economic system.

The basic economic system with public ownership playing a dominant role and different economic sectors developing side by side is an important pillar of the socialist system with Chinese characteristics and is the foundation of the socialist market economy. Both the public and nonpublic sectors are key components of the socialist market economy, and are important bases for the economic and social development of China. We must unswervingly consolidate and develop the public economy, persist in the dominant position of public ownership, give full play to the leading role of the state-owned sector, and continuously increase its vitality, controlling force and influence. We must unwaveringly encourage, support and guide the development of the nonpublic sector, and stimulate its dynamism and creativity.

Guiding Opinion on Deepening the Reform of State-Owned Enterprises (September 2015):³⁷

The fundamental requirement for deepening SOE reform is to uphold and improve the basic economic system. We must unswervingly consolidate and develop the public economy, and unswervingly encourage, support, and guide the development of the nonpublic economy. We must uphold the dominant position of public ownership and develop the leading role of the state-owned economy.

China's Supply-Side Structural Reforms

Chinese President and General Secretary of the CCP Xi Jinping has made “supply-side structural reform” the dominant theme of economic policy in 2016, after announcing it during the Central Economic Work Conference last December.³⁸ In the Chinese context, supply-side reform has become an umbrella term for structural reforms: the main thrust of the reforms, according to President Xi, is “to reduce ineffective supply, increase effective supply, and make the supply structure more fitting to the demand structure.”³⁹ President Xi differentiates China’s version of “supply-side structural reform” from Western supply-side economics: the end goal of Chinese reform, according to President Xi, is not “small government, big market,” but “effective government and effective markets.”⁴⁰ Key elements of the policy include cutting excess industrial capacity and housing inventories, deleveraging, and reducing business costs.⁴¹ The central government has put the onus on local governments to work out how to operationalize and implement these broad policy planks.⁴²

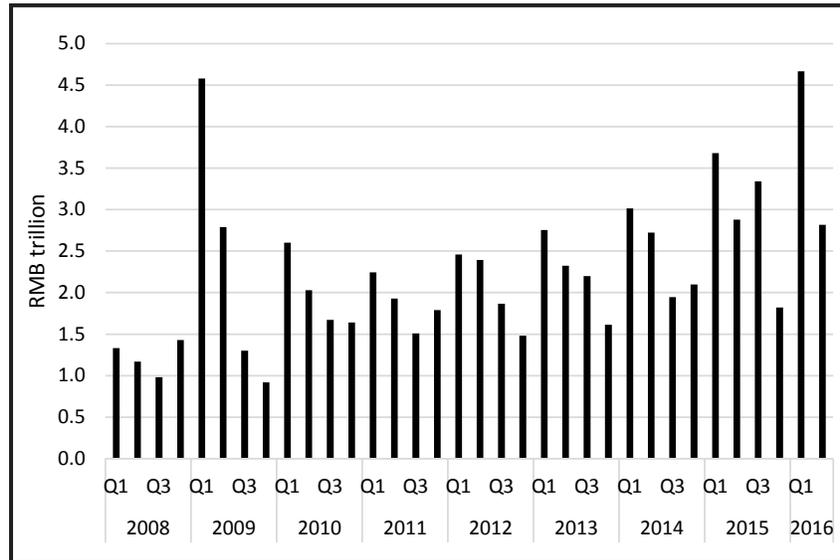
Early signs suggest President Xi's supply-side focus has not yet translated into a serious change of course. Facing a sharp slowdown in growth and large capital outflows at the beginning of 2016, Chinese economic policymakers turned to stimulus measures to revive growth.⁴³ Moreover, capacity reduction efforts in the coal and steel sectors have fallen far short of stated goals.⁴⁴ In response, President Xi has sought to rally local officials around the government's agenda.⁴⁵ In a May 2016 meeting with senior Party leaders, he expressed his frustration with the lack of progress on supply-side reforms, noting that, "some local governments haven't started vigorous implementation yet, and some efforts are missing the point."⁴⁶ In the same month, the *People's Daily* published a transcript of an internal speech President Xi delivered to principal ministerial and provincial officials in January 2016, in which he emphasized the need to "prevent some people from using their interpretations to promote 'neoliberalism.'"⁴⁷

More Stimulus amid Rising Debt

Escalating lending belies the Xi Administration's promises of supply-side reforms. The Chinese government has ramped up efforts to inject money into the economy and boost economic performance. In February 2016, the People's Bank of China (PBOC) lowered the reserve requirement ratio—or the amount of customers' deposits banks must hold in reserve—by 0.5 percentage points, injecting an estimated \$100 billion in the economy.⁴⁸ Furthermore, in the first quarter of 2016, China's state-controlled banks released a record \$701 billion (RMB 4.7 trillion) of credit, slightly surpassing the \$687 billion (RMB 4.6 trillion) released in the first quarter of 2009 during the global financial crisis.⁴⁹ The 2009 stimulus helped China rebound from the global slump, but it also greatly worsened the country's industrial overcapacity and debt levels.⁵⁰ While lending eased overall to \$432.8 billion (RMB 2.9 trillion) in the second quarter of 2016, the pace of lending picked up again in June, with new loans totaling \$209 billion (RMB 1.4 trillion) (see Figure 3).⁵¹

*Neoliberalism is an economic philosophy that emphasizes transferring control of economic factors from the public sector to the private sector. Key tenets include deregulation, privatization, free trade, fiscal austerity, and reduced government spending.

Figure 3: New Loans Issued by Chinese Banks, 2008–2016 Q2
(year-on-year)

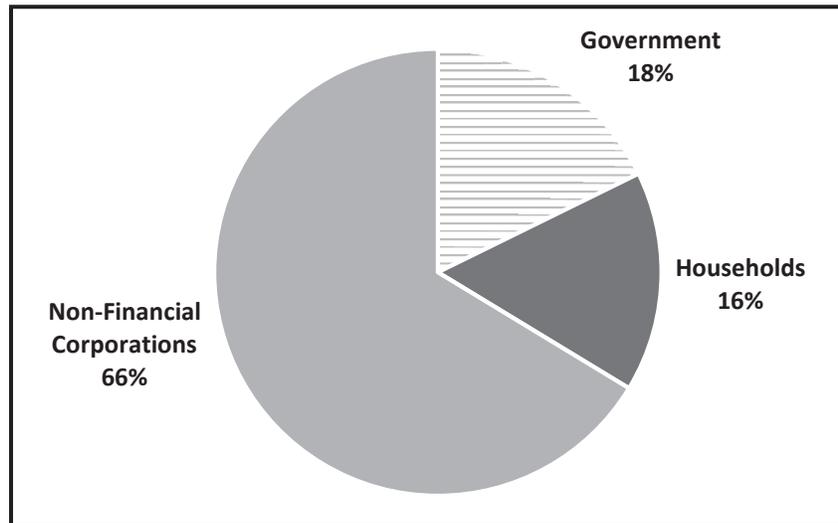


Source: The People's Bank of China via CEIC database.

China's continued reliance on borrowing from its state-controlled banks to bolster growth raises concerns about the sustainability of gains made in the first half of 2016. China's stimulus policies are delivering rapidly diminishing returns. According to Morgan Stanley, it now takes nearly six RMB of additional credit to generate one RMB of GDP growth.⁵² From 2003 to 2008, it took one RMB of extra credit to generate one RMB of growth; this ratio rose to two to one between 2009 and 2010, and reached four to one in 2015.⁵³

China's total debt reached a record \$27.2 trillion, or 255 percent of GDP, in the first quarter of 2016, according to data from the Bank for International Settlements (see Figure 4).⁵⁴ While China's overall level of debt is a concern, more alarming is the speed at which it has amassed—the country's total debt was only 148 percent of GDP in 2007.⁵⁵ In particular, the rapid growth in China's corporate debt—which stands at 169 percent of GDP—is worrying.⁵⁶

*China's total debt as a proportion of national income is comparable to that of the United States (251 percent of GDP at the end of 2015), but is much higher than in other developing economies. For instance, at the end of 2015, India's total debt was 129 percent of GDP, while Brazil's was 149 percent of GDP. Bank for International Settlements, "Total Credit to the Non-Financial Sector (Core Debt)," May 27, 2016.

Figure 4: China's Total Debt by Holder, 2016 Q1

Source: Bank for International Settlements.

China's high and still rising corporate debt levels present elevated risks to economic growth and financial stability.⁵⁷ Rising corporate indebtedness, driven by firms in the real estate and construction sector and SOEs in general, has led to a drop in profitability and return on assets, indicating deteriorating debt-servicing capacity.⁵⁸ As Chinese banks make about a half of their loans to companies, an uptick in corporate defaults could have broader implications for the banking sector, such as a worsening of banks' asset quality.⁵⁹

SOEs hold more than half of corporate debt, despite generating only one-fifth of China's total economic output.⁶⁰ In addition, state-owned banks are SOEs' biggest creditors, enabling the government to issue nonproductive loans and forgive SOE debts—a classic example of moral hazard.^{*61} (For more on the challenges associated with SOE debt, see Chapter 1, Section 2, "State-Owned Enterprises, Overcapacity, and China's Market Economy Status.") At the same time, nonperforming loans (NPLs)—loans that are unlikely to be paid back—are piling up. According to the China Banking Regulatory Commission, Chinese banks' NPLs amounted to 2.15 percent of total loans at the end of May 2016, up from 1.75 percent at the end of March.⁶² However, the actual NPL ratio may be much higher; brokerage firm CLSA estimates that NPLs accounted for 15 percent to 19 percent of loans in 2015, compared with the official 1.67 percent.[†]

*Moral hazard occurs when one party takes greater risks than it would otherwise because another party bears the cost of the risks.

†The sizable discrepancy between the official NPL ratio and unofficial estimates comes from how banks categorize NPLs. The IMF considers a loan nonperforming if interest and principal payments are more than 90 days overdue. In China, a loan more than 90 days overdue is considered nonperforming only if loans are doubtful or loss making. As SOE borrowers are presumed to have government backing, it can be difficult for banks to characterize their loans as nonperforming. There is also a separate category—"special mention" loans—for loans that are at risk of becoming nonperforming. CLSA derived its bad debt ratio estimate from Chinese companies' financial statements; a company's

Continued

A 2016 IMF report estimated the potential losses for China's banks from bad corporate loans at 7 percent of GDP.⁶³

The rapid growth of China's shadow banking* sector is another cause for concern due to the risks it poses to financial stability.⁶⁴ According to the IMF's 2016 annual Article IV review of China's economy, shadow credit products grew by almost 50 percent in 2015 to \$6 trillion (RMB 40 trillion), or about 58 percent of China's GDP.⁶⁵ About half of these shadow credit products pose an "elevated" risk of default or loss.⁶⁶

RMB Reforms

Amid rising financial sector vulnerabilities, the PBOC has found it difficult to maintain momentum on financial reforms while delivering on its mandate to support economic growth. The central bank stated that it wants a more flexible, market-oriented exchange rate regime, but it also desires RMB stability.⁶⁷ In pursuit of a stable RMB, the PBOC has been trying to shift market attention from the RMB's movement against the dollar, announcing in December 2015 it would start tracking the value of the RMB based on a broader basket of currencies.⁶⁸ According to Eswar Prasad, professor of trade policy at Cornell University, "This move would make it easier for the [PBOC] to delink the RMB from the dollar."⁶⁹ In addition, Dr. Prasad said, "The [PBOC] may be preparing the market for further RMB depreciation relative to the dollar in the short turn—if the dollar were to strengthen further—and focusing attention on a more suitable benchmark for future movements in the currency."⁷⁰ Some analysts believe China's move to unpeg its currency from the dollar could allow the PBOC to alternate between setting the RMB against the dollar and the currency basket depending on the strength of the dollar, affording the Chinese government greater flexibility with monetary policy.⁷¹

Beijing has continued to increase the flexibility of its exchange rate,[†] driven in part by its goal of expanding the international use of the RMB. It achieved an important victory in November 2015 when the IMF executive board voted to include the RMB in the Special Drawing Rights (SDR) basket, to become effective in October 2016 (see following textbox).⁷² The PBOC has stated that it sees the inclusion of the RMB as a starting point for deeper financial reforms, which include a greater liberalization of China's capital account.⁷³ Despite this progress, the PBOC still carefully manages the value of the RMB, intervening in foreign exchange markets to keep the currency's external value stable.⁷⁴ From August 2015 to June 2016, the PBOC spent about \$473 billion in foreign exchange

loans are classified as nonperforming if its interest expenses surpass operating income, or if its net debt is greater than five years of operating income. Reuters, "UPDATE 1-China's Non-Performing Loans Hit 11-Year High – Regulator," May 12, 2016; Shuli Ren, "CLSA: 15-19% of China's Bank Loans Are Bad," *Barron's Asia* (Blog), May 6, 2016; and Paul Panckhurst, "CLSA Sees China Bad-Loan Epidemic with \$1 Trillion of Losses," *Bloomberg*, May 6, 2016.

*Shadow banking is lending—to include wealth management products, credit guarantees, entrusted loans, and peer-to-peer lending—that occurs outside of the formal banking sector. For more information on China's shadow banking sector, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 3, "Governance and Accountability in China's Financial System," in *2013 Annual Report to Congress*, November 2013, 113–152.

†Notably, the PBOC took an important step toward a more market-determined exchange rate in August 2015 when it revised its method for setting the daily reference rate for the RMB in the onshore currency market; the PBOC said it would take into account the previous day's closing exchange rate—which could rise or fall up to 2 percent under the currency's trading band—as well as the exchange rate movements of other major currencies. Nicholas Lardy, "China's Latest Currency Actions Are Market Driven," *China Economic Watch* (Peterson Institute for International Economics blog), August 11, 2015.

reserves to defend the RMB.⁷⁵ It also has failed to communicate its foreign exchange policy; twice in the past year, the PBOC's poorly communicated efforts to make the RMB more market driven resulted in significant market turbulence.*

China's RMB Joins the IMF's Special Drawing Rights Currency Basket

The RMB's addition to the basket of the SDR—the IMF's international reserve asset—took effect on October 1, 2016.† The IMF executive board decided in November 2015 that the RMB “met all existing criteria” for SDR basket inclusion, including being “freely usable,” defined as being “widely used” for international transactions and “widely traded” in major foreign exchange markets.⁷⁶ The decision was reportedly unanimously supported by IMF executive board members, including the United States.⁷⁷ The addition of the RMB to the SDR basket—currently composed of the dollar, euro, pound, and yen—has been a key policy objective for Beijing both as a symbol of its economic importance and role in the global economy and as part of its efforts to increase the international use of the RMB.⁷⁸

Christine Lagarde, managing director of the IMF, said the RMB's inclusion is “a recognition of the progress that the Chinese authorities have made in the past years in reforming China's monetary and financial systems.”⁷⁹ Following the announcement, the PBOC pledged China “will speed up the effort to promote financial reforms and opening.”⁸⁰ Dr. Prasad said that while the decision will encourage China's reformers, “domestic opposition to further financial-sector reforms and market-oriented liberalization measures remains fierce, and this decision by itself is unlikely to shift the balance substantially.”⁸¹

Aside from earning China economic prestige, the immediate impact of the RMB's inclusion in the SDR basket will be limited, given the SDR's minor share of global reserves.‡ In the longer term, central banks may increase their holdings of the RMB, and investors may be encouraged to hold RMB-denominated assets. Standard Chartered, a multinational banking and financial services company, estimates the RMB's new status as a reserve asset will lead to a 1 percent shift (about \$1 trillion) of global reserves into RMB-denominated assets over the next five years.⁸² Use of the RMB for trade settlement is still small, but has been growing steadily: according to SWIFT, a global provider of financial mes-

*In August 2015, an unexpected move by the PBOC to cut its daily reference rate for the RMB prompted a further fall in its currency market and market selloffs. In January 2016, the PBOC's surprise move to guide the RMB weaker against the dollar sparked a second selloff. In both cases, the PBOC had to intervene heavily, using its foreign exchange reserves to prevent the RMB from falling too much. Keith Bradsher, “China to Track Renminbi Based on Basket of Currencies,” *New York Times*, December 11, 2015; Lingling Wei, “China Challenged to Keep Yuan Stable as Dollar Rises,” *Wall Street Journal*, May 16, 2016.

†Effective October 1, 2016, the weights of the SDR currencies will be: 41.7 percent for the U.S. dollar, 30.9 percent for the euro, 10.9 percent for the RMB, 8.3 percent for the Japanese yen, and 8.1 percent for the pound sterling. International Monetary Fund, “Review of the Special Drawing Right (SDR) Currency Basket,” April 6, 2016; International Monetary Fund, “IMF's Executive Board Completes Review of SDR Basket, Includes Chinese Renminbi,” November 30, 2015.

‡According to IMF data, SDR holdings made up 2.1 percent of global reserves at the end of 2014. International Monetary Fund, “IMF Annual Report 2015: Appendix I,” 2015.

China's RMB Joins the IMF's Special Drawing Rights Currency Basket—*Continued*

saging, in July 2016 the RMB was the fifth most used currency, accounting for 1.9 percent of all international payments.*

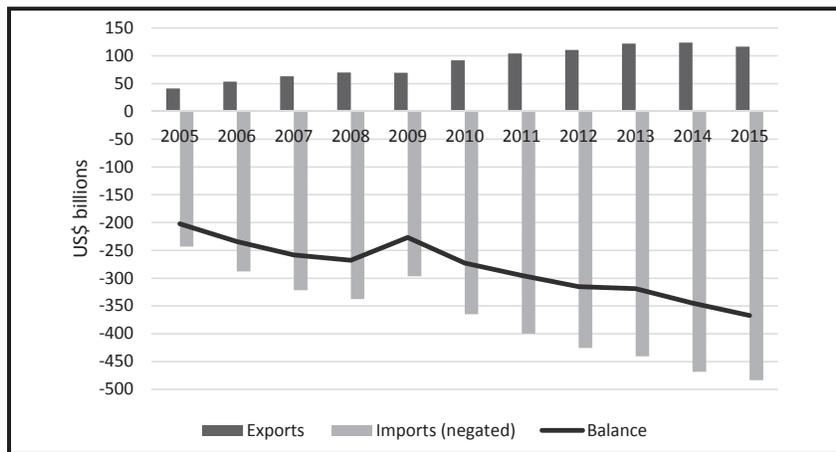
China is also pushing for greater use of the SDR as a way to reduce the dominance of the U.S. dollar.⁸³ In August 2016, the World Bank issued \$700 million worth of SDR bonds in China's domestic market for the first time, a move aimed at reviving the global market for SDR bonds.[†] The bonds are denominated in SDRs and payable in RMB.⁸⁴

U.S.-China Bilateral Trade and Investment

The United States is running a record trade deficit with China driven by U.S. goods imports; it has a substantial but much smaller trade surplus with China in services. Compared with bilateral trade flows, investment levels between the two countries are far smaller. In recent years, U.S. direct investment in China has remained flat, while Chinese foreign direct investment (FDI) in the United States is increasing rapidly and making up a growing share of China's outward investment.

In 2015, the U.S. goods trade deficit with China increased by 6.5 percent year-on-year to \$367.2 billion, a new record (see Figure 5).⁸⁵ U.S. exports to China declined 6.4 percent year-on-year to \$116 billion, while imports increased 3.6 percent to \$483.2 billion.⁸⁶

Figure 5: U.S.-China Goods Trade, 2005–2015



Source: U.S. Census Bureau.

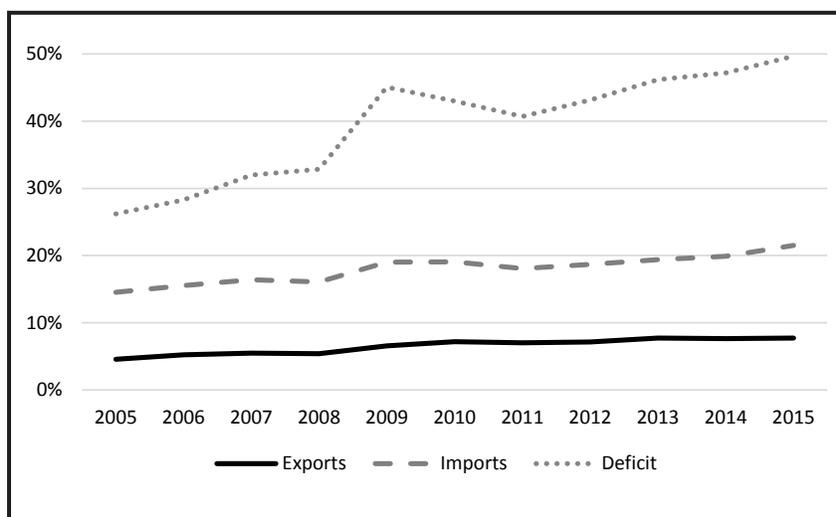
*The U.S. dollar leads SWIFT rankings with 41.3 percent, followed by the euro (31.3 percent), pound sterling (7.9 percent), and Japanese yen (3.4 percent). SWIFT, "RMB Continues to Penetrate the South African Market," August 24, 2016.

[†]Analysts anticipate limited demand from commercial investors given the bonds' low yields, but China's major state-owned banks are expected to step in and buy up bonds in the absence of market demand. SDR-denominated bonds were first issued in 1975 but floundered in the 1980s due to a lack of investor demand. Pete Sweeney, "China Is Wrong Venue for an SDR Revival," September 1, 2016; Michelle Chen and John Ruwicz, "World Bank Sells Landmark SDR Bonds at Lower-End of Guidance, Challenges Loom," Reuters, August 31, 2016.

The pace of U.S. export growth to China has always been modest (for instance, U.S. exports grew 1.5 percent in 2014), falling far short of expectations. However, the 2015 decline in exports made for a disappointing new development.⁸⁷ The decline was driven by China's trade protectionism, weak demand in China, and a strong U.S. dollar, which made U.S. exports more expensive.⁸⁸ U.S. export growth to China last declined during the height of the global financial crisis, when exports fell from \$69.7 billion in 2008 to \$69.5 billion in 2009, before making a quick recovery in subsequent years.⁸⁹

China's share of the U.S. goods deficit with the world also set a new record in 2015, reaching 50 percent (see Figure 6).⁹⁰ The overall goods deficit for 2015 was \$745.7 billion.⁹¹ U.S. exports to China remained flat for the third year in a row at 8 percent of total U.S. exports.⁹²

Figure 6: China's Share of U.S. Goods Exports, Imports, and Deficit, 2005–2015



Source: U.S. Census Bureau.

In the first eight months of 2016, the U.S. goods deficit with China fell 5.7 percent year-on-year to \$225.2 billion due to weaker imports (see Table 1).⁹³ U.S. imports from China in the first eight months of the year fell 5.8 percent year-on-year—a sharp contrast to the last five years.⁹⁴ The drop was driven by a 27.4 percent year-on-year decrease in March imports.⁹⁵ U.S. exports to China fell 6.3 percent year-on-year in the first eight months of 2016.⁹⁶ In the last two years, China's slowing economic growth has contributed to a year-on-year decline in U.S. export growth.*

*Meanwhile, foreign-invested enterprises (FIEs) continue to account for a significant share of China's foreign trade. According to official Chinese data, in the first half of 2016, FIEs in China

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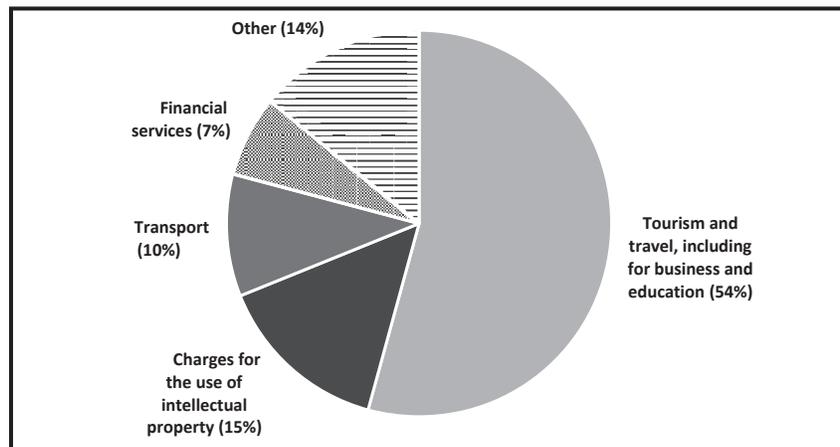
Table 1: U.S. Goods Trade with China, January–August 2016
(US\$ billions)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Exports	8.2	8.0	9.0	8.7	8.5	8.8	9.2	9.4
Imports	37.1	36.2	29.9	33.0	37.5	38.6	39.5	43.3
Balance	(28.9)	(28.1)	(20.9)	(24.3)	(29.0)	(29.8)	(30.3)	(33.9)
<i>Balance YTD</i>								
2015	(29.1)	(51.9)	(83.2)	(110.0)	(140.3)	(172.1)	(203.8)	(238.8)
2016	(28.9)	(57.0)	(77.9)	(102.2)	(131.2)	(161.0)	(191.4)	(225.2)

Source: U.S. Census Bureau.

The United States continues to maintain a sizable surplus in services, although the amount is much smaller than the U.S. deficit in goods. In 2015, the U.S. trade surplus in services with China totaled \$29.5 billion, a 5 percent increase from 2014.⁹⁷ Total bilateral trade in services rose approximately 7.9 percent in 2015, with U.S. service exports growing 7 percent, and Chinese service imports growing 10.5 percent.⁹⁸ Tourism and travel, including for business and education,^{*} is the top U.S. service export to China,[†] followed by charges for intellectual property[‡] (see Figure 7); travel is also the top U.S. service import from China, followed by transportation services.⁹⁹

Figure 7: U.S. Service Exports to China, 2015



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Note: "Other" includes other business services; maintenance and repair services; telecommunications, computer, and information services; government goods and services; and insurance services.

produced 42.8 percent of China's exports and 49 percent of its imports. China's Ministry of Commerce, *Import & Export Statistics by FIEs from Jan to June 2016*, July 15, 2016.

^{*}Under international and U.S. standards, tourism is broadly defined to include travel and related expenses for business purposes and travel and expenses for personal purposes, such as vacation, education, and medical services. International Monetary Fund, "Balance of Payments and International Investment Position Manual," 2009; U.S. Department of Commerce, *Comprehensive Restructuring of the International Economic Accounts: New International Guidelines Redefine Travel*. <http://travel.trade.gov/pdf/restructuring-travel.pdf>.

[†]For more on China's tourism spending and investment in the United States, see Matt Snyder, "Chinese Tourism and Hospitality Investment in the United States," *U.S.-China Economic and Security Review Commission*, July 25, 2016.

[‡]Charges for the use of intellectual property include charges for the use of proprietary rights, such as patents, trademarks, copyrights, industrial processes and designs, and franchises.

The United States continued to run a deficit in advanced technology product (ATP) trade with China, but that deficit decreased by \$3 billion to \$120.7 billion from 2014 to 2015.¹⁰⁰ In the first eight months of 2016, the U.S. deficit with China in ATP reached \$67.1 billion, a \$5.9 billion decline from the same period in 2015 (see Table 2).¹⁰¹ Imports of information and communication technology (ICT) products continue to be the main contributor to the deficit, accounting for 89 percent of total ATP imports in the first eight months of 2016.¹⁰² While large, ICT imports fell 7.2 percent year-on-year in the first eight months of 2016, contributing to a slowing deficit.¹⁰³

Table 2: ATP Trade, January–August 2016
(US\$ millions)

	Monthly			Cumulative year-to-date			
	Exports	Imports	Balance Aug'16	Exports	Imports	Balance 2016	Balance 2015
TOTAL	3,006	12,684	-9,678	22,119	89,240	-67,121	-73,058
(01) Biotechnology	77	14	63	548	87	461	397
(02) Life Science	295	258	37	2,233	1,729	504	523
(03) Opto-Electronics	32	539	-507	303	3,783	-3,480	-3,849
(04) Information & Communications	439	11,291	-10,852	3,227	79,521	-76,294	-82,262
(05) Electronics	539	355	184	3,875	2,531	1,344	1,557
(06) Flexible Manufacturing	221	108	113	2,071	672	1,399	1,231
(07) Advanced Materials	17	34	-17	156	233	-77	-148
(08) Aerospace	1,382	69	1,313	9,494	598	8,896	9,442
(09) Weapons	0	14	-14	2	85	-83	-89
(10) Nuclear Technology	4	0	4	209	1	208	139

Source: U.S. Census Bureau.

Foreign Investment Climate in China

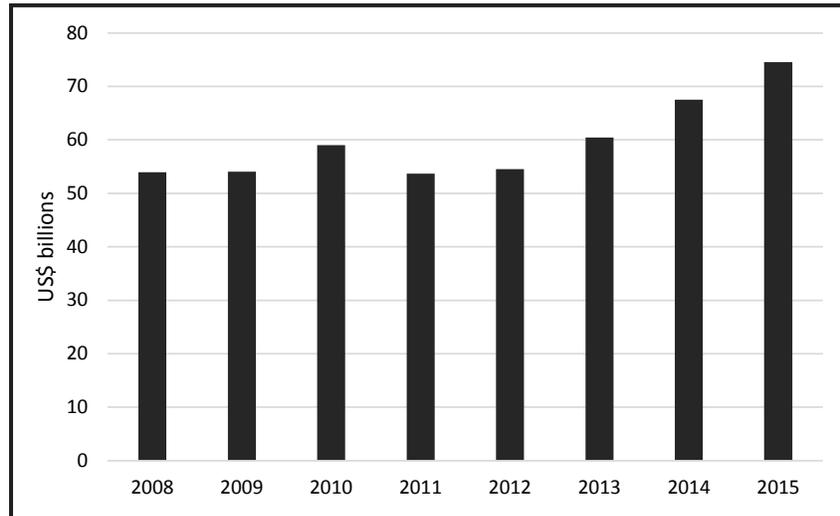
Trends in U.S. Direct Investment in China

Growth in U.S. direct investment in China has stagnated over the past five years, even as overall outward U.S. direct investment has expanded.¹⁰⁴ According to the U.S. Bureau of Economic Analysis (BEA), in 2015, annual U.S. FDI in China inched up to \$7.1 billion, bringing the share of U.S. FDI flowing into China to 2 percent of total outbound U.S. FDI, the same as in 2014.*¹⁰⁵

From 2008 to 2015, BEA data show a steady increase in U.S. FDI stock (cumulative) in China from around \$53.9 billion to \$74.6 billion (see Figure 8).¹⁰⁶ While U.S. FDI stock in China remains considerably higher than China's FDI stock in the United States (from 2008 to 2015, China's FDI stock in the United States rose from around \$1.1 billion to \$14.8 billion), annual Chinese FDI flows into the United States have grown much faster than U.S. annual FDI flows into China.¹⁰⁷

*For a breakdown of U.S. FDI stock in China by sector, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 73–74. The latest data available are for 2014.

Figure 8: U.S. FDI Stock in China, 2008–2015
(cumulative, historical-cost basis)



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

This reflects broader inbound FDI trends in China: FDI flows into China have slowed in recent years due to rising costs, concerns over the foreign investment climate, expectations for further RMB weakness, and competition from Southeast Asian countries.¹⁰⁸ Official statistics from China’s Ministry of Commerce (MOFCOM) show nonfinancial FDI in China reaching \$117 billion (RMB 781.4 billion) in 2015, a modest increase of 6.4 percent from 2014.¹⁰⁹ In the first half of 2016, nonfinancial FDI rose 5.1 percent year-on-year to \$69.4 billion; the service sector accounted for 70.4 percent of total FDI during the period, reaching \$48.9 billion.¹¹⁰

Challenges for U.S. Companies in China

Market Access Restrictions

China’s restrictive investment regime has earned it the second-worst rating on the Organisation for Economic Co-Operation and Development’s (OECD) FDI Regulatory Restrictiveness Index* every year since the index’s inception in 2010.¹¹¹ To protect domestic industries, particularly those deemed strategic, China continues to limit foreign investment in many sectors where the United States maintains a competitive advantage, such as research and development (R&D)-intensive and value-added sectors.† Despite high-level

*The OECD FDI Regulatory Restrictiveness Index includes both OECD economies and non-OECD member economies and is based on four main indicators: “equity restrictions, screening and approval requirements, restrictions on foreign key personnel, and other operational restrictions (such as limits on purchase of land or on repatriation of profits and capital). The discriminatory nature of measures is the central criterion to decide whether a measure should be scored.” Blanka Kalinova, Angel Palerm, and Stephen Thomsen, “OECD’s FDI Restrictiveness Index: 2010 Update,” *OECD Working Papers on International Investment* 03 (2010): 6.

†For more on China’s foreign investment restrictions, see U.S.-China Economic Security Review Commission, Chapter 1, Section 2, “Foreign Investment Climate in China,” in *2015 Annual Report to Congress*, November 2015.

commitments, China has only taken incremental steps to broaden market access for foreign investors.

China has affirmed its intent to further liberalize its foreign investment regime in several high-level documents, including the Third Plenum Decision and 13th Five-Year Plan (FYP). These documents direct China to expand foreign investment access in China, use a negative list approach* to govern access, set up more free trade zones, and streamline its foreign investment regulatory framework.¹¹² However, the rising tide of complaints from foreign companies indicates a lack of progress on liberalization.¹¹³

The 13th FYP calls for a “fair competitive market environment, highly efficient and clean governing environment, a just and transparent legal and policy environment, and an open and inclusive cultural environment” to improve the business climate for foreign firms.¹¹⁴ The plan encourages “expanding” market entry for foreign companies in the service sector, including banking, insurance, securities, and senior care, while “encouraging greater foreign investment” in advanced manufacturing, high-tech, conservation and environmental protection, modern services, and in central, western, and northeastern China more generally.¹¹⁵ It also promotes expanding the construction of free trade zones and fully implementing a “pre-establishment national treatment negative list management system.”¹¹⁶

However, the 13th FYP also makes it clear that market access is encouraged only to the extent that greater access for foreign companies benefits China’s economic priorities. According to a report from the Center for Strategic and International Studies, “Investment is encouraged only in those sectors where China is seeking to develop domestic capacity to move up the value-added chain or in areas required by previous commitments.”¹¹⁷ (For more on China’s 13th FYP, see Chapter 1, Section 3, “13th Five-Year Plan.”) Continued asymmetries in market access have led the Office of the U.S. Trade Representative (USTR) to conclude in its 2016 *National Trade Report on Foreign Trade Barriers* that “sustained bilateral engagement has not led to a significant relaxation of China’s investment restrictions, nor has it appeared to curtail *ad hoc* actions by Chinese government officials.”¹¹⁸

Deteriorating Business Environment

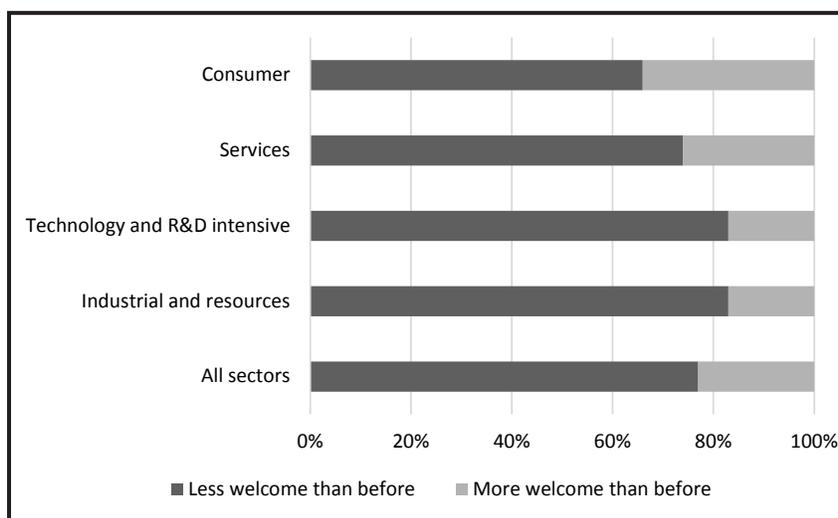
These developments have contributed to increasing pessimism among the foreign business community. According to the American Chamber of Commerce in China’s (AmCham China) 2016 Business Climate Survey, 77 percent of surveyed U.S. companies reported they felt foreign businesses are less welcome in China than in years past, while 83 percent of technology, R&D, industrial, and resources companies reported China to be less welcoming (see Figure 9).[†]¹¹⁹

*Under a negative list approach, countries specify which sectors are restricted or prohibited for foreign investment.

†AmCham China’s 2016 Business Climate Survey analyzed responses from 496 U.S. companies operating in China, representing 52 percent of the organization’s 961 member companies. Respondent companies were categorized into four sectors: services (excluding information services), information/knowledge-based services, R&D-intensive industries, and resources and industrial. Thirty-one percent of respondents forecasted a revenue of \$100 million or more for 2015. American Chamber of Commerce in the People’s Republic of China, “2016 China Business Climate Survey Report,” 2016, 8.

This represents a dramatic increase in dissatisfaction over previous years: in 2015 and 2014, less than half of U.S. companies reported feeling less welcome than before.¹²⁰ However, 55 percent of companies also reported improvements to the business environment due to better enforcement of Chinese government policies; in particular, companies reported marked improvements in China’s enforcement of intellectual property rights.¹²¹

Figure 9: Percentage of U.S. Businesses Reporting China More or Less Welcoming to Foreign Business by Sector, 2016



Source: American Chamber of Commerce in the People’s Republic of China, “2016 China Business Climate Survey Report.”

Fifty-seven percent of surveyed U.S. firms reported that “inconsistent regulatory interpretation and unclear laws”^{*} presented the greatest challenge to doing business in China (see Table 3).¹²² Alongside these regulatory concerns, difficulties in obtaining Chinese licenses rose to the third most frequently cited challenge, with 29 percent of respondents identifying it as a top concern.¹²³ Industry overcapacity—a new addition to the survey in 2016—was the fifth most cited challenge for U.S. firms.¹²⁴ The results are mirrored in the findings of the EU Chamber of Commerce in China’s 2016 Business Confidence Survey, where over half of surveyed companies reported that doing business in China has become more difficult over the previous year, and 70 percent said they felt less welcome in China than they did ten years ago.¹²⁵

^{*}For example, China’s Anti-Monopoly Law enforcement agencies—MOFCOM, the National Development and Reform Commission, and the State Administration of Industry and Commerce—have failed to treat identical or similar violations of the law equally, resulting in more leniency toward SOEs, more rigorous enforcement against foreign companies, and substantially varied penalties imposed on companies in similar circumstances. U.S.-China Economic and Security Review Commission, Chapter 1, Section 2, “Foreign Investment Climate in China,” in *2015 Annual Report to Congress*, November 2015, 107.

Table 3: Top Five Business Challenges in China Reported by U.S. Firms, 2012–2016

2012	2013	2014	2015	2016
Shortage of qualified management: 43%	Labor costs: 44%	Labor costs: 61%	Labor costs: 61%	Inconsistent regulatory interpretation and unclear laws: 57%
Inconsistent regulatory interpretation and unclear laws: 37%	Inconsistent regulatory interpretation and unclear laws: 38%	Inconsistent regulatory interpretation and unclear laws: 39%	Inconsistent regulatory interpretation and unclear laws: 47%	Labor costs: 54%
Shortage of qualified employees: 29%	Shortage of qualified employees: 35%	Shortage of qualified employees: 37%	Shortage of qualified employees: 42%	Obtaining required licenses: 29%
Obtaining required licenses: 26%	Corruption: 30%	Shortage of qualified management: 31%	Shortage of qualified management: 32%	Shortage of qualified employees: 29%
Corruption: 26%	Shortage of qualified management: 30%	Obtaining required licenses: 31%	Increasing Chinese protectionism: 30%	Industry overcapacity: 29%

Source: American Chamber of Commerce in the People's Republic of China, "2016 China Business Climate Survey Report."

Information and Communications Technology and Cybersecurity Policies

Over the past several years, the foreign investment climate for companies in the information and communications technology (ICT) sector has worsened, as Beijing has strengthened oversight and control over foreign companies. Part of this reflects an unprecedented drive under the Xi Administration to deliver on domestic industrial innovation goals.¹²⁶ Through two central government plans, the "Made in China 2025" initiative and the "Internet Plus" plan introduced in 2015, President Xi has increased state support for domestic technology companies, putting foreign companies at a competitive disadvantage.¹²⁷ (For more on these initiatives, see Chapter 1, Section 3, "13th Five-Year Plan.")

National security is the other key driver behind China's increasingly tough line on foreign technology companies.¹²⁸ Emboldened by allegations in 2013 regarding the U.S. government's use of U.S. companies to conduct cyber espionage, along with a more general desire to increase Chinese authorities' ability to monitor domestic Internet discourse and activity, Beijing has argued it must reduce its dependence on foreign technology.¹²⁹ Over the past year, Beijing has introduced stricter ICT requirements and stronger cybersecurity policies. Many of these measures involve "secure and controllable" technology requirements; while the term is not clearly defined, foreign companies and industry groups fear it would compel foreign companies to give the Chinese government

access to networks, encryption keys, and source code, as well as require data storage within the country.¹³⁰

China's State Council has codified these policies in three security laws: the National Security Law, Counterterrorism Law, and Cybersecurity Law. Passed in July 2015, the National Security Law serves as an umbrella statute bolstering state control across all sectors of the economy under a broad definition of national security, and enshrines the concept of cyberspace sovereignty in national law.¹³¹ The law lays the groundwork for more formalized national security review of inbound foreign investment.¹³² The Counterterrorism Law, passed in December 2015, requires telecommunications and Internet service providers (ISPs) to assist Chinese security agencies with decryption and other "technological assistance and support" in terrorism cases, leaving out controversial requirements present in earlier drafts of the law that firms provide security "backdoors" to authorities and store server and user data locally.*¹³³ Finally, a draft Cybersecurity Law released in July 2015 mandates data localization and cybersecurity reviews, but offers no details on what the reviews will entail.¹³⁴ In general, the language in these laws is broad and vague, and is expected to be clarified in forthcoming implementing regulations. Some analysts are concerned the more worrisome requirements will be rolled into the implementing regulations, or that the provisions may be kept deliberately vague to give authorities flexibility in their enforcement.¹³⁵

The term "secure and controllable" has also cropped up in a series of industry-specific regulations over the past year, including in the insurance, e-commerce, and cloud computing sectors.¹³⁶ A high-profile example was a draft bank technology measure that called for 75 percent of technology products used by Chinese financial institutions to be "secure and controllable" by 2019.¹³⁷ The rules were temporarily suspended in April 2015 after feedback from Chinese banks as well as pressure from the U.S. government, industry groups, and technology firms.¹³⁸ Although many of these regulations are still pending, the Chinese government has already begun to implement them by asking foreign vendors to certify they are "secure and controllable."¹³⁹ The Chinese government's clear commitment to reduce the country's reliance on foreign technology and linkage of localization and security means these security standards are unlikely to go away. Chinese technology companies have a distinct competitive advantage in meeting these new security standards, putting pressure on foreign firms to partner with local companies.¹⁴⁰

U.S. Tech Firms and Their Chinese Partners

There is evidence of U.S. technology firms forming or deepening partnerships with Chinese firms as a result of pressure from Beijing to localize product development and data.† In 2013, Chi-

*For more information on China's draft counterterrorism law, see U.S.-China Economic and Security Review Commission, Chapter 2, Section 4, "Commercial Cyber Espionage and Barriers to Digital Trade in China," *2015 Annual Report to Congress*, November 2015, 215–216.

†Examples of pressure include antitrust investigations, data localization requirements, and security reviews. Eva Dou, "China's Tech Rules Make It Hard for U.S. Firms to Take Control," *Wall Street Journal*, June 2, 2016; Paul Mozur and Jane Perlez, "China Quietly Targets U.S. Tech Companies in Security Reviews," *New York Times*, May 16, 2016; and U.S.-China Economic and Security Review Commission, *Hearing on Foreign Investment Climate in China: Present Challenges and Potential for Reform*, written testimony of Robert D. Atkinson, January 28, 2015.

U.S. Tech Firms and Their Chinese Partners—*Continued*

nese state media labeled eight U.S. technology firms—Cisco, IBM, Google, Qualcomm, Intel, Apple, Oracle, and Microsoft—“guardian warriors” of U.S. interests that had “infiltrated” the Chinese market.¹⁴¹ Of the eight firms, six have since found it necessary to work with local partners to expand their business in China.¹⁴²

- In 2014, IBM agreed to share proprietary technology with Chinese information technology (IT) provider Teamsun to help the company develop a full supply chain of computers and software based on IBM technology.¹⁴³
- In June 2015, Cisco formed a joint venture with Chinese server maker Inspur on localized cloud computing and networking products.¹⁴⁴
- In December 2015, Microsoft partnered with Chinese state-owned China Electronics Technology Group (CETC) to develop a version of Windows 10 for Chinese government users.¹⁴⁵
- In January 2016, Qualcomm formed a joint venture with the Guizhou provincial government to make server chips customized for Chinese customers.¹⁴⁶ Several months earlier, Qualcomm formed a joint venture company with China’s largest chipmaker, SMIC, and Huawei* to develop next-generation semiconductor technology;† this came just four months after the company received a \$975 million fine from Chinese anti-trust regulators.¹⁴⁷
- In January 2016, Intel announced a “strategic collaboration” with state-controlled Tsinghua University and Montage Technology Global Holdings Ltd. to develop custom computer processors that satisfy Chinese security requirements.¹⁴⁸
- In May 2016, Apple invested \$1 billion in Didi Chuxing, China’s top private ride-sharing company.¹⁴⁹

U.S. technology firms have largely resisted pressure from Beijing to share their product source code; doing so would reveal their core intellectual property and increase the risk of intellectual property theft.¹⁵⁰ In 2015, however, IBM said it had agreed

*Huawei’s close ties to the Chinese government have long concerned U.S. government officials. A 2012 U.S. House Intelligence Committee panel report found that Huawei’s penetration of the U.S. telecommunications market poses risks to national security. In August 2016, AT&T announced it had begun preliminary discussions with several technology companies, including Huawei, to create global standards for the 5G network. According to media reports, a formal review led by the National Security Agency and the Federal Bureau of Investigation is underway to examine the national security implications of Huawei’s potential participation in building the U.S. 5G wireless network. Eli Lake, “U.S. Spies Think China Wants to Read Your E-Mail,” Bloomberg, September 13, 2016; AT&T, “AT&T Teams up with Global Technology Leaders for Faster 5G Deployment,” August 17, 2016; and Mike Rogers and C.A. Dutch Ruppertsberger, “Investigative Report on the U.S. National Security Issues Posed by Chinese Telecommunications Companies Huawei and ZTE,” *House Permanent Select Committee on Intelligence*, October 8, 2012.

†For more details on this case, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 2, “Foreign Investment Climate in China,” in *2015 Annual Report to Congress*, November 2015, 96–97.

U.S. Tech Firms and Their Chinese Partners—Continued

to allow the Chinese government to review some of its product source code in a controlled environment.*

China is also intensifying its advocacy of “cyber sovereignty” as a global regulatory norm. In his keynote address at the second annual World Internet Conference in December 2015, President Xi argued for “the right of individual countries to independently choose their own path of cyber development, model of cyber regulation and Internet public policies, and participate in international cyberspace governance on an equal footing” and defended Beijing’s Internet censorship.¹⁵¹ Chinese authorities have shifted away from not publicly admitting China’s censorship efforts to using the concept of “cyber sovereignty” to argue for increased government control of the Internet. According to Samm Sacks, a China technology policy analyst at the Eurasia Group, the Chinese government’s intense advocacy of sovereignty in cyberspace “could eventually over the long term lead to fragmentation of the U.S.-led global Internet.”¹⁵²

Update on China’s Commercial Cyber Espionage

In addition to enacting ICT and cybersecurity policies aimed at extracting technologies from U.S. companies, China has conducted cyber theft operations to gain access to U.S. intellectual property and technology. Pervasive Chinese cyber espionage against U.S. commercial entities—detailed in the Commission’s *2015 Annual Report to Congress*†—continues to pose a grave threat to U.S. economic security despite China’s agreement in 2015 not to support commercial cyber espionage conducted by Chinese actors. In a September 2015 memorandum of understanding (MOU), the United States and China pledged that “neither country’s government will conduct or knowingly support cyber-enabled theft of intellectual property, including trade secrets or other confidential business information, with the intent of providing competitive advantages to companies or commercial sectors.”¹⁵³ (For a discussion of China’s non-commercial cyber espionage activities, see Chapter 2, Section 3, “China’s Intelligence Services and Espionage Threats to the United States.”)

Public reports suggest Chinese cyber espionage against U.S. companies persists, but has declined in frequency since September 2015.¹⁵⁴ It is unclear whether this trend is attributable to the MOU.¹⁵⁵ FireEye, a cybersecurity firm, reported in June 2016 that a precipitous drop in detected incidents of Chinese cyber espionage against U.S. companies began more than one year before the MOU came into effect.¹⁵⁶ Notably, the beginning of this decline roughly coincided with the U.S. Depart-

* IBM said in a statement it “has in several countries established the capability to conduct limited demonstrations of specific aspects of [its] technology in highly-controlled IBM environments that have no external communication links.” According to the company, its intent in sharing some product source code was “to reassure key stakeholders, including our clients, that no means exist for other parties to access IBM technology or data we manage on behalf of clients.” IBM further maintained it “does not provide government access to client data or ‘back doors’ into [its] technology.” IBM, “IBM Statement on Limited Technology Demonstrations,” October 16, 2015.

† U.S.-China Economic and Security Review Commission, Chapter 1, Section 4, “Commercial Cyber Espionage and Barriers to Digital Trade in China,” in *2015 Annual Report to Congress*, November 2015, 192–225.

ment of Justice’s May 2014 indictment of five People’s Liberation Army (PLA) officers for cyber espionage against U.S. companies.¹⁵⁷ Moreover, although the number of incidents of Chinese cyber espionage detected by FireEye has declined, this likely reflects a shift within China away from prolific amateur attacks toward more centralized, professionalized, and sophisticated attacks by a smaller number of actors, rather than a trend toward the cessation of Chinese cyber espionage.¹⁵⁸ According to a report from the U.S. Department of State Overseas Security Advisory Council, many studies suggest “China-based network intrusions are still ongoing, only a fraction of which may be detected by researchers.”¹⁵⁹ In the words of one expert consulted by the Commission, while some of China’s “noisier” cyber espionage efforts have ceased, its “A-team [of sophisticated hackers] has gone deeper.”¹⁶⁰ President Xi’s efforts to consolidate control over the PLA—some of whose employees have supplemented their incomes by operating outside their chains of command to conduct cyber espionage on behalf of third parties—as well as political pressure generated by the MOU and international attention to Chinese cyber espionage activities could have contributed to this trend.*¹⁶¹ Some noteworthy reports of Chinese commercial cyber espionage since September 2015 include:

- In the three weeks following the U.S.-China cyber MOU, cybersecurity firm CrowdStrike observed 11 instances of intrusions by Chinese government-affiliated actors into U.S. technology and pharmaceutical companies; the first of these intrusions occurred the day after the MOU was signed. CrowdStrike assessed each of these incidents “fit squarely within the hacking provisions covered under the cyber agreement.”¹⁶²
- FireEye reported several instances of what appeared to be China-based groups compromising several U.S.-owned or U.S.-based software, semiconductor, and other high-technology corporations, as well as a U.S. healthcare organization, in the first five months of 2016.¹⁶³
- In April 2016, Admiral Michael S. Rogers, commander of the U.S. Cyber Command, testified to the Senate Armed Services Committee that since September 2015, “cyber operations from China are still targeting and exploiting U.S. government, defense industry, academic, and private computer networks.”¹⁶⁴

Chinese cyber espionage threatens the economic competitiveness of U.S. companies. According to one analyst—Jeffrey Johnson, president and CEO of SquirrelWerkz, a cyber, competitive, and economic threat intelligence firm— Chinese actors have consistently applied a sophisticated commercial espionage campaign strategy against U.S. companies involving a combination of cyber espionage and human infiltration to systematically penetrate strategic organizations and information systems of U.S. companies to steal their intellectual property, sabotage operations, devalue

*The value of the MOU, according to one expert who met with the Commission, is not that it will lead to a cessation of Chinese cyber espionage against U.S. companies, but rather that it establishes a mutually agreed-upon bilateral standard for behavior in cyberspace and a blueprint for an international norm against which China’s actions can be scrutinized. U.S.-China Economic and Security Review Commission, private discussion with cybersecurity experts, June 9, 2016.

them, and position them for acquisition at dramatically reduced prices.¹⁶⁵ According to Mr. Johnson,

In the case of the cyber-economic campaign against the U.S. mobile phone industry, evidence supports a conclusion that the government of China worked in collusion with a number of Chinese companies to optimize cyber-economic sabotage to degrade Western mobile provider performance; conduct espionage to accelerate its own development of critical components and competitive mobile devices; introduce significant barriers to performance within the Chinese market for purposes of degrading the value of the Western competitors after having gained from their investments into China and to deprive the same companies of the traditional returns; introduce additional duress through state sponsored legal actions; and leverage cyber intelligence to optimize the timing of these events and obstacles. The same pattern exists in at least 10 other key industries.¹⁶⁶

The threat from Chinese commercial espionage is unlikely to subside as China's cyber espionage operations are poised to become more sophisticated and well coordinated.¹⁶⁷ Notably, the September 2015 MOU does not prohibit state-sponsored cyber espionage operations to support national security.¹⁶⁸ As China views economic security as a component of national security, it likely does not perceive many of its commercial cyber espionage activities as a violation of the MOU.

U.S. Steel's Section 337 Case against China

In April 2016, U.S. Steel filed a complaint with the U.S. International Trade Commission (ITC) under Section 337 of the Tariff Act of 1930. This law allows the ITC to ban products made through unfair methods of competition, including theft of intellectual property, from the U.S. market.¹⁶⁹ The firms listed in U.S. Steel's petition include some of China's largest steel producers and their distributors.¹⁷⁰ U.S. Steel alleged these firms colluded to fix prices and control production and export volumes, and engaged in false labeling to circumvent trade duties.¹⁷¹ U.S. Steel also alleged Chinese government hackers stole U.S. Steel's proprietary methods for making advanced high-strength steel, one of the company's most valuable products, and provided this information to Chinese steel firms.*¹⁷² U.S. Steel alleged that at least one Chinese firm, Baosteel, began producing and exporting advanced high-strength steel using these stolen trade secrets, undercutting U.S. Steel's own products.¹⁷³ The ITC announced its plans to initiate a Section 337 investigation in May 2016.¹⁷⁴ If successful, U.S. Steel's Section 337 case could provide U.S. companies with a new use of an existing tool to combat cyber theft of trade secrets by foreign companies or governments.¹⁷⁵

*The alleged cyberattack on U.S. Steel was among those included in a criminal case brought by the U.S. Department of Justice against five PLA officers in May 2014. U.S. Department of Justice, Office of Public Affairs, *U.S. Charges Five Chinese Military Hackers for Cyber Espionage against U.S. Corporations and a Labor Organization for Commercial Advantage*, May 19, 2014.

Internet Censorship

As a result of Beijing's desire to tighten government control over freedom of speech, Internet censorship has worsened. In April 2016, the USTR listed China's Internet censorship in its *2016 National Trade Estimate on Foreign Trade Barriers* as a "significant burden" on foreign suppliers wishing to do business in China.¹⁷⁶ The USTR noted that China's Internet restrictions affected both foreign Internet content providers and businesses that rely on Internet services for their operations.¹⁷⁷ While the report did not propose any official actions to address China's Internet restrictions, it explicitly described China's censorship as a trade barrier; previous reports characterized China's Internet regime as being merely "restrictive and non-transparent."¹⁷⁸ The report also stated that China's restrictions appear "to have worsened over the past year, with eight of the top 25 most trafficked global sites now blocked in China."¹⁷⁹

China's online censorship apparatus—known as the Great Firewall—is regarded as the most extensive in the world, and a 2015 ranking by Freedom House found China to be the world's worst abuser of Internet freedom.¹⁸⁰ The number of blocked sites is increasing. According to Internet watchdog GreatFire.org, about 14 percent of the sites it monitors were blocked in China when President Xi took office in 2013.¹⁸¹ As of April 2016, almost a full quarter of the online content GreatFire.org monitors is blocked in China.¹⁸²

Estimating the revenue U.S. companies lose from Chinese censorship is difficult.* Many U.S. companies decline to publicly disclose their losses associated with Chinese Internet restrictions. During a press investigation last year, Google, Dropbox, Snapchat, and several other companies that are routinely blocked in China chose not to discuss costs resulting from Chinese restrictions.¹⁸³

The Chinese government took further steps to strengthen control over the Internet by issuing new regulations that limit access to the country's multibillion-dollar online content market.† In February 2016, China's State Administration of Press, Publication, Radio, Film and Television (SAPPRFT) released the *Administrative Regulations for Online Publishing Services*, which restricts foreign companies—including foreign joint ventures—from distributing online content in China except on a project basis with Chinese partners.¹⁸⁴ The regulation applies to online distribution of games, video, books, newspapers, animations, pictures, articles, and other online content

*These losses are likely significant, given the growing size of China's Internet population—668 million online users as of the end of 2015. For example, the *New York Times* disclosed it lost \$3 million in the first year after it was blocked by Chinese authorities after reporting on the wealth of China's then prime minister Wen Jiabao's family. Google has frequently seen its services blocked or slowed by Chinese regulators. In 2014, the company made an estimated \$1 billion in advertising revenue in China—largely from Chinese companies that place ads to attract foreign buyers. If Google had the same share of China's advertising market before its search engine was restricted in 2010—roughly 36 percent—the company likely would have made \$3.5 billion from Chinese advertising in 2014, almost 5 percent of its total revenue. Marco Huang, "More Than Half of China's Population Is Online—And Most Use Smartphones," *Wall Street Journal*, January 26, 2016; Julie Makinen, "Chinese Censorship Costing U.S. Tech Firms Billions in Revenue," *Los Angeles Times*, September 22, 2015; and Margaret Sullivan, "The Thorny Challenge of Covering China," *New York Times*, December 7, 2013.

†China's online content market is one of the largest in the world. In 2012 China had more than twice as many viewers of online videos as the United States, and the Chinese digital audience is projected to increase to 700 million people in 2016. Total revenue from Chinese digital videos is predicted to reach \$3.95 billion in 2016 (from \$1.86 billion in 2013). David Barboza, "New Chinese Rules on Foreign Firms' Online Content," *New York Times*, February 19, 2016; Go-globe.com, "Online Video Market in China," January 6, 2014.

to be designated by SAPPRFT at a later date.¹⁸⁵ The measure's broad scope makes it difficult to predict which companies will be affected. While China bans many U.S. online content companies, the new regulation may affect U.S. companies already operating in China.* As one analyst noted, it was unclear whether a company that "just had an instruction manual online" would be subject to these rules.¹⁸⁶ Some analysts have argued the measure may only apply to content created in China and thus may not affect foreign firms at all.¹⁸⁷ Most analysts agree the impact of this regulation will depend heavily on how it is implemented.¹⁸⁸

In a move to further tighten online censorship, in July 2016 China's Internet regulator ordered several major Chinese Internet companies, including Sina, Tencent, and NetEase, to shut down or "clean up" their online news sites.¹⁸⁹ In recent years, many Chinese Internet companies have hired investigative journalists to conduct original reporting, in a bid to increase readership and revenue.¹⁹⁰ The practice had been operating in a regulatory gray zone but was largely tolerated by regulators.¹⁹¹ Following the ban, online news sites can only carry articles provided by the state media.¹⁹²

Foreign Nongovernmental Organization Law

China has tightened control over the activities of foreign nongovernmental organizations (NGOs). In April 2016, the Chinese government approved the Law on the Management of Foreign NGO Activities in Mainland China, which places greater state oversight on more than 7,000 foreign NGOs in China and gives the government broad powers to inspect NGO offices and operations.[†]¹⁹³ According to AmCham China's 2016 Business Climate Survey, 75 percent of NGO respondents reported that the law as it existed in 2015 would limit the scope of their operations in China, and 17 percent reported that it would cause them to leave the country.¹⁹⁴

U.S. businesses lobbied the Chinese government to remove provisions included in the current law. In June 2015, 45 U.S. industry associations signed a letter urging the Chinese government not to place NGOs under the management of security forces and to narrowly define NGOs to exclude groups such as trade and professional associations.[‡]¹⁹⁵ The letter noted that if the law were passed "without major modifications," it would "have a significant adverse impact

*For example, Apple currently runs a Chinese app store that provides games and software, and Microsoft offers Windows products online through a Chinese joint venture. Vimeo and Amazon also run online distribution platforms in China and may be affected. David Barboza, "New Chinese Rules on Foreign Firms' Online Content," *New York Times*, February 19, 2016; Scott Livingston, "A Guide to China's New Online Publishing Rules for Foreign Media," *Techcrunch.com*, February 23, 2016.

†The law's broad language gives Chinese authorities a wide degree of latitude in admitting, monitoring, and closing foreign NGOs. To establish an office in China, NGOs must seek the permission of the security ministry, and NGOs with existing offices in China must also obtain permission to register. Chinese security forces can enter NGO offices, seize bank accounts and property, and interrogate NGO staff if they suspect the NGO is engaged in vaguely defined activity such as damaging the national interest. Similarly, NGOs can be closed if they are found to violate these broadly worded interests. ChinaLawTranslate.com, "2016 PRC Law on the Management of Foreign Non-Governmental Organizations' Activities within Mainland China."

‡U.S. business groups argued the draft was worded broadly enough that it appeared to apply to foreign universities, industry organizations, and professional associations. The law as passed defines foreign NGOs as "not-for-profit, non-governmental social organizations lawfully established outside mainland China such as foundations, social groups, and think tank institutions." While foundations and think tanks are specifically identified as falling under the law, the definition is not limited to them and may be applied to any nonprofit, nongovernment organization—a classification that includes universities and business organizations. ChinaLawTranslate.com, "2016

on the future of U.S.-China relations” and negatively impact Chinese commerce.¹⁹⁶ In the letter, U.S. business representatives also cited the key role nonprofit organizations such as universities and trade associations play in their operations, calling them an “integral part” of their business practices.¹⁹⁷ Nevertheless, not every U.S. industry organization has stated that the law will have a negative effect on U.S. companies. For instance, the president of the US-China Business Council commented that the new law will have a relatively minor impact on U.S. industry compared to other concerns businesses have in China, noting, “By and large, American companies will not be impacted by the NGO law; companies are more directly impacted by the market access and level playing field concerns.”¹⁹⁸

Chinese Investment in the United States

While Chinese investment remains a small percentage of total inward FDI in the United States,* it is rising rapidly, driven by the Chinese government’s “going out” strategy, capital flight, and a generally more open policy environment for outbound investment.¹⁹⁹ A more pronounced slowdown in economic growth has also spurred Chinese investment abroad as Chinese companies seek to diversify their investments.²⁰⁰ Chinese investment in the United States grew to a record \$15 billion in 2015 from \$11.9 billion in 2014, according to data from Rhodium Group.²⁰¹ In 2016, Chinese FDI appears set to surpass 2015’s record, with at least \$30 billion worth of deals in the pipeline (see Table 4).²⁰²

Table 4: Notable Chinese Bids and Acquisitions of U.S. Companies, 2015–2016

Chinese Buyer	U.S. Target	Price (US\$ billions)	Status	Industry
AVIC Auto; Bohai Harvest RST (BHR)	Henniges Automotive	\$0.60	Deal closed, Sep. 2015	Automotive
Fosun International Ltd.	Ironshore Inc.	\$1.84	Deal closed, Nov. 2015	Financial services
Dalian Wanda	World Triathlon Corp.	\$0.65	Deal closed, Nov. 2015	Sports

PRC Law on the Management of Foreign Non-Governmental Organizations’ Activities within Mainland China”; ChinaLawTranslate.com, “Changes Anticipated in the New FNGO Law.”

*This section relies on private estimates of Chinese FDI in the United States. Both U.S. and Chinese official statistics underestimate the volume of Chinese investment because they do not fully account for flows of FDI, including investment routed through Hong Kong and other offshore financial centers. Official data are also provided after a significant delay, hindering analysis. For example, as the International Trade Administration (ITA), a bureau within the U.S. Department of Commerce, stated in a 2013 report, estimates from Rhodium Group showed \$6.5 billion of FDI flows from China to the United States in 2012, while U.S. government estimates showed only \$219 million for the same year. ITA noted that private sector valuations employ different definitions of FDI, data gathering mechanisms, and accounting methods that lead to differences in reported value of investments. U.S. Department of Commerce, International Trade Administration, *Report: Foreign Direct Investment (FDI) in the United States from the China and Hong Kong SAR*, July 17, 2013.

Table 4: Notable Chinese Bids and Acquisitions of U.S. Companies, 2015–2016—Continued

Chinese Buyer	U.S. Target	Price (US\$ billions)	Status	Industry
Uphill Investment Co. (Chinese consortium)	Integrated Silicon Solution, Inc.	\$0.74	Deal closed, Dec. 2015	Semiconductors
Dalian Wanda	Legendary Entertainment	\$3.5	Deal closed, Mar. 2016	Entertainment
Beijing E-Town Dragon Semiconductor Industry Investment Center	Mattson Technology	\$0.30	Deal closed, May 2016	Semiconductors
Haier Group	General Electric home appliances unit	\$5.6	Deal closed, Jun. 2016	Home appliances
Anbang	Fidelity & Guaranty Life	\$1.57	Pending, agreed to acquire Nov. 2015	Financial services
Chongqing Casin Enterprise Group	Chicago Stock Exchange	n/a	Pending, agreed to acquire Feb. 2016	Financial services
Tianjin Tianhai	Ingram Micro	\$6.0	Pending, agreed to acquire Feb. 2016	Electronics & IT
Anbang	Blackstone Group Strategic Hotels & Resorts Inc.	\$6.5	Pending, agreed to acquire Mar. 2016	Real estate
Humanwell Healthcare, PuraCap Pharmaceutical	Epic Pharma	\$0.55	Pending, agreed to acquire Mar. 2016	Pharmaceuticals
Zhongwang USA LLC	Aleris Corp.	\$2.3	Pending, agreed to acquire Aug. 2016	Aluminum

Source: Various.²⁰³

According to research from Rhodium Group, private Chinese companies accounted for 84 percent of total Chinese FDI in the United States in 2015, up from 19 percent five years ago, as investments by Chinese state-owned firms fell sharply.* (For more on the thin line between Chinese state-owned companies and private companies, see

*Rhodium Group defines private companies as companies with less than 20 percent government ownership. Thilo Hanemann and Cassie Gao, "Chinese FDI in the US: 2015 Recap," *Rhodium Group*, January 19, 2016; Thilo Hanemann and Adam Lysenko, "Chinese FDI in the United States: Q1 2013 Update," *Rhodium Group*, April 30, 2013.

Chapter 1, Section 2, “State-Owned Enterprises, Overcapacity, and China’s Market Economy Status.”) Mergers and acquisitions (M&A) remained the dominant form of FDI flows that year, with Chinese companies completing over 100 M&A deals worth \$13.5 billion.²⁰⁴ The trend of growing Chinese FDI in the United States reflects a broader shift in China’s outbound FDI away from natural resource extraction and energy in developing countries toward a broader range of industries in high-income economies, such as Europe and the United States.²⁰⁵

The sectoral composition of Chinese investment in the United States has become much more diverse.²⁰⁶ In 2015, the biggest industries were real estate and financial services, followed by ICT, energy, automotive, health and biotechnology, and entertainment. About two-thirds of total investment went into services, up from 14 percent in 2009.²⁰⁷ The top three destinations for Chinese FDI were New York (led by investments in the financial services and real estate sectors), California (ICT and real estate), and Texas (energy).²⁰⁸

The increased acquisition of U.S. assets by Chinese companies has led to growing political concern over the national security risks of such acquisitions.²⁰⁹ Chinese firms, which often receive state funding, have been particularly active in bidding for U.S. technology assets. For example, technology distributor Ingram Micro announced in February 2016 that it was being sold to Tianjin Tianhai Investment for \$6 billion.²¹⁰ While many analysts anticipate the sale will go forward without a Committee on Foreign Investment in the United States (CFIUS) review, a few attempted Chinese acquisitions of U.S. technology firms have recently fallen apart as a result of CFIUS scrutiny or even just its likelihood.²¹¹ In February, hard disk drive manufacturer Western Digital’s sale to China’s Unisplendor collapsed after CFIUS announced it would review the deal, and the sale of the lighting division of Dutch electronics firm Royal Philips was purportedly blocked by CFIUS.²¹² Fairchild Semiconductor, another electronics firm, rejected a bid from a Chinese buyer in February for fear the acquisition would trigger a CFIUS review.²¹³

In another example, the acquisition of insurance company Ironshore by Chinese conglomerate Fosun International came under CFIUS review after the deal closed in November 2015.* Media reports indicate the purchase drew CFIUS’s interest because an Ironshore subsidiary, Wright USA, is a key provider of legal liability insurance for U.S. intelligence officials.²¹⁴

Overall, the data do not demonstrate that CFIUS has been a significant obstacle for Chinese investment in the United States. In 2014, the latest year for which data are available, China led foreign countries in CFIUS reviews with 24 reviewed transactions out of more than 100 total Chinese acquisition deals.²¹⁵ Although the number of Chinese transactions reviewed increased in absolute terms, it declined as a share of all Chinese acquisitions, and the vast majority of reviewed transactions proceed. As a percentage of total

*News of the CFIUS review first broke in June 2016. Fosun issued a statement that it and Ironshore had voluntarily notified CFIUS of the acquisition and both parties “have been working closely with CFIUS.” Ironshore stated in a July 2016 filing for a U.S. initial public offering that it expects the results of the CFIUS review before its registration statement becomes effective. Josh Beckerman, “Fosun Group Insurance Unit Ironshore Inc. Files for IPO in U.S.,” *Wall Street Journal*, July 22, 2016; Fosun, “Fosun’s Statement,” June 4, 2016. www.fosun.com/language/en/p/8473.html.

Chinese acquisition deals, the number of CFIUS-reviewed Chinese transactions has decreased every year since 2012.²¹⁶

A number of China's M&A deals have unraveled, in some cases due to regulatory concerns, in others due to the inability of Chinese buyers to follow through with financing (see Table 5). According to data from international financial software firm Dealogic, nearly half of the unsolicited offers made by Chinese companies over the past five years have failed.²¹⁷ Notably, in March 2016 the Chinese insurance giant Anbang surprised Starwood Hotels & Resorts Worldwide by abandoning its \$14 billion bid for the hotel chain, without offering a full explanation.* Worried about the ability of Chinese companies to secure financing or pass CFIUS review, a growing number of U.S. acquisition targets are asking for escrow accounts or letters of credit to guarantee deal financing or breakup-fee payments.²¹⁸

Chinese investment in the United States is expected to grow, but perhaps at a more moderate pace than the breakneck speed of the first quarter of 2016.²¹⁹ With increased M&A activity, Chinese companies face rising pressure from U.S. business and government stakeholders to be transparent, particularly with regard to ownership structure, corporate governance, and funding sources.²²⁰ The increasingly high leverage of Chinese companies† also places financial constraints on their ability to pursue new investment opportunities overseas.²²¹

Table 5: Failed Chinese Bids for U.S. Companies, 2015–2016

Chinese Buyer	U.S. Target	Price (US\$ billions)	Status	Industry
Montage	Pericom Semiconductor Corp.	\$0.4	Pericom rejected bid, citing a lack of committed financing and potential regulatory hurdles in China, Taiwan, and the United States, Nov. 2015	Semiconductors
Tsinghua Unigroup	Micron	\$23.0	Micron rejected bid, citing concerns over CFIUS approval, Feb. 2016	Semiconductors

*Anbang said it was withdrawing its offer “due to various market considerations.” However, Caixin reported that Anbang’s decision likely stemmed from fears that China’s insurance regulator would reject its bid to buy Starwood, since it would put Anbang’s offshore assets above a 15 percent threshold for overseas investments. Chinese regulators’ concerns over Anbang’s reliance on high-cost borrowing for its overseas acquisitions may have been another contributing factor. In a panel discussion days before Anbang withdrew its bid, China’s former Minister of Commerce Chen Deming said the company should not use high leverage to acquire overseas assets, warning that “it will leave us with systemic risks.” Esther Fung, “Anbang: What We Know and Don’t Know,” *Wall Street Journal*, August 23, 2016; Greg Roumeliotis and Matthew Miller, “China’s Anbang Abandons \$14 Billion Bid to Buy Starwood Hotels,” Reuters, April 1, 2016; and Ding Feng, “Regulator Said Close to Rejecting Insurer’s Plans for Foreign Hotel Investments,” Caixin, March 22, 2016.

†According to data from S&P Global Market Intelligence, the median debt-to-equity ratio of Chinese buyers since the beginning of 2015 has been 71 percent, compared to 44 percent for foreign targets. *Economist*, “Money Bags: China’s Global Investment Spree Is Fueled by Debt,” April 2, 2016.

Table 5: Failed Chinese Bids for U.S. Companies, 2015–2016—Continued

Chinese Buyer	U.S. Target	Price (US\$ billions)	Status	Industry
China Resources Microelectronics Ltd. and Hua Capital	Fairchild Semiconductor	\$2.5	Fairchild turned down bid over fears it would be blocked by CFIUS; accepted takeover offer from U.S. rival ON Semiconductor, Feb. 2016	Semiconductors
GO Scale Capital	Philips Lumileds	\$2.8	Buyer withdrew after CFIUS blocked the deal, Jan. 2016	Lumileds & Automotive Lighting
Unisplendor	Western Digital	\$3.8	Buyer withdrew after CFIUS announced investigation, Feb. 2016	Electronics
Anbang	Starwood Properties	\$14.0	Buyer withdrew bid, Mar. 2016	Real estate
Origin Technologies Corp.	Affymetrix Inc.	\$1.5	Origin Technologies withdrew bid in Mar. 2016 after Affymetrix board recommended a lower bid from Thermo Fisher Scientific Inc., citing concerns over approval from U.S. and Chinese regulators	Health & biotechnology
Zoomlion	Terex	\$3.4	Buyer withdrew bid; deal went to Finnish company Konecranes, May 2016	Construction machinery

Source: Various.²²²

Limited Progress at Eighth Strategic and Economic Dialogue

At the eighth and final round of the Strategic and Economic Dialogue (S&ED) talks under the Obama Administration, held in Beijing on June 6–7, 2016, participants failed to achieve any major breakthroughs on fundamental strategic and economic issues, but left with some deliverables on financial sector and environmental cooperation. (For more information on the outcomes of the strategic track of the S&ED, see Chapter 2, Section 1, “Year in Review: Security and Foreign Affairs.”) On the economic side, overcapacity topped the U.S. agenda, replacing currency valuation as the top concern. The lack of improvements to the investment climate for U.S. com-

panies in China, along with China's recently passed law restricting foreign NGOs,* added friction to the talks.²²³

The S&ED has been touted as a valuable high-level forum for the United States and China to communicate policy decisions, find common ground, and prevent misunderstandings.²²⁴ Although S&EDs have rarely produced major deliverables, outcomes from this year's talks were modest, with a number of the announcements merely restatements of previous commitments. The limited outcomes of the 2016 S&ED include:

- *Addressing excess production capacity:* China pledged to ensure that its central government policies and support do not “target the net expansion” of its steel capacity, but did not make similar assurances for other key industrial sectors or for local government policies.²²⁵ China also promised to “wind down consistently loss-making ‘zombie enterprises’ through a range of efforts, including bankruptcy and liquidation.”²²⁶ (For more on the measures China said it would undertake to address overcapacity, see Chapter 1, Section 2, “State-Owned Enterprises, Overcapacity, and China’s Market Economy Status.”)
- *Exchange rate reform:* China repeated its pledge to “continue market-oriented exchange rate reform that allows for two-way flexibility and to refrain from competitive devaluation.”²²⁷ China stressed that “there is no basis for sustained depreciation of the RMB,” which investors fear could amplify global financial instability, as happened in January 2016.²²⁸ In turn, U.S. Treasury Secretary Jack Lew acknowledged moves by the PBOC to make the RMB exchange rate more market-oriented: “We were pleased to see reforms made last year and the recognition of that progress in the IMF decision to include the renminbi in the SDR basket.”²²⁹
- *Expanding RMB trading and clearing capacity in the United States:* China announced it will allow U.S. investors to directly access China’s financial markets through an RMB Qualified Foreign Institutional Investors (RQFII) quota of \$37 billion (RMB 250 billion), the second-largest quota China has granted after Hong Kong.²³⁰ The RQFII program allows approved foreign fund managers to use RMB raised outside China to invest in the country’s financial markets. China also agreed to allow certain U.S. financial institutions to act as clearing houses for settling RMB transactions in the future, which can lower transaction costs for U.S. firms doing business in China.†²³¹ These new measures advance Beijing’s goals of internationalizing the RMB and attracting more capital inflows while giving U.S. investors greater access to China’s tightly regulated financial markets.²³²

*There was significant high-level engagement on China’s new foreign NGO law at the S&ED, with both Secretary of State John Kerry and Treasury Secretary Jack Lew raising U.S. concerns over the law. In his opening remarks at the S&ED, Secretary Lew said, “We are very concerned that China’s recently passed Foreign NGO Management Law will weaken [China’s integration with the global economy] by creating an unwelcome environment for foreign NGOs. President Obama and President Xi have discussed this issue, and addressing it will be important for our bilateral relationship.” U.S. Department of the Treasury, “Remarks by Treasury Secretary Lew at the 2016 U.S.-China Strategic and Economic Dialogue Joint Opening Session,” June 6, 2016.

†In September 2016, the PBOC named Bank of China’s New York branch as the first RMB clearing house in the United States. Bloomberg, “PBOC Appoints Bank of China as First Yuan Clearing Bank in U.S.,” September 20, 2016.

- *Accelerating Bilateral Investment Treaty (BIT) negotiations:** The United States and China agreed to submit revised negative list offers in mid-June, after both countries missed a March 2016 deadline for exchanging offers. Both sides agreed to accelerate negotiations, but did not set a deadline for concluding BIT negotiations.²³³ After both sides exchanged new offers, U.S. Trade Representative Michael Froman said China’s latest offer “[showed] a serious effort on their part” but remained “a fair distance away from being acceptable.”²³⁴
- *Enhanced cooperation on climate change and environment:* The United States and China strengthened their cooperation on climate change and environmental protection, which comprised nearly half of the listed strategic outcomes; however, most of the outcomes highlighted existing exchanges and agreements.²³⁵ For instance, the two countries committed to working toward full implementation of the Paris Agreement.[†]²³⁶ The listed outcomes also enumerated multiple collaborative projects under the Climate Change Working Group, including initiatives on smart grids, heavy-duty vehicles, and building and industry efficiency.²³⁷

U.S.-China Bilateral Investment Treaty Negotiations

A recent report prepared by Commission staff analyzes the costs and benefits of the U.S.-China Bilateral Investment Treaty (BIT) and concludes that while a U.S.-China BIT “could potentially unlock sizable benefits, there are a number of potential concerns derived from China’s recent BIT practice that policymakers should weigh when considering the treaty.”²³⁸ For the United States, the BIT presents an opportunity to address and ban Chinese investment practices that are out of line with international investment and legal standards, including unclear regulatory and legal enforcement, forced technology transfer, preferential policies for SOEs, and long-standing market access barriers.²³⁹ For China, the BIT could secure a more politically stable operating environment for Chinese companies in the United States and also serve to facilitate domestic reform of its investment framework by imposing external obligations.²⁴⁰ However, given China’s history of noncompliance with its World Trade Organization (WTO) obligations, critics of the BIT worry that even a high-standard U.S.-China BIT may not be meaningfully enforceable because it conflicts with Beijing’s stated development path.²⁴¹

To date, the United States and China have exchanged negative list offers four times, mostly recently in September 2016.²⁴² According to David Dollar, senior fellow at the Brookings Institution (and formerly the Treasury attaché to China), “China has been slow to produce a credible offer on the BIT because enterprises and ministries with vested interests have opposed to opening up

*For background on U.S.-China BIT negotiations, see Lauren Gloudeman and Nargiza Salidjanova, “Policy Considerations for Negotiating a U.S.-China Bilateral Investment Treaty,” *U.S.-China Economic and Security Review Commission*, August 1, 2016.

†For more information on China’s commitments at the Paris Climate Conference, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, January 6, 2016.

**U.S.-China Bilateral Investment Treaty Negotiations—
Continued**

and the leadership is apparently not willing to take them on.”²⁴³ U.S. Treasury Secretary Jack Lew has said China’s willingness “to engage in serious negotiations on a high-quality U.S.-China BIT will be [an] important barometer” of whether it views foreign companies as a partner in its economic development.²⁴⁴

Hangzhou G20 Summit

On September 4–5, 2016, China hosted the 11th G20 Summit, an annual meeting of leaders from the 20 largest economies, in Hangzhou.* Beijing viewed its first time chairing the G20 Summit as a high-profile opportunity to showcase China’s leadership on the world stage and promote its vision for the global economy.²⁴⁵ The G20 Summit’s final communique was a broad consensus document organized around five themes: policy coordination, innovation-driven growth, economic and financial governance, trade and investment, and sustainable development.²⁴⁶ While the communique covered a wide range of issues, its decisions were mainly incremental and lacked concrete and measurable actions.²⁴⁷ Key issues addressed in the final communique include:

- *Maintaining global economic growth and open trade:* G20 leaders called on countries to use all policy tools—monetary, financial, and structural—to generate greater global growth. They also adopted action plans on innovation and the “new industrial revolution,” two areas expected to provide the basis for future growth.²⁴⁸ G20 leaders defended open trade, reaffirming their “opposition to protectionism on trade and investment in all its forms.”²⁴⁹ They also adopted the Guiding Principles for Global Investment Policymaking, laying out basic principles for how countries should treat foreign direct investment.²⁵⁰
- *Creating the foundation for an international tax system:* In an effort to address tax evasion and improve transparency, G20 countries and OECD members developed the Inclusive Framework on Base Erosion and Profit Shifting (BEPS), a package of measures governments can implement to close gaps in tax rules. G20 leaders called for the implementation of the BEPS package and endorsed a proposal to identify countries that fail to meet specified criteria for tax transparency. They noted “defensive measures will be considered against listed jurisdictions.”²⁵¹
- *Resolving global excess capacity in industrial sectors:* G20 leaders recognized that excess capacity in steel and other industries is a global issue that requires a collective response. The G20 agreed to set up an OECD-facilitated global forum on steel ex-

*The Group of Twenty (G20) is an international forum for governments and central banks from 20 major countries to meet and discuss international financial stability issues. Members include Argentina, Australia, Brazil, Canada, China, the EU, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, and the United States. International organizations such as the Financial Stability Board, International Labor Organization, IMF, OECD, UN, World Bank, and WTO also participate. G20 2016 China, “About G20,” November 2015.

cess capacity, which will share information and produce a progress report in 2017.²⁵²

- *Reforming governance arrangements at the IMF and World Bank:* G20 leaders called for a new IMF quota formula—to be developed before the 2017 Annual Meetings—to reflect increased shares for emerging and developing countries “in line with their relative positions in the world economy.”²⁵³ Similarly, the statement called for the World Bank to implement its shareholding review “with the objective of achieving equitable voting power over time.”²⁵⁴

On September 3, ahead of the G20 Summit, President Barack Obama met with President Xi. The top outcome was the announcement that the United States and China formally joined the 2015 Paris Agreement on Climate Change, putting the agreement within reach of entering into force this year.*²⁵⁵ On cybersecurity, the two countries reaffirmed their commitment to fully implement the September 2015 cyber commitments, including not conducting cyber-enabled theft of intellectual property for commercial gain.²⁵⁶ On counternarcotics, China agreed to target exports of substances controlled in the United States even if they are not controlled in China.²⁵⁷ Flows of precursor chemicals from China to the United States are a persistent problem.

Methamphetamine Precursor Chemicals from China

A recent report prepared by Commission staff analyzes the scope of methamphetamine (meth) precursor chemical flows from China and their implications for the United States.²⁵⁸ While Mexican cartels produce the majority of meth used in the United States, around 80 percent of precursor chemicals used in Mexican meth come from China.²⁵⁹ China is home to the world’s second-largest pharmaceutical industry by revenue, producing and exporting vast quantities of generic drugs and active pharmaceutical ingredients used to manufacture legal and illegal drug products.²⁶⁰ In addition, Chinese non-pharmaceutical chemical companies ship more than one-third of the world’s chemicals, making it the world’s largest chemical producer and exporter.²⁶¹ According to the U.S. Department of State’s estimates, China has more than 160,000 precursor chemical companies and production facilities operating nationwide.²⁶² The Commission report finds Chinese manufacturers of meth precursors have thrived due to weak regulations and poor oversight over the country’s chemical and pharmaceutical industries.²⁶³ As a result, flows of meth precursors and other dangerous synthetic drugs from China into the Western Hemisphere continue to increase, contributing to a growing drug problem in the United States.²⁶⁴

*The Paris Agreement enters into force when 55 countries representing at least 55 percent of global emissions finalize their domestic processes for joining the agreement; together, China and the United States account for about 40 percent of the world’s carbon dioxide emissions. On October 5, 2016, the United Nations announced the agreement would enter into force on November 4, 2016. United Nations, “Paris Climate Agreement To Enter into Force on 4 November,” October 5, 2016; Eliza Northrop and Melisa Krnjajic, “US and China Join Paris Agreement, Bringing It Much Closer to Taking Effect,” *World Resources Institute*, September 3, 2016; and Alicia Parlapiano, “Climate Goals Pledged by China and the U.S.,” *New York Times*, October 2, 2015.

United States and China at the WTO

In 2016, tensions between the United States and China heightened over trade, much of which has played out at the WTO. December 2016 marks 15 years since China acceded to the WTO. Beijing contends its accession agreement guarantees it market economy status at the end of 2016, but the United States and the EU dispute this assertion. Gaining market economy status would make it harder for China's trading partners to restore fair market conditions through the imposition of antidumping (AD) duties on its goods. China still falls short of key U.S. criteria for market economy treatment.²⁶⁵ (For more on the debates and developments on China's market economy status, see Chapter 1, Section 2, "State-Owned Enterprises, Overcapacity, and China's Market Economy Status.")

The United States continues to urge China to report its subsidies to the WTO.²⁶⁶ Although China agreed to do so when it acceded to the WTO in 2001, China's subsidy notifications are irregular and "significantly incomplete."²⁶⁷ In their 2016 *Subsidies Enforcement Annual Report to the Congress*, the USTR and the U.S. Department of Commerce noted that China's three subsidy notifications to date* "exclude numerous central government subsidies for certain sectors (e.g., steel, wild capture fisheries, aluminum), and none of the three included a single subsidy administered by provincial or local government authorities."²⁶⁸ China's poor record of compliance with WTO transparency obligations makes it difficult to evaluate the nature and extent of its subsidy programs and their trade effects.²⁶⁹ In response to China's failure to carry out its obligations, the United States conducted its own research and analysis and filed "counter notifications" of Chinese subsidy measures with the WTO. According to the USTR and U.S. Department of Commerce report, "To date, China has not provided a complete, substantive response to these counter notifications" and refuses to discuss this matter with the United States, instead claiming the United States has "misunderstood" China's subsidy programs.²⁷⁰

Over the last year, the United States brought WTO cases against China over its agricultural subsidies, export restrictions on raw materials, and aircraft taxation. The United States also requested consultations over alleged Chinese noncompliance with an earlier WTO ruling faulting Chinese AD duties on U.S. broiler chicken products. China challenged the United States' compliance with a WTO ruling that faulted U.S. methodology in determining countervailing duties (CVDs) on certain Chinese products.† Key developments in U.S.-China engagement at the WTO are discussed in the following subsections. New and pending WTO cases between the United States and China are summarized in Addendum I.

*China filed its first subsidy notification in 2006, five years after joining the WTO; the notification covered 2001–2004. China's second subsidy notification, filed in 2011, covered 2005–2008. China submitted its most recent notification in 2015, covering 2009–2014. Office of the U.S. Trade Representative and the U.S. Department of Commerce, *Subsidies Enforcement Annual Report to the Congress*, February 2016, 13.

†The products are solar panels, pressure pipes, steel line pipes, oil country tubular goods, lawn groomers, kitchen shelving, steel wire, coated paper, aluminum extrusions, steel cylinders, thermal paper, and citric acid. *Inside U.S. Trade*, "China Ramps Up WTO Fight with U.S. over Methodology in CVD Cases," May 19, 2016.

United States Challenges Chinese Agricultural Subsidies

On September 13, 2016, the United States brought a trade complaint against China at the WTO regarding “excessive” government support provided for rice, wheat, and corn production.²⁷¹ According to the USTR’s analysis, the value of China’s price support for rice, wheat, and corn last year was nearly \$100 billion in excess of its commitments under the WTO Agreement on Agriculture.²⁷² Through its “market price support” programs, China annually sets minimum prices at which the government purchases rice, wheat, and corn in major producing provinces during the harvest season.²⁷³ The USTR alleged that since 2012, China has maintained domestic prices at levels “substantially” above its WTO commitment to cap levels of domestic support at 8.5 percent of the value of production.²⁷⁴

China’s use of agricultural subsidies influences domestic production decisions and hurts the ability of U.S. agricultural producers to compete in China and around the world.²⁷⁵ The United States is the world’s largest agricultural producer. In 2015, China was the United States’ second-largest agricultural export market, with U.S. agricultural exports to China totaling over \$20 billion.²⁷⁶ The USTR estimates U.S. rice, wheat, and corn exports contribute an additional \$70 billion to the U.S. economy annually and support 200,000 U.S. jobs.²⁷⁷

United States Challenges Chinese Export Restrictions on Raw Materials

On July 13, 2016, the United States launched a trade enforcement action against China at the WTO regarding its use of export duties on nine raw materials.²⁷⁸ In the request for consultations, USTR officials said the duties, which range from 5 percent to 20 percent, impose on U.S. manufacturers production costs Chinese manufacturers do not have to pay, encouraging companies to locate production operations in China.²⁷⁹ The nine raw materials—antimony, cobalt, copper, graphite, lead, magnesia, talc, tantalum, and tin—are key inputs for high-value products in important sectors for the U.S. economy, including aerospace, automotive, electronics, and chemicals.²⁸⁰ The USTR said the export duties are inconsistent with provisions of China’s WTO accession protocol, where it committed to eliminate export duties for all products unless specified in the protocol’s annex; the raw materials named in the case are not included in the annex of exceptions.²⁸¹

On July 19, the United States and the EU filed a joint WTO challenge over China’s export restrictions on raw materials, broadening the United States’ July 13 request for consultations.²⁸² The new request added chromium and indium to the original list of raw materials subject to export duties and challenged China’s quotas on exports of antimony, indium, magnesia, talc, and tin.²⁸³ China’s MOFCOM defended the restrictions, noting, “They are part of comprehensive measures to strengthen the protection of the ecological environment and are in line with WTO rules.”²⁸⁴ The U.S. and EU challenge marks the third time the United States and the EU have taken China to the WTO over export restrictions on raw materials.²⁸⁵ The previous cases, filed in 2012 and 2014, involved rare earths and other raw materials such as bauxite and zinc. In both

cases, the WTO ruled that China's export duties were inconsistent with its accession protocol, and rejected China's defense that its export restraints protected the environment.*²⁸⁶

United States Alleges Chinese Noncompliance in a WTO Case on Chicken Broiler Product Duties

In May 2016, the USTR requested a second round of consultations with China at the WTO, alleging China's noncompliance with a 2013 WTO decision faulting Chinese duties on U.S. chicken broiler[†] products.²⁸⁷ The United States initiated the case in 2011, alleging China was imposing illegal duties on exports of U.S. poultry.[‡] In August 2013, the WTO dispute settlement panel sided with the United States in the majority of the claims.²⁸⁸ According to the ruling, MOFCOM significantly overestimated U.S. subsidization amounts, which led to excessive imposition of CVDs.²⁸⁹ It also refused to use records of major U.S. poultry producers, and incorrectly calculated dumping margins and "all others"[§] dumping margins by relying on weight-based methods.[¶]²⁹⁰ The United States and China agreed upon July 9, 2014, as the final date for China to rescind excessive duties. On that date, however, China asserted that U.S. broiler product exports continued to adversely affect China's domestic poultry industry, and adjusted AD duties and CVDs with either slight declines or increases.²⁹¹ In August 2016, MOFCOM announced it would extend antisubsidy duties on U.S. broiler chicken imports for a further five years.²⁹²

China Alleges U.S. Noncompliance in a WTO Case on Countervailing Duties

In May 2016, China's MOFCOM initiated dispute settlement proceedings against the United States for noncompliance with the WTO's January 2015 ruling on the U.S. methodology for determining CVDs on certain Chinese-made products.** This case is one of the most far-reaching and complex WTO disputes because China is challenging the technical and legal basis of the U.S. Department of Commerce's methodology across different sectors and numerous products.²⁹³ China alleges the United States has failed to "achieve full, final, and effective compliance with the recommendations and

*For example, in the raw materials case, the panel report stated, "The difficulty with China's contention is that export restrictions generally do not internalize the social environmental costs of EPRs' [energy-intensive, highly polluting, resource-based products] production in the domestic economy. This is because export restrictions reduce the domestic price of EPRs and therefore they stimulate, instead of reduce, further consumption of polluting EPR products." World Trade Organization, *China – Measures Related to the Exportation of Various Raw Materials*, Dispute DS394, July 5, 2011, 163.

[†]Broiler products include most chicken products, except for live chickens and a few other products such as cooked and canned chicken. U.S. Department of Agriculture, *United States Wins Trade Enforcement Case for American Farmers, Proves Export-Blocking Chinese Duties Unjustified under WTO Rules*, August 1, 2013.

[‡]For the history of China's unfair treatment of U.S. poultry exports, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, June 3, 2016.

[§]The "all others" rate falls upon companies that neither received company-specific rates nor were individually investigated. This rate is calculated by weight averaging all company-specific rates.

[¶]Dumping margins are found by comparing sales of comparable merchandise within a certain timeframe. Weight-based methods refer to taking a specific chicken product's (e.g., breast, leg quarters, paws) weight over the entire chicken's weight.

**For full text of the consultation request, see World Trade Organization, *United States – Countervailing Duty Measures on Certain Products from China*, May 13, 2016.

rulings of the DSB [Dispute Settlement Body].”* The U.S. Department of Commerce failed to finalize CVDs on four of the 15 cases within the required implementation period.²⁹⁴ The Chinese government further claims that eight U.S. CVD investigations and determinations continue to use a flawed methodology.²⁹⁵

This case takes place against a backdrop of escalating trade tensions. While the U.S. government has the authority to initiate action, every recent AD/CVD case initiated was done so based on petitions filed by private parties.²⁹⁶ The United States now initiates more AD and other trade defense cases than any other WTO member.²⁹⁷ In the 2015 fiscal year, the U.S. government initiated 62 investigations, the largest number of investigations in 14 years.²⁹⁸ China was involved in over half of those cases.²⁹⁹ In 2016, the number of cases is expected to exceed those in 2015.³⁰⁰ Of the 48 investigations initiated in first nine months of 2016, China is involved in 28.³⁰¹ (For a list of AD/CVD investigations involving China initiated by the United States in 2016, see Chapter 1, Section 2, “State-Owned Enterprises, Overcapacity, and China’s Market Economy Status.”) In turn, Chinese officials seek to challenge U.S. AD duties at the WTO in an effort to protect China’s domestic industries, particularly the strategically and economically important steel industry.³⁰²

China Ends “Demonstration Bases” Export Subsidy Program after U.S. Challenge

In April 2016, China agreed to end one of its export subsidy programs in a MOU with the United States; this MOU comes a year after the United States challenged the practice for violating WTO rules.³⁰³ The program in question provided around \$1 billion in central and sub-central government subsidies to seven sectors: textiles, light industry products, specialty chemicals, medical products, hardware materials, agriculture, and advanced materials and metals (including specialty steel and aluminum products).³⁰⁴ The subsidies were provided through China’s “Demonstration Bases” program, which supported exporters in 179 industrial clusters across the country.³⁰⁵ Under the program, the Chinese government provided enterprises with subsidies contingent on meeting certain export targets. Some subsidies took the form of cash grants, while other subsidies took the form of free or discounted services provided by designated suppliers known as “common service platforms.”†³⁰⁶

*In the original dispute, China claimed the U.S. Department of Commerce’s methodology and determination of 17 CVD investigations from 2007 to 2012 violated the WTO’s Agreement on Subsidies and Countervailing Duties. The WTO’s Appellate Body found the U.S. Department of Commerce cannot presume that all majority government-owned entities are “public bodies” capable of providing subsidies, and that it must conduct “necessary market analysis” in 15 of the 17 cases to include the consideration of in-country prices as benchmark prices in its CVD investigations and calculations. Previously, the U.S. Department of Commerce calculated the duty using third-country proxies without consulting in-country or private prices in China. In April 2015, the U.S. Department of Commerce initiated compliance proceedings on the 15 CVD investigations faulted by the WTO but failed to finalize CVDs on solar panels, pressure pipes, steel line pipes, and oil country tubular goods within the required implementation period. World Trade Organization, *United States—Countervailing Duty Measures on Certain Products from China*, Dispute DS437, January 16, 2015; *Inside U.S. Trade*, “China Ramps up WTO Fight with U.S. over Methodology in CVD Cases,” May 19, 2016; and U.S. Department of Commerce, International Trade Administration, *Notice of Commencement of Compliance Proceedings Pursuant to Section 129 of the Uruguay Round Agreements Act*, April 27, 2015.

†While the total amount of subsidies provided under the program is unknown, the United States estimates the Chinese government provided certain enterprises with “at least \$635,000

As a result, products from demonstration bases were cheaper and more competitive in export markets.³⁰⁷ In 2012, for example, 16 demonstration bases in the textile sector accounted for 14 percent of China's total textile exports.³⁰⁸

The subsidy program was discovered as part of a separate WTO dispute the United States raised with China in 2012 regarding unfair auto parts subsidies.³⁰⁹ While China eliminated the auto parts subsidy program, the investigation revealed the network of demonstration bases and illegal export subsidies.³¹⁰ The United States challenged the program at the WTO in February 2015, citing concerns that "China's actions [were] damaging [the] international marketplace, undercutting American businesses, and hurting workers in communities across [the] country."³¹¹

For some U.S. industries, however, the MOU may not be comprehensive enough to maintain free and fair trade in international markets. The steel industry, for example, remains wary of the Chinese government's claims, anticipating Chinese steel companies will receive additional forms of support—like cheap loans from state banks, artificially low prices for inputs such as energy and water, and support for R&D and technology acquisitions—that continue to put U.S. firms at a disadvantage.³¹²

United States Challenges China's Discriminatory Taxation for Small Aircraft

In December 2015, the USTR initiated dispute settlement proceedings at the WTO over China's discriminatory tax exemptions for domestically produced small aircraft. These measures impose a 17 percent value-added tax on imported aircraft while exempting domestically produced aircraft, particularly aircraft under 25 metric tons by weight, in violation of the WTO's nondiscriminatory taxation rules.³¹³ Examples of exempted aircraft include China's domestically produced regional jet, the ARJ21, and general aviation aircraft ranging from propeller-driven aircraft to business jets.³¹⁴ The USTR noted these tax measures were not reported to the WTO as required.³¹⁵ (For a discussion of China's industrial policies in the aviation manufacturing industry, see Chapter 1, Section 3, "13th Five-Year Plan.")

The USTR noted that unfair taxation policies disadvantage the U.S. general aviation manufacturing industry, which provides approximately 103,000 jobs and contributes \$14 billion annually to the U.S. economy.³¹⁶ According to Ambassador Froman, "China's discriminatory, unfair tax policy is harmful to American workers and American businesses of all sizes in the critical aviation industry, from parts suppliers to manufacturers of small and medium-sized aircraft."³¹⁷ Since 2011, U.S. exports of civilian aircraft, engines, equipment, and parts to China more than doubled—reaching \$13.9 billion in 2014, or about 12 percent of total U.S. exports.³¹⁸ Based on Chinese regulators' estimates, China's general aviation sector is expected to grow 19 percent annually through 2020, creating enormous potential opportunities for U.S. firms.³¹⁹

worth of benefits annually" and provided "common service platform" suppliers with "almost \$1 billion over a three-year period." Office of the U.S. Trade Representative, *United States Launches Challenge to Extensive Chinese Export Subsidy Program*, February 2015.

Conclusions

- In 2015, the U.S. goods trade deficit with China increased by 6.5 percent year-on-year to \$367.2 billion, a new record. Over the same period, the U.S. deficit with China in advanced technology products reached \$120.7 billion, a decrease of \$3 billion from 2014. In the first eight months of 2016, the U.S. goods deficit with China fell 5.7 percent year-on-year to \$225.2 billion due to weaker imports. The United States has a substantial but much smaller trade surplus with China in services: in 2015, the U.S. trade surplus in services with China totaled \$29.5 billion. China continues to stall on liberalizing key sectors in which the United States is competitive globally, such as services.
- The Chinese government has made “supply-side structural reform” the dominant theme of economic policy. This concept includes cutting excess industrial capacity and housing inventories, deleveraging, and reducing business costs. Early signs suggest the central government’s supply-side focus has not yet translated into a serious change of course. Facing a slowdown in growth, Chinese policymakers have leaned on stimulus measures to boost growth. Government stimulus has largely accrued to the state sector while the private sector struggles to secure credit, endangering China’s rebalancing.
- China’s rapidly rising debt levels heighten risks to the stability of the country’s financial markets, which can quickly spill over into global markets. Beijing continues to increase the flexibility of its exchange rate, driven in part by its goal of internationalizing the renminbi (RMB). Despite this progress, the People’s Bank of China still carefully manages the value of the RMB, intervening in foreign exchange markets to keep the currency’s external value stable.
- China’s foreign investment climate continues to worsen for companies in strategic industries because of the Xi Administration’s focus on domestic industrial innovation goals. In addition, Beijing has forcefully argued that the country must reduce its dependence on foreign technology due to national security concerns, and introduced stricter information and communications technology requirements and stronger cybersecurity policies.
- While Chinese investment remains a small percentage of total inward foreign direct investment in the United States, it is rising rapidly and will continue to rise, driven by the Chinese government’s “going out” strategy, capital flight, and a generally more open policy environment for outbound investment. Chinese companies’ record acquisition of U.S. assets—in particular, their drive to acquire U.S. technology firms—has led to growing political concern. However, some major Chinese acquisition deals have fallen apart due to regulatory concerns or questions over Chinese buyers’ ability to pay. The Committee on Foreign Investment in the United States (CFIUS) reviews foreign investments in the United States for national security implications. In 2014, the latest year for which data are available, China led foreign countries in CFIUS reviews with 24 reviewed transactions out of more than 100 total

acquisition deals. Although the number of Chinese transactions reviewed increased in absolute terms, it declined as a share of all Chinese acquisitions, and the vast majority of reviewed transactions proceed.

- China appears to be conducting a campaign of commercial espionage against U.S. companies involving a combination of cyber espionage and human infiltration to systematically penetrate the information systems of U.S. companies to steal their intellectual property, devalue them, and acquire them at dramatically reduced prices.
- The U.S. government's efforts to address tensions in the U.S.-China relationship continue to yield only limited results. At the final round of the Strategic and Economic Dialogue talks under the Obama Administration, participants failed to achieve any major breakthroughs but left with some deliverables on financial sector cooperation. Industrial overcapacity topped the U.S. economic agenda, replacing currency as its primary concern, but China only made a vague pledge with regard to steel overcapacity. The unwelcoming investment climate for U.S. companies in China, along with China's recently passed law restricting foreign nongovernmental organizations, also added friction to the talks.
- China's adherence to the World Trade Organization (WTO) principles and its Protocol of Accession remains mixed, partly due to China's opaque subsidy regime. Recently, the United States initiated WTO cases on China's aircraft taxation, export restrictions on raw materials, and agricultural subsidies. The United States also requested consultations over China's continued imposition of antidumping duties on U.S. broiler chicken products, in violation of an earlier WTO ruling.

Addendum I: WTO Cases

Recent and Ongoing WTO Cases Brought by the United States against China

No.	Title	Request for Consultations	Panel Report	Status
DS427	Antidumping and Countervailing Duty Measures on Broiler Products	September 20, 2011	August 2, 2013	In May 2016, the United States requested a second round of consultations with China over China's alleged noncompliance with a DSB ruling on AD and CVD duties on broiler products from the United States.
DS450	Certain Measures Affecting the Automobile and Automobile-Parts Industries	September 17, 2012	Dispute resolved in consultations stage	China agreed to end its subsidy program for automobile and automobile parts enterprises.
DS489	Subsidies for Demonstration Bases and Common Service Platform Programs	February 11, 2015	Panel established on April 22, 2015; MOU reached April 14, 2016	China agreed to end its demonstration bases export subsidy program in an MOU reached with the United States.
DS501	Tax Measures Concerning Certain Domestically Produced Aircraft	December 8, 2015	In consultations; panel not yet formed	The United States requested consultations with China regarding tax measures in relation to the sale of certain domestically produced aircraft in China.
DS508	Export Duties on Certain Raw Materials	July 13, 2016	In consultations; panel not yet formed	The United States requested consultations with China over China's exports subsidies on nine raw materials.
DS511	Domestic Support for Agricultural Producers	September 13, 2016	In consultations; panel not yet formed	The United States requested consultations with China over China's domestic support for rice, wheat, and corn.

Source: World Trade Organization; compiled by Commission staff.

Recent and Ongoing WTO Cases Brought by China against the United States

No.	Title	Request for Consultations	Panel Report	Status
DS437	Countervailing Measures	May 25, 2012	July 14, 2014 (Appellate Body Report, December 18, 2014)	The Panel ruled against some of China's claims but also found the United States acted inconsistently with some of its WTO obligations. China appealed the decision, and the Appellate Body reversed several of the Panel's findings against China's claims. In May 2016, China requested consultations over the United States' alleged failure to implement the DSB ruling. A compliance panel was established July 21, 2016; the panel report is expected November 2016.
DS471	Antidumping Methodologies	December 3, 2013	Panel established March 26, 2014	China requested consultations with the United States regarding the use of certain methodologies in AD investigations involving Chinese products.

Source: World Trade Organization; compiled by Commission staff.

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SECTION 2: STATE-OWNED ENTERPRISES, OVERCAPACITY, AND CHINA'S MARKET ECONOMY STATUS

Introduction

In China's centralized, state-run economic system, the government's legitimacy is closely tied to its ability to deliver high levels of economic growth. With China's economy slowing down, the government is facing a difficult choice between maintaining short-term growth and undertaking economic restructuring. The Chinese Communist Party (CCP) appears to have chosen the former path. Although the CCP has repeatedly announced new policies to address structural problems in the country's economy, it has failed to implement changes that meaningfully put the economy on a path to becoming market led. This is because the CCP's reform efforts are aimed at managing its state-led system, not transitioning toward a market-led economy.

In the reforms announced to date, Beijing has sought to take superficial steps toward privatization and improved efficiency, while increasing government control over the economy. The country's large and inefficient state-owned enterprises (SOEs) epitomize this trend: SOEs contribute a sizable share of the country's jobs and revenue, but are in need of significant restructuring to reduce mounting debt levels resulting from a legacy of imbalanced, government-led growth. However, it is increasingly evident that the top CCP leadership does not want to implement free market SOE reforms.

To date, the CCP has not demonstrated a commitment to a free market economy as a matter of principle, and powerful practical considerations mitigate against reform efforts. SOEs in strategic sectors are the primary entities through which the CCP directs the economy towards the regime's strategic ends; real reform in these sectors would mean giving up control and dramatically reducing the government's ability to achieve the goals identified in the 13th Five-Year Plan (FYP). Reforms would also reduce the size of the state sector, creating significant job losses at a time when economic growth is already slowing. Finally, huge political obstacles in the form of entrenched interests resist any substantial changes in SOEs' structure that might reduce the CCP's control. For all of these reasons, what passes for reforms of SOEs has taken the form of consolidating state control and pressuring firms to act in line with government interests. As a result, in response to CCP policies, the Chinese government continues to subsidize the state sector despite warnings from the International Monetary Fund (IMF) that effects from a large wave of SOE defaults could ripple through the global economy.

The need for reform is particularly pressing in China's heavy industries, where years of government subsidies have created overcapacity and market distortions. China's industrial capacity, for instance, has suppressed global commodity prices and hindered global industrial activity. Rampant overcapacity also poses a national security risk to the United States, as cheap Chinese steel and finished aluminum product imports threaten to hollow out the domestic industries and weaken the national defense industrial base.

To offset Beijing's anticompetitive policies, the United States and other major Chinese trading partners are increasingly using trade remedies like antidumping and countervailing duties. In December 2016, however, the provision of China's World Trade Organization (WTO) accession protocol enabling countries to automatically treat China as a nonmarket economy expires, sparking debate among Chinese, U.S., and European officials about the future of China's market economy status.

Drawing on expert testimony received at the Commission's February 24, 2016, hearing on "China's Economic Realities and Implications for the United States," information from the Commission's fact-finding trip to China in June 2016, and additional research throughout the year, this section explores the implications of China's economic decision making for U.S. firms, industry, and consumers, as well as for the global economy.

China's State Capitalism in the Global Context

As China's economic growth—reported to be 6.7 percent* in the first half of 2016 compared to the first half of 2015, according to official Chinese data—hits its lowest level in 25 years, inefficient and debt-ridden SOEs have become one of the most pressing problems facing the Chinese government.¹ Despite repeated pledges to let the market play a "decisive role" in resource allocation, Beijing continues to use SOEs as a tool to pursue social, industrial, and foreign policy objectives, offering direct and indirect subsidies and other incentives to influence business decisions and achieve state goals.² During the Commission's June 2016 trip, Chinese government officials acknowledged that China would benefit from some deregulation and privatization of its SOEs.³ However, the government's continued reluctance to revoke SOEs' privileged status in the economy has created imbalances in global markets, hindering efforts by private domestic and foreign firms to compete in and outside China.

Current State of Chinese SOEs

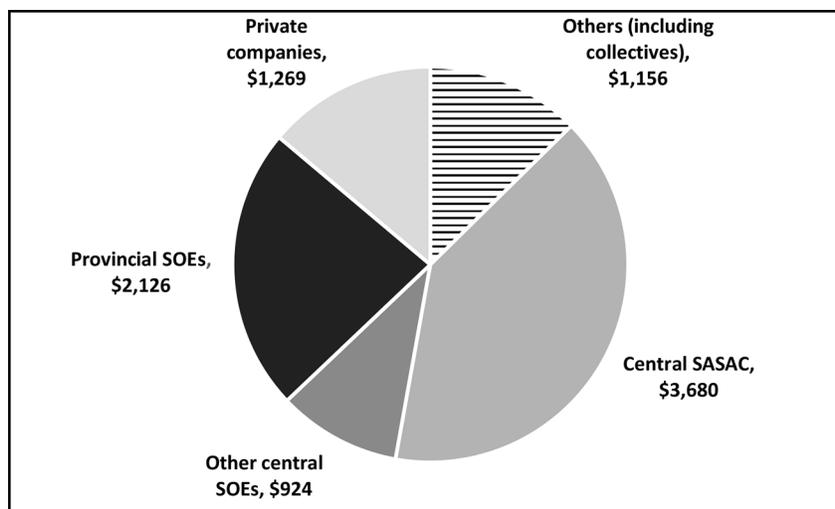
State-owned and state-controlled companies remain significant contributors to China's economic growth, providing a substantial source of China's revenue and employment. In 2014, all SOEs accounted for 17 percent of urban employment, 22 percent of total industrial profits (with industrial production accounting for 42.7 percent of gross domestic product [GDP] in 2014), and 38 percent of China's industrial assets.⁴ Using official Chinese data, Nicholas

*Most private estimates put China's economic growth far below 6.7 percent. For example, the economic research firm Capital Economics estimates China's gross domestic product (GDP) grew only 4.5 percent in the second quarter of 2016. Sue Chang, "China's Economy Likely Lost More Momentum amid Mounting Debt," *MarketWatch*, July 13, 2016.

Lardy, senior fellow at the Peterson Institute for International Economics, estimates state firms contribute between 25 percent and 30 percent of China's industrial output on average, although SOE contribution in some monopoly sectors can exceed 90 percent.⁵ Likewise, SOEs maintain a controlling position in China's stock markets—the ten top-valued companies by market capitalization in China's Shanghai Composite Index are state owned.⁶ Chinese SOEs are also present on U.S. stock exchanges. For example, there are 14 Chinese SOEs listed on the New York Stock Exchange, including PetroChina, China Mobile, Sinopec, and China Telecom.⁷

Many Chinese companies operate in gray zones between private and public ownership, with both SOEs and private companies receiving incentives to execute government objectives, making it difficult to delineate state-owned and private businesses.⁸ Still, SOEs remain the driving force behind sectors of fundamental importance to the Chinese economy, with most of the largest companies by revenue owned or controlled by the central government.⁹ Large state monopolies in sectors like oil and gas, electricity, and tobacco, for instance, contribute to SOEs' disproportionately large share of China's economic growth.¹⁰ In 2013, one-third of total SOE assets were controlled by the 113 SOEs administered by the central State-Owned Assets Supervision and Administration Commission (SASAC), while the remaining assets were controlled by SOEs administered by local governments and other government ministries, including financial institutions, cultural institutions, the national postal system, and the national tobacco monopoly.¹¹ According to a recent study by Paul Hubbard, a scholar at the Australian National University, China's 500 largest firms—both private and public—earned \$9.2 trillion in 2013.¹² Of that \$9.2 trillion, only 14 percent was earned by private companies (see Figure 1).¹³

Figure 1: Revenue of China's Top 500 Firms by Ownership, 2013
(US\$ billions)



Source: U.S.-China Economic and Security Review Commission, *Hearing on China's Shifting Economic Realities and Implications for the United States*, written testimony of Paul Hubbard, February 24, 2016.

SOEs' Growing Debt Problem

Despite the controlling status enjoyed by some SOEs in China's economy—largely due to their monopolistic market positions and barriers for private sector competitors—inefficiency and mismanagement of assets run rife. Because SOEs are given access to cheap financing and lower interest rates* in return for delivering investments and public services in line with government interests, they often operate based on state preferences rather than market principles.¹⁴ As a result, Chinese SOEs face growing corporate debt, sluggish demand, weak pricing, and high leverage.¹⁵ SOE profits have been steadily declining in recent years, falling 6.7 percent year-on-year in 2015 and 8.5 percent year-on-year in the first half of 2016.¹⁶ To remain viable, many SOEs are reliant on loans from state banks, leading to the proliferation of “zombie” companies† that require constant bailouts to operate. Since 2008, non-financial SOEs have increased their loans relative to assets from 53 percent to 64 percent—nearing the United States' 70 percent debt-to-asset ratio before the 2008–2009 financial crisis—while private companies' loans relative to assets declined over the same period.¹⁷

According to a June 2016 speech by David Lipton, First Deputy Managing Director of the IMF, “corporate debt [in China] remains a serious—and growing—problem that must be addressed immediately and with a commitment to serious reforms.”¹⁸ In the first quarter of 2016, corporate debt for all Chinese companies rose to 169 percent of GDP (up from 108 percent in 2008), compared to 72 percent in the first quarter of 2016 for the United States.¹⁹ Dr. Lipton's speech indicates that SOEs account for around 55 percent of corporate debt.²⁰ According to Chinese regulators, non-performing loans (NPLs) held by Chinese banks amounted to \$300 billion, or 2.15 percent of total loans, at the end of May 2016.²¹ Although China's official NPL ratio is down from 7.5 percent at the end of 2006, the actual NPL ratio may be much higher.²² Ultimately, Dr. Lipton concluded that Chinese SOEs are “essentially on life support,” warning that if the problem is not dealt with soon it could evolve into a larger crisis.²³ As a result of surging debt and stagnant reforms, Standard & Poor's ratings agency cut the outlook for China's credit rating from stable to negative in March 2016, following similar revisions by Moody's Investors Service earlier that month.²⁴

Efforts to Address Debt

China has begun allowing some state-owned companies to default to incentivize more prudent investing by SOEs and by other companies in SOEs.²⁵ Baoding Tianwei Group, a power generation equip-

*According to an August 2016 IMF report, implicit government financing guarantees grant SOEs an estimated four to five notch credit rating upgrade (i.e., a B– rating under Standard & Poor's rating system would be upgraded to a BB or BB+) and lower SOE borrowing costs by 1 to 2 percentage points. International Monetary Fund, “The People's Republic of China: 2016 Article IV Consultation: Selected Issues,” August 2016, 33.

†A “zombie” company generates only enough revenue to repay the interest on its debt. Because banks are reluctant to take the losses from a write-down of this debt and apply forbearance, these indebted firms are given additional time to repay loans. Hugh Pym, “Zombie Companies Eating Away at Economic Growth,” BBC, November 13, 2012.

ment company, became the first SOE to default on bonds when it missed a \$13 million interest payment in September 2015.²⁶ Two months later, state-owned China Shanshui Cement Group defaulted on a \$300 million loan.²⁷ In March 2016, Guangxi Nonferrous Metals Group Co.—which had been receiving state aid since 2012—defaulted on \$2.3 billion of its debt, and Dongbei Special Steel, a state-owned steelmaker in Liaoning Province, defaulted on its corporate debt for the seventh time on payments worth a total of \$715 million across all seven defaults.²⁸ According to Bloomberg, the total number of Chinese companies with more debt than equity jumped to 913 in 2015, a nearly 30 percent increase since 2007.²⁹ As a result, total bond defaults have skyrocketed, with 34 defaults accounting for around \$3 billion in China’s domestic bond market—including both SOEs and private enterprises—in the first half of 2016, nearly double the number of defaults in all of 2015.³⁰ In September 2016, state-owned Guangxi Nonferrous Metals Group Co. became the first company liquidated by Beijing after it could not reach an agreement with investors to bail out the company following its March 2016 default.³¹ China’s central bank governor, Zhou Xiaochuan, has expressed concern over the highly leveraged state of the economy, encouraging the development of “robust capital markets” to reduce China’s reliance on debt and increase equity financing.³²

Notwithstanding rising debt levels, Chinese companies are increasingly acquiring foreign companies in strategic sectors to earn government subsidies and other incentives.³³ SOEs in different sectors have varying reasons for looking abroad: energy and resources firms aim to stabilize their domestic supply of resources, avoid price volatility, and learn about new resource extraction methods; technology firms aim to acquire new technology; and manufacturing firms aim to be closer to their target markets and mitigate concerns over protectionism.³⁴ For example, China National Chemical Corporation’s (ChemChina) \$43 billion takeover of Swiss seed giant Syngenta AG likely seeks to boost China’s farm productivity.³⁵ The Syngenta deal may also allow China to monopolize the development of genetically modified crops. In February 2016, China’s Tianjin Tianhai Investment Co. made a bid for the U.S. electronics firm Ingram Micro, Inc. to boost China’s domestic technology capabilities and reduce imports of high-tech products (for a list of Chinese bids and acquisitions of U.S. companies, see Chapter 1, Section 1, “Year in Review: Economics and Trade”).³⁶ By acquiring businesses in line with the Chinese government’s industrial policy,* SOEs earn support from Beijing, including backing from state banks and capital markets.³⁷ These deals ultimately increase SOE debt in China, with companies sometimes relying on extremely risky loans from state banks to finance the deals.³⁸ China has also announced new policies aimed at reducing banks’ NPL ratios, including a securitization program and debt-for-equity swaps (for more on government efforts to address China’s debt problem,

* China’s industrial policy seeks to enhance indigenous innovation, reduce overcapacity, and develop the country’s high-technology and environmental industries, including biotechnology, high-end manufacturing equipment, and new-generation information technology. U.S.-China Economic and Security Review Commission, Chapter 1, Section 3, “China’s State-Led Market Reform and Competitiveness Agenda,” in *2015 Annual Report to Congress*, November 2015, 158–162.

see Chapter 1, Section 3, “China’s 13th Five-Year Plan”).³⁹ These measures are expected to have a limited impact on overall debt, however, with investors noting they expect little global appetite for high-risk Chinese debt.⁴⁰

SOE Reform Agenda

SOEs have been a target of reform for years, with the Chinese government repeatedly promising to address the growing problems inherent in its state-led model. In meetings with the Commission, Chinese officials reaffirmed the government’s intent to undertake institutional SOE reforms.⁴¹ Nevertheless, evidence shows Beijing has effectively abandoned its boldest proposals for restructuring the state sector, with a number of reforms still not implemented despite years of repeated promises by high-ranking officials.⁴² At a State Council executive meeting in May 2016, China’s Premier Li Keqiang discussed SOE reform measures aimed at improving competition, creating a favorable environment for innovation, and promoting efficient deployment of assets.⁴³ These steps—along with promises to streamline SOE management and corporatize* the state sector—echo past SOE reform efforts that continue to be re-packaged and re-announced.⁴⁴ At the November 2013 Third Plenary Session of the 18th CCP Central Committee (Third Plenum), for example, Chinese President and General Secretary of the CCP Xi Jinping announced an SOE reform plan that called for ownership diversification and withdrawal of SOEs from sectors with healthy, competitive environments.⁴⁵ Three years later, Beijing has still not produced an official list of competitive sectors, indicating the withdrawal of state ownership is unlikely.⁴⁶ In September 2015, China’s State Council released the “Guiding Opinion on Deepening SOE Reform,” a high-level policy document that once again set forth a familiar plan for SOE reform that lacked detail and a clear timeline for implementation.⁴⁷

The central tenet of the September 2015 reform plan is to help SOEs become “bigger and stronger,” not to reduce the size of the state sector.⁴⁸ According to Mr. Hubbard, reforms “are designed to simultaneously reduce the interference of the state at a bureaucratic level but reinstitute or strengthen Party leadership.”⁴⁹ A June 2016 article in *Qiushi*, a bimonthly magazine published by the Central Party School and the Central Committee of the CCP, highlighted the growing power of party cells within SOEs, indicating “all the major decisions of [SOEs] must be studied and suggested by the party committees,” with “arrangements involving macro-control, national strategy and national security ... studied and discussed by the party committees before any decision by the board of directors or company management.”⁵⁰ In addition, the 13th FYP released in April 2016 highlighted state control of SOEs as one of its key reform priorities (for more on the 13th FYP, see Chapter 1, Section 3, “13th Five-Year-Plan”).⁵¹ Specific reform plans outlined by Beijing include:

* In 1994, the Chinese government began converting SOEs into corporate firms and creating mixed-ownership enterprises. Curtis Milhaupt and Wentong Zheng, “Why Mixed-Ownership Reforms Cannot Fix China’s State Sector,” *Paulson Policy Memorandum*, January 2016, 4.

Mixed-ownership reforms: To improve management, SOEs in industries deemed by the State Council to have sufficient market competition will actively pursue foreign capital in restructuring through methods including overseas mergers and acquisitions, joint investment and financing, and offshore financing. However, state capital will maintain the “absolute controlling position,” suggesting that even in the absence of full state ownership, SOEs will continue to be controlled by the state.⁵² The guidelines aim to complete mixed-ownership reforms for all SOEs by 2020.⁵³

Mixed-ownership reforms are not expected to result in full privatization of SOEs. One example of the limitations of mixed-ownership reforms is the case of Jiangxi Salt, a legal monopoly in China’s salt market previously owned by the Jiangxi provincial SASAC. After a deal in September 2015 to open the company to foreign investors—hailed by official media as a landmark example of SOE reform—Jiangxi SASAC’s share in the company dropped from 100 percent to 47 percent, with four outside investors collectively holding a 47 percent stake and Jiangxi Salt’s management buying a 6 percent stake.⁵⁴ However, of the four new investors, three were SOEs administered by SASAC, while the fourth was 83 percent owned by the Ministry of Finance.⁵⁵ Rather than selling assets to new investors and raising money for the local government, the Jiangxi deal was primarily structured as a capital injection, thereby undermining an intended result of SOE reform to help reduce local government debt by selling state assets.⁵⁶ Ultimately, “mixed-investment” SOEs have negligible amounts of private capital, with the state maintaining its control over business activities.⁵⁷

Categorization of SOEs: The September 2015 guidelines outline a system for pursuing reforms according to new SOE classifications. Under the plans, SOEs will be categorized as either “commercial” or “public,” with commercial SOEs focusing on seeking profits and opening to private investment (although the state will retain the controlling share), while public SOEs focus on public welfare or national security and remain entirely government owned.⁵⁸ Public SOE reforms will prioritize controlling costs, maintaining the quality of goods and services, and ensuring the stability and efficiency of operations, whereas commercial SOE reform will prioritize market competitiveness and economic value added.⁵⁹ Since announcing the reforms in September 2015, Beijing has not produced plans detailing which SOEs will be classified as commercial and which will be public.⁶⁰

Consolidation of SOEs: The recent reform guidelines announced by Beijing echo earlier directives to consolidate SOEs into globally competitive companies. Beijing has intermittently pursued a policy of consolidation since the 1990s, when then president Jiang Zemin sought to reduce SOE losses by privatizing or shuttering small state-owned companies while increasing the government’s control over larger and more profitable businesses.⁶¹ Most recently, SASAC in 2015 announced plans to reduce the number of SOEs from around 110 to 40 through mergers and acquisitions.⁶² The principal aim of consolidating and merging SOEs is to inject capital via minimal selling of shares and increasing total assets

while retaining majority state control.⁶³ Although the September 2015 guidelines did not specifically address reforms to subcentral SOEs, which account for a majority of the country's 150,000 SOEs, subsequent statements revealed policies to reduce overcapacity and pollution by closing down subcentral SOEs and announced plans to lay off five to six million state workers in the steel and coal industries.⁶⁴ To date, however, there has been little to no progress in reducing overcapacity, and indeed there have been some capacity increases.⁶⁵

Increased dividends: Although the Chinese government is entitled to all SOE profits, it has historically allowed SOEs to retain nearly all of their profits—another instance of the state providing SOEs with preferential treatment.⁶⁶ In 2010, for example, central SOE profits totaled around \$169 billion, only 3.8 percent of which was paid to the government through taxes and dividends, and which was all recycled back to SOEs rather than contributing to the state budget.⁶⁷ Although SOEs pay taxes, the extent of these payments is often overstated, with reported SOE taxes consisting mostly of remittances of indirect taxes (such as the value-added tax and the excise tax) that put economic burden on consumers, not SOEs.⁶⁸ To increase SOE payments to the state, dividend rates for central SOEs were set between 0 percent and 10 percent in 2007, and four years later were increased to between 5 percent and 15 percent.⁶⁹ According to the most recent guidelines, SOEs will be required to pay a 30 percent dividend to the central government by 2020, with an increasing contribution each subsequent year.⁷⁰ However, companies will still be able to adjust their reported profits by shifting them to subsidiaries or adjusting how investments are accounted for to suppress the portion of profits subject to dividend payments.⁷¹

State asset management: The government is establishing state investment and operation companies to supervise and manage state assets on behalf of the government—an approach known as the Temasek model.*⁷² For example, in August 2016, Beijing launched a \$30 billion venture capital fund that will selectively invest in the country's industrial sector, seeking to increase efficiency and upgrade technologies in the sector.⁷³ In effect, this policy shifts the central SASAC's function from asset management to regulating state assets on behalf of the government.⁷⁴ However, Dr. Lardy remains uncertain Beijing will fully embrace the new regulatory model, saying, "SASAC has a penchant for intervention in firm decision making that is the opposite of the Temasek model."⁷⁵

Employee Stock Ownership Plan: SASAC has announced plans to pilot an employee stock ownership program that will allow employees of select SOEs to buy company stocks.⁷⁶ Beijing hopes the plan will incentivize SOE employees to work to improve com-

* Temasek, a Singaporean SOE holding company, was founded in 1974 when it inherited 35 companies from the finance ministries. Today, Temasek's holdings have multiplied and diversified, with only 30 percent remaining in Singapore itself. Its domestic holdings are concentrated in "government-linked companies," allowing the state to maintain ownership without interfering in firms' profit-driven management. *Economist*, "From SOE to GLC," November 23, 2013.

pany competitiveness and stimulate productivity, particularly in innovation- and technology-driven sectors.⁷⁷ However, the SOE equity pilot program will be restricted to small, nonstrategic SOEs, limiting its impact on strategic, high-tech industries.⁷⁸ Additionally, the pilot mandates the state maintain at least 34 percent ownership in the SOEs' total equity while employees' total share cannot exceed 30 percent, further illustrating that maintaining state control remains the central tenet of all SOE reforms.⁷⁹

SOE Accountability System: In August 2016, the State Council announced guidelines to create an SOE accountability system to strengthen supervision of state firms' operations and investments. The accountability system, which will be set up by 2017, seeks to increase the value of SOE assets, strengthen supervision and management, and prevent losses. The new system will impose stricter penalties on SOE managers, holding them directly responsible for state losses if they incorrectly perform their duties. The guidelines also urge SOEs to clarify manager responsibilities, standardize decision making, and establish risk awareness.⁸⁰

State Control in Strategic Sectors—Public and Private

Under Chinese-style state capitalism, government ownership is not the only indicator of the degree and scope of government control. Instead, the government's combined use of markets and state intervention varies depending on the perceived strategic value—be it economic or political—of a sector (see Table 1).⁸¹ In her testimony to the Commission, Roselyn Hsueh, assistant professor of political science and Asian studies at Temple University, emphasized that Chinese-style capitalism requires market coordination, which “combines competition with deliberate regulation to achieve industrial modernization and economic and security goals.”⁸² The higher the degree and the broader the scope of a sector's strategic value, the more likely the Chinese state will enhance its control, centralize bureaucratic coordination, and regulate market entry to achieve state goals, such as restricting competition in strategic sectors.⁸³ As such, the Chinese government's influence over private companies in strategic sectors is often underestimated. Wentong Zheng, an associate professor at the University of Florida's Levin School of Law, stated in his testimony before the Commission that “the hallmark of Chinese state capitalism is an ecosystem in which the government is at the center of the economy and everybody else caters to the government's needs.”⁸⁴ In this ecosystem, public and private managers alike are incentivized to foster close ties with the government, relying on government ties for the financial and regulatory benefits essential for operating a successful business in China.⁸⁵

Table 1: Strategic Sectors Identified in China's State Planning

Made in China 2025 (2015)	Strategic Emerging Industries (2010)	Strategic Industries (2006)	Heavyweight Industries (2006)
(1) Clean energy vehicles (2) Next-generation IT (3) Biotechnology (4) New materials (5) Aerospace (6) Ocean engineering and high-tech ships (7) Railway (8) Robotics (9) Power equipment (10) Agricultural machinery	(1) Clean energy technologies (2) Next-generation IT (3) Biotechnology (4) High-end equipment manufacturing (5) Alternative energy (6) New materials (7) Clean energy vehicles	(1) Armaments (2) Power generation and distribution (3) Oil and petrochemicals (4) Telecommunications (5) Coal (6) Civil aviation (7) Shipping	(1) Machinery (2) Automobiles (3) IT (4) Construction (5) Iron, steel, and non-ferrous metals

Source: State Council of the People's Republic of China, *Made in China 2025*, May 8, 2015; U.S.-China Economic and Security Review Commission, *Hearing on China's Five-Year Plan, Indigenous Innovation and Technology Transfers, and Outsourcing*, written testimony of Willy C. Shih, June 15, 2011; U.S.-China Economic and Security Review Commission, *Hearing on the Extent of the Government's Control of China's Economy, and Implications for the United States*, written testimony of George T. Haley, May 24–25, 2007; and U.S.-China Economic and Security Review Commission, Chapter 1, Section 1, "The Relationship's Current Status and Significant Changes during 2007," in *2007 Annual Report to Congress*, November 2007, 38–39.

In a 2016 report, Professor Hsueh offers case studies examining market governance in the telecommunications and textiles industries, two areas of diverging strategic importance to the Chinese government:

- *Telecommunications (strategic)*: As a strategic sector, telecommunications' perceived value lies in the industry's importance to the government's goals of advancing and controlling China's technology infrastructure, disseminating and controlling information, and protecting national security. The sector is subject to heavy central-level control, and industry actors are commonly state owned or state controlled. Sector-specific rules on pricing, market entry and exit, business scope, technical standards, and ownership structures maximize the benefits of state control and minimize opportunities for foreign companies—for example, by absorbing technology from foreign operators who are unable to compete within the state-promoting regulatory environment—while simultaneously enhancing state management of network infrastructure and technology.⁸⁶
- *Textiles (nonstrategic)*: Following the first wave of economic liberalization and privatization in China, the textile industry was deemed a nonstrategic industry, having few applications for national security and low contribution to the national technology base. As a result, the sector experiences a decentralized market stakeholder pattern, where market coordination is looser and ownership is dominated by quasi-state and private firms. China introduced competition in textiles in the 1980s and devolved market coordination to local governments and commerce bureaus by the early 1990s. During this period, the central government undertook forced closures of failing state-owned textiles factories, mergers of weak and strong compa-

nies, and industrial upgrading across subsectors, allowing local governments to restructure local firms and industries in accordance with their own agendas.⁸⁷ In the 2000s, in compliance with WTO commitments, China liberalized foreign participation in textile retail and distribution, while the Ministry of Commerce delegated administration of the industry to local commerce bureaus and business associations.⁸⁸

According to Professor Hsueh, patterns of state control over industries of divergent strategic importance, as demonstrated by the two aforementioned sectors, display China's adoption of "bifurcated capitalism."⁸⁹ This bifurcated capitalism approach increases government authority and capacity to control assets perceived as strategic to the state and to structure market entry and sectoral developments—regardless of whether the assets are private or state owned.⁹⁰ These market governance patterns are manifested in other sectors across China's economy as foreign investment limits and regulatory actions to influence market actors, among other measures. By restricting investment primarily in strategic sectors, the state is able to maximize the gains and minimize the costs of China's global economic integration.⁹¹ The U.S. Department of State's 2016 Investment Climate Statement notes that China's legal system is also biased against foreign investors:

Foreign investors [in China] have expressed concern that the legal system allows regulators significant discretion to adapt decisions to changing circumstances, which results in an unpredictable business climate and rulings that can appear arbitrary or discriminatory. Generally, unlike the United States, the legal system is designed to serve state and Communist Party interests, and as such, does not consistently protect individual rights or effectively resolve disputes.⁹²

The Committee on Foreign Investment in the United States (CFIUS) scrutinizes foreign SOEs and government entities engaging in economic activity abroad more closely than private businesses, subjecting all transactions involving a foreign government to a mandatory 45-day investigation after the first-round 30-day investigation is complete.⁹³ Nonetheless, both private and public Chinese entities present significant risks to U.S. economic and national security, as the degree of state ownership does not necessarily reflect a business' strategic importance. During the Commission's June 2016 trip to Asia, Chinese officials told the Commission that the Chinese government does not make direct financial payments to private firms.⁹⁴ However, to retain control of strategic industries, the state can exert other methods of "control" over private companies, including through direct ownership, indirect ownership via a controlling interest in a "legal person" entity,* preferential lending by a state bank, board member appointments,⁹⁵ or forcing an agreement among shareholders.⁹⁶ Several policy memoranda published by the Paulson Institute highlight the channels

*For more on "legal person" entities in China, see Marshall W. Meyer and Changqi Wu, "Making Ownership Matter: Prospects for China's Mixed Ownership Economy," *Paulson Institute*, September 2014.

through which the Chinese government influences or controls private firms despite its lack of majority ownership, including:

- *Political connections:* In their research, Professor Zheng and Curtis Milhaupt, a professor at Columbia Law School, found 95 out of the top 100 private Chinese firms by revenue and eight out of the top ten Internet firms by revenue were founded or are controlled by a current or former member of a central or local political organization such as the People's Congresses and People's Political Consultative Conferences.⁹⁷ These connections are integral to a private firm's success, creating and reinforcing important networks to top banks, other leading SOEs, and government regulators.⁹⁸
- *Financial support:* Private firms often rely heavily on government subsidies to increase profit margins. In Professor Zheng's testimony to the Commission, he explained that private companies "have to have the help of the state in order to prosper or even survive."⁹⁹ Huawei, for example, is a privately held firm but receives major funding from state banks due to its status as a "national champion."¹⁰⁰ Privately owned Geely Automobile is another example of a company that benefitted from state support, receiving \$141 million in 2011 from government subsidies, over half of its net profits for the year.¹⁰¹ Another private automobile manufacturer, BYD Co., has also benefitted from state support, receiving \$108 million in 2013 from local and central government subsidies, nearly 130 percent of its net profits for the year.¹⁰²
- *Extralegal control:* Private companies are subjected to largely undefined regulations that dilute the rights of corporate owners. Take, for instance, China's state-run industry associations, which were created in the 1990s amid mounting pressure for the government to separate its regulatory power from its business activities. State-run industry associations † were meant to provide industrial coordination and private regulation, but they have become quasi-governmental entities: created and staffed by former government officials from defunct ministries, they supervise and coordinate the activities of firms whose ministries have been disbanded.¹⁰³ Compulsory participation in these state-led industrial restructuring efforts, along with other forms of pressure from regulators to comply with government-favored policies, contribute to the state's extralegal control over private enterprises.¹⁰⁴

Simultaneously, SOEs in nonstrategic sectors are not necessarily as beholden to direct government control as their shareholding structures may suggest.¹⁰⁵ The state frequently reverts to its role as regulator, rather than owner, to influence nonstrategic SOE behavior but not dictate its activities, suggesting Beijing does not

* Chinese "national champions" are industrial giants capable of competing globally. They are supported by government policies and expected to advance the interests of the state. Derek Scissors, "Deng Undone: The Costs of Halting Market Reform in China," *Foreign Affairs*, May/June 2009.

† One of the most prominent state-run industry associations in China is the China Petroleum and Chemical Industry Association, which oversees 70 percent of the operations in China's petroleum and chemical industries. China Petroleum and Chemical Industry Federation, "About Us."

view corporate control as its most effective means of influencing SOEs in nonstrategic sectors.¹⁰⁶ As a result, gradual privatization has increased competition and profitability in nonstrategic sectors of the economy; for example, between 1996 and 2002, the gross profits of China's textile industry grew 487 percent as the government reduced its role and increased privatization in the sector.¹⁰⁷

Overcapacity and Global Markets

China's overcapacity, or the overproduction of a given product, has become a global problem threatening the vitality of industrial producers around the world.¹⁰⁸ The Chinese government is guilty of stoking the current global commodity glut, with Beijing's preferential treatment of industrial producers distorting markets for products like steel, coal, and aluminum. These industries receive critical financial support from state banks, allowing them to overproduce even as global demand has fallen in recent years.¹⁰⁹ During the Commission's 2016 trip to China, Chinese officials told the Commission that cutting capacity is politically difficult for the Chinese government because it risks creating a surge in unemployment and a sharp deceleration in growth.¹¹⁰ As a result, China has only made small production cuts over the last year,* allowing global prices to fall further and leaving millions of workers outside China—particularly in the United States and Europe—without jobs.¹¹¹

The primary origin of excess capacity is China's legacy of inefficient industrial policies and imbalanced growth, designed to boost exports, support domestic industries and firms, and undermine foreign competition. While overcapacity initially sustained China's economy through pricing and market advantages, these policies have distorted resource allocation and diverted investments from productive uses, resulting in damaging consequences for China's domestic economy and the global economy at large.¹¹² The government's economic policies prioritize short-term growth and employment and rely heavily on exports and investment, resulting in a massive expansion of production capacity and, ultimately, an excess of industrial production.¹¹³

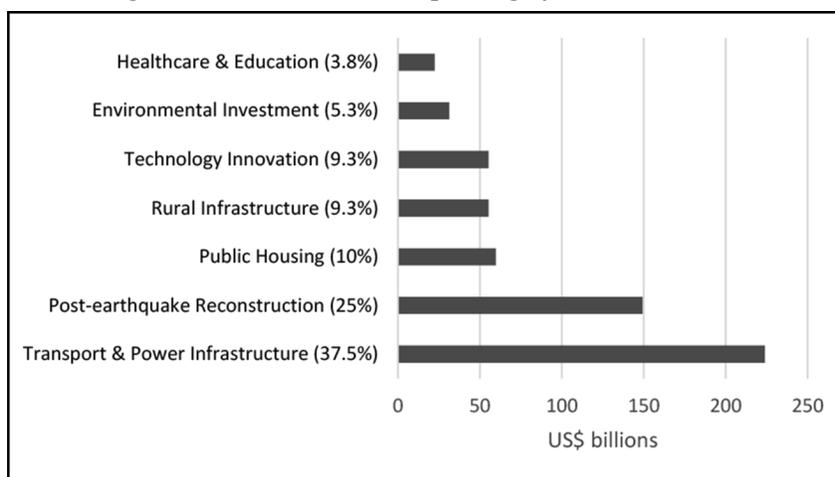
Other policy directives from Beijing have also contributed to global overcapacity. China's renminbi (RMB) 4 trillion (\$597 billion) stimulus program, implemented in 2008 during the global financial crisis, was largely dedicated to infrastructure projects and protecting heavy industry through an array of subsidies and other fiscal support measures (see Figure 2).† This stimulus generated a rapid recovery and expansion in upstream sectors such as steel, machinery, and metals.¹¹⁴ China's industrial policy, designed to support the development of domestic industries and create national champions, also contributed to overproduction in certain government-targeted industries.¹¹⁵ These factors, coupled with a massive

*During the first eight months of 2016, China reduced its production of crude steel by 0.1 percent compared to the same period in 2015. World Steel Association, "August 2016 Crude Steel Production," September 21, 2016.

†During the 2008–2009 global financial crisis, China implemented a two-year, RMB 4 trillion (\$597 billion) stimulus package—equivalent to 13.3 percent of China's 2008 GDP—largely dedicated to infrastructure construction projects. Wayne M. Morrison, "China and the Global Financial Crisis: Implications for the United States," *Congressional Research Service*, June 3, 2009, 5.

demand for construction machinery and building materials amid the country's rapid urbanization,* gave rise to excess capacity in many of China's manufacturing industries.¹¹⁶

Figure 2: Chinese Stimulus Spending by Sector, 2008–2010



Note: Percentages indicate the percentage of spending on one area compared to the total stimulus package.

Source: Rui Fan, "China's Excess Capacity: Drivers and Implications," *Stewart and Stewart*, June 2015, 5.

The government's central role in the economy and state-owned financial sector has enabled it to control industrial markets, creating distortions that perpetuate overproduction (for some examples of overcapacity industries in China, see Table 2).¹¹⁷ Although it is difficult to estimate the total number of state-owned industrial companies in China, a report on Chinese overcapacity released in February 2016 by the European Chamber of Commerce reveals that "the state controls many" industrial companies, and that "capacity, production, and market share goals"—not profitability or efficiency—"are used as the primary benchmarks to assess the performance" of SOEs.¹¹⁸ Beijing also has extensive control over the country's financial sector, often directing state banks to support state policies at the expense of profit goals.¹¹⁹ By directing banks to support industrial growth through direct and indirect measures—including preferential loans, subsidies, and discounted resources for production, which are estimated to lower financing costs 40 percent to 50 percent below the benchmark lending rate—Beijing props up companies and allows them to remain viable despite selling products well below market prices.¹²⁰

*Between 1950 and 2015, the population of urban residents in China grew from 13 percent of the total population to around 55 percent. Karen C. Seto, "What Should We Understand about Urbanization in China?" *Yale Insights* (Yale School of Management blog), November 1, 2013; Li Keqiang, "Report on the Work of the Government" (Fourth Session of the 12th National People's Congress, Beijing, China, March 5, 2016).

Table 2: Select Chinese Overcapacity Industries

Aluminum	Copper	Paper and Pulp
Chemicals	Cotton	Power Generation Equipment
Cement	Glass	Rubber
Ceramic	Iron	Solar Panels
Coal	Oil Refining	Steel

Source: Various.¹²¹

Because the promotion system for government officials ascribes great value to their ability to achieve high growth, local governments are incentivized to promote local economic expansion through investment without considering potential costs.¹²² As a result, local governments supply productive factors (e.g., land, water, electricity, and bank loans) to inefficient enterprises and industries at below-market prices or with special incentives—such as guarantees for bank loans and tolerating environmental damage—that further distort markets and encourage overinvestment.¹²³

Levels of Overcapacity

China's overcapacity problem was staggering in scale as early as the 1990s, when capacity utilization rates in many industrial sectors ranged from 35 percent to 40 percent, far below the normal capacity utilization rate of around 80 percent.*¹²⁴ China's WTO accession in 2001 temporarily alleviated the overcapacity challenge by introducing a boost in external demand; as a result, China's overcapacity yielded significant advantages in export competitiveness, and its capacity utilization rates peaked around 90 percent in 2007.¹²⁵ However, the 2008 financial crisis saw global demand plummet, once again unmasking the vulnerabilities of the Chinese government's focus on promoting select industries.¹²⁶

Official Chinese studies are indicative of the country's growing overcapacity. Of the 39 products investigated in the National Development and Reform Commission's (NDRC) last study of overcapacity in 2013, 21 products had capacity utilization rates lower than 75 percent, indicating overcapacity in those sectors.¹²⁷ The study found tackling excess capacity was especially urgent in "traditional manufacturing industries," such as steel, cement, aluminum, flat glass, and shipbuilding.† In a 2014 study (latest avail-

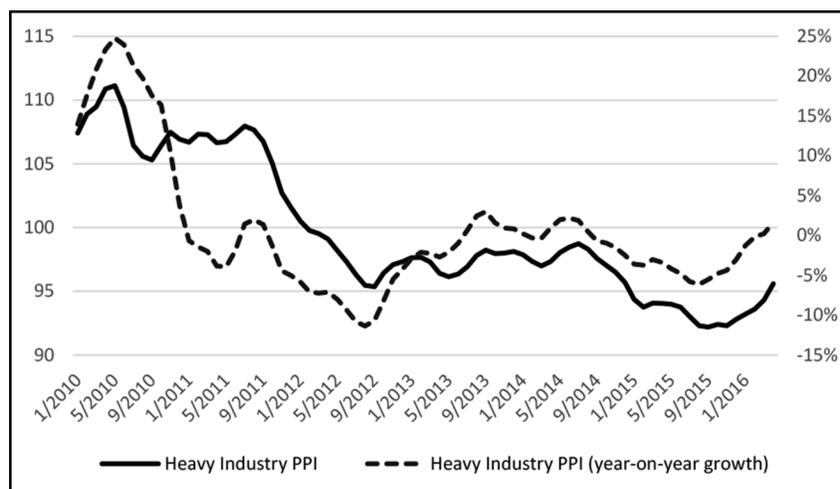
*According to the Asian Development Bank, the normal capacity utilization rate in most developed and developing nations is between 79 percent and 83 percent. A rate above 90 percent denotes a capacity shortage, while a rate below 79 percent implies excess capacity. Biliang Hu and Jian Zhuang, "Knowledge Work on Excess Capacity in the People's Republic of China," *Asian Development Bank*, July 2015, 4.

†According to the NDRC study, capacity utilization rates in 2012 for steel, cement, aluminum, flat glass, and shipbuilding were 72 percent, 73.7 percent, 71.9 percent, 73.1 percent, and 75 percent, respectively. China's National Development and Reform Commission, *Deepening Reform While Maintaining Stability to Promote Restructuring and Development*, December 11, 2013. Staff translation.

able), China's Ministry of Industry and Information Technology identified 15 industries suffering from continued excess capacity.*

Because there are significant gaps in China's official data reporting about capacity utilization, however, overcapacity levels should also be assessed based on other indicators.¹²⁸ One observable symptom of Chinese overcapacity is the country's declining Producer Price Index (PPI), which measures the change in prices received by producers for their goods and services over time. Due to downward pressure on industry profits as a result of overcapacity, China's heavy industry PPI has declined 11 percent since 2010, indicating producers were continually receiving lower and lower prices for their products every month through January 2016 (see Figure 3).¹²⁹

Figure 3: Chinese PPI, January 2010–April 2016



Source: China's National Bureau of Statistics via CEIC database.

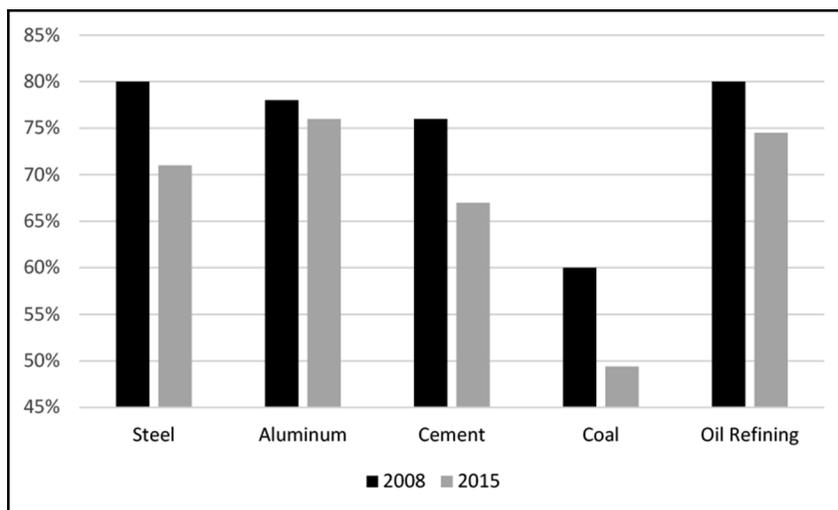
Although domestic prices have declined below production costs, the state continues its unsustainable support for China's unprofitable industrial sectors, propping up unviable companies at the expense of the global market.¹³⁰ In China's steel industry, for example, 50 percent of domestic producers are state-owned.¹³¹ Chinese steel producers experienced losses of \$15.5 billion in 2015, a 24-fold increase from 2014.¹³² In December 2015, approximately half of China's medium- and large-sized steel firms were unprofitable.¹³³ Despite the record losses, subsidies and financial support from state banks allowed many of China's largest state-owned steel firms not only to endure losses, but also to continue to increase their production.¹³⁴ Meanwhile, China's 2015 utilization rate for steel dropped to 71 percent, down 9 percentage points from 2008

*The industries identified as suffering from overcapacity include iron, steel, coal, ferroalloys, calcium carbonate, aluminum, copper, lead, cement, glass, paper, tannery, dye, chemicals, and lead batteries. China's Ministry of Industry and Information Technology, *2014 List of Industries and Companies with Excess Production Capacity*, July 18, 2014.

levels.¹³⁵ The situation is only expected to worsen as Chinese steel companies continue to expand their production capacity despite lower demand, with global steel production declining 1 percent in the first eight months of 2016 compared to the same period in 2015.¹³⁶ World prices for hot-rolled coil and rebar, meanwhile, declined by 29 percent and 20 percent year-on-year, respectively, in 2015.¹³⁷ A brief rebound in Chinese steel prices, up more than 50 percent during the first four months of 2016, led mills to restart or increase production, further contributing to global overcapacity.¹³⁸ In August 2016, China produced 68.6 million metric tons of crude steel, a 3 percent increase from August 2015 and more than half of the month's global steel production, even though domestic use continues to decline.¹³⁹

The severity of China's overcapacity has extended into other industries as well, with utilization rates in oil refineries, cement plants, and coal plants dropping 5 percentage points, 9 percentage points, and 11 percentage points, respectively, since 2008 (see Figure 4).¹⁴⁰ Aluminum utilization rates in China have also seen declines, dropping to 76 percent in 2015, a two percentage point decrease from 2008 levels.¹⁴¹ Of the world's six largest aluminum producers, two—Aluminum Corporation of China Limited (Chalco) and China Power Investment Corp. (CPI)—are Chinese SOEs.¹⁴² Because they receive state funding and financial support, China's aluminum firms also continue to increase production despite declining returns: although 60 percent of China's aluminum producers were unprofitable in 2015, the country produced a record 32 million metric tons of aluminum—a 12 percent increase from 2014.¹⁴³

Figure 4: China's Utilization Rates for Select Industries, 2008 and 2015

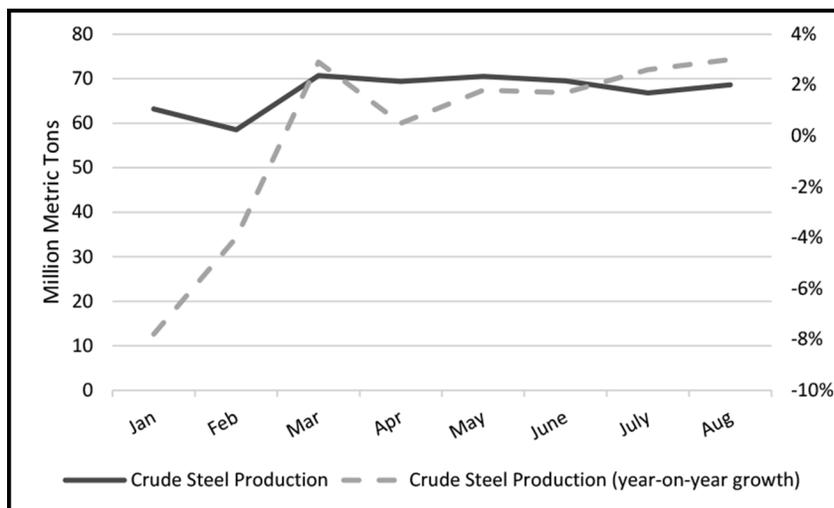


Source: European Chamber of Commerce in China, "Overcapacity in China: An Impediment to the Party's Reform Agenda," February 2016, 6; U.S. Energy Information Administration, *China*, May 14, 2016, 15; Christine Shearer et al., "Boom and Bust 2016," *Sierra Club*, March 27, 2016; Organisation for Economic Co-Operation and Development, "Recent Market Developments in the Global Steel Industry," February 16, 2016, 12; and Nathan Vanderklippe, "China's Huge Cement Industry Latest to Face Massive Cuts," *Globe and Mail*, May 30, 2016.

U.S. Response to China's Overcapacity

The effects of China's rampant industrial overproduction can be seen throughout the global economy, and have necessitated the exploration of policy responses from the U.S. government on behalf of domestic industries. In April 2016, for instance, the Office of the U.S. Trade Representative (USTR) and the U.S. Department of Commerce jointly held a public hearing on the global steel industry and its impact on the U.S. steel industry and market.¹⁴⁴ At the hearing, U.S. steel industry groups pressed for binding commitments to cut global net production capacity, particularly from China, and improve enforcement of antidumping (AD) and countervailing duty (CVD) laws against steel imports flooding the domestic market.¹⁴⁵ For example, the American Iron and Steel Institute, an association of 19 prominent North American steel producers, urged China to cut 337 million to 425 million metric tons of capacity.¹⁴⁶ Ultimately, however, no trade remedies or actionable policy plans came out of the hearing.¹⁴⁷

Chinese officials' continued promises to reduce overcapacity—particularly in the steel industry—have yielded limited production cuts. At a March 2016 meeting of the G20 Finance Ministers and Central Bank Governors in Shanghai, Chinese leaders emphasized their support for cutting capacity.¹⁴⁸ Then, at the 2016 U.S.-China Strategic and Economic Dialogue (S&ED) in Beijing, the United States again pushed China to rein in overcapacity—particularly its steel and aluminum production.¹⁴⁹ However, U.S. Treasury Secretary Jack Lew indicated that conversations at the S&ED failed to bring the United States and China to a “common understanding” on aluminum overcapacity issues and did not produce detailed plans for steel production cuts.¹⁵⁰ A fact sheet released after the discussions revealed the two countries will continue to support international efforts to address global excess capacity, and that China is “firmly committed to support international efforts to address steel excess capacity,” but provided no specifics.¹⁵¹ Most recently, world leaders gathered at the G20 Summit in September 2016 recognized the need to address excess steel capacity, yet they announced no specific plans that would result in immediate reduction of steel production. G20 leaders did, however, call for the formation of a global forum to encourage adjustments in the steel industry and address excess capacity. The forum will report back to the G20 on its progress in 2017.¹⁵² In the meantime, China's monthly steel production increased 8.5 percent between January and August 2016 (see Figure 5).¹⁵³

Figure 5: China's Monthly Crude Steel Production, 2016

Source: World Steel Association, "2016 Press Releases."

Case Study: Impact of Chinese Overcapacity on U.S. Steel Producers

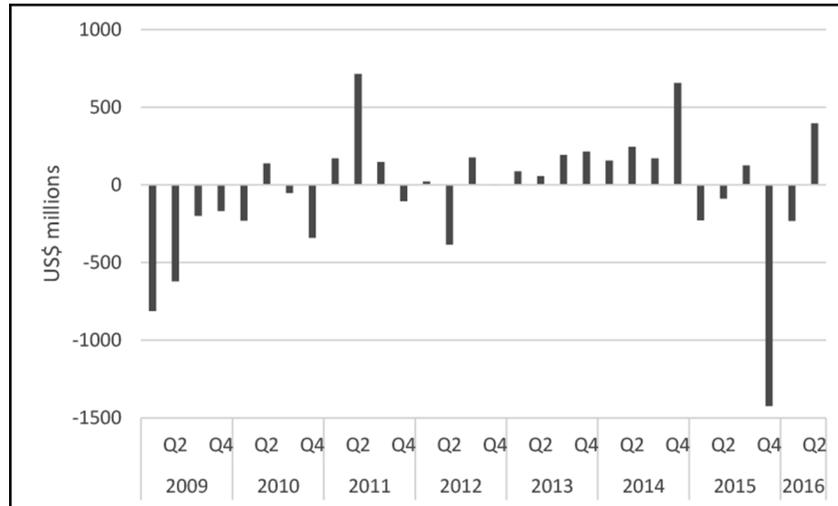
As the leading driver of the current worldwide steel glut, China is widely blamed for triggering a global steel crisis.¹⁵⁴ From 2004 to 2014, global steel production increased by 57 percent, with China contributing 91 percent of the increase.¹⁵⁵ During the same period, global steel demand increased by only 43.3 percent between 2005 and 2015.¹⁵⁶ Although China's steel production declined by 2.3 percent year-on-year in 2015, Chinese factories still produced more than 800 million metric tons of steel—almost eight times more than the United States produced last year and more than the entire world produced in 1995.¹⁵⁷

Faced with declining domestic demand due to cutbacks in residential and commercial construction projects, China's steel industry has relied more heavily on exports, dumping subsidized steel exports into global markets and putting the U.S. steel industry at risk. China was the world's largest steel exporter in 2015, with 110 million metric tons of steel exports—a 378 percent increase from 2009 levels.¹⁵⁸ China's steel exports accounted for 13.7 percent of its total steel production in 2015 amid waning domestic demand, up from 4 percent in 2009.¹⁵⁹ The volume of Chinese steel exports to the United States grew to nearly 2.2 million metric tons in 2015—a 176.7 percent increase since 2010—bringing China's share of U.S. steel imports from 3.6 percent in 2010 to 6.1 percent.* Although Chinese steel exports to the United States decreased 66 percent in the first seven months of 2016 compared to the same pe-

*The largest exporters of steel to the United States are Canada, Brazil, and South Korea, which account for 15 percent, 14 percent, and 13 percent, respectively, of all U.S. steel imports. China is the United States' seventh-largest source of steel. *China Trade Extra*, "New Commerce Report Highlights Largest Importing, Exporting Steel Markets," August 2, 2016.

riod in 2015, they continue to drive global prices lower and add to the already flooded U.S. steel market.¹⁶⁰ U.S. hot-rolled band prices stood at \$636 per metric ton as of September 12, 2016, down 34.4 percent from March 2011 and 47.1 percent from July 2008.¹⁶¹

As a result of the global steel glut and declining prices, dominant U.S. steelmakers were under pressure to shutter capacity for much of 2016.¹⁶² Total U.S. steel production declined 10.6 percent year-on-year in 2015, falling from 88.2 million metric tons in 2014 to 78.9 million metric tons in 2015, and U.S. firms' capacity utilization rates declined 9.5 percent year-on-year to an average of 70.1 percent in 2015.¹⁶³ In the first half of 2016, U.S. steel production remained nearly unchanged compared to the same period in 2015, decreasing just 0.2 percent, while utilization rates increased slightly to 71.3 percent in July 2016.¹⁶⁴ U.S. steel producers posted a net loss of \$1.43 billion in the fourth quarter of 2015 and \$233 million in the first quarter of 2016 (see Figure 6).¹⁶⁵ U.S. firms Nucor Corporation and U.S. Steel, which were the world's 13th- and 15th-largest steel firms in 2014, respectively, were among the companies struggling to remain competitive.¹⁶⁶ U.S. Steel, which dropped to number 24 on the list of world's largest steel firms in 2015, reported a net loss of \$386 million in the first half of 2016, a 14.9 percent increase from the \$336 million net loss in the first half of 2015, and laid off 1,300 workers in January 2016.¹⁶⁷ Nucor, meanwhile, announced a deterioration of its operating performance in December 2015 as a result of global excess capacity and high imports.¹⁶⁸ In testimony to the Commission, Nucor CEO John Ferriola referred to overcapacity as a "crisis," warning that "[the U.S.] steel industry—and the more than one million jobs it supports—will continue to disappear" if China's excess capacity is not removed from the market.¹⁶⁹ According to Leo W. Gerard, international president of the United Steelworkers, nearly 19,000 U.S. steelworkers and iron ore miners are facing layoffs as a result of Chinese overcapacity.¹⁷⁰ U.S. steel companies' profitability has increased notably in recent months, however, with Nucor reporting that net profits rose 87 percent in the second quarter of 2016 compared to the same period in 2015, aided by new tariffs imposed by the U.S. government on steel imports.¹⁷¹

Figure 6: U.S. Steel Industry Quarterly Net Income, Q1 2009–Q2 2016

Note: Data include financials of AK Steel, Carpenter Technology, Commercial Metals Company, Nucor, Steel Dynamics, and U.S. Steel.

Source: U.S. Department of Commerce, International Trade Administration, *Steel Industry Executive Summary: September 2016*, September 2016.

To offset Chinese companies' unfair practices, the United States began imposing some heavy tariffs on Chinese subsidized industries in March 2007.*¹⁷² In June 2016, the U.S. International Trade Commission approved an increase for duties on Chinese cold-rolled steel, which will now reach more than 500 percent—consisting of a 266 percent AD duty and a 266 percent CVD—in response to dumped and subsidized steel from China.¹⁷³

Along with reduced profits and mass layoffs at U.S. steel factories, the influx of Chinese steel poses national security risks to the United States. Over the past 30 years, as U.S. steel manufacturing jobs have been eliminated or moved abroad where manufacturing costs are lower, the United States' critically important defense industrial base has been dramatically reduced.¹⁷⁴ According to Aaron Friedberg, a professor of politics and international affairs at Princeton University, a hollowing out of the U.S. industrial base could become disastrous if the United States is unable to prepare for a protracted conflict.¹⁷⁵ The Specialty Metals Clause (10 U.S. Code § 2533b) currently prevents products like steel armor plate (a critical component for producing and maintaining ground combat vehicles, ships, and submarines) from being melted abroad and imported for military use.¹⁷⁶ However, Brigadier General John Adams, U.S. Army (Ret.) warns that if the U.S. steel industry is hollowed out, U.S. manufacturers of military equipment and ma-

* Under Title VII of the Tariff Act of 1930, a sufficient percentage of U.S. domestic production for a given industry must support a trade case in order for the Department of Commerce to initiate proceedings. However, increasing investment by Chinese state-owned and controlled enterprises in the United States could reach levels that limit the ability of cases to proceed if the domestic subsidiaries choose to oppose action. Tariff Act of 1930, Pub. L. No. 103-465, 1930, codified at 19 U.S.C. § 1677(18).

chinery will be forced to import components from China and elsewhere, raising the possibility that products of subpar or compromised quality could endanger U.S. military personnel and limit the country's ability to respond to a military threat.¹⁷⁷ General Adams notes, “[The United States] cannot sit idly by as [its] most dangerous strategic competitors rob [it] of the capability that ensure [its] weapons and equipment have a reliable source of steel for the future.”¹⁷⁸

Chinese Policy Responses

Beijing has repeatedly stated its commitment to eliminating excess capacity, yet progress has been extremely slow—and in most cases nonexistent.¹⁷⁹ In part, the government's failure to correct longstanding imbalances is the result of entrenched government interests and fears of domestic unrest.¹⁸⁰ Efforts to consolidate industries and eliminate excess capacity necessitate closing weak firms, laying off employees, and restructuring debt—actions that inherently cause political, economic, and social instability.¹⁸¹ As a result, the Chinese government has been unwilling to implement meaningful consolidation and restructuring reforms to reduce excess capacity.¹⁸²

Over the past five years, China has unveiled numerous policy directives aimed at reducing overcapacity, yet there have been few real breakthroughs.¹⁸³ In 2010, the State Council issued guidelines and targets for eliminating excess capacity across several different industries, but at the end of 2012, capacity utilization rates in all those industries, including steel, measured far below normal levels, indicating severe overcapacity.¹⁸⁴ In 2013, the State Council issued its “Guidance to Resolve the Serious Overcapacity Problem,” a policy directive acknowledging the extent of China's overcapacity problem and putting forth recommendations to address the problem, including boosting domestic demand, increasing external demand through a “going global” strategy, promoting SOE consolidation, and strengthening environmental and energy efficiency standards.¹⁸⁵ Last year, China released its “Steel Industry Adjustment Policy,” aimed at reducing the production of the top ten steel groups to no less than 60 percent of China's current production by 2025, as well as increasing the steel industry's capacity utilization rate to 80 percent by 2017.¹⁸⁶

To reach the goals set in the “Steel Industry Adjustment Policy,” China has announced a series of targets for cutting production of building materials, including plans to cut coal and steel production by 10 percent over the next two years.¹⁸⁷ In February 2016, the State Council announced China will reduce annual crude steel capacity by between 100 million and 150 million metric tons by 2020—as much as 13 percent of existing capacity—and eliminate 400,000 jobs from the sector.¹⁸⁸ Four months later, the State Council laid out more specifics on capacity reduction, announcing goals for cutting annual crude steel capacity by 45 million metric tons and reducing coal capacity by more than 250 million metric tons in 2016.¹⁸⁹ Li Xinchuang, head of the China Metallurgical Industry Planning and Research Institute, also declared plans to close “zombie” companies, which account for around 7.5 percent of China's in-

dustrial businesses and 51 percent of listed steel firms, according to a July 2016 study by China's Renmin University.¹⁹⁰ Most recently, the Ministry of Industry and Information Technology released a draft policy document in August 2016 detailing plans to enhance enforcement of environmental standards in overcapacity sectors, threatening to cut off power and water supplies and demolish production equipment if firms fail to meet environmental and safety standards.¹⁹¹

Nevertheless, some experts worry that China's steel capacity reduction plans are inadequate. According to Louis Kuijs, head of Asia for Oxford Economics in Hong Kong, "The [Chinese] government's plans to cut overcapacity seem modest compared to the scale of the problems."¹⁹² Helen Lau, analyst at Argonaut Securities Pty Ltd., said of Beijing's current plans to address steel overcapacity, "Even if this cut was over three years it wouldn't be enough, let alone five years."¹⁹³ To meet its goal of 80 percent steel capacity utilization by 2017, China would need to reduce excess capacity by approximately 225 million metric tons, or 112.5 million metric tons per year, assuming production remains unchanged.¹⁹⁴

Thus far, Beijing has not met its own production cut targets for steel, aluminum, or coal. August 2016 data from the NDRC indicates that China reduced its steel production capacity by only 21 million metric tons, or 47 percent of its 2016 target, in the first seven months of the year.¹⁹⁵ Other estimates show that China has actually increased its steel production in 2016 and will look to continue increasing production in 2017.¹⁹⁶ Similarly, coal plants cut production capacity by 95 million metric tons, only 38 percent of the annual target, in the first seven months of 2016.¹⁹⁷ Because many provincial governments fear mass unemployment as a result of reduced industrial production, they have been slow to implement the central government's reduction requirements. Yunnan Province, for instance, had met less than 10 percent of its annual target for reducing coal capacity by July 2016.¹⁹⁸ Asia-based financial services firm Nomura estimates that while Chinese producers have closed nearly 3 million metric tons of annual aluminum-producing capacity since 2010, they had added another 17 million metric tons as of November 2015.¹⁹⁹ In 2016, many of China's aluminum smelters, which had cut output to stem losses from falling prices at the end of 2015, are planning to increase production by 1.4 million metric tons from 2015 levels, including producing around 800,000 additional metric tons in the first half of 2016.²⁰⁰

In addition to saying it will cut domestic production, Beijing has pursued a host of recent policy directives geared toward boosting both internal and external demand to absorb excess industrial capacity. The "One Belt, One Road"* and "Megacities" initiatives, along with projects funded through the Asian Infrastructure Investment Bank (AIIB), will help buy up some excess capacity by increasing Chinese infrastructure projects both domestically and abroad. Meanwhile, "Made in China 2025" serves to repurpose and

* For more information on the "One Belt, One Road" initiative, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 1, "China and Central Asia," in *2015 Annual Report to Congress*, November 2015, 391–418; and U.S.-China Economic and Security Review Commission, Chapter 3, Section 2, "China and Southeast Asia," in *2015 Annual Report to Congress*, November 2015, 448–449.

modernize China's industrial sectors (for more on these initiatives, see Chapter 1, Section 3, "13th Five-Year Plan").²⁰¹

Evaluation of China's Nonmarket Economy Status

In its 2001 WTO accession agreement, China agreed to provisions allowing its trade partners to automatically treat China as a nonmarket economy (NME) for the purposes of AD enforcement for 15 years (for the full text of the relevant provision in China's WTO accession agreement, see Addendum I, "Section 15 of China's WTO Accession Agreement"). In other words, countries could use values from a third country in a similarly situated economic position—not Chinese prices or costs—for AD calculations, unless China could demonstrate market economy conditions prevailed in the relevant industry.²⁰² When Section 15(a)(ii) of its accession protocol expires on December 11, 2016, China argues it is entitled to automatic conferral of market economy status (MES).²⁰³ Some U.S. lawyers, particularly those who typically represent respondents in AD cases, argue the provision's expiration eliminates authorities' ability to use NME methodology against China, while others contend the WTO Anti-Dumping Agreement leaves open other possibilities to avoid using Chinese prices or costs in AD investigations.²⁰⁴ On the other hand, some lawyers who typically represent U.S. manufacturers argue the provision's expiration allows government authorities to use NME methodology, provided the petitioner can show market conditions do not prevail in a given Chinese industry.²⁰⁵

Granting China MES would reduce the margins of U.S. dumping duties imposed on Chinese exports.* In situations involving imports from an NME, the WTO allows for the "normal value"—or the appropriate price in the market of the exporting country—of the products to be determined using data from a surrogate country. Since Chinese domestic prices and costs are often artificially suppressed by government subsidies, trading partners use surrogate country data to demonstrate that China is engaged in dumping.²⁰⁶ The amount by which the normal value of a product exceeds the Chinese price is used to calculate the AD duties applied to Chinese exporters.²⁰⁷ If China is designated as a market economy, its trading partners will not be able to use surrogate data to determine the normal value of Chinese goods. Under this scenario, dumping margins would likely be lowered significantly, further injuring U.S. companies harmed by China's anticompetitive activities.²⁰⁸

According to a November 2015 report commissioned by a group of U.S., Canadian, and Mexican steel industry associations, granting China MES would significantly limit countries' ability to offset China's anticompetitive activities and negatively impact the U.S. economy.²⁰⁹ The report found that granting MES to China would bring dumping margins to zero or nearly zero, hindering the effectiveness of AD laws and significantly harming steel industries of North American Free Trade Agreement (NAFTA) members. As a

*Dumping is the act of introducing a product into another country's market at less than its "normal value." "Normal value" is "the comparable price, in the ordinary course of trade, for the like product when destined for consumption in the exporting country." Christian Tietje and Karsten Nowrot, "Myth or Reality? China's Market Economy Status under WTO Anti-Dumping Law after 2016", Policy Papers on Transnational Economic Law No. 34 (Transnational Economic Law Research Center, December 2011).

result, output of U.S. steel, one of many U.S. industries damaged by Chinese overcapacity, would decline even further—by approximately \$21.2 billion—and U.S. economic welfare* would decline by \$40.2 billion to \$46.5 billion.²¹⁰ In addition, U.S. labor demand would shrink by \$29.6 billion (the equivalent of 400,000 to 600,000 workers).²¹¹

U.S. Criteria for NME Status

Under the U.S. AD law in the Tariff Act of 1930 (19 U.S. Code § 1677[18]), the Department of Commerce is responsible for determining whether a country is a market economy for the purposes of AD investigations, and whether MES will apply to the whole country or on a sector-by-sector basis. According to the U.S. AD statute, a “nonmarket economy country” is any foreign country that does not operate on market principles of cost or pricing structures, leading to sales that do not reflect a product’s fair value.²¹² There are six factors to be considered in the U.S. determination of MES:

1. The extent to which the currency of the foreign country is convertible into the currency of other countries;
2. The extent to which wage rates in the foreign country are determined by free bargaining between labor and management;
3. The extent to which joint ventures or other investments by firms of other foreign countries are permitted in the foreign country;
4. The extent of government ownership or control of the means of production;
5. The extent of government control over the allocation of resources and over the price and output decisions of enterprises; and
6. Such other factors the administering authority considers appropriate.[†]²¹³

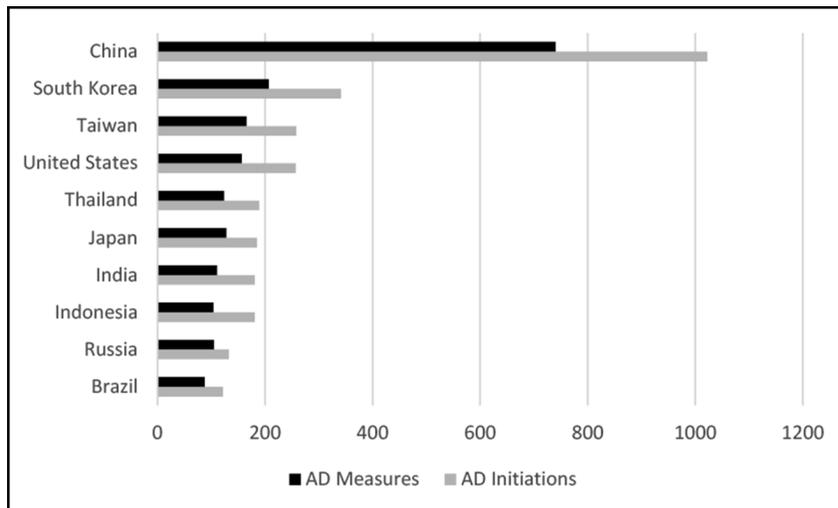
During the Commission’s February 2016 hearing, three out of four witnesses argued China does not meet the qualifications for MES.²¹⁴ In his testimony before the Commission, Alan Price, a partner at the U.S. law firm Wiley Rein, stated that joint ventures remain highly restricted in China’s strategic sectors; the government maintains—and is even strengthening—its control of the means of production through central and provincial SOEs, and the state exerts extensive control over resource allocation.²¹⁵ Furthermore, a review of China’s economic policy reveals that its currency is not fully convertible, with the 13th FYP outlining goals to increase the RMB’s convertibility by 2020.²¹⁶ In addition, the American Federation of Labor and Congress of Industrial Organizations (AFL–CIO) states that there is currently no system for collective bargaining between employers and employees in China.²¹⁷

* Economic welfare is defined as a measure of total national economic output, including consumption and investment items that contribute directly to economic wellbeing. UN Statistics Division, “Measure of Economic Welfare (MEW).”

† Other factors could include effective enforcement of intellectual property rights, compliance with WTO subsidy obligations contained in China’s protocol of accession, and discrimination against foreign goods and services. Terrence Stewart et al., “Any Change to China’s Non-Market Economy Status Must Be Based on the Criteria Specified under U.S. Antidumping Law,” *U.S.-China Economic and Security Review Commission*, August 18, 2005, 2.

Countries rely on AD and CVD cases against China to protect themselves from the influx of government-subsidized goods imported below market value. Globally, between 1995 and 2014, 1,052 AD cases were initiated against China—759 of which resulted in the imposition of AD duties—the most of any country and over 700 cases more than were initiated against South Korea, the second-highest AD recipient (see Figure 7).²¹⁸ During the same period, 90 CVD cases were initiated against China, also the most of any country.²¹⁹ AD and CVD cases against China are becoming increasingly frequent, with the United States launching a total of 48 AD and CVD investigations in the first nine months of 2016, 28 of which involved Chinese goods (for a complete list of U.S. AD and CVD cases filed against China in 2016, see Addendum II, “AD and CVD Investigations Initiated by the United States Against China, 2016”).²²⁰ Unsurprisingly, Chinese industries with excess capacity are the most common targets of trade remedy investigations, with 80 percent of the world’s AD and CVD cases against China concentrated in base metals, chemicals, machinery and equipment, textiles, rubber, plastics, stone, cement, and glass.²²¹ Although the Department of Commerce has the authority to self-initiate AD and CVD cases, it has done so only once since 1991.²²²

Figure 7: Top Ten Economies by AD Actions Received, 1995–2014



Source: Rui Fan, “China’s Excess Capacity: Drivers and Implications,” *Stewart and Stewart*, June 2015, 12.

Status of Deliberations

At a panel on China’s MES during the Commission’s February hearing on “China’s Economic Realities and Implications for the United States,” the majority of expert witnesses testified that granting China MES would limit countries’ ability to restore fair pricing in the market.²²³ The debate over China’s MES revolves around two questions: whether China is entitled to automatic con-

ferral of MES and, if not, whether it is a market economy and should be granted MES. The U.S. government has clarified its view on the first question, telling Chinese officials during a WTO meeting in July 2016 that the expiration of the accession protocol provision does not require member states to automatically grant China MES.²²⁴ In testimony before the Commission, a panel of expert witnesses agreed that the United States and EU are not required to automatically grant MES to China in December 2016 when the relevant accession protocol provision expires; however, the panel was divided on whether China is currently a market economy or even on the path to become one in the near future.²²⁵ Experts on both sides of the debate conceded China is likely to take action at the WTO to resolve this disagreement, which could take years given the critical importance of the case and the backlog of cases currently in the WTO dispute settlement system.²²⁶

The United States' Perspective

While the United States seems unlikely to grant China MES in December 2016, no official statement on the matter has been made by the Department of Commerce aside from disputing China's claim that it is automatically granted MES after December 2016.²²⁷ The United States appears to be coordinating on the China MES issue with EU officials, including a meeting between the USTR, the Department of Commerce, and European Commission officials in late January 2016, as well as conversations with Matthias Fekl, the French minister of state for foreign trade and other G7 members, in June 2016.²²⁸ However, United States Trade Representative Michael Froman maintains discussions are not used to advocate for the EU to take a particular stance on the issue.²²⁹

The Department of Commerce has not explicitly rejected or endorsed China's MES claims, but officials in other U.S. government agencies have repeatedly warned against removing China's NME status. In conversations with their EU counterparts in December 2015, for instance, unnamed U.S. officials from the USTR and the Department of Commerce warned that granting China MES would amount to "unilaterally disarming" Europe's trade defenses against China.²³⁰ Six months later, a bipartisan group of 18 U.S. senators sent a letter to EU Trade Commissioner Cecilia Malmström urging the EU to rule against granting China MES. The letter stated granting China MES would "thwart global efforts to secure China's compliance with its international trade obligations," and "could have a destabilizing impact in certain global sectors, including the steel industry."²³¹

The U.S. business community remains divided over whether to grant China MES. The US-China Business Council (USCBC), for instance, argues the United States should grant China MES as a way of building "confidence in the bilateral relationship" and solidifying the foundation for "mutually beneficial commercial relations."²³² USCBC President John Frisbie goes a step further, arguing the United States is obligated under WTO law to automatically grant MES to China.²³³ However, Jim Baske, the CEO of the North American division of ArcelorMittal, the world's largest steel producer, and Mr. Ferriola of Nucor have been vocal in their opposi-

tion to granting China MES, with Mr. Baske stating that China “fail[s] the [MES] test on all six criteria.”²³⁴

Among U.S. experts, there are also differing interpretations regarding the validity of China’s MES claims. In his testimony to the Commission, Mr. Price stated that although legal opinion may be divided, the Chinese economy cannot be considered a market economy because “the series of distortions are so great in China that the internal prices and the pricing mechanisms that exist essentially are not set by what we would call reasonable rules of the road.”²³⁵ Adam Hersh, a visiting fellow at Columbia University, agreed with Mr. Price, stating in his testimony that “China’s economy [falls] short of the market economy criteria . . . with a substantial role for government control unparalleled in other WTO member countries.”²³⁶ However, Gary Hufbauer, senior fellow at the Peterson Institute for International Economics, disagreed, advocating for a “mix-and-match” approach whereby the Department of Commerce would determine on a case-by-case basis whether Chinese prices or costs reflect market conditions.²³⁷ In Dr. Hufbauer’s view, while China still has work to do instilling market principles into its economy, it is “more open than almost any other emerging country and has more foreign direct investment by far than any other emerging country,” and thus is deserving of MES on a sector-by-sector basis.²³⁸

The EU’s Perspective

The EU’s ruling on China’s MES claims could have significant implications for the United States and global economic growth. A 2015 report by the Economic Policy Institute examined the risks associated with an EU decision to unilaterally grant MES to China. According to the report, granting MES to China would increase EU imports of manufactured commodities by between \$80 billion and \$160 billion or more, and eliminate 1.7 million to 3.5 million EU jobs, as well as additional jobs in both upstream and downstream supplier industries around the world. This import growth would also increase EU trade deficits and reduce EU GDP by 1 to 2 percent in the first three to five years after MES was granted.²³⁹ A unilateral decision by the EU to grant China MES could reduce U.S. exports to the EU amid an influx of Chinese trade into the EU.²⁴⁰ To date, no studies have examined the potential U.S. job losses or economic impact on the United States if the EU grants China MES.

After a debate on the issue of China’s status in January 2016, the European Commission decided to delay the conclusion of its deliberations until the second half of this year, pending more consultations.²⁴¹ In contrast with the United States, the EU’s termination of NME methodology for China would require a change in trade remedy law, which would be difficult to complete before the December 11 deadline.²⁴²

While the European Commission has not formally ruled on the issue, reports indicate it is broadly in favor of granting China the status, and in December 2015 the legal service of the European Commission—tasked with making the EU’s determination of China’s NME status—endorsed the interpretation that China automatically graduates to MES in December.²⁴³ Possibly in an effort

to blunt the potential detrimental economic impact of granting MES to China, the European Commission is also reportedly considering changes to its trade remedy law enforcement.²⁴⁴ These changes, which would treat China as a market economy only if Beijing met its goals for reducing steel overproduction, are said to include elimination of the EU's "lesser duty rule" (effectively removing a cap on AD duties), strengthening antisubsidy enforcement by devoting greater resources to investigating Chinese subsidy programs, and grandfathering in existing AD orders against Chinese imports.²⁴⁵ However, EU Trade Commissioner Malmström has indicated there is no link between the trade law reforms being considered and the debate over China's MES.²⁴⁶ EU leaders have also agreed to form a working group with China to address concerns about Beijing's steel overproduction.²⁴⁷

Although the European Commission continues to weigh the decision, EU legislators rejected China's market economy claims via a nonbinding resolution in May 2016. The resolution, which was supported by 546 lawmakers while only 28 voted against and 77 abstained, indicated the EU Parliament's overwhelming objection to China's MES claims and sent a strong signal to the European Commission.²⁴⁸ David Martin, an EU Parliament member who voted in favor, told reporters after the vote, "In the current circumstances, recognizing China as a market economy at the WTO would be to tighten the noose around the UK steel industry's neck. . . . We must act now or soon there won't be any EU industry left to defend."²⁴⁹ In his testimony to the Commission, Bernard O'Connor, a trade lawyer with NCTM in Brussels, also warned against removing China's NME status, stating that the EU's unilateral grant of MES to China would undermine the effectiveness of EU trade defense laws and allow massive dumping into the EU market.²⁵⁰ Mr. O'Connor advocated for the United States and EU to coordinate their approach to China's MES claims, arguing that "the United States and the EU must stand together so as to be able to stand up to the unfair trade practices which emanate automatically from a non-market economy."²⁵¹

Implications for the United States

Under President Xi, the Chinese government has tightened its control over the economy, enhancing its influence over state-owned and private firms alike and abandoning market-oriented economic reforms. As a result, direct government ownership of a company is no longer an accurate measure of Beijing's economic influence. Instead, the government has cemented its role as an economic decision maker in both the private and public sectors, exerting control through an array of financial, political, and extralegal tools on behalf of Beijing's national security or political interests. Because China's proposed SOE reforms seek to reaffirm and even strengthen state control while making limited attempts to incorporate market drivers, it is likely the problems inherent in China's state-run economy will continue to worsen.

Beijing primarily seeks to enhance its control in economically and politically strategic industries. Economically strategic sectors (such as industrial producers) enable the government to support

short-term economic growth, while politically sensitive sectors (such as telecommunications) are essential to the government's goals of advancing and controlling China's technology infrastructure, disseminating information, and protecting national security. Beijing's clear interest in maintaining control of strategic sectors suggests Chinese companies in these sectors are subjected to particularly high levels of government influence.

The government's support for economically and politically strategic industries provides China with a competitive advantage in key sectors and undermines the competitiveness of U.S. businesses and other global firms operating in accordance with market forces. One of the most pressing problems created by Beijing's state-led economic model is the global commodity glut, with rampant overcapacity in steel, aluminum, and other industrial products artificially lowering global prices below production costs. As a result, U.S. industries are struggling to compete, and many of the largest producers have been forced to shed capacity, cut employment, and reduce capital expenditures. In response to China's unfair trade practices, new tariffs have been applied on Chinese steel, and the private sector is aggressively pursuing trade enforcement action against China through AD and CVD cases. However, Chinese officials' continued reluctance to commit to detailed production cuts at international and bilateral fora, such as the G20 Summit and the Organisation for Economic Co-Operation and Development Summit, and bilateral dialogues like the S&ED have resulted in increased overcapacity and losses for many U.S. companies—including more than 13,500 jobs in the U.S. steel industry since January 2015 alone. The influx of unfairly priced steel and aluminum imports from China also poses a national security threat to the United States, hollowing out industries that are essential for maintaining the critically important defense industrial base.

Trade remedies provide important relief to companies injured by China's anticompetitive activities, but their utility will be diminished if China is granted MES. If China is deemed a market economy by the Department of Commerce, dumping margins for AD cases against China will be significantly reduced, removing U.S. businesses' best recourse for limiting price distortions from China. A U.S. Government Accountability Office study found China already accounts for 95 percent (or \$2.2 billion) of unpaid AD duties and CVDs imposed on U.S. goods imports in 2015.²⁵² To maintain a free and fair global competitive landscape, the United States has reportedly been coordinating with European Commission officials to ensure the EU does not grant unilateral MES to China, although U.S. government officials maintain that discussions are not used to advocate for a particular stance on the issue.

Conclusions

- Despite repeated pledges to let the market play a “decisive role” in resource allocation, Beijing continues to use state-owned enterprises (SOEs) as a tool to pursue social, industrial, and foreign policy objectives, offering direct and indirect subsidies and other incentives to influence business decisions and achieve state goals. While proposed SOE reforms have made little progress incorporating market drivers into SOE activities or addressing the

country's growing credit crisis, they have taken steps to strengthen state control—particularly in sectors involving the government's political or economic interests.

- For the foreseeable future, it is highly unlikely that the Chinese Communist Party (CCP) will subject SOEs to free market reforms. Such reform would diminish the CCP's control in strategic sectors, through which it directs the economy. In addition, real structural reforms would substantially increase unemployment in the short term and undermine entrenched interests within the CCP leadership.
- In China's state capitalist system, government ownership is not the sole measure of Beijing's economic influence. Beijing has fostered a unique ecosystem whereby the government is at the center of the economy, with state control extended through an array of measures, including financial support, political connections, and extralegal control to SOEs and private enterprises alike. As such, all Chinese companies' economic activity—not just the activity of state-owned firms—is conducted in support of the state's goals and policies. This is particularly true for Chinese firms operating in strategic sectors.
- The CCP continues to use SOEs as the primary economic tool for advancing and achieving its national security objectives. Consequently, there is an inherently high risk that whenever an SOE acquires or gains effective control of a U.S. company, it will use the technology, intelligence, and market power it gains in the service of the Chinese state to the detriment of U.S. national security.
- China's economic policies have fueled a commodity boom, which, coupled with the recent economic slowdown, has created a vast oversupply of industrial goods like steel, aluminum, and coal. Beijing has repeatedly stated its commitment to eliminating excess capacity, yet progress has been extremely slow—and in some cases nonexistent.
- Rather than closing industrial production facilities and laying off workers, Beijing is exporting its surplus production to the detriment of U.S. and other foreign competitors. As a result, U.S. industries are struggling, with steel and aluminum producers shedding capacity, cutting employment, and reducing capital expenditures.
- Amid an influx of unfairly priced steel imports from China, U.S. steel manufacturing jobs are being eliminated, dramatically reducing the United States' critically important defense industrial base. If the U.S. steel industry is hollowed out, U.S. manufacturers of military equipment and machinery will be forced to import components from China and elsewhere, raising the possibility that products of subpar or compromised quality could endanger U.S. military personnel and limit the country's ability to respond to a military threat.
- China argues it should be automatically granted market economy status (MES) after a provision in its World Trade Organization (WTO) accession protocol expires on December 11, 2016. A review

of the U.S. statutory test for determining whether an economy can be classified as a market economy—including the extent to which the currency is convertible, the extent to which wage rates are determined by free bargaining between labor and management, the extent to which joint ventures or other investments by foreign firms are permitted, the extent of government ownership or control of the means of production, and the extent of government control over the allocation of resources—reveals that China is not currently a market economy and is not on the path to become one in the near future.

- To address global economic imbalances created by China's state-led economic model, the United States has relied on trade remedies consistent with its WTO obligations. However, if China is granted MES in December 2016, dumping margins for anti-dumping cases will be significantly reduced, removing an important tool U.S. businesses rely on to limit losses taken from price distortions in China's economy.

Addendum I: Section 15 of China's WTO Accession Agreement

The MES debate is centered on paragraph 15(a)(ii) of Section 15—a vaguely worded provision of China's WTO Accession Protocol set to expire in December 2016—that allows an importing WTO member to use surrogate AD calculation methodologies against unfairly priced Chinese imports. The relevant subparagraphs of Section 15 are as follows:

15. Price Comparability in Determining Subsidies and Dumping

Article VI of the General Agreement on Tariffs and Trade (GATT) 1994, the Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 ("Anti-Dumping Agreement"), and the Subsidies and Countervailing Measures Agreement shall apply in proceedings involving imports of Chinese origin into a WTO Member consistent with the following:

(a) In determining price comparability under Article VI of the GATT 1994 and the Anti-Dumping Agreement, the importing WTO Member shall use either Chinese prices or costs for the industry under investigation or a methodology that is not based on a strict comparison with domestic prices or costs in China based on the following rules:

(a)(i) If the producers under investigation can clearly show that market economy conditions prevail in the industry producing the like product with regard to the manufacture, production, and sale of that product, the importing WTO Member shall use Chinese prices or costs for the industry under investigation in determining price comparability;

(a)(ii) The importing WTO Member may use a methodology that is not based on a strict comparison with domestic prices or costs in China if the producers under investigation cannot clearly show that market economy conditions prevail in the industry producing the like product with regard to manufacture, production, and sale of that product.

.....

(d) Once China has established, under the national law of the importing WTO Member, that it is a market economy, the provisions of subparagraph (a) shall be terminated provided that the importing Member's national law contains market economy criteria as of the date of accession. In any event, the provisions of subparagraph (a)(ii) shall expire 15 years after the date of accession. In addition, should China establish, pursuant to the national law of the importing WTO Member, that market economy conditions prevail in a particular industry or sector, the NME provisions of subparagraph (a) shall no longer apply to that industry or sector.²⁵³

**Addendum II: AD and CVD Investigations Initiated by the United States
against China, 2016**

Investigation Title	Start Date	Phase
Corrosion-Resistant Steel Products from China, India, Italy, Korea, and Taiwan	1/4/2016	Final
Certain New Pneumatic Off-the-Road-Tires from China, India, and Sri Lanka	1/8/2016	Preliminary
Certain Biaxial Integral Geogrid Products from China	1/13/2016	Preliminary
Certain Amorphous Silica Fabric from China	1/20/2016	Preliminary
Truck and Bus Tires from China	1/29/2016	Preliminary
Porcelain-on-Steel Cooking Ware from China	2/1/2016	Fourth Review (Expedited)
Hydrofluorocarbon Blends and Components from China	2/1/2016	Final
Magnesium from China	2/1/2016	Second Review (Expedited)
Stainless Steel Sheet and Strip from China	2/12/2016	Preliminary
Carbon Steel Butt-Weld Pipe Fittings from Brazil, China, Japan, Taiwan, and Thailand	3/1/2016	Fourth Review (Expedited)
Frozen Warmwater Shrimp from Brazil, China, India, Thailand, and Vietnam	3/1/2016	Second Review (Full)
1,1,1,2—Tetrafluoroethane from China	3/3/2016	Preliminary
Petroleum Wax Candles from China	3/7/2016	Fourth Review (Expedited)
1-hydroxyethylidene-1, 1-diphosphonic acid from China	3/31/2016	Preliminary
Aluminum Extrusions from China	4/1/2016	Adequacy
Carbon and Alloy Steel Cut-to-Length Plate from Austria, Belgium, Brazil, China, France, Germany, Italy, Japan, Korea, South Africa, Taiwan, and Turkey	4/8/2016	Preliminary
Ammonium Sulfate from China	5/25/2016	Preliminary
Paper Clips from China	6/1/2016	Fourth Review (Full)
Cased Pencils from China	6/1/2016	Fourth Review (Full)
Iron Mechanical Transfer Drive Components from Canada and China	6/8/2016	Final
Heavy Forged Hand Tools from China	7/1/2016	Adequacy
Large Residential Washers from China	7/26/2016	Final
Glycine from China	8/1/2016	Adequacy
Certain Biaxial Integral Geogrid Products from China	8/22/2016	Final

**Addendum II: AD and CVD Investigations Initiated by the United States
against China, 2016—Continued**

Investigation Title	Start Date	Phase
Amorphous Silica Fabric from China	9/1/2016	Final
Sulfanilic Acid from China and India	9/1/2016	Adequacy
Truck and Bus Tires from China	9/6/2016	Final
Carbon and Alloy Steel Cut-to-Length Plate from Austria, Belgium, Brazil, China, France, Germany, Italy, Japan, Korea, South Africa, Taiwan, and Turkey	9/16/2016	Final

Source: U.S. International Trade Commission, *Antidumping and Countervailing Duty Investigations*.

RECOMMENDATIONS

State-Owned Enterprises, Overcapacity, and China's Market Economy Status

The Commission recommends:

- Congress amend the statute authorizing the Committee on Foreign Investment in the United States to bar Chinese state-owned enterprises from acquiring or otherwise gaining effective control of U.S. companies.
- Congress direct the U.S. Government Accountability Office to prepare a report examining the extent to which large-scale outsourcing of manufacturing activities to China is leading to the hollowing out of the U.S. defense industrial base. This report should also detail the national security implications of a diminished domestic industrial base (including assessing any impact on U.S. military readiness), compromised U.S. military supply chains, and reduced capability to manufacture state-of-the-art military systems and equipment.
- Congress require that under antidumping and countervailing duty laws, Chinese state-owned and state-controlled enterprises are presumed to be operating on behalf of the state and, as a result, do not have standing under U.S. laws against unfair trade to block a case from proceeding.
- Congress create an office within the International Trade Administration whose sole purpose is to identify and initiate anti-dumping and countervailing duty cases to ensure a more effective and timely response to China's unfair trade practices.
- Congress enact legislation requiring its approval before China—either the country as a whole or individual sectors or entities—is granted status as a market economy by the United States.

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SECTION 3: CHINA'S 13TH FIVE-YEAR PLAN

Introduction

The 13th Five-Year Plan (FYP)* (2016–2020)—ratified by the National People's Congress in March 2016—established Chinese President and General Secretary of the Chinese Communist Party (CCP) Xi Jinping's vision for China's development over the next five years. This plan largely reiterates commitments from the 11th (2006–2010) and 12th (2011–2015)† FYPs to reorient the drivers of China's economy away from large-scale infrastructure investment and export-led growth toward greater domestic consumption. Addressing China's structural challenges and ensuring long-term prosperity are critical to preserving the CCP's legitimacy and hold on power. However, the Chinese government's ability to reach these objectives depends on its willingness to relinquish a substantial degree of state control, overcome entrenched interests, and endure the short-term and medium-term economic pain that structural reform creates.

The CCP and Chinese government view the state as a key part of the solution, not the problem.¹ Thus, for the Chinese government, reform means retaining or strengthening state control while attempting to increase the efficiency of state-owned enterprises (SOEs) and state-designated industries—a contradiction of fundamental free market principles. With slowing growth, the Chinese government faces even greater difficulty balancing its competing priorities: long-term, sustainable growth versus short-term economic growth. Whether the 13th FYP reforms will be implemented is not an economic question but a political one. The Chinese government risks instability if it implements reforms too quickly, but risks falling into the middle-income trap‡ if reforms are implemented too slowly or not at all.² The middle-income trap would ensnare the Chinese economy in a cycle of low growth because rising

* FYPs are overarching roadmaps that lay out the central government's top policy objectives and establish measurable targets for government performance to guide government ministries' and local governments' behavior. The broad FYP is then followed by a cascade of local government, ministerial, and industry plans that outline in greater detail how the Chinese government will achieve these objectives. For a detailed analysis of China's five-year planning system, see Sebastian Heilmann and Oliver Melton, "The Reinvention of Development Planning in China, 1993–2012," *Modern China* 39:6 (August 2013): 580–628; U.S.-China Economic and Security Review Commission, *Hearing on China Ahead of the 13th Five-Year Plan: Competitiveness and Market Reform*, written testimony of Oliver Melton, April 22, 2015.

† For analysis of the 12th FYP, see Joseph Casey and Katherine Koleski, "Backgrounder: China's 12th Five-Year Plan," *U.S.-China Economic and Security Review Commission*, June 24, 2011.

‡ The middle-income trap is an economic development situation where a rapidly developing, low-income economy reaches middle-income status (\$10,000–\$16,000 per capita), but then growth slows, preventing the country from reaching high-income status. According to analysis by the World Bank, only 13 of the 101 middle-income economies in 1960 reached high income by 2008. These economies are Equatorial Guinea, Greece, Hong Kong, Ireland, Israel, Japan, Mauritius, Portugal, Puerto Rico, South Korea, Singapore, Spain, and Taiwan. Greg Larson, Norman Loayza, and Michael Woolcock, "The Middle-Income Trap: Myth or Reality?" *World Bank Malaysia Hub*, March 2016. 1: 104230.

wages would make its manufacturing sector uncompetitive against low-cost countries, but high-value-added manufacturing is not yet fully developed. The Chinese government's reluctance to press ahead with necessary reforms doomed similar efforts under the 11th and 12th FYPs.³ Beyond political will, the costs to meet the 13th FYP's goals are high; based on Chinese government estimates, achieving the objectives for urbanization, healthcare, clean energy, emissions reduction, and environmental remediation is expected to cost around \$8.1 trillion (renminbi [RMB] 54 trillion) in public and private sector investment over the next five years.⁴ It remains unclear how these objectives will be funded, especially as local governments are overburdened by debt taken on during the 12th FYP and incentives for private sector investment remain limited.

Building on the Commission's decade-long examination of China's industrial policies, expert testimony received at the Commission's April 27 hearing, the Commission's June trip to China (Beijing and Kunming), and additional contracted* and staff research, this section examines the 13th FYP and assesses its impact on U.S. economic and security interests.

China's 13th FYP: Blueprint for 2016–2020

China's state-led economic model created nearly three decades of double-digit growth at the cost of severe environmental degradation and overinvestment in infrastructure and state-designated industries. Cheap labor is now drying up, forcing firms to seek higher profits by moving up the value-added chain or transferring production to lower-cost provinces in central and western China or abroad. Meanwhile, a slower global economy is not able to absorb ever more Chinese exports, necessitating the expansion of domestic consumption as a new engine of economic growth.⁵ President Xi laid out ambitious reforms first in the Third Plenary Session of the CCP's 18th Central Committee † (Third Plenum), followed by more concrete targets in the 13th FYP to address this unsustainable growth model (for a list of key targets in the 13th FYP, see Addendum I).‡

The 13th FYP seeks to address China's "unbalanced, uncoordinated, and unsustainable growth" and create a "moderately prosperous society in all respects" § through innovative, open, green, co-

* For a comprehensive analysis of China's state-directed plans, see Tai Ming Cheung et al., "Planning for Innovation: Understanding China's Plans for Technological, Energy, Industrial, and Defense Development," *University of California Institute on Global Conflict and Cooperation* (prepared for the U.S.-China Economic and Security Review Commission), July 28, 2016.

† For an in-depth analysis of the Third Plenum's proposed economic reforms, see Nargiza Salidjanova and Jacob Koch-Weser, "Third Plenum Economic Reform Proposals: A Scorecard," *U.S.-China Economic and Security Review Commission*, November 19, 2013.

‡ For an in-depth analysis of the targets in China's 13th FYP, see Katherine Koleski, "13th Five-Year Plan," *U.S.-China Economic and Security Review Commission*, forthcoming.

§ The term "moderately prosperous society" was first put forward as an objective in the 16th National Congress of the CCP in 2002 and reiterated at the 17th National Congress in 2007. At the 18th National Congress in 2012, President Xi expanded the definition to address economic, political, cultural, social, and ecological aspects, and this overarching goal forms the basis for the 13th FYP. Key aspects of this goal include: (1) achieve the two centenary goals of doubling China's 2010 gross domestic product (GDP) and average disposable income level by 2021, (2) expand Chinese citizens' participation and enhance law-based governance, (3) strengthen China's cultural soft power, (4) reduce poverty and income disparity and expand access to basic public services, and (5) improve the living environment for all Chinese citizens and shift toward more environmentally friendly development. Qiu Shi, "Building a Moderately Prosperous Society in All Respects: A Crucial Step for Realizing the Chinese Dream," *Qiu Shi Journal* 7:4 (December

ordinated, and inclusive growth.⁶ It restates the Chinese government's commitment to rebalance the economy to one based on higher-value-added manufacturing and domestic consumption. In a meeting with the Commission in Beijing, a Chinese official explained that the 13th FYP focuses on innovation, SOE reform, and development of human capital through prioritizing environment, health, education, and social welfare.⁷ But while the 13th FYP's reforms introduce market drivers into allocating capital and resources, the plan also reinforces the central roles of the CCP and Chinese government in China's economic and social development.⁸ The 13th FYP creates a blueprint for China's future development based around five key themes:

- *Innovation*: The 13th FYP emphasizes innovation as a cornerstone of China's development strategy. The Chinese government is redoubling its state-directed strategy started under the 12th FYP to increase investment in research and development (R&D), create technology clusters,* incentivize foreign direct investment in select industries, and boost market demand for Chinese products and firms through government procurement and customer incentives.⁹ "Indigenous innovation," an initiative strongly condemned by U.S. and other foreign governments and firms upon its inclusion in the 12th FYP,† is included in the 13th FYP.¹⁰ U.S. and other foreign governments and firms believe this initiative inherently discriminates against U.S. and other foreign firms by seeking to replace foreign technology with products and services from Chinese firms, and signals the Chinese government's push toward technological self-sufficiency.¹¹
- *Open trade*: The 13th FYP hopes to expand exports, increase outbound and inbound investment, promote the international use of the RMB, and enhance China's role in global economic governance. The creation of the Beijing-Tianjin-Hebei megaregion,‡ the Yangtze Economic Belt, and the "One Belt, One Road"§ initiative are all important contributors to this goal. The 13th FYP attempts to boost exports with faster processing of export tax rebates, expansion of cross-border e-commerce, expansion of free trade zones, and support of trade in

15, 2015): 25; John Ross, "Moderately Prosperous Society' Is Key Goal for China," *China Internet Information Center*, November 14, 2012.

*The Chinese government incentivizes the geographic concentration of related organizations, institutions, and domestic and foreign companies of a particular industry through tax rebates, customs duties and value-added tax exemptions, or refunds for R&D purchases in order to facilitate the transfer of technology, create synergies with domestic firms, and expand foreign high-technology R&D operations. McKinsey Global Institute, "The China Effect on Global Innovation," *McKinsey and Company*, October 2015, 106, 116–117.

†For an overview of foreign firms' concerns regarding indigenous innovation, see James McGregor, "China's Drive for 'Indigenous Innovation': A Web of Industrial Policies," *American Chamber of Commerce*, 2010.

‡A megaregion is a clustered network of metropolitan areas and their suburbs that share transportation, economic growth patterns, history, and natural resources. U.S. Department of Transportation, Federal Highway Administration, "Role of Regional Planning Organizations in Transportation Planning across Boundaries," October 20, 2015.

§For more information on the Silk Road Economic Belt, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 1, "China and Central Asia," in *2015 Annual Report to Congress*, November 2015, 391–418; for more on the 21st Century Maritime Silk Road, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 2, "China and Southeast Asia," in *2015 Annual Report to Congress*, November 2015, 448–449.

services. The 13th FYP pledges to loosen foreign investment restrictions in select sectors such as elder care, banking, and finance, and encourage imports of advanced technology and equipment and high-quality consumer products, reflecting China's industrial and economic goals. The 13th FYP also outlines a greater role for China in driving the international economic agenda through the pursuit of bilateral and multilateral free trade agreements and formulation of international standards for the Internet, deep-sea exploration, the Arctic and Antarctica, and space.¹²

- *Green growth:* The Chinese government strengthens the 12th FYP's efforts to address China's severe environmental degradation and build its clean energy, green manufacturing, and environmental services sectors. Ten out of the 25 priority targets in the 13th FYP are related to the environment, and all ten are included as part of the 13th FYP's 13 binding* targets that must be achieved by 2020. These targets establish caps for energy use and ambitious goals for city air quality, carbon dioxide intensity, and reduction of soil and water contamination.¹³
- *Coordinated development:* Coordinated regional development aims to address the widening disparities in regional economic development, redundant construction, duplication of industrial structures, and lack of public services through urbanization, reform of the household registration system, or *hukou*,[†] and the creation of the Beijing-Tianjin-Hebei megaregion and the Yangtze Economic Belt.¹⁴ The Chinese government is hoping that greater intergovernmental coordination of policies, resources, and urban planning in these megaregions will unleash new sources of economic growth and alleviate existing urban problems such as overpopulation, pollution, traffic, and high real estate costs.¹⁵
- *Inclusive growth:* The 13th FYP expands upon the 12th FYP's concept of a "harmonious society" to pursue "inclusive growth" for all Chinese citizens by alleviating poverty, raising standards of living, improving accessibility to and affordability of education and healthcare services, and creating urban jobs for a broad cross-section of rural citizens.¹⁶ Greater urbanization, higher-value-added manufacturing, hukou reform, and environmental reforms are selected by the 13th FYP as important contributors to these objectives.

* FYPs classify their key targets into binding or expected. Binding targets are incorporated into the CCP's evaluation criteria at every level, while expected targets (such as GDP growth) are either given less weight or not included in the CCP evaluation criteria. U.S.-China Economic and Security Review Commission, *Hearing on China Ahead of the 13th Five-Year Plan: Competitiveness and Market Reform*, written testimony of Oliver Melton, April 22, 2015, 5.

† The hukou establishes eligibility for education and access to government services for all Chinese citizens based on the status of one's parents and place of birth. The holder of a given hukou can only receive government services and benefits where they are registered, particularly disadvantaging the 260 million rural residents who have migrated to cities.

Urbanization

The 13th FYP continues the government's efforts to reduce the economic disparity between urban and rural residents and spur consumption and economic growth by creating a new consumer base and expanding the middle class.¹⁷ Under the 12th FYP, sustained urbanization efforts increased the share of the population living in urban areas from 47.5 percent in 2010 to 56.1 percent in 2015, and produced more than 64 million urban jobs in five years.¹⁸ Under the 13th FYP, the goal is to raise urbanization levels to 60 percent and create more than 50 million urban jobs by 2020.¹⁹

In his testimony before the Commission, Damien Ma, fellow at the Paulson Institute, noted that the Chinese government is seeking to make urbanization more "people centered" through revitalization of urban slums, construction of urban housing, and expansion of urban hukou in second- and third-tier cities.²⁰ Government subsidies were used to build over 40 million affordable urban housing units in 2011–2015.²¹ The *National Plan on New Urbanization* (2014–2020) incentivizes rural migration to third- and fourth-tier cities by making it easier to obtain hukou there for 100 million migrants and providing affordable housing for 100 million current residents through the renovation of "rundown urban areas."²² The 13th FYP restates the Chinese government's commitments to hukou reform and pledges to renovate 20 million residential units in rundown urban areas by 2020.²³ In addition, the 13th FYP intends to more effectively coordinate regional government policies within existing megaregions around Beijing and Shanghai; integrate intercity regional air, car, rail, and sea transportation networks; and reconfigure regional industry layouts.²⁴

But simply urbanizing will not create higher wages and boost consumption. The Chinese government will need to create millions of higher-paying jobs and expand access to public services in order to raise prosperity, boost domestic consumption, and accelerate economic growth. Approximately 6.5 million Chinese students graduate from college each year, but many are unable to find a job that matches their credentials or salary demands.²⁵ As Gordon Orr, senior advisor to the management consulting firm McKinsey & Company, explained, recent Chinese graduates face limited job prospects, low job security, and low-income jobs.²⁶

Municipal governments require new sources of financing to afford the expected surge in demand for urban infrastructure and public services. The Ministry of Finance estimates urbanization will require \$6.3 trillion (RMB 42 trillion) of financial support from 2014 to 2020, and the Ministry of Transportation and the National Development and Reform Commission announced they will spend \$701.5 billion (RMB 4.7 trillion) on 303 infrastructure projects in 2016–2018.²⁷ Weiping Wu, professor and chair of the Department of Urban and Environmental Policy and Planning at Tufts University, testified to the Commission that municipal governments are exploring public-private partnerships (PPPs), municipal bonds, and private investment to bridge the gap.²⁸ Dr. Wu highlighted water and wastewater treatment facilities, renewable energy projects, airports, and toll roads as potential areas for PPPs.²⁹ In April 2014,

the State Council pledged to open 80 major public infrastructure projects to private and foreign investment.³⁰ Nevertheless, Dr. Wu cautioned that while the Chinese government at all levels is heavily promoting PPPs, implementation is difficult. For example, she noted that demand for water, wastewater, and heating trunklines remains strong, but the irregular and relatively low cash flows from such projects, fragmented central-local legal and administrative decision making, and lack of enforceable dispute resolution systems in PPPs are not attractive to private domestic and global partners.³¹ According to the Ministry of Finance, only 39 percent of the more than 600 PPP projects implemented in the first half of 2016 have private business partners,³² signaling that greater incentives are needed to make PPPs viable.³³

Hukou Reform

The 13th FYP reaffirms plans—originally laid out in the Third Plenum and detailed in the Fifth Plenum—to reform the hukou system.* Around 260 million rural residents have migrated to urban areas over the last three decades in pursuit of higher-paying jobs, but have been largely left out of the urban social insurance system, which includes pension and unemployment insurance, due to the hukou regime.³⁴ This has created “two different types of citizenship,” according to Dr. Wu, where urban hukou holders enjoy privileged access to the most stable employment, high-quality education, and public services, while many rural hukou holders do not.³⁵ Based on the 2005 One Percent Population Survey (latest available),† Dr. Wu found only 12.7 percent of rural migrants in Beijing and Shanghai obtained pension benefits compared with 85.5 percent of local urban residents.³⁶ In addition, the hukou restricts rural migrants’ access to urban public housing, public services, and better-quality schools; one consequence of hukou has been that over 60 million children in rural areas have been left behind with grandparents or on their own as their parents moved to urban areas for work.³⁷ Education is a key factor in determining job prospects and social mobility. Rural students graduating from overcrowded, academically weaker, and poorer rural schools are at a disadvantage when competing for seats in universities against better-prepared urban students, who are able to afford high school education and the additional tutors they need to do well on their university entrance exams.³⁸

The 13th FYP seeks to address these disparities in education and earnings while enhancing labor productivity and domestic consumption by increasing the share of the population registered as permanent urban residents from 39.9 percent in 2015 to 45 percent in 2020.³⁹ Yet, municipal governments remain unwilling to take on the significant financial burden of adding millions of migrants to their public services and education systems.⁴⁰ According to a 2010 survey by the State Council’s Research Development Center, the

* For more information on China’s social and housing reforms, including discussion of China’s unregistered population, see U.S.-China Economic and Security Review Commission, *Monthly Analysis of U.S.-China Trade Data*, January 6, 2015, 5–7.

† More recent data are not available. The 2010 census did not include questions related to social welfare, and results from the 2015 One Percent Population Survey have not yet been released. Weiping Wu, interview with Commission staff, August 15, 2016.

lifetime cost of bringing the estimated 260 million migrant workers and their families to the urban social service system would be around \$3.1 trillion (RMB 20.8 trillion).⁴¹ In August 2016, the State Council announced it would create a national basic public service market to include services such as pension, healthcare, and compulsory education,⁴² which would address some of these disparities and allow for greater portability of benefits, but it remains to be seen how this policy will be implemented.

Meanwhile, restrictions on migration to China's megacities and richer eastern provinces remain in place.⁴³ For example, Shanghai's 2016–2040 plan aims to keep the city's population at 25 million by 2040; in 2014, the number of residents totaled 24.3 million.⁴⁴ To control migration, Beijing,* Shanghai, Guangzhou, and Tianjin—megacities with more than five million residents each—maintain a points system based on factors such as employment, housing, educational background, and skill level for migrants to earn those cities' hukou.⁴⁵ This system is, in effect, rigged against migrants, who are usually unable to meet the necessary qualifications.⁴⁶

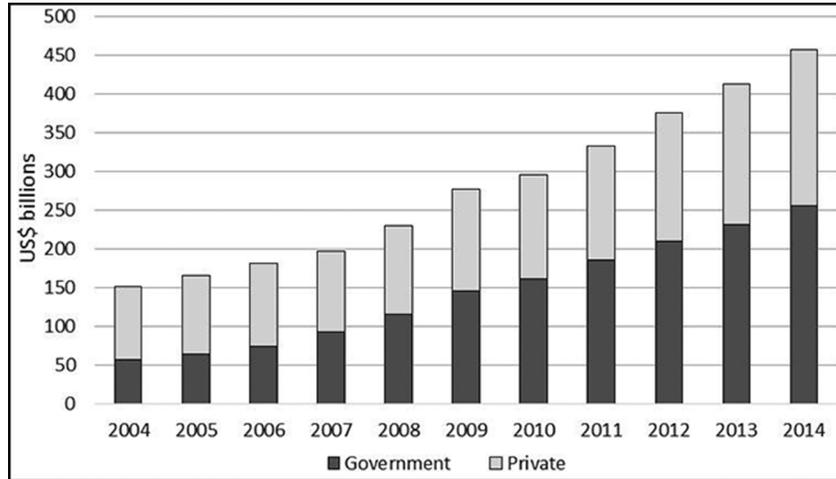
Healthcare

The Chinese government is continuing efforts begun under the 12th FYP to create a high-quality, affordable, and accessible healthcare system.† From 2011 to 2015, the Chinese government successfully expanded its basic health insurance to provide near-universal coverage, but Dr. Wu cautioned this insurance covers only a limited number of services.⁴⁷ The Chinese government also spent \$1.3 trillion between 2008 and 2014 to bring down the share of Chinese citizens' out-of-pocket healthcare spending from 40 percent in 2008 to 32 percent in 2014.⁴⁸ However, soaring medical costs, overcrowding at large hospitals, and substandard care‡ remain key challenges.⁴⁹ Actual healthcare costs increased three-fold from \$150.3 billion in 2004 to \$456.9 billion in 2014, and are expected to continue to grow as the population ages (see Figure 1).⁵⁰ Based on a joint estimate from the World Bank, World Health Organization, and three Chinese government agencies, without reform, real healthcare expenditures will increase an average of 8.4 percent annually from \$526.7 billion (RMB 3.5 trillion) in 2015 to \$2.4 trillion (RMB 15.8 trillion) in 2035.⁵¹

*In September 2016, Beijing Municipality stopped classifying residents within its municipality as urban or rural. This change affects 2.9 million residents, formerly classified as "rural," who live in surrounding towns and villages that have been subsumed by Beijing. Wang Su and Li Rongde, "Beijing Scraps Urban-Rural Hukou Distinction," *Caixin*, September 20, 2016.

†For more information on China's healthcare industry, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 3, "China's Healthcare Industry, Drug Safety, and Market Access for U.S. Medical Goods and Services," in *2014 Annual Report to Congress*, November 2014, 127–171.

‡Interest in high-quality medical treatment has led a growing number of Chinese citizens to travel to the United States. For more information, see Matt Snyder and Nicole Stroner, "Chinese Tourism and Hospitality Investment in the United States," *U.S.-China Economic and Security Review Commission*, July 25, 2016. 10–12.

Figure 1: China's Healthcare Expenditures, 2004–2014

Source: World Health Organization, "Global Health Expenditure Database."

China has a high rate of tobacco use, with negative consequences for its public health: In 2011, 53.4 percent of Chinese men used tobacco, contributing to 30.1 percent of cardiovascular-related deaths in China.* In addition, the increasing prosperity of Chinese citizens has contributed to a rise in so-called "diseases of affluence," such as high blood pressure and diabetes, whose treatment is not necessarily covered by basic health insurance.⁵² As of 2015, 10.6 percent of all Chinese citizens lived with diabetes, and the costs of managing the disease totaled approximately \$51.1 billion.⁵³ These numbers could skyrocket if even a fraction of China's nearly 500 million people with prediabetes develop Type 2 diabetes.⁵⁴ Financing these expenditures has already put a strain on local governments, and the recent increases in central government transfers to local governments will not be enough to offset the mounting expenses.⁵⁵

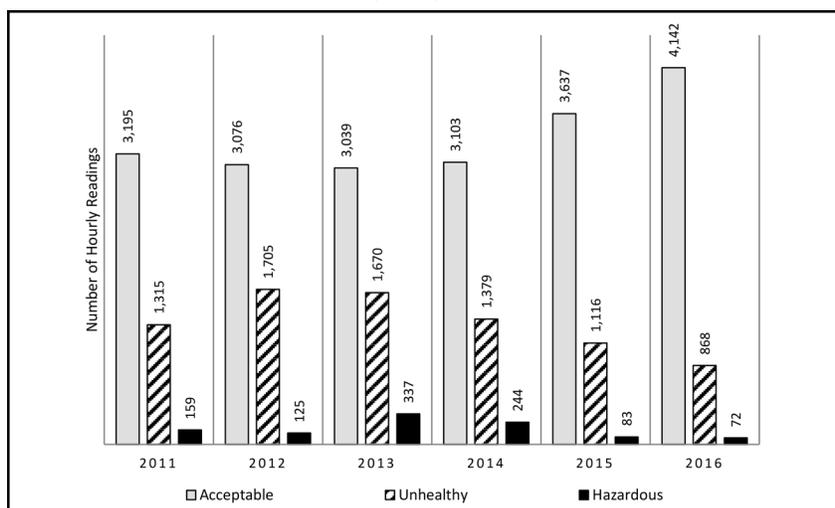
China's Energy Sector and Environmental Reforms

The Chinese government is attempting to clean up the severe environmental degradation left by its "growth at any cost" strategy and shift toward a more sustainable economic model. Official reports found that approximately 20 percent of China's arable land, 10 percent of woodlands, 10.4 percent of grasslands, and 33 percent of surface water are polluted, and more than 80 percent of underground well water used by farms, factories, and households is too polluted to safely drink or bathe in.⁵⁶ Based on official Chinese data and independent research, the Chinese government largely met its 12th FYP targets for energy consumption and carbon and pollutant emissions reduction (see Addendum I for 12th FYP tar-

*This study is based on data collected from 1991 to 2011 covering 26,000 people in nine provinces. Yanping Li, et al., "Potential Impact of Time Trend of Life-Style Factors on Cardiovascular Disease Burden in China," *Journal of the American College of Cardiology* 68:8 (2016): 818–833.

gets achieved).⁵⁷ Using satellite data from the National Aeronautics and Space Administration (NASA), 18 researchers from NASA, academia, and U.S., Canadian, and Dutch government and independent research institutes found that in eastern China, where most of China’s pollution is concentrated, sulfur dioxide levels fell around 60 percent between 2012 and 2015.⁵⁸ The researchers attributed this reduction to government efforts to meet 12th FYP emission targets, greater use of scrubbers in coal-fired power plants and industries, and the slowdown of China’s economy.⁵⁹ A comparison of hourly PM2.5* data from the U.S. Embassy in Beijing for the first seven months of 2016 with the same period for the last five years shows the number of “acceptable” hours increased from 3,195 readings in 2011 to 4,142 readings in 2016, but hazardous air quality levels still occur (see Figure 2).⁶⁰

Figure 2: U.S. Embassy Hourly PM2.5 Readings in Beijing, January–July 2011–2016



Note: The data are hourly readings of the micrograms of PM2.5 per cubic meter of air and cover January 1–July 31 of each year. The classification of these data is based on the U.S. Environmental Protection Agency’s *Guideline for Reporting Daily Air Quality—Air Quality Index*. In the figure, the “acceptable” category (0–100) includes readings designated “good” (0–50) and “moderate” (51–100) by the U.S. Environmental Protection Agency. The “unhealthy” category (101–300) includes “unhealthy for sensitive groups” (101–150), “unhealthy” (151–200) and “very unhealthy” (201–300) readings. The “hazardous” category, which describes any conditions likely to cause serious health effects, includes any readings beyond 301. In the first seven months of 2016, PM2.5 levels in Beijing reached a high of 782.

Source: U.S. Department of State, U.S. Embassy in Beijing, *Historical Data*. <http://www.stateair.net/web/historical/1/1.html>.

The 13th FYP expands these efforts to include water and soil decontamination due in part to rising public concerns over food and water safety.⁶¹ Ten out of the 25 priority targets in the 13th FYP are related to the environment, and all ten are included as part of

*PM2.5 is made up of metal, organic chemical, acid, soil or dust, and allergen particulates measuring 2.5 micrometers or smaller in diameter. Excessive exposure to PM2.5 aggravates existing heart and lung disease and is linked to higher incidences of heart attacks, asthma attacks, and bronchitis. U.S. Environmental Protection Agency, Basic Information.

the 13 binding targets that must be achieved by 2020.⁶² Kevin Mo, managing director for climate and sustainable urbanization at the Paulson Institute, noted that “what’s exciting is that the government is taking an integrated approach, tackling air quality, climate change, and the development of a new model of growth together instead of treating them as separate issues.”⁶³ Meeting these targets will be critical to attaining China’s broad goal of a “moderately prosperous society in all respects,” noted a Chinese official to the Commission in Beijing.⁶⁴

Although the Chinese government has dedicated significant funds and high-level attention to environmental degradation over the last several years, lax enforcement, competing policy objectives, and the high costs and technical difficulty of implementing soil and water decontamination remain key challenges.⁶⁵ Competition between economic growth and environmental protection objectives continues to undermine the Chinese government’s efforts to prevent and mitigate pollution.⁶⁶ Despite government emissions targets, emphasis on renewable energy, and existing overcapacity, central and western provinces are proceeding with the construction of new coal-fired power plants, one of the largest contributors to carbon emissions, with 210 new plants approved in 2015 and at least 55 more awaiting approval this year.⁶⁷

Enforcement

In 2016, Premier Li Keqiang stressed strict enforcement of environmental standards—a key weakness of environmental efforts under the 12th FYP*—stating that violators would be “severely punished.”⁶⁸ The Ministry of Environmental Protection has stepped up enforcement by creating “green teams” of environmental experts to randomly inspect provincial and municipal governments’ enforcement of environmental regulations and implementation of national environmental policies. Previously, only the Central Discipline Inspection Commission, China’s anticorruption agency, had the right to conduct such inspections.⁶⁹ These inspections are intended to hold local leaders accountable and ensure policy consistency across provinces.⁷⁰ Complementing these efforts, the Chinese government is expanding its continuous emissions monitoring systems for power plants and large firms.⁷¹ In July 2016, the Ministry of Environmental Protection announced it will set up river and lake water quality monitoring stations in 338 prefecture-level cities† in 31 provinces; the stations will use 21 metrics to determine water quality.⁷² Although there has been progress, Ma Jun, director of the China-based environmental non-profit Institute of Public and Environmental Affairs, cautioned “it is still not enough” because the fines are “still cheaper than the

* For more information on energy conservation and environmental protection actions undertaken during the 12th FYP, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 3, “China’s State-Led Market Reform and Competitiveness Agenda,” in *2015 Annual Report to Congress*, November 2015, 169–174; for more information on environment-related unrest, see U.S.-China Economic and Security Review Commission, Chapter 2, Section 3, “China’s Domestic Stability,” in *2014 Annual Report to Congress*, November 2014, 357–358.

† Prefecture-level cities are a government administrative classification that ranks below a province but above a county.

cost of compliance,” and polluting firms continue to enjoy significant local government support.⁷³

Funding

The scale of investment required to meet the Chinese government’s environmental priorities exceeds its available budget, and the government is exploring new avenues to attract private investors. An April 2015 report by more than 40 leading Chinese financial policy and regulation experts and government officials estimated that the Chinese government will only be able to fund between 10 to 15 percent of the estimated \$1.5 trillion (RMB 10 trillion) investment required over the next five years, including \$597 billion (RMB 4 trillion) in environmental protection, \$373.1 billion (RMB 2.5 trillion) for clean transportation, \$373.1 billion (RMB 2.5 trillion) for clean energy, and \$149.3 billion (RMB 1 trillion) for energy efficiency.* And, costs could be much higher. Estimates by the Green Finance Committee of the China Society for Banking and Finance under the People’s Bank of China (PBOC) and Bloomberg Philanthropies in June 2016 found that Chinese cities will require \$985 billion (RMB 6.6 trillion) by 2020 just for energy-efficient buildings, clean transportation, and clean energy.⁷⁴

Given the significant shortfall in funding by the central government, plans for fixing existing environmental damage are in essence an unfunded mandate imposed on provincial and local governments. For example, in 2016, the central government only allocated \$1.3 billion (RMB 9 billion) for soil remediation, a small fraction of the costs local governments are expected to bear.⁷⁵ Nanjing-based integrated securities firm Huaitai Securities estimated in April 2016 that soil remediation projects for the next five years will cost up to \$89.4 billion (RMB 590 billion); full remediation, where crops can be grown and livestock safely raised on formerly contaminated land, will cost an estimated \$1.1 trillion (RMB 7.4 trillion).⁷⁶

To close the funding gap, the Chinese government hopes to entice domestic and international investment in green industries, pollution and climate change mitigation efforts, and environmentally friendly projects through PPPs and green financing.† Based on estimates from the State Council’s Financial Research Institute, green bonds‡ could finance approximately \$44.8 billion (RMB 300 billion) of China’s needed clean energy investment annually by 2020.⁷⁷ In the first half of 2016, China issued \$8.3 billion in RMB-denominated green bonds, accounting for roughly a quarter of the \$34.6

*This estimate is based on the 12th FYP Environmental Protection Plan and the Ministry of Environmental Protection (final investment expected to exceed RMB 5 trillion under the 12th FYP), 2014 Plan on Water Pollution Prevention (RMB 2 trillion expected), 2014 Plan on Air Pollution Prevention and Control (RMB 1.7 trillion expected), China Railway Annual Report (RMB 800 billion allocated in 2014), Renewable Energy Policy Network (RMB 350 billion invested in 2013), and Bloomberg’s estimate of renewable energy investment (RMB 420 billion invested in 2012). People’s Bank of China and U.N. Environment Program, *Establishing China’s Green Financial System: Report of the Green Finance Task Force*, April 2015, 5.

†Green financing is a relatively new concept with no established definition. It can be broadly defined as financial investment in sustainable development projects, industrial pollution control, water sanitation, biodiversity protection, environmental products, etc. Nanette Lindenberg, “Definition of Green Finance,” *German Development Institute*, April 2014.

‡Green bonds are tradable debt securities issued by firms, governments, and international investors to finance climate-related or environmental projects. They were first issued by the World Bank in 2008. World Bank and Public-Private Infrastructure Advisory Facility, “What Are Green Bonds?” 2015, 23.

billion of global green bonds issued in that period.⁷⁸ It remains unclear, however, who buys these bonds.

Attracting additional funding requires greater transparency and clarity on the legal and regulatory frameworks governing PPPs and green financing, and further opening of the financial sector to global investors.⁷⁹ Green bonds are largely self-labeled by the issuer.⁸⁰ For example, the China Green Bond Index permits fossil fuel investments such as clean coal, while the voluntary 2016 Green Bond Principles, supported by 117 institutions (including one Chinese institution, the Agricultural Bank of China), do not.⁸¹ In light of these differing definitions and practices, global investors are pushing for a standardization of definitions, reporting, and impact assessments to ensure investments are used for their intended purpose.⁸² As the 2016 chair of the G20,* China pushed for the global expansion of green financing through the establishment of international standards and guidelines, capacity-building for governments to set up green financing mechanisms and create local green bond markets, knowledge sharing for banks and institutional investors on environmental and financial risks, facilitation of investors and green finance across different countries' markets, and improvement in measuring green finance activities and their impact.⁸³ The 2016 G20 Summit highlighted the importance of green financing but provided few concrete steps forward,⁸⁴ signaling a lack of global consensus.

China's Industrial Policies

Under the 13th FYP, the Chinese government seeks to accelerate China's transition to higher-value-added, intelligent manufacturing† by focusing on indigenous innovation and upgrading key emerging industries such as integrated circuits (ICs), biomedicines, cloud computing, and e-commerce.⁸⁵ In a 2016 report prepared for the Commission, University of California Institute on Global Conflict and Cooperation found that the Chinese government has “vigorously implemented” a variety of policy instruments to support its technonationalism and indigenous innovation push in these sectors to include:

*(1) sectoral protectionism; (2) the cultivation of local and national champions; (3) pushing hard for technology transfers; (4) the use of state catalogues to regulate investment and technology imports; (5) the promotion of Chinese technology standards domestically and internationally; and (6) an increasingly vigorous 'going out' strategy to open up foreign markets for Chinese products as well as to secure energy and other critical supplies for the country.*⁸⁶

*The Group of Twenty (G20) is an international forum for government and central banks from 20 major countries to meet and discuss international financial stability issues. Members include Argentina, Australia, Brazil, Canada, China, the EU, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, and the United States. International organizations such as the Financial Stability Board, International Labor Organization, International Monetary Fund, Organisation for Economic Co-Operation and Development, World Bank, World Trade Organization, and the UN also participate. G20 2016 China, “About G20,” November 27, 2015.

†Intelligent manufacturing seeks to integrate information technology into the manufacturing process for more precise, easily scalable, efficient production.

The Chinese government is also attempting to improve SOEs' productivity and global competitiveness through mixed ownership and consolidation, but announced reforms strengthen government control rather than allow a "decisive role" for the market.⁸⁷ (For more information on SOE reforms, see Chapter 1, Section 2, "State-Owned Enterprises, Overcapacity, and China's Market Economy Status.") The continuation of these industrial policies puts U.S. and other foreign firms at a disadvantage competing in China's market and abroad. For instance, Samm Sacks, China technology policy analyst at the political risk consulting firm Eurasia Group, noted that U.S. and other foreign technology firms will face greater market access costs due to stricter security reviews, added compliance costs and risks to core intellectual property, and fierce competition from state-supported firms.⁸⁸ Without meaningful reform, the 13th FYP's policies risk expanding the overproduction and distorted market conditions that occurred as a result of the 12th FYP's promotion of strategic emerging industries.⁸⁹

Indigenous Innovation

The Chinese government aims to utilize innovation to move Chinese manufacturing up the value-added chain, establish China as a global center of innovation and technology, and ensure long-term productivity. Largely reiterating the 12th FYP's state-directed strategy,* the 13th FYP increases R&D spending, the number of technology clusters and patents filed, incentives for foreign direct investment, and government procurement and customer enticements to spark market demand.⁹⁰ By 2020, the Chinese government aims to increase its global innovation ranking from 18 to 15,† the share of R&D spending as a percent of gross domestic product (GDP) from 2.1 to 2.5, and the number of patents filed per 10,000 people from 6.3 to 12.⁹¹

But engineering innovation by fiat is difficult. Innovation efforts under the 12th FYP were plagued by inefficient allocation of funding, weak quality management, and plagiarism, according to Jost Wubbeke, research associate at the German think tank the Mercator Institute for China Studies (MERICS).⁹² Furthermore, strong state control hinders academic freedom, market competition, and the free flow of ideas—the basis for innovation.⁹³ Overall, President Xi's emphasis on indigenous innovation discriminates against U.S. and other foreign firms by replacing foreign technology with products and services from and by Chinese firms.⁹⁴

* For additional analysis on innovation under the 12th FYP, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 3, "China's State-Led Market Reform and Competitiveness Agenda," in *2015 Annual Report to Congress*, November 2015, 163–167.

† This ranking is based on the Country Innovation Index, compiled by the Chinese Academy of Science and Technology for Development under the Ministry of Science and Technology. In 2015, the Country Innovation Index ranked China as the 18th most innovative country; the United States was ranked first followed by Japan, Switzerland, South Korea, and Israel. By comparison, the 2016 Global Innovation Index published by Cornell University, French business school INSEAD, and the World Intellectual Property Organization ranked Switzerland first followed by Sweden, the United Kingdom, and the United States at fourth. The report placed China 25th out of 128 countries. Ministry of Science and Technology of the People's Republic of China, "Country Innovation Index Report 2015 Released," July 25, 2016. Staff translation; Soumitra Dutta, Bruno Lanvin, and Sacha Wunsch-Vincent, eds., *The Global Innovation Index 2016*, 2016.

Made in China 2025 and Internet Plus

The 13th FYP emphasizes the “Made in China 2025” and “Internet Plus” initiatives,* which aim to grow domestic capability in emerging industries such as high-end equipment, ICs, biomedicines, cloud computing, mobile Internet, and e-commerce,⁹⁵ supplanting established U.S. and other foreign technological leaders. The Made in China 2025 action plan outlines a ten-year strategy to build intelligent manufacturing capabilities, enhance innovation, and upgrade ten key sectors.⁹⁶ These sectors, many of which were previously designated as heavyweight, strategic, or strategic emerging industries, are:⁹⁷

- (1) energy-saving and new energy vehicles
- (2) next-generation information technology
- (3) biotechnology
- (4) new materials
- (5) aerospace
- (6) ocean engineering and high-tech ships
- (7) railway
- (8) robotics
- (9) power equipment
- (10) agricultural machinery

The Internet Plus initiative hopes to capitalize on China’s huge online consumer market by building up the country’s domestic mobile Internet, cloud computing, big data, and the “Internet of Things” † sectors, and create global competitors by assisting domestic firms’ expansion abroad.⁹⁸ To support these objectives, the 13th FYP aims to increase the fixed broadband household penetration ratio from 40 percent in 2015 to 70 percent in 2020, and raise the mobile broadband subscriber penetration ratio from 57 percent in 2015 to 85 percent by 2020.⁹⁹

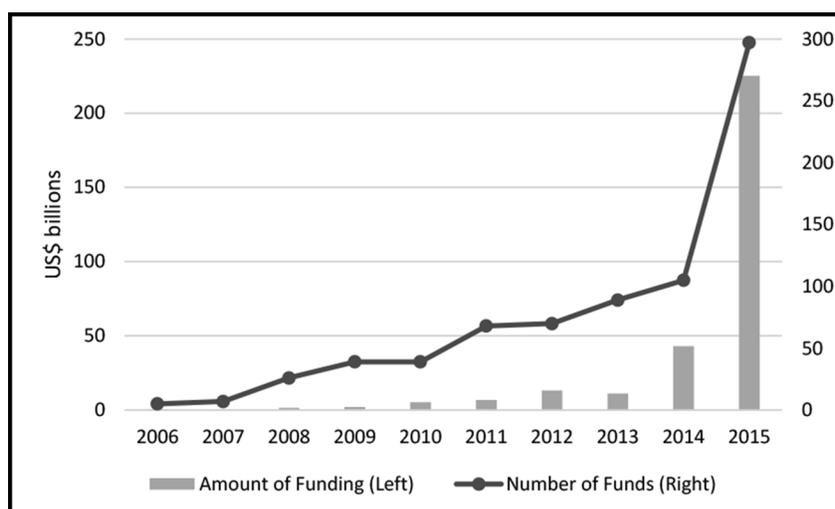
The Chinese government is also directing significant financial resources to develop technologies and firms in these industries through government-controlled venture capital funds.¹⁰⁰ China had 780 government-connected investment funds with a total of nearly \$326 billion (RMB 2.18 trillion) under management by the end of 2015 (see Figure 3).¹⁰¹ This amount is five-times larger than any other startup funds raised in the world.¹⁰² In 2015 alone, the Chinese government created 297 such funds with \$225.2 billion of investment.¹⁰³ In August 2016, the State Council approved a nearly \$30 billion (RMB 200 billion) government-controlled venture capital fund to invest in innovative technology and industrial upgrades to

*For comprehensive backgrounds on the Made in China 2025 and the Internet Plus initiatives, see Tai Ming Cheung et al., “Planning for Innovation: Understanding China’s Plans for Technological, Energy, Industrial, and Defense Development,” *University of California Institute on Global Conflict and Cooperation* (prepared for the U.S.-China Economic and Security Review Commission), July 28, 2016, 43–56.

†The Internet of Things is the interconnectivity between physical objects such as a smartphone or electronic appliance via the Internet that allows these objects to share data. For more information, see Harald Bauer, Mark Patel, and Jan Veira, “The Internet of Things: Sizing up the Opportunity,” *McKinsey & Company*, December 2014.

boost the efficiency of China's central SOEs.¹⁰⁴ Government-holding companies (China Reform Holdings Corp. Ltd. and Shenzhen Investment Holdings) and state-owned banks (China Postal Savings Bank and China Construction Bank Corporation) will finance the fund.¹⁰⁵ Although this fund is domestically focused, it remains unclear whether any of this money will be used to acquire foreign technology and products.

Figure 3: Chinese Government-Connected Investment Funds, 2006–2015



Source: Jessie Gui, "China Government Guidance Fund Development Research Report 2016 Released; Interim Measures Supports Four Major Areas and Specifies Negative List," *PE Daily*, March 11, 2016.

The High-Tech Sectors: Automobiles, Aerospace, and Semiconductors

The 13th FYP continues the Chinese government's efforts to develop domestic globally competitive aerospace, automotive, and semiconductor firms. Existing policies require U.S. and other foreign firms to transfer technology, move manufacturing and assembly facilities to China, and collaborate with their future competitors, impacting U.S. firms' profitability, operations, and future competitiveness. These three industries are important to the U.S. economy, sustaining and creating millions of high-paying jobs and high-value-added exports. Together, the aerospace, automotive, and semiconductor industries accounted for 3 million—or about a quarter of—U.S. manufacturing jobs in 2014.¹⁰⁶ Aerospace employed 1.28 million workers as of 2012; in 2014, the automobile industry employed 1.55 million, and the semiconductor industry employed 244,800.¹⁰⁷ In addition, civilian aircraft and components, automobiles, and semiconductors are the three largest U.S. manufacturing exports to the world, accounting for 18.2 percent of total U.S. exports to the world in 2015.¹⁰⁸ The Chinese government's efforts to supplant U.S. leaders in these sectors have successfully cre-

ated lower-end producers and suppliers, but Chinese firms continue to lag behind U.S. competitors in terms of quality, reliability, and technological edge.¹⁰⁹

Commercial Aviation

The Chinese government provided over \$7 billion in initial financing to develop its own commercial aviation industry, which it views as a foundation for technological innovation and national defense.* The Chinese government has created a national champion, Commercial Aircraft Corporation of China, Ltd. (COMAC), provided significant subsidies, required joint ventures, incentivized foreign manufacturers to shift sourcing and assembly operations to China by promising them business from state-owned airlines, and encouraged the purchase of domestically produced aircraft by domestic airlines and foreign countries.¹¹⁰ These policies have been relatively successful at increasing production: Chinese aviation output rose from \$6.8 billion in 2005 to \$16 billion in 2010—a 134.3 percent increase—and Chinese aviation exports grew 111.8 percent from \$995 million in 2005 to \$2.1 billion in 2010.¹¹¹ But Chad J.R. Ohlandt, aerospace engineer at RAND Corporation, noted in his testimony before the Commission that “the effort has not yet resulted in globally competitive products or major companies.”¹¹² COMAC’s two aircraft, the ARJ21 regional jet and C919 passenger jet, have been built primarily with foreign components and have yet to establish a record of safety and operational cost efficiency; as of June 2016, only the ARJ21 has begun deliveries.¹¹³

Concerned over its continued reliance on high-value-added foreign technologies and parts (particularly engines and avionics), COMAC and the aerospace and defense SOE Aviation Industry Corporation of China (AVIC) have redoubled their efforts to build their own avionics and engine capabilities.¹¹⁴ In 2011, General Electric entered into a joint venture with AVIC to “develop and market integrated, open architecture avionics systems to the global commercial aerospace industry for new aircraft platforms,” particularly the C919.¹¹⁵ This joint venture eventually aims to become a global commercial avionics supplier and provide avionics directly to Boeing, Airbus, and Embraer.¹¹⁶ In July 2016, the State-Owned Assets Supervision and Administration Commission of the State Council established a new aviation SOE specializing in aircraft engine development, Aero Engine Corporation of China.¹¹⁷ Through this new SOE, the Chinese government is hoping to develop its own commercial aerospace engine, enhance its technological capabilities, and strengthen its defense manufacturing.¹¹⁸ This new SOE has \$7.5 billion (RMB 50 billion) in registered capital, counting COMAC, AVIC, the State Council, and the Beijing municipal government as its investors.¹¹⁹ The General Electric-AVIC joint venture and the creation of this new SOE may enable China to accelerate the indigenous development of its aircraft industry.

* For in-depth analysis of China’s commercial aerospace industry, see Keith Crane et al., “The Effectiveness of China’s Industrial Policies in Commercial Aviation Manufacturing,” *RAND Corporation*, April 2014; and Roger Cliff, Chad J.R. Ohlandt, and David Yang, “Ready for Takeoff: China’s Advancing Aerospace Industry,” *RAND Corporation*, (prepared for the U.S.-China Economic and Security Review Commission), March 1, 2011.

Lured by the second-largest aircraft market, U.S. aerospace manufacturers such as Boeing, General Electric, and Pratt & Whitney have formed joint ventures with COMAC and moved some of their manufacturing and assembly operations to China to gain market access.¹²⁰ U.S. firms believe they have safeguarded their intellectual property and technologies by maintaining key component manufacturing outside of China, but they are increasingly integrating Chinese-made parts into the supply chain.¹²¹ From 2009 to 2013, U.S. imports of aerospace equipment from China roughly doubled to \$900 million. A large share of these imports reflects transfers between a U.S.-China joint venture and the U.S. firm.¹²² While such imports may be cost effective and ensure sales, they represent a loss of U.S. aviation manufacturing production and jobs.

Automobiles

Over the last three decades, China's economic growth and automobile industrial policy has transformed the country into the world's largest automobile market and automobile producer, creating a modern supply network and millions of local jobs.¹²³ The Chinese government has sought to develop its own domestic automobile industry by disadvantaging U.S. and other foreign automakers competing in China's market through "discrimination based on the country of origin of intellectual property, forced technology transfer, research and development requirements, investment restrictions and discriminatory treatment of foreign brands and imported vehicles," according to the Office of the U.S. Trade Representative (USTR).¹²⁴ Between 2009 and 2011, the Chinese government provided at least \$1 billion in subsidies to its automobile and automobile parts manufacturers.¹²⁵ This strong support has successfully created competitive, low-cost domestic automobile parts firms. U.S. imports of automobile parts from China grew from \$3.2 billion in 2005 to \$18 billion in 2015,¹²⁶ displacing U.S. production and contributing to the decline in U.S. employment. U.S. exports of complete motor vehicles to China have grown from \$444.7 million in 2005 to a high of \$10.1 billion in 2014 before falling to \$8.5 billion in 2015 due in part to China's economic slowdown.¹²⁷ By comparison, U.S. motor vehicle imports from China increased from \$126.7 million in 2005 to \$226.1 million in 2015.¹²⁸ Although still small, U.S. motor vehicle imports from China are expected to grow. In December 2015, General Motors announced it would import to the United States 30,000–40,000 Buick Envision crossover vehicles from its production facilities in China.¹²⁹ Foreign-made automobiles imported into the United States face a 2.5 percent duty, while U.S.-made automobiles face a 25 percent duty in China.¹³⁰

Crystal Chang, lecturer in political science at University of California, Berkeley, believes Chinese government's policies have "failed to create technologically independent and globally competitive automakers."¹³¹ Rather, nearly three decades of required joint ventures have created an interdependent production model, where foreign firms maintain technological and marketing expertise and Chinese SOEs excel in production, according to Dr. Chang.¹³² U.S. firms such as General Motors and Ford have successfully leveraged these partnerships to gain market share in China; China now ac-

counts for about a third of General Motors' sales worldwide.¹³³ Cars produced by General Motors' SOE joint venture partner, SAIC General Motors, account for most of General Motors' sales in China.¹³⁴

Over the next five years, the global automobile industry is expected to undergo a transformation toward electric vehicles and autonomous driving systems,¹³⁵ and the Chinese government plans to leverage this transformation to replace U.S. and foreign producers with domestic firms and improve China's urban air quality. The Chinese government heavily promoted electric vehicles under the 12th FYP and continues to do so under the 13th FYP.¹³⁶ According to the China-based strategic consulting firm Gao Feng Advisory Co., new energy vehicles, which include hybrid electric, battery electric, and fuel cell vehicles, received \$5.5 billion (RMB 37 billion) of investment under the 12th FYP and are expected to receive an additional \$9.4 billion (RMB 63 billion) in government support under the 13th FYP.¹³⁷ By 2020, the Chinese government hopes to have five million new energy vehicles in use; reported sales in 2015 totaled nearly 332,000.¹³⁸ In response to strong government support, more than 200 new energy vehicle manufacturers have sprung up in China. However, according to Wang Cheng, an official at the China Automotive Technology and Research Center,* these manufacturers lag behind foreign competitors in terms of quality, reliability, and technological edge.¹³⁹

Recognizing this gap, the Chinese government in July 2016 lifted its 50 percent cap on foreign ownership of automobile electronic systems and batteries production for new energy vehicles—in place since 1994—in the free trade zones of Fujian, Guangdong, Shanghai, and Tianjin. This loosening of restrictions allows full ownership and opens the door for foreign technological leaders such as the U.S. firm Tesla, which can only viably build a production facility in China if batteries can be locally sourced.¹⁴⁰ The lifting of foreign ownership restrictions on automobile electronic systems and batteries production for new energy vehicles is limited to the free trade zones.¹⁴¹ National restrictions on foreign ownership of automobile production remain.†

In addition, the Ministry of Industry and Information Technology is promoting self-driving cars, or the “Internet of vehicles,” as part of the Made in China 2025 and Internet Plus initiatives. Internet firms such as Alibaba, Tencent, and Baidu; smartphone manufacturers Huawei, ZTE, and Xiaomi; and state-owned military firms are expanding into this market and seeking to set domestic technology standards.¹⁴² U.S. automakers Ford and General Motors are attempting to maintain their competitive edge in the Chinese market by pursuing electric vehicles, digitization, and autonomous driving. General Motors plans to launch more than ten new green-powered vehicle models in China by 2021.¹⁴³ In October 2015, Ford announced it will be investing \$1.8 billion in China over the next five years to develop digital connectivity, autonomous driving, and

*The China Automotive Technology and Research Center is a technical organization for the State Council's State-Owned Assets Supervision and Administration Commission. China Automotive Technology and Research Center, “Profile.”

†For more analysis of China's market access barriers in China's automotive industry, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 2, “Foreign Investment Climate in China,” in *2015 Annual Report to Congress*, November 2015, 84–86.

smart car features for its Chinese products, and in August 2016, Ford and Baidu announced they will invest \$75 million each in the U.S. sensor technology firm Velodyne Lidar to enhance their self-driving car sensory technology.¹⁴⁴

Semiconductors

China, the world's largest assembler and manufacturer of information and communications technology and other electronic equipment, wants to move from an assembler of imported semiconductor components to designer and producer to meet growing domestic demand.¹⁴⁵ Based on data from U.S. technology research firms Gartner and IDC, China accounts for 20 percent of global personal computer consumption, 29 percent of global smartphone consumption, 17 percent of global tablet consumption, 27 percent of global automobile consumption, and 23 percent of global telecommunication equipment capital expenditures.¹⁴⁶ U.S. multinational firms accounted for 11 of the top 20 global semiconductor suppliers in 2015 and made up 50 percent of the \$335.2 billion global semiconductor market in 2015, with firms such as Intel and Qualcomm the leading global manufacturer and designer, respectively, according to World Semiconductor Trade Statistics.¹⁴⁷ Semiconductor components were the third-largest U.S. manufacturing exports over the last five years, totaling \$41.8 billion in 2015.¹⁴⁸ In 2015, U.S. firms supplied 56 percent of China's \$98.6 billion semiconductor imports.¹⁴⁹ Beyond chips, U.S. firms produce the most semiconductor manufacturing equipment, with 47 percent of global market share in 2015, followed by Japanese firms with 30 percent.¹⁵⁰

U.S. dominance in this sector has been "central to U.S. military and economic strength," according to John Adams, former brigadier general for the U.S. Army and president of Guardian Six Consulting.¹⁵¹ Semiconductors are a vital component in commercial high-tech electronics and many U.S. military platforms and weapons systems, including the F-35 Joint Strike Fighter and the Humvee. Beyond creating high-paying jobs and high-value-added exports, semiconductors are an important factor in driving the U.S. military's technological advantages in surveillance, communications, and propulsion, and the loss of domestic production erodes U.S. institutional and technological know-how and the ability to design and commercialize emerging defense technologies.¹⁵²

The Chinese government is seeking to break China's dependence on imports from foreign producers for two reasons: First, it wants to build globally competitive domestic semiconductor firms, which will capture the revenue currently accruing to foreign companies.¹⁵³ Second, it wants to safeguard China's national security by breaking "the technological dominance of the West and [strengthening] the country's position in the cybersecurity war," according to Dieter Ernst, senior fellow at the East-West Center.¹⁵⁴

China's state-directed efforts to become a semiconductor leader over the last two decades have largely failed.¹⁵⁵ China continues to have systemic weaknesses, including a lack of core technology and innovative capacity, low levels of investment, a shortage of local talent, and a failure to take into account the needs of the market.¹⁵⁶ In June 2014, the *Guidelines to Promote National Integrated*

Circuit Industry Development sought to address these weaknesses and set targets, including achieving greater than \$52 billion (RMB 350 billion) in annual IC revenue by 2015, maintaining a more than 20 percent compound annual industry-wide revenue growth rate through 2020,* and becoming a global leader in the primary semiconductor IC supply chain by 2030.¹⁵⁷ The guidelines also established nearly \$107 billion (RMB 720 billion) of national and regional IC investment funds† to provide high-level support and funding between 2014 and 2017, with the goal of creating national champions, expanding domestic semiconductor fabrication capacity, and facilitating consolidation and global competitiveness of its national champions.¹⁵⁸ The creation of these funds represents a hybrid between the state-directed lending under previous FYPs and market forces by letting investors decide where funding should go.¹⁵⁹

While the 11th and 12th FYPs similarly attempted to create globally competitive Chinese semiconductor firms, the size of the funding under the 13th FYP is a key differentiator. Most countries provide subsidies to the semiconductor industry, but the scale of China’s support is unprecedented.¹⁶⁰ According to testimony from Jimmy Goodrich, vice president of global policy at the Semiconductor Industry Association, China’s semiconductor plan “is far more comprehensive, organized, and well-funded than many other plans they have put together to date.”¹⁶¹ The National IC Industry Investment Fund has been instrumental in providing financing for the rapid increase in domestic capacity and acquisitions abroad.¹⁶² Since 2014, China-headquartered firms have proposed or finalized more than 30 mergers and acquisition deals in the semiconductor industry, totaling nearly \$20 billion.¹⁶³ Chinese buyers have been particularly active in the United States, with at least six completed acquisitions in 2015 and four completed acquisitions and three minority investments in 2016 (see Table 1). A majority of these investments went to small semiconductor firms; the proposed acquisition of Micron Technology, the fifth-largest semiconductor supplier by revenue in 2015, and the minority investment in Marvell Technology Group, the 24th-largest, were the two exceptions.¹⁶⁴

Table 1: Chinese Attempted and Completed Acquisitions and Investments in U.S. Semiconductor Companies, 2015–2016

U.S. Target	Specialty	Chinese Investor	Value (US\$ millions)	Status
FlipChip International	Designer of wafer chip assembly and packaging	Tianshui Huatian Technology	\$40.2	Acquisition completed, April 2015

*In 2014, total IC sales reached \$77.3 billion. China’s semiconductor industry increased at a 20.5 percent compound annual growth rate from 2004 to 2014. PricewaterhouseCoopers, “China’s Impact on the Semiconductor Industry: 2015 Update,” March 2016.

†The National IC Industry Investment Fund will include \$17.9 billion (RMB 120 billion); local governments and private equity investment funds are expected to provide \$97.5 billion (RMB 600 billion) of this funding by 2020. PricewaterhouseCoopers, “A Decade of Unprecedented Growth: China’s Impact on the Semiconductor Industry 2014 Update,” January 2015, 74.

Table 1: Chinese Attempted and Completed Acquisitions and Investments in U.S. Semiconductor Companies, 2015-2016—Continued

U.S. Target	Specialty	Chinese Investor	Value (US\$ millions)	Status
WiSpry	Designer of chips for wireless communication products	AAC Technologies Holdings	\$16.6	Acquisition completed, May 2015
OmniVision Technologies	Designer of chips for advanced digital imaging solutions for consumer and commercial applications	CITIC Capital Holdings, Goldstone Investment, Hua Capital Management	\$1,900	Merger completed, July 2015
Bridgelux	Designer of chips for light-emitting diode (LED) commercial and industrial lighting	China Electronics Corporation, Chongqing Linkong Development Investment	\$130	Acquisition completed, July 2015
Atmel	Designer and manufacturer of microcontrollers and touch technology for the automotive, industrial, and consumer markets	China Electronics Corporation	\$3,400	Withdrawn after higher bid from competitor, U.S. firm Dialog Semiconductor, who was later outbid by U.S. firm Micron Technologies, September 2015
Pericom Semiconductor Corp.	Designer of integrated connectivity, advanced timing, and signal integrity for the computing, communications, and consumer markets	Montage Technology Group (subsidiary of China Electronics Corporation)	\$400	Pericom rejected bid, citing a lack of committed financing and potential regulatory hurdles in China, Taiwan, and the United States, November 2015; U.S. firm Diodes acquired Pericom for \$413 million that same month
Xcerra Corporation (<i>semiconductor test interface board business</i>)	Designer of semiconductor and electronics manufacturing testing equipment	Fastprint Hong Kong Co. (subsidiary of Shenzhen Fastprint Circuit Tech Co.)	\$2.3	Acquisition of its semiconductor test interface business completed, December 2015

Table 1: Chinese Attempted and Completed Acquisitions and Investments in U.S. Semiconductor Companies, 2015-2016—Continued

U.S. Target	Specialty	Chinese Investor	Value (US\$ millions)	Status
Integrated Silicon Solutions (ISSI)	Designer of chips for automotive and other industries	Uphill Investment (consortium including Hua Capital Management, SummitView Capital, E-Town Memtek)	\$640	Acquisition completed, December 2015
Initio	Designer of chips for storage devices	Sage Microelectronics	Not disclosed	Acquisition completed, January 2016
Vivante	Designer of chips for mobile, consumer, and automobile products	VeriSilicon Holdings	Not disclosed	Acquisition completed, January 2016
Integrated Memory Logic Limited (<i>subsidiary of Exar Corporation</i>)	Designer of chips for power management and color calibration for flat-panel display and LED lighting	Beijing E-town Chipone Technology Co. (consortium including Chipone Technology Co. and Beijing E-Town International Investment and Development Co.)	\$136	Acquisition announced, June 2016
Fairchild Semiconductor	Designer and manufacturer of chips for power management and mobile applications	China Resources, Hua Capital Management	\$2,600	Fairchild rejected bid, citing concerns over Committee on Foreign Investment in the United States (CFIUS)* approval, February 2016; U.S. firm ON Semiconductors received approval from the U.S. Federal Trade Commission to acquire Fairchild for \$2.4 billion in August 2016

*CFIUS is an interagency committee that reviews transactions that shift control of a U.S. business to a foreign person or business and the potential national security implications for the United States. U.S. Department of the Treasury, "The Committee on Foreign Investment in the United States," December 20, 2012.

Table 1: Chinese Attempted and Completed Acquisitions and Investments in U.S. Semiconductor Companies, 2015-2016—Continued

U.S. Target	Specialty	Chinese Investor	Value (US\$ millions)	Status
Micron Technology	Designer and manufacturer of memory chips; only U.S.-based dynamic random access memory (DRAM) manufacturer	Tsinghua Holdings	\$23,000	Micron rejected bid, citing concerns over CFIUS approval, February 2016
Multi-Fineline Electronix	Manufacturer of flexible circuits and assemblies	Suzhou Dongshan Precision Manufacturing	\$610	Acquisition completed, February 2016
Western Digital (15% stake)	Designer and manufacturer of computer hard drives	Tsinghua Unisplendour	\$3,780	Withdrawn due to CFIUS concerns, March 2016
GigOptix (3.8% stake)	Designer of chips for cloud connectivity, data centers, and high-speed optical and wireless networks	Shanghai Pudong Science and Technology Investment	\$5	Purchase of minority stake completed, March 2016
Lattice Semiconductor Corporation (8.65% stake)	Designer of low-power, programmable chips for high-tech data centers and telecommunication networks with dual-use applications	Tsinghua Unigroup	\$41.5	Purchase of 6% share completed, April 2016; share increased to 8.65% in May 2016
Mattson Technology	Manufacturer and supplier of semiconductor manufacturing equipment	Beijing E-Town Dragon Semiconductor Industry Investment Center	\$300	Acquisition completed, May 2016
Marvell Technology (~2% stake)	Designer of storage, cloud infrastructure, Internet of Things, connectivity and multimedia semiconductor chips	Tsinghua Holdings	\$78.2	Purchase of minority stake completed, May 2016
Global Communications Semiconductors	Designer and manufacturer of radio frequency, wireless, power electronic, and optoelectronic chips	SAIC Acquisition (subsidiary of Xiamen Sanan Integrated Circuits)	\$226	Withdrawn after CFIUS rejected the merger, August 2016

Table 1: Chinese Attempted and Completed Acquisitions and Investments in U.S. Semiconductor Companies, 2015–2016—Continued

U.S. Target	Specialty	Chinese Investor	Value (US\$ millions)	Status
Analogix Semiconductor	Designer of high-speed, mixed-signal chips for use in high-performance displays such as mobile devices, virtual and augmented reality, and other products	Beijing Shanhai Capital Management, National IC Industry Investment Fund	\$500	Announced merger, September 2016

Sources: Various.¹⁶⁵

Beyond significant investment, Mr. Goodrich outlined additional policies impacting U.S. semiconductor firms' operations in China: government-funded R&D grants, state-guided procurement orders, technology transfer requirements, China-specific standards, cybersecurity trade barriers,* encryption limitations, and security testing and licensing.¹⁶⁶ These policies support domestic firms while limiting U.S. semiconductor firms' market access to their largest customer. In order to gain and maintain market access, U.S. and other foreign firms appear to be acceding to Chinese demands to transfer technology and form joint ventures with its firms. Recent examples of China leveraging market access in exchange for technology include:

Qualcomm: In February 2015, the National Development and Reform Commission, China's chief industrial policymaking agency and regulatory body, fined Qualcomm—the world's largest producer of smartphone chips—\$975 million for allegedly using its dominant market share to overcharge Chinese telecommunications firms for its patent royalties.† This fine was the largest penalty ever imposed on a company by the Chinese government.¹⁶⁷ In addition to paying the fine, Qualcomm agreed to offer 3G and 4G licenses at a lower price in China than Qualcomm's normal wholesale figure. Moreover, Qualcomm would provide these licenses separately from its other patents and permit existing licensees to take advantage of the new sales terms in January 2015. Qualcomm also agreed to no longer require chip customers to sign a licensing agreement with “unreasonable conditions,” as determined by the National Development and Reform Commission, prior to the sale of baseband chips.¹⁶⁸

Qualcomm, reliant on the Chinese market for nearly half its revenue,¹⁶⁹ launched a “globalization” unit in May 2015 to assist Chinese smartphone makers—such as Huawei and Xiaomi—in expand-

* For more information on the impact of China's cybersecurity barriers on U.S. firms, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 4, “Commercial Cyber Espionage and Barriers to Digital Trade in China,” in *2015 Annual Report to Congress*, November 2015, 210–217.

† For more information on the antimonopoly case, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 2, “Foreign Investment Climate in China,” in *2015 Annual Report to Congress*, November 2015, 96–97.

ing abroad, and allocated \$150 million for investments in Chinese startups to regain access to its most important market.¹⁷⁰ In June 2015, a subsidiary of Qualcomm partnered with Huawei, IMEC research institute, and Semiconductor Manufacturing International Corporation, China's leading foundry and world's fifth largest foundry, to create an equity joint venture to develop 14 nanometer chips.¹⁷¹ According to Qualcomm, this joint venture "reinforces Qualcomm's commitment to the continued growth of the vibrant semiconductor ecosystem in China."¹⁷² Semiconductor Manufacturing International Corporation noted that this collaboration will "open up R&D and manufacturing resources in this industry's ecosystem, and develop our advanced technology and R&D capabilities."¹⁷³ In January 2016, Qualcomm formed a joint venture with the Guizhou provincial government to make advanced server chips customized for Chinese customers, which Qualcomm noted will strengthen its "commitment as a strategic partner" and "yield mutual benefits for both sides as we together pursue a very large data center opportunity in China."¹⁷⁴

Intel: In September 2014, Intel, which generates one-fifth of its annual revenues from China, signed a \$1.5 billion joint-venture deal to get a 20 percent stake in Chinese state-owned subsidiary Spreadtrum.¹⁷⁵ Intel said this partnership will "expand the product offerings and adoption for Intel-based mobile devices in China and worldwide."¹⁷⁶ However, some analysts have suggested this deal is in part an effort to avoid the regulatory hurdles its competitors such as Qualcomm are facing.¹⁷⁷ In October 2014, Intel's venture capital firm invested \$28 million in five Chinese mobile device companies, and in April 2015, Intel announced a \$17.9 million (RMB 120 million) investment to support Chinese high-tech startups. These partnerships offer Chinese firms financial, product design, manufacturing, and sales and marketing support.¹⁷⁸ In January 2016, Intel further expanded its Chinese partnerships with a "strategic collaboration" with Tsinghua University and Montage Technology Global Holdings Ltd., a subsidiary of the state-owned information technology firm China Electronics Corporation, to develop custom computer processors in order to meet Chinese security requirements.¹⁷⁹ Intel noted that this collaboration will "create new and compelling indigenous products while preserving the respective intellectual property ownership of all parties."¹⁸⁰

China's Fiscal and Financial Reforms

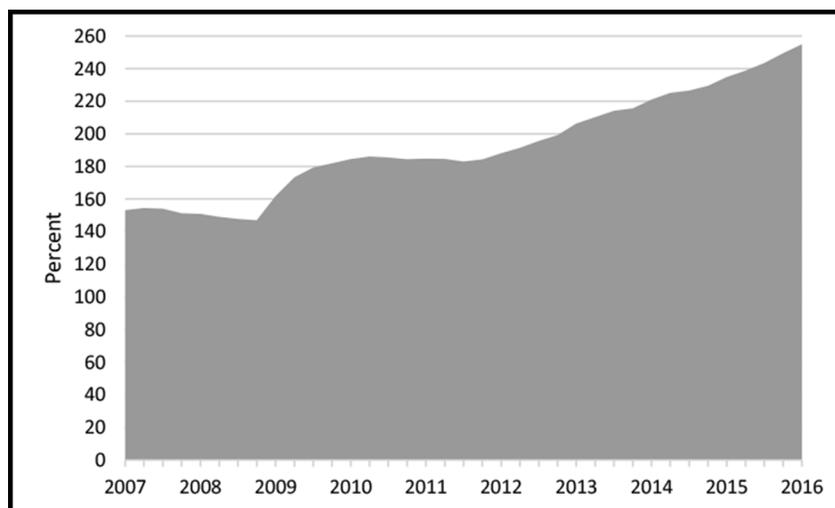
Fiscal and financial reforms are critical to improving capital allocation efficiency in China's economy. The current system has created indebted local governments with unfunded mandates and bloated SOEs. According to Eswar Prasad, senior professor of trade policy at Cornell University, the Chinese government is simultaneously attempting to achieve two contradictory approaches: "letting the market work," while maintaining the "paternalistic oversight of the state."¹⁸¹ Dr. Prasad noted in his testimony to the Commission that most reform efforts have focused on financial or capital markets, while reform of China's tax revenues and government spending has been very limited and slow.¹⁸² He attributed

the Chinese government's success in pushing through financial sector reform last year and overcoming opposition to two factors: a strong political advocate (the PBOC) and clear objectives (getting the RMB into the Special Drawing Rights* basket).¹⁸³ However, without a new clear objective, the impetus for additional reforms has weakened. (For more information on the inclusion of the RMB into the Special Drawing Rights basket, see Chapter 1, Section 1, "Year in Review: Economics and Trade.")

Fiscal and Financial Challenges

The Chinese government is overhauling its fiscal and financial systems to attempt to address the funding needs of its reform agenda. China's debt challenges harken back to the 2008–2009 \$587 billion (RMB 4 trillion) stimulus package, which flooded local governments and companies in designated sectors with cheap credit, leading to unsustainable debt burdens and overcapacity.¹⁸⁴ China's total debt to GDP has grown from 151.3 percent in 2007 to 254.6 percent in the first quarter of 2016, reaching \$27.2 trillion (see Figure 4).¹⁸⁵ In a discussion with the Commission in Beijing, Michael Pettis, professor of finance at Beijing University, noted that although a banking crisis in the next two years is unlikely, the enormous growth of debt is unsustainable.¹⁸⁶ According to Andrew Polk, China director at the financial consultancy Medley Global Advisors, the ability of the PBOC to inject liquidity through the interbank system, the stability of large Chinese banks' capital supported by China's high savings rate, and limited national exposure to city-level banks would enable the government to manage existing debt obligations and prevent a nationwide financial crisis. But Mr. Polk noted that the rising number of nonperforming loans (NPLs) could create localized financial crises in heavy industry and SOE-dependent provinces in the northeast.¹⁸⁷ These rising debt obligations raise concerns about China's ability to finance reforms laid out in the 13th FYP.¹⁸⁸ (For more information on China's rising debt levels, see Chapter 1, Section 1, "Year in Review: Economics and Trade"; for more on the challenges associated with SOE debt, see Chapter 1, Section 2, "State-Owned Enterprises, Overcapacity, and China's Market Economy Status.")

* Special drawing rights (SDR) are the International Monetary Fund's (IMF) international reserve asset made up of five major reserve currencies. In November 2015, the IMF determined that the RMB had met its "freely usable" criterion and voted to include the RMB as part of the SDR, validating the PBOC's reform efforts over the last year. For more information, see Eswar S. Prasad, "China's Efforts to Expand the International Use of the Renminbi," (prepared for the U.S.-China Economic and Security Review Commission), February 4, 2016, 82–89.

Figure 4: China's Total Debt-to-GDP Ratio, 2007–Q1 2016

Source: Bank of International Settlements, "Long Series on Total Credit to the Non-financial Sectors," September 8, 2016.

Mounting Debt Challenges for Local Governments

China's central-local government fiscal system allocates 53 percent of tax revenue to local governments, but requires local governments to fund 85 percent of centrally mandated programs.¹⁸⁹ To bridge the revenue gap, local governments have relied on off-balance-sheet local government financing vehicles (LGFVs)* and sales of land-use rights, commonly seized from local farmers at below-market prices.¹⁹⁰ The total size of local government debt, including LGFVs, is not known. China's National Audit Office reported that LGFV debt reached \$3.4 trillion (RMB 23 trillion) in 2015, but this number only measures direct LGFV debt for local infrastructure projects and does not incorporate all the commercial projects that LGFVs are now involved in.[†] A September 2016 paper from the Brookings Institution estimated that LGFVs financed around three-quarters of China's fiscal stimulus in 2009 and 2010, and that after the stimulus, local governments used LGFVs to obtain financing for local champions and infrastructure projects, creating around \$7.2 trillion (RMB 48 trillion) in LGFV debt by 2015.¹⁹¹

In 2014, the State Council's amendments to the *National Budget Law* outlined its fiscal restructuring plan to bring off-balance sheet borrowing onto the budget, reduce the risk of local government default, and create more affordable revenue sources.¹⁹² Reforms since 2014 were aimed at reducing the debt burden and bringing all off-balance-sheet borrowing into the official budget. According to a

* LGFVs use land and other government assets as collateral to raise funds for major infrastructure and real estate projects.

† The China-based financial database WIND, which measures only LGFVs that issue bonds, found that LGFV debt totaled \$5.5–5.6 trillion (RMB 37–38 trillion) in 2015. Chong-En Bai, Chang-Tai Hsieh, and Zheng (Michael) Song, "The Long Shadow of a Fiscal Expansion," *Brookings Papers on Economic Activity*, Conference Draft, September 15–16, 2016, 12–13.

2016 International Monetary Fund (IMF) report, following these reforms, China's general government debt jumped from 15.2 percent of GDP in 2013 to 38.5 percent of GDP in 2014.¹⁹³ Although off-balance-sheet borrowing is officially prohibited, Chinese officials have acknowledged that some local governments continue to use LGFVs, highlighting the difficulty of implementation.¹⁹⁴ Recent economic weakness has slowed growth in tax revenue, so it is more difficult for local governments, particularly in poorer provinces, to service their debt.¹⁹⁵

Local government expenditures are also growing, further stretching already tight budgets. The Chinese government estimates that achieving three of the 13th FYP's objectives will require \$8.1 trillion (RMB 54 trillion) of public and private investment by 2020 (see Table 2 for the costs of select 13th FYP initiatives). In addition, the Chinese Academy of Social Sciences, a government think tank, estimated that pension funds, currently underfunded with low returns, could reach a cumulative shortfall of \$119.7 trillion (RMB 802 trillion) from 2014 to 2050.¹⁹⁶ Chinese provinces are already beginning to experience such shortfalls: in 2015, pension payouts exceeded contributions in six provinces (Heilongjiang, Liaoning, Jilin, Hebei, Shaanxi, and Qinghai).¹⁹⁷ In March 2016, Premier Li announced that to partially offset local governments' rising expenditures, there will be a 12.2 percent increase in central to local transfer payments and the central government's fiscal deficit will increase from \$238.8 billion (RMB 1.6 trillion) in 2015 to \$328.4 billion (RMB 2.2 trillion) in 2016, the highest deficit in six years.¹⁹⁸ Although the central government's efforts to raise funds are important, they are not enough; China's current fiscal system simply cannot fully finance the reform agenda.¹⁹⁹

Table 2: Expected Total Costs of Select Initiatives under the 13th FYP

Initiatives	Estimated Public and Private Sector Costs (2020)
Urbanization	\$6.3 trillion (RMB 42 trillion)
Healthcare	\$298.9 billion (RMB 2 trillion)
Clean Energy and Environmental Priorities	\$1.5 trillion (RMB 10 trillion)
TOTAL	\$8.1 trillion (RMB 54 trillion)

Note: Urbanization cost estimates are from 2014 to 2020. Healthcare expenditures are based on a study by the World Bank, Chinese government agencies, and Chinese researchers that calculated a 9.4 percent annual increase in real healthcare costs from 2015 to 2020 under a business-as-usual scenario.

Source: Amy He, "The World's Biggest Uprooting," *China Daily*, April 11, 2014; World Bank Group et al., "Deepening Health Reform in China: Building High-Quality and Value-Based Service Delivery," July 22, 2016, 14–15; and People's Bank of China and U.N. Environment Program, *Establishing China's Green Financial System: Report of the Green Finance Task Force*, April 2015, 5.

Fiscal Reform

The Chinese government is reforming its fiscal system to match responsibilities with revenue sources and to adjust tax distribution in order to create more reliable, stable sources of revenue for local governments, according to Yilin Hou, professor of public adminis-

tration and international affairs at Syracuse University.²⁰⁰ The 13th FYP reiterates the reform commitments outlined in the 2014 National Budget Law and the Third, Fourth, and Fifth Plenums.²⁰¹ But while current fiscal reforms have focused on restructuring existing debt obligations and clarifying central-local responsibilities, announced reforms are not creating new, sustainable sources of funding required for China's broader reform agenda.²⁰² Key developments in fiscal reform over the last year include:

- *Delineation of central-local tax collection and expenditure responsibilities:* In August 2016, the State Council released the *Guiding Opinions on Promoting Central-Local Fiscal Power and Expenditure Responsibilities Reform*, which seeks to delineate the tax collection and expenditure responsibilities of central and local governments. It set aside for central government financing: national defense, foreign policy, national security, immigration, highways for national defense, oversight over boundary waterways, national infectious disease response, national communications channels, usage of strategic natural resources, and safeguarding basic public services. Local governments will be responsible for providing public security, municipal transportation, rural roads, urban and rural community affairs and other functions with strong regional benefits, and information related to basic public services for local residents. Local and central governments will share expenditures for overlapping responsibilities such as environmental protection and public services (including basic pension, basic public healthcare, and compulsory education). Local governments will be able to issue government bonds and receive central government transfer payments to make up for any gaps in funding these areas of responsibility. In addition, provincial governments are to finance a greater share of municipal and village government expenditures. These reforms will be gradually implemented over the next five years beginning this year with fiscal reforms related to national defense, national security, foreign affairs, public security, and basic public services, and the roll-out of provincial governments' financial assistance to fiscally-strapped municipal and village governments. In 2017–2018, the Chinese government will gradually reform the fiscal system related to education, healthcare, environmental protection, and transportation. In 2019–2020, the Chinese government plans to finalize a clear delineation of central-local government tax powers and expenditure responsibilities.²⁰³
- *Roll-out of value-added tax (VAT) * completed:* On May 1, 2016, the State Administration of Taxation and the Ministry of Finance finished their nearly three-decades-long roll-out of the VAT by expanding the VAT to the construction, real estate, financial, and consumer services industries.²⁰⁴ The VAT re-

*VAT is calculated based on the difference between a good's price before taxes and its cost of production. The VAT will apply to imports as a withholding based on the nature of service provided; exports are generally exempt or roughly zero. KPMG, "China Tax Alert," Issue 9, March 2016.

places the “business tax”^{*} that created double taxation issues for the service sector.²⁰⁵ The service sector is expected to benefit from the \$77.3 billion (RMB 500 billion) reduction in taxes this year, boosting growth and facilitating China’s rebalance to more service-driven and consumption-led growth.²⁰⁶ At the same time, this transition will reduce government revenue by the same amount, placing additional strain on local government finances. Local governments relied on the business tax as one of their largest sources of revenue.²⁰⁷ To offset this loss, the central government has raised local governments’ share of VAT revenue from 25 percent to 50 percent.²⁰⁸

- *Expansion of debt-for-bonds swaps:* In June 2015, the Ministry of Finance launched a debt-for-bonds swap program that converted high-risk local government debt due in 2015 and 2016 to lower-yielding, longer-maturity municipal bonds.²⁰⁹ This program has been instrumental in preventing local government defaults and reducing their burden of repayments.²¹⁰ Since the program began, local governments have issued a total of \$925.4 billion (RMB 6.2 trillion) in swaps, according to analysis by the bond credit rating firm Moody’s.²¹¹ Moody’s further estimated that 29 of China’s 32 provinces have issued bonds to refinance 48 percent of their estimated debt due in 2016.[†] However, this policy only bides time. New sources of local government revenue need to be created to eventually pay off this debt and prevent such reckless borrowing in the future.²¹²
- *Renewed call for property tax:* Revenue from land use is finite, and Dr. Hou testified before the Commission that implementing a recurrent property tax [‡] will create the sustainable, long-term tax base that local governments need and slow the rise of housing prices by implementing a cost for owning a home.²¹³ The central government began calling for a property tax in 2003, but significant bureaucratic and logistical hurdles continue to stymie progress.²¹⁴ The first pilot property tax programs (in Chongqing and Shanghai municipalities) were launched in 2011 but generated low levels of revenue due to lax enforcement and widespread exemptions.²¹⁵ In March 2015, the Ministry of Land and Resources launched a nationwide property registration system that sets the stage for a nationwide property tax and expanded the crackdown on official corruption.²¹⁶ The 13th FYP repeats calls for a property tax, but the Chinese government has not announced any reforms despite a 2017 deadline for the National People’s Congress to enact a property tax.²¹⁷

^{*} Business tax is calculated based on the gross revenue of a business.

[†] At least 40 percent of the bonds issued in the first half of 2016 have maturities of seven years or more. Nicholas Zhu, “Regional and Local Governments—China: Key Factors Shaping Standalone Credit Strength,” August 24, 2016, *Moody’s Investors Service*, 8–9.

[‡] China’s current taxes on property and land include urban and township land use tax, the farmland occupancy tax, the deed tax, stamp duties, and a one-off property tax levied on the original purchase price or construction value net of 10–30 percent of value in urban areas. W. Raphael Lam and Philippe Wingender, “China: How Can Revenue Reform Contribute to Inclusive and Sustainable Growth?” *International Monetary Fund*, March 2015.

Financial Sector Reform

China's financial sector reforms aim to expand access and mobility of capital accounts,* increase the flexibility of its exchange rate, and build strong financial institutions. In the last year, the PBOC has made progress in banking sector reform with liberalized deposit rates, establishment of an explicit deposit insurance scheme, and opening of China's banking sector to private Chinese firms.²¹⁸ Mr. Polk in a meeting with the Commission in Beijing explained that in attempting to simultaneously defend its exchange rate, keep interest rates low, and open up capital accounts, the Chinese government is facing a classic economic policy trilemma.† As the ability to move capital in and out of China increases, Chinese citizens and investors will pursue higher returns abroad, placing pressure on China's currency to devalue.²¹⁹ To maintain the value of the RMB, the PBOC must use its foreign reserves to buy RMB. Facing significant capital outflows in 2015, the PBOC bought up RMB with its foreign exchange reserves to maintain demand, leading to a \$438.1 billion decline in foreign reserves; foreign reserves largely stabilized in the first eight months of 2016, dropping just \$45.7 billion to \$3.2 trillion.²²⁰ Furthermore, efforts to strengthen financial institutions, such as enhanced auditing and accounting standards, strong regulatory frameworks, and corporate governance—necessary to increase the liquidity of financial markets and attract foreign investors—have proceeded much more slowly.²²¹

The CCP remains unwilling to relinquish control over how laws and regulations are implemented, and its concerns over social stability have hindered efforts to impose hard borrowing constraints on bankrupt zombie‡ firms.²²² Instead, China is resurrecting the securitized debt market and debt-for-equity swaps to address its rising number of NPLs. According to James Daniel, José Garrido, and Marina Moretti, analysts at the IMF, these programs “are not comprehensive solutions by themselves—indeed, they could worsen the problem, for example, by allowing zombie firms to keep going.”²²³ A 2016 IMF report found the amount of off-balance-sheet borrowing, commonly known as shadow banking,§ grew 48 percent to reach around \$6 trillion (RMB 40 trillion) in 2015, equal to 58 percent of China's GDP and 40 percent of bank's corporate debt.²²⁴ Chinese banks, particularly smaller banks, accounted for 38 percent of this shadow lending due in part to banks repackaging NPLs as investment securities to avoid increasing their NPL levels.²²⁵

* Capital accounts encompass foreign direct investment, portfolio investments such as equities, and bank borrowing. M. Ayhan Kose and Eswar Prasad, “Capital Accounts: Liberalize or Not?” *International Monetary Fund*.

† Under the “trilemma,” also known as the “impossible trinity,” a government can maintain only two of the following three policies: (1) a fixed (or managed) exchange rate, (2) an independent monetary policy, or (3) free international capital flows. The United States maintains open capital markets and control over both the money supply and interest rates, but has relinquished control over the dollar exchange rate.

‡ A “zombie” company generates only enough revenue to repay the interest on its debt. Because banks are reluctant to take the losses from a write-down of this debt and apply forbearance, these indebted firms are given additional time to repay loans. Hugh Pym, “Zombie Companies Eating Away at Economic Growth,” *BBC*, November 13, 2012.

§ Shadow banking is lending—such as wealth management products, credit guarantees, entrusted loans, and peer-to-peer lending—that occurs outside of the official banking system. For more information on China's shadow banking sector, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 3, “Governance and Accountability in China's Financial System,” in *2013 Annual Report to Congress*, November 2013, 113–152.

Approximately half of these unregulated products are at risk of default or loss, which could create liquidity challenges for China's financial system through the interbank market or high exposure of smaller Chinese banks.²²⁶ An assessment of major financial sector reforms finds the Chinese government has:

- *Liberalized deposit interest rates:* The Chinese government removed all formal interest rate controls in the fourth quarter of 2015, introducing market drivers into China's state-run banking sector.²²⁷ Competition to attract depositors will increase interest rates, and banks will need to raise their returns from loans to offset these higher costs.²²⁸ According to a 2016 report by the IMF, approximately 40 percent of bank loans carry an interest rate more than 10 percent higher than the benchmark rate, which should lead to better allocation of capital toward higher-yield, private sector investments.²²⁹
- *Reopened securitization market:* In May 2016, China reopened its securitized debt market, eight years after regulators closed the market at the onset of the global financial crisis. Securitization allows banks to sell NPLs to investors by repackaging them as securities or transferring them to special asset management companies.²³⁰ Wary of the risks associated with securitization, Beijing has opted to first test the approach through five state-owned banks* and the China Merchants Bank † with quotas for NPL-backed securities totaling \$7.7 billion (RMB 50 billion).²³¹ The first banks to participate, the Bank of China and China Merchants Bank, announced in May 2016 a plan to issue a combined \$79.7 million (RMB 534 million) worth of NPL-backed securities.²³² In July 2016, the Agricultural Bank of China announced it will be selling \$1.6 billion (RMB 10.7 billion) in NPL-backed securities, the largest sale under the pilot program.²³³ Beijing hopes NPL securitization can help improve bank balance sheets and generate liquidity, but purchasers of these securitized bad loans are largely other state-owned banks, which simply cycles these debts around different banks and other financial intermediaries within China.²³⁴
- *Debt-for-equity swaps:* In July 2016, the State Council approved the rollout of a program allowing banks to swap NPLs for equity stakes in indebted firms.²³⁵ In August 2016, Sinosteel Corporation, a central SOE, announced it will be converting half of its \$14.9 billion (RMB 100 billion) debt into three-year convertible bonds that will become equities in the fourth year.²³⁶ A similar program in 1999–2004 successfully removed \$60.4 billion (RMB 405 billion) of NPLs in exchange for stakes in 580 companies.²³⁷ But the debt-for-equity swap proposal does not solve China's debt problem because it allows

*These five state-owned banks are the Industrial and Commercial Bank of China, China Construction Bank, Agricultural Bank of China, Bank of China, and Bank of Communications. Charles Li and Nicholas Health, "Update 1-China Gives Six Banks Quotas for Bad Loan Securitization—Sources," Reuters, February 25, 2016.

† China Merchants Group, a state-owned firm, and its subsidiaries, owned 30 percent of China Merchants Bank shares as of December 2015. China Merchants Bank, "2015 Annual Results Announcement," March 30, 2016, 111.

failing firms to stay operational when they should be shutting down. According to Dr. Prasad, “The program amounts to a sleight of hand that beautifies bank balance sheets but hardly comes to grips with the basic problems of bad loans, distorted incentives in the banking and state enterprise systems, and weak financial regulation.”²³⁸

Capital Controls

The Chinese government maintains an extensive capital control regime that limits the ability of domestic and foreign firms to move capital in and out of China. According to the IMF, as of 2014 China had restrictions on 14 out of the 15 measures of capital inflow openness and 15 out of 16 measures of capital outflow openness.²³⁹ These policies have channeled China’s high household savings into its state-directed banks at the expense of efficient allocation of capital. Over the last decade, the Chinese government has incrementally loosened its controls on the exchange rate and capital flows, but many restrictions remain in place.²⁴⁰ The government fears eliminating these controls too quickly could create monetary, currency, and banking crises, as it has done in other developing countries, but maintaining capital controls hinders efficient allocation of capital and prevents the internationalization of the RMB.²⁴¹ (For more information on China’s exchange rate policies, see Chapter 1, Section 1, “Year in Review: Economics and Trade.”) Key reforms undertaken in the last year include:

- *Widened foreign access to interbank bond market:* Created in 2010, China’s interbank bond market—the third-largest in the world—allows foreign firms and central banks to buy and sell corporate and government bonds.²⁴² In July 2015, the PBOC permitted foreign central banks and sovereign wealth funds access to the bond market without quotas or prior approval,²⁴³ and in April 2016, it removed limits on the size of investment and the ability to remit funds in and out of China.²⁴⁴ In February 2016, the PBOC expanded access to most qualified foreign institutional investors (QFIIs) such as commercial lenders, insurance banks, securities firms, asset managers, and pension and charity funds.²⁴⁵ This opening is a step forward toward capital account convertibility and an effort by the Chinese government to widen the pool of investors and leverage foreign capital, but overall usage remains limited due in part to the rising number of bond defaults.²⁴⁶
- *Loosened capital accounts:* Over the last two decades, the Chinese government has gradually loosened its capital controls to promote the RMB as an international currency and set the stage for China’s emergence as a key player in the global financial market.²⁴⁷ Since 2010, the China Securities Regulatory Commission and State Administration of Foreign Exchange have incrementally expanded the qualified domestic institutional investor (QDII) and QFII schemes that allow greater capital flows while maintaining government control through

quotas, approvals, and ceilings.* In February 2016, the State Administration of Foreign Exchange further loosened QFII restrictions by easing filing procedures for quotas and restrictions on remitting funds in and out of China.²⁴⁸ While the Chinese government has expanded the quota and relaxed restrictions on capital mobility, additional reforms are necessary to entice greater foreign investment.²⁴⁹ Less than 2 percent of A-shares † are foreign owned.²⁵⁰ In June 2016, the U.S.-based stock market index provider MSCI once again delayed inclusion of China's A-shares into its Emerging Markets Index, citing concerns over the suspension of stock trading during last year's stock crisis, ‡ limitations on capital mobility, and the 20 percent monthly repatriation cap.²⁵¹ Beyond the partial opening of access, foreign and domestic investors remain concerned about "weak corporate governance, limited transparency, weak auditing standards, and shoddy accounting practices" in firms listed on China's stock markets.²⁵²

- *Promoted the internationalization of the RMB:* § Dr. Prasad explained that the Chinese government encourages the international use of the RMB by promoting the settlement of trade transactions with the RMB, allowing the issuance of nearly \$400 billion worth of RMB-denominated bonds in Hong Kong, and permitting select banks to offer offshore RMB deposit accounts.²⁵³ The PBOC has established bilateral swap arrangements with 34 other central banks and also sanctioned 17 offshore financial centers outside Hong Kong and Macau.²⁵⁴ In November 2015, the IMF executive board approved the expansion of the Special Drawing Rights basket to include the RMB beginning in October 2016.²⁵⁵ According to Dr. Prasad, the rising prominence of the RMB will gradually erode the dollar's dominant role as a unit of account for international trade transactions and medium of exchange for settling cross-border financial transactions, but will not seriously challenge the dollar's dominant reserve currency status.²⁵⁶ Nevertheless, the RMB is still only the fifth most active currency for global payments and accounts for 1.9 percent of global payments as of July 2016, compared with the U.S. dollar at 41.3 percent and the euro at 31.3 percent.²⁵⁷

* For background on the QDII and QFII, see Nargiza Salidjanova, "The RMB's Long Road to Internationalization," *U.S.-China Economic and Security Review Commission*, September 22, 2014; and Eswar S. Prasad, "China's Efforts to Expand the International Use of the Renminbi," (prepared for the U.S.-China Economic and Security Review Commission), February 4, 2016, 82–89.

† China's A-shares are RMB-denominated equities that can be purchased and traded on China's Shanghai and Shenzhen stock exchanges. Previously restricted to domestic Chinese investors, foreign investors since 2002 have been gradually allowed access to the "A" shares through the QFII, RMB qualified institutional investors (RQFIIs), and Shanghai-Hong Kong Stock Connect. Eswar S. Prasad, "China's Efforts to Expand the International Use of the Renminbi," (prepared for the U.S.-China Economic and Security Review Commission), February 4, 2016, 47–51.

‡ For more information on China's stock market instability, see Nargiza Salidjanova, "China's Stock Market Meltdown Shakes the World, Again," *U.S.-China Economic and Security Review Commission*, January 15, 2016; and Nargiza Salidjanova, "China's Stock Market Collapse and Government's Response," *U.S.-China Economic and Security Review Commission*, July 13, 2015.

§ For more information on RMB internationalization, see Eswar S. Prasad, "China's Efforts to Expand the International Use of the Renminbi," (prepared for the U.S.-China Economic and Security Review Commission), February 4, 2016.

Implications for the United States

The 13th FYP lays out an ambitious economic and social reform agenda to reorient China's economy toward more sustainable economic drivers: domestic consumption and services. If implemented, China's focus on improving the quality of its public services, reducing its environmental footprint, and opening up the service sector provides numerous opportunities for U.S. businesses and opens avenues for U.S.-China bilateral cooperation. But the Chinese government's continued commitment to state-led economic growth is a growing challenge for U.S. and foreign firms seeking to both enter China's market and compete with its state-supported firms abroad. Furthermore, failure to implement politically difficult reforms could ensnare China's economy in a cycle of low growth, dampening global economic prospects and limiting commercial opportunities for U.S. firms.

China's push for urbanization creates new opportunities for domestic and potentially U.S. and other foreign firms in healthcare, services, transportation, and water and wastewater projects—provided these firms have market access. For example, growing Chinese demand for better healthcare could benefit U.S. pharmaceutical, hospital, and insurance firms, according to testimony from Yanzhong Huang, senior fellow for global health at the Council on Foreign Relations and professor at Seton Hall University.²⁵⁸ China's pharmaceutical market is the world's second largest after the United States and is forecast to nearly double from \$105 billion in 2014 to \$200 billion by 2020.²⁵⁹

However, U.S. and other foreign biopharmaceutical firms have raised concerns about the treatment they receive in China, including forced technology transfers, lack of patent protection, long delays in approval of pharmaceutical products, and preferential treatment toward domestic firms and China-manufactured drugs.²⁶⁰ For instance, U.S. biopharmaceutical firms maintain a competitive advantage in terms of size, technology, and R&D investment, but this sector has been identified by the Chinese government as a strategic emerging industry under the 12th FYP and a priority in the 13th FYP.²⁶¹ To support this industry, the Chinese government has provided subsidies for domestic firms ranging from preferential loans to tax breaks on land and capital investments, disadvantaging U.S. and other foreign competitors.²⁶² In addition, China's push for greater localization, a large and qualified talent pool of scientists, and lower operational costs may lead U.S. biopharmaceuticals and medical devices firms to outsource their production to China, eroding U.S. employment in the long run.²⁶³

The enormous growth in China's consumer spending could benefit the U.S. service sector, which in 2014 comprised 80 percent of the U.S. economy, employed 80 percent of the U.S. workforce, and accounted for 30 percent of U.S. exports.²⁶⁴ The degree to which reforms open up China's service sector will determine the overall benefit for U.S. firms and the economy. For instance, the Chinese government's efforts to address its environmental degradation and shift toward a greener economic model may present opportunities for U.S. environmental technology and service firms, which employed around 1.6 million people and exported \$51.2 billion worth

of goods and services in 2015.²⁶⁵ But China maintains “persistent and prohibitive” market barriers for foreign environmental technology firms, such as technical barriers and preferential treatment toward domestic firms.²⁶⁶

As the previous examples indicate, although China’s economic transition presents opportunities, U.S. firms operating in and exporting to China face multiple obstacles, including intellectual property theft, strict market entry criteria, opaque regulations, compulsory joint ventures, and China-specific technical regulations, according to the USTR’s 2015 review of China’s compliance with its World Trade Organization (WTO) obligations.²⁶⁷ The Chinese government continues to control market access with foreign investment restrictions and regulations to create a protected environment for domestic firms, forcing U.S. businesses to shift production and transfer technology and know-how to Chinese competitors.²⁶⁸ U.S. service industries such as healthcare, insurance, financial services, and express delivery services, which could capitalize on demand from China’s growing middle class, continue to face significant market access barriers due to caps on foreign equity, branching restrictions, informal bans on entry, and high capital requirements.²⁶⁹ In addition, the Chinese government requires U.S. automobile and aviation firms to form joint ventures with Chinese competitors and outsource a portion of their manufacturing facilities and supply chains to China as a price of market entry. While outsourcing production may allow for higher exports and sales growth of the parent company, these policies have displaced U.S. workers and may erode U.S. competitiveness and technological advantage going forward.²⁷⁰

The loss of U.S. aerospace and semiconductor production has already reduced the U.S. workforce. From January 2005 to August 2016, the U.S. Department of Labor’s Trade Adjustment Assistance has supported 24,272 former aircraft manufacturing workers and 41,521 former workers in the semiconductor industry that have lost their job due to global trade.* Moreover, the loss of production could undermine the ability of the United States to maintain the most technologically advanced military. According to Brigadier General John Adams, U.S. Army (Ret.), dependence on imports for use in military technologies increases the risk of foreign exploitation and vulnerability to domestic and foreign supply constraints.²⁷¹ For example, the use of imported semiconductors, which are a vital component in many U.S. military platforms and

* A further breakdown of which country these jobs went to is unavailable. The estimated number of workers covered by certified petitions from January 2005 to August 2016 for total aircraft manufacturing workers includes: 14,627 in aircraft manufacturing (NAICS code 336411), 3,570 in aircraft engine and engine parts manufacturing (NAICS code 336412), and 6,075 workers in other aircraft parts and auxiliary equipment manufacturing (NAICS code 336413). The estimated number of workers covered by certified petitions for semiconductor manufacturing jobs includes: 6,473 workers in semiconductor machinery manufacturing (NAICS code 333242) and 35,048 workers in semiconductor and related device manufacturing (NAICS code 334413). U.S. Department of Labor, 36411—*Aircraft Manufacturing: Petitions Filed and Decisions Rendered between 1/1/2005 and 8/31/2016*; U.S. Department of Labor, 336412—*Aircraft Engine and Engine Parts Manufacturing: Petitions Filed and Decisions Rendered between 1/1/2005 and 8/31/2016*; U.S. Department of Labor, 336413—*Other Aircraft Parts and Auxiliary Equipment Manufacturing: Petitions Filed and Decisions Rendered between 1/1/2005 and 8/31/2016*; U.S. Department of Labor, 333242—*Semiconductor Machinery Manufacturing: Petitions Filed and Decisions Rendered between 1/1/2005 and 8/31/2016*; and U.S. Department of Labor, 334413—*Semiconductor and Related Device Manufacturing: Petitions Filed and Decisions Rendered between 1/1/2005 and 8/31/2016*.

weapons, opens the U.S. military to counterfeit chips, sabotage, and disruptions in the global supply chain.²⁷² He further argues the loss of domestic production erodes U.S. institutional and technological know-how and the ability to design and commercialize emerging defense technologies.²⁷³

Beyond constricting the commercial opportunities for U.S. firms, the Chinese government's Made in China 2025 and Internet Plus initiatives and other industrial policies are attempting to replace U.S. firms with domestic firms and technology both in China and abroad. These two initiatives reinforce preferential support for domestic firms and redouble state-directed investment into building leading-edge R&D and domestic production capacity, targeting sectors where the United States is currently the global leader, such as biotechnology and semiconductors. The scale and volume of resources the Chinese government has directed to expanding domestic production capacity in designated sectors is creating economic and national security concerns for United States.

Strong Chinese government support for domestic steel and aluminum firms and more recently solar and wind industries*—designated as strategic emerging industries under the 12th FYP—created overcapacity and distorted global markets, contributing to falling international prices, revenue losses, and layoffs at U.S. competitors.²⁷⁴ China's Ministry of Industry and Information Technology's creation of the nearly \$110 billion national and regional IC funds represents an unprecedented scale of financial support to build China's domestic semiconductor fabrication capacity.²⁷⁵ Center for Strategic and International Studies researchers Chris Johnson and Scott Kennedy warned that "if China does not properly manage the scale of its investment, it could do for semiconductors and other high-tech sectors what it has done for steel and to some extent aluminum."²⁷⁶

China's financial system is largely disconnected from the global financial system due to its tight capital controls, so U.S. exposure to China's banking system and securities and bonds markets remains low. In the first quarter of 2016, China's share of U.S. banking assets from the four largest U.S. banks accounted for less than 1 percent of their consolidated assets (see Table 3). According to the U.S. Department of the Treasury, China accounted for \$107.8 billion (or 1.1 percent) of total U.S. government and private sector holdings of foreign securities at the end of December 2015 (latest available): \$103.1 billion in equities, \$3 billion in long-term debt securities, and \$1.6 billion in short-term securities.²⁷⁷ Capital controls and the RMB's small share of global trade ensure that China's bond market has little regional or international impact.²⁷⁸

*For in-depth analysis of China's wind and solar policies, see Jacob Koch-Weser and Ethan Meick, "China's Wind and Solar Sector: Trends in Deployment, Manufacturing, and Energy Policy," *U.S.-China Economic and Security Review Commission*, March 9, 2015.

Table 3: Exposure of Four Largest U.S. Banks to China, First Quarter of 2016

U.S. Bank	Exposure to China (US\$ billions)	Consolidated Assets (US\$ billions)	China's Share
J.P. Morgan	14.4	2,015.7	0.7%
Wells Fargo	1.4	1,667.8	0.1%
Bank of America	10.0	1,653.9	0.6%
Citigroup	17.9	1,342.6	1.3%
TOTAL	43.7	6,680.0	0.7%

Note: Exposure includes loans, investment securities, and trading and investments. Ranking of four-largest banks based on Federal Reserve ranking of U.S.-chartered commercial banks by consolidated assets as of March 31, 2016.

Source: J.P. Morgan, "Form 10-Q," March 31, 2016; Wells Fargo and Company, "Form 10-Q," March 31, 2016, 25; Bank of America, "Form 10-Q," May 2, 2016, 88; Citigroup, "Form 10-Q," 82; and Federal Reserve of the United States, "Insured U.S.-chartered Commercial Banks That Have Consolidated Assets of \$300 Million or More, Ranked by Consolidated Assets as of March 31, 2016," March 31, 2016.

Limited direct U.S. exposure aside, the impact of China's slowing growth and economic reforms on trade, commodities demand, and investor confidence is affecting global financial markets.²⁷⁹ Given China's close trade ties with the rest of Asia, investors shift capital in and out of the region based on their expectations of China's economic health. Changes in China's economic growth and reform agenda can lead to shocks in U.S. and Asian stock markets.²⁸⁰ Steps toward loosening capital controls and promoting the internationalization of the RMB are increasing China's presence in the international financial system, deepening China's financial linkages with the rest of the world.²⁸¹ More global investors are able to invest in China's stock and bond markets, and more Chinese investors are able to invest internationally. As the Chinese government continues to loosen capital controls, the pool of Chinese investors widens and will shift investments away from U.S. Treasury bonds, preferred by Chinese government investors, toward higher-return investments.²⁸² The rising importance of the Chinese economy combined with the Chinese government's promotion of the RMB as an international currency may gradually erode the dollar's dominant role as a unit of account for international trade and cross-border financial transactions. At present, however, the RMB does not pose a serious challenge to the U.S. dominant reserve currency status.²⁸³

Conclusions

- The 13th Five-Year Plan (FYP) (2016–2020) seeks to address China's "unbalanced, uncoordinated, and unsustainable growth" and create a "moderately prosperous society in all respects" through innovative, open, green, coordinated, and inclusive growth. This agenda strengthens the Chinese Communist Party's and Chinese government's roles in managing the economy while allowing a greater role for markets to determine the allocation of resources in some sectors of the economy.
- The success of the 13th FYP agenda hinges on the Chinese government's willingness to make politically difficult tradeoffs between contradictory policy objectives, overcome entrenched inter-

ests, and allow for greater volatility. While senior leadership has repeatedly reiterated its commitment to enacting reforms, it remains averse to the market volatility and social instability that reforms create.

- The Chinese government is increasing urbanization, expanding public services such as healthcare and education, and pursuing limited reforms to its household registration system to alleviate poverty, boost domestic consumption, improve quality of life, and create new drivers of economic growth. This transition is fueling enormous demand in urban infrastructure and services, but strict market entry criteria, opaque regulations, compulsory joint ventures, and China-specific technical regulations limit the market opportunities for U.S. and other foreign firms in China.
- The Chinese government is building on its success under the 12th FYP to reduce greenhouse gas and air pollution and address the more technically difficult soil and water contamination under the 13th FYP. In 2016, the Ministry of Environmental Protection stepped up enforcement of its environmental standards—a key weakness of environmental reform efforts under the 12th FYP—through its new authority to conduct random inspections of provincial and municipal governments and its expansion of national, real-time monitoring systems.
- China’s renewed focus on indigenous innovation and creation of globally competitive firms in key emerging industries, such as integrated circuits, biomedicines, cloud computing, and e-commerce, targets sectors in which the United States is a global leader. Continued preferential government treatment and financial support of state-owned enterprises and designated industries have lowered these firms’ cost of capital and production, creating a competitive advantage over U.S. and other private firms both within China and abroad.
- The 13th FYP requires an estimated \$8.1 trillion (RMB 54 trillion) of public and private capital just to fund portions of its agenda focused on urbanization, healthcare, and clean energy and environmental remediation. To attract sufficient investment, the Chinese government is pursuing fiscal reform, encouraging public-private partnerships, increasing its government debt, and loosening capital controls. Despite repeated pledges to allow the market to play a bigger role, the Chinese government continues to reinforce the state’s central role in the economy. In addition, fiscal and financial reforms have yet to impose discipline and hard budget constraints on borrowers.

Addendum I: Key Targets in China's 12th, and 13th FYPs*

Target	2010 (Actual)	12th FYP (2015 Target)	2015 (Actual)	13th FYP (2020 Target) [Average Annual Rate]
GDP+	—	—	6.77 billion RMB	>9.27 billion RMB (E)
Average GDP Growth	11.2%	7% (E)	7.8%	>6.5% (E)
Service Sector as % of GDP	43%	47% (E)	50.5%	56% [5.5%] (E)
Overall Labor Productivity (RMB/person)+	—	—	87,000	>120,000 [>6.6%] (E)
Urbanization				
<i>Urbanization Rate (%)</i>	47.5%	51.5% (E)	56.1%	60% [3.9%] (E)
<i>Urban Hukou Household Registration Rate+</i>	—	—	39.9%	45% [5.1%] (E)
R&D as % of GDP	1.75%	2.2% (E)	2.1%	2.5% [0.4%] (E)
Patents per 10,000 People	1.7	3.3 (E)	6.3	12 [5.7%] (E)
Contribution of Science and Technological Advances to Economic Growth+	—	—	55.3% (E)	60% [4.7%] (E)
Fixed Broadband Household Penetration Ratio+	—	—	40%	70% [30%] (E)
Mobile Broadband Sub- scriber Penetration Ratio+	—	—	57%	85% [28%] (E)
Population Cap	1.341 billion	1.39 billion (B)	1.375 billion	—
Average Life Expectancy	73.5	74.5 (E)	76.34	[1 year] (E)
Rate of Nine-Year Compulsory Education Enrollment	89.7%	93% (B)	93%	—
Rate of High School Enrollment	82.5%	87% (E)	87%	—

*In this table, all targets followed by a + next are new and were introduced for the first time in the 13th FYP. All binding targets are marked with a (B), and expected targets an (E). Binding targets are incorporated into the CCP's evaluation criteria for government officials at every level, while expected targets (such as GDP growth) are either given less weight or not included into the CCP evaluation criteria. U.S.-China Economic and Security Review Commission, *Hearing on China Ahead of the 13th Five-Year Plan: Competitiveness and Market Reform*, written testimony of Oliver Melton, April 22, 2015, 5.

Addendum I: Key Targets in China's 12th, and 13th FYPs—*Continued*

Target	2010 (Actual)	12th FYP (2015 Target)	2015 (Actual)	13th FYP (2020 Target) [Average Annual Rate]
Average Years of Education of the Working Population+	—	—	10.23 years	10.8 years [0.57%] (B)
New Urban Jobs Created (5-year total)	57.71 million	45 million (E)	64.31 million	>50 million (E)
Urban Registered Unemployment Rate	4.1%	Under 5%	4.05%	—
Average Growth of Per Capita Disposable Income+	—	—	—	>6.5% (E)
Urban Annual Per Capita Disposable Income (RMB)	19,109 (+9.7%)	>26,810 (>+7%) (E)	7.7%	—
Rural Annual Per Capita Income (RMB)	5,919 (+8.9%)	>8,310 (>+7%) (E)	9.6%	—
Reduce the Number of Rural Residents Living in Poverty+	—	—	—	55.75 million (B)
Basic Retirement Insurance Coverage Rate+	—	—	82%	90% [8%] (E)
Urban Population with Basic Retirement Insurance	257 million	357 million (B)	377 million	—
Working and Non-working Urban and Rural Cooperative Health Care Coverage	—	3% (B)	>3%	—
Construction of Affordable Urban Housing	—	36 million housing units (B)	40.13 million housing units	—
Renovation of Urban Shantytowns+	—	—	—	20 million housing units (B)
Reduction in Energy Intensity per Unit of GDP	19.1%	16% (B)	18.2%	15% (B)
Air Quality+				

Addendum I: Key Targets in China's 12th, and 13th FYPs—Continued

Target	2010 (Actual)	12th FYP (2015 Target)	2015 (Actual)	13th FYP (2020 Target) [Average Annual Rate]
<i>Ratio of Good Air Quality Days in Cities at the Prefecture Level or Above+</i>	—	—	76.7%	>80% (B)
<i>Reduction in the PM_{2.5} Concentration that Exceeds 35 Micrograms per Cubic Meter in Cities at the Prefecture Level or Above+</i>	—	—		18% (B)
Surface Water Quality*+				
<i>Percent of Water Meeting or Exceeding Class III Level+</i>	—	—	66%	>70% (B)
<i>Percent of Water Exceeding the Class V Level+</i>	—	—	9.70%	<5% (B)
Increase of Water Efficiency Coefficient in Agricultural Irrigation	0.5	0.53 (E)	0.532	—
Reduction of Water Consumption per Unit of Industrial Value Added	36.7%	30% (B)	35%	—
Reduction in the Water Consumption per 10,000 RMB of GDP+	—	—	—	23% (B)
Farmland Reserves	121.2 million hectare	121.2 million hectare (B)	124.3 million hectare	124.3 million hectare [0%] (B)
Land Use for New Construction †+	—	—	—	<2.14 million hectares
Forest Development				
<i>Forest Coverage</i>	20.36%	21.66% (B)	21.66%	23.04% [1.38%] (B)

*The Ministry of Environmental Protection classifies surface water into five categories based on toxicological indicators such as chemical oxygen demand, ammonia, mercury, lead, etc. Class I and II can be used as drinking water. Liu Hongqiao, "Who Is Responsible for China's Water?" *ChinaDialogue*, October 4, 2015. For a complete list of these categories, see Ministry of Environmental Protection, *National Standards of the People's Republic of China*, GB3838–2002.

†This binding target is seeking to increase the efficiency of new urban construction by raising population and economic density. Ministry of Land and Resources, *NPC and CPPCC Delegates Passionately Discuss the 13th Five-Year Plan Draft*, March 13, 2016. Staff translation.

Addendum I: Key Targets in China's 12th, and 13th FYPs—Continued

Target	2010 (Actual)	12th FYP (2015 Target)	2015 (Actual)	13th FYP (2020 Target) [Average Annual Rate]
<i>Forest Stock</i>	13.7 trillion cubic meters	14.3 trillion cubic meters	15.1 trillion cubic meters	16.5 trillion cubic meters [14%] (B)
Reduction in Carbon Emissions per Unit of GDP	—	17% (B)	20%	18% (B)
Nonfossil Fuel as a Per- cent of Primary Energy Consumption	8.3%	11.4% (B)	12%	15% [3%] (B)
Reduction of Emission of Major Pollutants				
<i>Reduction in Chemical Oxygen Demand (COD)</i>	—	8% (B)	12.9%	10% (B)
<i>Reduction in Sulphur Dioxide (SO₂)</i>	—	8% (B)	18.0%	10% (B)
<i>Reduction in Ammonia Nitrogen</i>	—	10% (B)	13.0%	15% (B)
<i>Reduction in Nitrous Oxides</i>	—	10% (B)	18.6%	15% (B)

Source: People's Republic of China, *12th Five-Year Plan on National Economic and Social Development*, March 16, 2011. Staff translation; People's Republic of China, *13th Five-Year Plan on National Economic and Social Development*, March 17, 2016. Staff translation.

RECOMMENDATIONS

China's 13th Five-Year Plan

The Commission recommends:

- Congressional committees of jurisdiction hold hearings to:
 - Analyze the impact of China's state-directed plans such as the Made in China 2025 and Internet Plus on U.S. economic competitiveness and national security, and examine the steps Congress can take to strengthen U.S. high-tech and high-value-added industries such as artificial intelligence, autonomous vehicles and systems, and semiconductors.
 - Ensure that U.S. government agencies such as the U.S. Department of Treasury, U.S. Department of Commerce, and the Office of the U.S. Trade Representative have sufficient personnel, funding, and Chinese-language capabilities to examine China's economic and trade policies and China's compliance with their bilateral and multilateral commitments, including the World Trade Organization.
 - Examine U.S. access to China's domestic market, particularly for services and high-tech sectors. This hearing should assess how U.S. government agencies such as the U.S. Department of Commerce and the Office of the U.S. Trade Representative are seeking to increase market access for U.S. firms and explore what additional policy options could be pursued.
- Congress direct the U.S. Department of the Treasury to prepare a report analyzing U.S. exposure to China's financial sector and the impact of China's financial sector reforms on the U.S. and global financial systems. This report should also identify the policies the U.S. government is or should be adopting to protect U.S. interests in response to this changing environment.

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CHAPTER 2

U.S.-CHINA SECURITY RELATIONS

SECTION 1: YEAR IN REVIEW: SECURITY AND FOREIGN AFFAIRS

Introduction

The year 2016 saw Chinese President and General Secretary of the Chinese Communist Party (CCP) Xi Jinping continue to consolidate and grow the power of China's military and security apparatus. This was highlighted in particular by his ambitious new military reform and reorganization; China's continued assertiveness in the South China Sea, even in the face of an international arbitral ruling; demonstrations of the Chinese military's efforts to improve its force projection capabilities; and the Chinese military's expanding global engagement and footprint. This section, based on Commission hearings, discussions with outside experts, and open source research and analysis, discusses these and other trends and developments related to China's territorial disputes, military reforms and modernization, defense budget and procurements, military exercises and training, international defense engagement, and security relations with the United States.

Major Developments in China's National Security and Military Modernization in 2016

China's Maritime Disputes in the South China Sea

After several years of taking increasingly assertive steps to strengthen its position and undermine those of other claimants in the South China Sea disputes,* in 2016 China for the first time faced an international legal ruling regarding its actions in the South China Sea. In July, an arbitral tribunal at the Permanent Court of Arbitration in The Hague issued a ruling on the merits of a case initiated in 2013 by the Philippines † regarding China's claims and activities in the South China Sea. The Philippines' case asked the tribunal, among other things, to declare whether: (1) China's claims based on the nine-dash line—China's vague and expansive demarcation of its claim to around 90 percent of the South China Sea—are invalid under the UN Convention on the Law of the Sea

*Parties to South China Sea disputes include Brunei, China, Malaysia, the Philippines, Taiwan, and Vietnam.

† In 2014, Vietnam submitted a formal statement of interest in the case to the Permanent Court of Arbitration. Carl Thayer, "Vietnam Files Statement of Interest with the Permanent Court of Arbitration," *cogitASIA* (Center for Strategic and International Studies blog), December 15, 2014.

(UNCLOS);* (2) certain land features in the South China Sea are rocks, islands, or low-tide elevations;† and (3) China has interfered with the Philippines’ right to exploit resources within the latter’s claimed waters.¹

In a blow to the credibility of China’s claims, the tribunal ruled overwhelmingly in the Philippines’ favor. The most notable findings of the 479-page ruling included:

- China’s claims to historic rights and resources within the nine-dash line (see Figure 1) have no legal basis.²
- None of China’s claimed land features in the Spratly Islands are islands (and as such, none of China’s claimed features can generate more than 12 nautical miles [nm] of surrounding maritime territory).³
- China violated the Philippines’ sovereign rights by conducting the following activities in the Philippines’ exclusive economic zone: interfering with Philippine oil exploration activities, prohibiting Filipino fishermen from operating, failing to stop Chinese fishermen from operating, and building artificial islands.⁴
- China violated its marine environmental protection obligations under UNCLOS by causing “severe harm to the coral reef environment” with its land reclamation activities and by not preventing the harvesting of endangered species by Chinese fishermen.⁵

While many countries in the region and around the world responded to the ruling with statements of support for international law,⁶ China’s initial response was to reject and attempt to discredit the ruling.⁷ Also, in early August, China’s Supreme People’s Court announced that foreign fishermen who illegally fish in China’s “jurisdictional waters” could be imprisoned for up to one year.⁸ The actions China could take in the longer term to consolidate its territorial claims and register its displeasure with the ruling include, among other things, one or more of the following: increasing its presence and activities in disputed waters; adding arms or defenses to land features it occupies; conducting land reclamation on Scarborough Reef—a coral reef atoll claimed by China, the Philippines, and Taiwan—over which China effectively secured control in 2012; and declaring an air defense identification zone (ADIZ)‡ over part of the South China Sea.

* China is a party to UNCLOS.

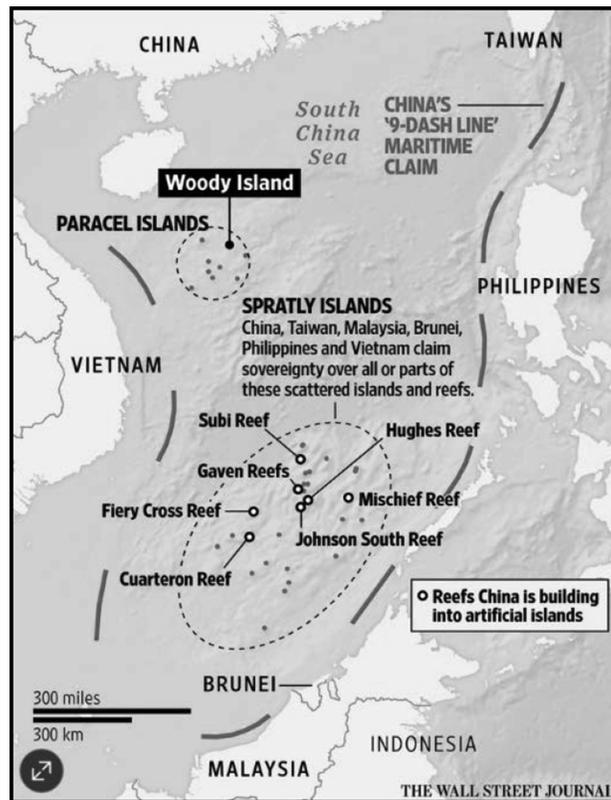
† The distinction, as defined by UNCLOS, between an island, rock, and low-tide elevation is important because each type of feature generates a different maritime entitlement. Islands, which must be above water at high tide and be capable of sustaining human habitation or economic activity of their own, can generate exclusive economic zones. (An exclusive economic zone is a 200-nautical-mile zone extending from a country’s coastline, within which that country can exercise exclusive sovereign rights to explore for and exploit natural resources, but over which it does not have full sovereignty.) Rocks, which are defined as being above water at high tide but unable to sustain human habitation or economic activity, only generate a 12-nautical-mile territorial sea. Low-tide elevations are land features that are submerged at high tide. Unless they are located within the territorial sea of another island or mainland coastline, they do not generate any maritime entitlements. UN Convention on the Law of the Sea, “Part 8: Regime of Islands”; UN Convention on the Law of the Sea, “Part 2: Territorial Sea and Contiguous Zone”; and UN Convention on the Law of the Sea, “Part 5: Exclusive Economic Zone.”

‡ An ADIZ is a publicly declared area, established in international airspace adjacent to a state’s national airspace, in which the state requires that civil aircraft provide aircraft identifiers and location. Its purpose is to allow a state the time and space to identify the nature of approaching aircraft before those aircraft enter national airspace in order to prepare defensive

The ultimate impact of the ruling on China's behavior and the status of the disputes is not yet clear. Because the ruling has no inherent enforcement mechanism, the onus is on the international community to support and initiate means of enforcing the ruling. Among the potential actions for enforcing the tribunal's ruling are freedom of navigation operations, such as those undertaken by the U.S. Navy, and actions in other international legal institutions. For example, Mark Rosen, senior vice president at CNA, a nonprofit research and analysis organization, writes that "the Philippines could petition the International Court of Justice for an order enforcing the tribunal's decision since China cannot veto such a petition and the order would be legally binding upon China."⁹

The ruling aside, China's efforts to advance its position in the South China Sea continued unabated in 2016.

Figure 1: Map of the South China Sea



Source: Chun Han Wong, "U.S., China Trade Familiar Accusations over South China Sea," *Wall Street Journal*, February 18, 2016.

measures if necessary. In November 2013, China established an ADIZ in the East China Sea that encompasses the Senkaku Islands, which Japan administers but over which both countries claim sovereignty. An ADIZ does not have any legal bearing on sovereignty claims. Kimberly Hsu, "Air Defense Identification Zone Intended to Provide China Greater Flexibility to Enforce East China Sea Claims," *U.S.-China Economic and Security Review Commission*, January 14, 2014.

Continued Infrastructure Development on Artificial Islands

After finishing major land reclamation work on seven coral reef atolls in October 2015, China continues to build infrastructure on its 3,200 acres of artificial islands.¹⁰ This construction in the Spratly Islands will help China advance its position in the southern portion of the South China Sea by bolstering its ability to enhance and sustain its maritime law enforcement and military presence. The infrastructure will also serve to improve China's ability to detect and track foreign maritime forces and fishing boats.*¹¹ China has completed runways on three outposts.¹² In January 2016, three Chinese commercial aircraft landed on Fiery Cross Reef—the first aircraft landing on a Chinese runway in the Spratly Islands—and in April a People's Liberation Army (PLA) aircraft landed there.¹³ The latter was the first publicized landing by military aircraft on one of these land features.¹⁴ Within one day of the tribunal's ruling in July, several commercial aircraft requisitioned by the Chinese government had landed on Mischief and Subi reefs.¹⁵ China is also building reinforced aircraft hangars on Fiery Cross, Mischief, and Subi reefs. Each outpost will have enough hangars for 24 fighters and three to four larger military aircraft,¹⁶ such as small transport aircraft (see Figure 2).

Figure 2: Hangars under Construction on China's South China Sea Outposts at Fiery Cross Reef (Left) and Subi Reef (Middle, Right) in the Spratly Islands



Source: Center for Strategic and International Studies, Asia Maritime Transparency Initiative, "Build It and They Will Come," August 9, 2016.

China also continues to build infrastructure to enable large ships to access these outposts and has built surveillance systems, including military radars.¹⁷ There appears to be a high-frequency radar installation on one outpost,¹⁸ which would provide for a large surveillance coverage area.¹⁹

To counter China's land reclamation and infrastructure construction in the Spratly Islands, Vietnam has deployed rocket launchers to five land features it occupies in the Spratly Islands, according to unnamed Western officials interviewed by Reuters. The officials said the launchers were unarmed but could be made operational in two or three days. Vietnam's Ministry of Foreign Affairs said this information was "inaccurate," however.²⁰

*The infrastructure China is building in the Spratly Islands would help it enforce an ADIZ over part of the South China Sea should it decide to declare one there. However, China will have to overcome challenges such as the impact of the harsh maritime environment on the maintenance of aircraft and an underdeveloped joint command structure in the South China Sea. For more information, see Michael Pilger, "ADIZ Update: Enforcement in the East China Sea, Prospects for the South China Sea, and Implications for the United States," *U.S.-China Economic and Security Review Commission*, March 2, 2016, 7–10.

Environmental Impact of China's Island Building in the South China Sea

Between 2013 and 2015, Chinese dredgers deposited sand and gravel on top of about five square miles of coral reefs in the South China Sea.*²¹ In addition, according to John W. McManus, professor of marine biology and fisheries at the University of Miami, China's dredging of sand and gravel for the island building and dredging of channels and harbors at the artificial islands resulted in damage to at least 40.68 square kilometers (km) (15.7 square miles [mi]) of reefs in the Spratly Islands.²² Furthermore, Kent Carpenter, professor of biological sciences at Old Dominion University, whom the tribunal consulted as part of the proceedings in the Philippines' arbitration case, said island building, such as that conducted by China, "removes vital components of available reef habitat that have functioned as a single ecosystem for many generations of reef inhabitants. This causes dramatic reductions in populations and local extinction of prominent fishes and invertebrates."†²³

China's island building will almost certainly contribute to increased Chinese fishing in the surrounding waters. The Chinese government claims these islands will provide Chinese and foreign fishing boats with shelter during storms as well as repair and replenishment services.²⁴ In addition, however, they could exacerbate the already severe problem of fisheries depletion in the South China Sea and will raise the risk of a clash between Chinese fishing boats and those of other claimant countries. Chinese fishing boats regularly ram or otherwise harass other ships in the South China Sea,²⁵ and China's practice of using coast guard ships to protect its fishing boats could further raise the risk of a clash, particularly as the port facilities at China's outposts will enhance the coast guard's ability to operate in the area.

Of further concern is that China's maritime militia, a quasi-military force of fishermen that are tasked by and report to the PLA, has a key role in China's South China Sea strategy. They are trained to participate in a variety of missions, including search and rescue, reconnaissance, deception operations, law enforcement, and "rights protection," which often entails activities like harassing foreign vessels in China's claimed waters.²⁶

These developments are occurring in the context of a looming fisheries crisis in the South China Sea. In an interview with *National Geographic*, Dr. McManus said that due to overfishing,

* Although these reefs may already have been damaged by the widespread harvesting of giant clams in the South China Sea by Chinese fishermen in recent years, coral could have grown there again if they were left undisturbed. However, as long as the reefs are buried, coral will never grow there. Hannah Beech, "The Environment Is the Silent Casualty of Beijing's Ambitions in the South China Sea," *Time*, June 1, 2016; Victor R. Lee, "Satellite Imagery Shows Eocide in the South China Sea," *Diplomat* (Japan), January 16, 2016.

† For more information on the environmental impact of China's island building in the Spratly Islands, see Matthew Southerland, "China's Island Building in the South China Sea: Damage to the Marine Environment, Implications, and International Law," *U.S.-China Economic and Security Review Commission*, April 12, 2016.

**Environmental Impact of China's Island Building
in the South China Sea—Continued**

“What we’re looking at is potentially one of the world’s worst fisheries collapses ever.” He explained, “We’re talking hundreds and hundreds of species that will collapse, and they’ll collapse relatively quickly, one after another.”²⁷

Deployment of Advanced Military Equipment to South China Sea Islands

Since late 2015, China has conducted several rotational deployments of advanced military equipment to Woody Island in the Paracel Islands,* likely signaling to the United States, rival claimants, and Chinese citizens its resolve to protect its sovereignty claims.²⁸ In October 2015, Chinese J–11 fighter aircraft appeared to deploy there,† seemingly in conjunction with training in the South China Sea²⁹ (China deployed them again in February and April 2016).‡³⁰ Then, in February 2016, China deployed two HQ–9 surface-to-air missile batteries.³¹ Although it was not the first time the platform had been deployed to Woody Island, it was the first deployment not associated with a military exercise.³² China removed the missiles in July.³³ It is unclear if and when they will be redeployed there.

Military Presence in the South China Sea

The PLA continues to train for contingencies in the South China Sea. In July, the PLA Navy conducted a large-scale military exercise in the South China Sea near Hainan Province and the Paracel Islands.³⁴ Forces from all three PLA Navy fleets took part in the exercise, which involved surface ships, submarines, navy aviation aircraft, and coastal defense forces and training in anti-air, anti-surface, and anti-submarine warfare.³⁵ The seven-day exercise concluded the day before the arbitral tribunal announced its ruling.³⁶ Prior to the exercise, the Chinese government announced that an area of 100,000 square km (38,610 square mi) where the exercise would be held—which included waters claimed by Viet-

* China took control of the Paracel Islands after a short naval battle with Vietnam in 1974. The Paracel Islands, which are also claimed by Taiwan and Vietnam, are located in the northern part of the South China Sea. Toshi Yoshihara, “The 1974 Paracels Sea Battle: A Campaign Appraisal,” *U.S. Naval War College Review* 69:2 (Spring 2016): 41.

† Two aircraft are seen in photographs posted on China Military Online, a website sponsored by the *People’s Liberation Army Daily*. Although the captions in the photos do not state where the aircraft were located, military experts believe the location to be Woody Island. China Military Online, “Naval Aviation J–11 Fighters Conduct Flight Training,” October 31, 2015; Jun Mai, “Chinese Jets Training with Missiles Fly by Disputed South China Sea Waters near Vietnam in New Response to US Warships,” *South China Morning Post* (Hong Kong), November 2, 2015; and Wendell Minnick, “China Expands Presence with Fighters on Woody Island,” *Defense News*, November 8, 2015.

‡ An unnamed U.S. official told Fox News that under ten military aircraft were observed on Woody Island in February. Commercial satellite imagery showed two J–11 fighter aircraft on Woody Island in April. Lucas Tomlinson, “Exclusive: China Sends Fighter Jets to Contested Island in South China Sea,” Fox News, February 23, 2016; Lucas Tomlinson and Yonat Friling, “Chinese Fighter Jets Seen on Contested South China Sea Island, Evidence of Beijing’s Latest Bold Move,” Fox News, April 12, 2016.

nam—would be off limits.* Starting on July 19, PLA Naval Aviation fighter aircraft conducted a live fire exercise in the South China Sea.³⁷ It is unclear whether the exercise had been planned prior to the tribunal’s announcement.

On July 18, a PLA Air Force spokesperson said the PLA Air Force had recently carried out a combat air patrol near Scarborough Reef and other South China Sea reefs and islands. Among the aircraft that participated in the patrol were H-6K bombers, fighters, and tankers. The spokesperson said the PLA Air Force “will continue to conduct combat patrols on a regular basis in the South China Sea.”³⁸ On August 6, the spokesperson said H-6K bombers, Su-30 fighters, and other aircraft conducted another patrol above the Spratly Islands and Scarborough Reef as part of combat training.³⁹

Dispute Diplomacy

During the three and a half years between the initiation of the Philippines’ arbitration case and the tribunal’s ruling, China expended resources and energy to discredit the Philippines’ case and the legitimacy of the proceedings, arguing that it would “neither accept nor participate in the arbitration.”⁴⁰ In the months leading up to the ruling in particular, Beijing began a campaign of diplomatic warfare⁴¹ to solicit support from other countries, and suggested in June that nearly 60 countries had pledged support to China’s position,⁴² although in reality only 31 foreign governments made public statements to that effect before the ruling.[†]⁴³ The Chinese government and government-affiliated entities also placed advertisements and editorials in overseas media outlets, including the United States’ *Washington Post*⁴⁴ and *San Francisco Chronicle*,⁴⁵ the UK’s *Telegraph*,⁴⁶ and Australia’s *The Age*,⁴⁷ supporting Beijing’s stance on the arbitration. In addition, following the tribunal’s ruling, a three-minute video supporting China’s position played on a large screen 120 times per day above New York City’s Times Square for 12 days in July and August.[‡]⁴⁸ Through diplomatic pressure and economic leverage China has also succeeded in preventing other South China Sea claimants from rallying in opposition to China’s activities or in support of the legal arbitration process. Members of the Association of Southeast Asian Nations (ASEAN) §—five of whom have claims in the South China Sea—

*State practice under international law has been that countries issue these kinds of notices prior to military exercises for safety reasons, but they cannot prohibit ships and aircraft from entering the area. Steve Mollman, “China Illegally Cordoned off a Huge Part of the South China Sea for Military Drills—And Will Likely Do So Again,” *Quartz*, July 11, 2016.

† These were Afghanistan, Algeria, Bahrain, Comoros, Djibouti, Egypt, The Gambia, Iraq, Jordan, Kenya, Kuwait, Lebanon, Lesotho, Liberia, Libya, Mauritania, Morocco, Niger, Oman, Palestine, Papua New Guinea, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Togo, Tunisia, United Arab Emirates, Vanuatu, and Yemen. The joint statement between China and the 21 countries of the Arab League at the China-Arab States Cooperation Forum in June 2016, which included a section on the resolution of territorial and maritime disputes, is counted as a statement of support from each of these countries. Center for Strategic and International Studies, Asia Maritime Transparency Initiative, *Arbitration Support Tracker*, June 15, 2016.

‡ In 2015, the privately-funded Hainan Nanhai Research Foundation, which is affiliated with China’s National Institute for South China Sea Studies, founded a think tank called the Institute for China-America Studies. The institute is located in Washington, DC. Institute for China-America Studies; Jeremy Page, “New Chinese Institute to Tackle Thorny Island Dispute,” *Wall Street Journal*, May 1, 2015.

§ ASEAN members are Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

have failed to endorse a joint plan of action. The joint statement issued by the body after its first meeting following the tribunal's ruling did not include language regarding the ruling.⁴⁹

The Philippines' election of Rodrigo Duterte, whose presidential campaign featured contradictory approaches to resolving the Philippines' dispute with China,* raises questions about the direction of China-Philippines relations going forward. While the bilateral relationship was strained under former president Benigno Aquino Jr., who took a firm stand on the Philippines' South China Sea claims, Mr. Duterte suggested on the campaign trail and while in office that his government might be more amenable to negotiating bilaterally with Beijing. Appearing to have sensed an opportunity to influence the new administration, Beijing pursued a two-pronged approach: strongly condemning the Philippines' case at The Hague while conducting friendly outreach to the new administration.⁵⁰ It is not yet clear whether this approach will bear fruit for Beijing's South China Sea strategy. President Duterte enthusiastically welcomed the tribunal ruling, and the Philippines' foreign secretary rejected his Chinese counterpart's offer to enter bilateral negotiations over the dispute "outside of and in disregard of the arbitral ruling." However, in August, former Philippines president Fidel Ramos traveled to Hong Kong at the request of President Duterte for unofficial meetings with Chinese interlocutors and President Duterte said bilateral talks on the dispute between Manila and Beijing would begin "within the year."⁵¹

Following U.S. criticisms of extrajudicial killings associated with President Duterte's ongoing counternarcotics campaign, President Duterte in September seemed to signal a turn away from the Philippines' previously robust defense relations with the United States. In October, the Philippines minister of Defense announced the suspension of joint patrols with the United States in the South China Sea, and indicated he may request the withdrawal of U.S. military advisers stationed in the country once the Philippines military is able to carry out counterterrorism operations on its own—perhaps years away.⁵² Around the same time, President Duterte said his administration should explore procuring arms from China and Russia, suggesting a departure from the country's longstanding reliance on U.S. arms exports (underscored by his statement that, "We don't need F-16 jets, that is of no use to us").⁵³ In these and other remarks, he emphasized his personal dislike of the United States, culminating in his declaration of a "separation from the United States" during a state visit to Beijing in October, although he later clarified this did not mean a severance of ties.⁵⁴ As this Report went to print, the U.S. Department of Defense (DOD) had not received any formal request for the withdrawal of U.S. forces or other specific changes in the U.S.-Philippines military relationship.⁵⁵ Should President Duterte's anti-American rhetoric translate to real policy shifts, it could have significant consequences for the ongoing South China Sea disputes and regional security.

*During his presidential campaign, Mr. Duterte made several inflammatory and contradictory remarks about how his administration would handle the South China Sea dispute with China: he alternately asserted he would personally ride a jet ski out to defend the Philippines' claimed islands and strike a deal with China to resolve the dispute. *Economist*, "Change of Command in the Philippines: Talk Duterte to Me," July 9, 2016.

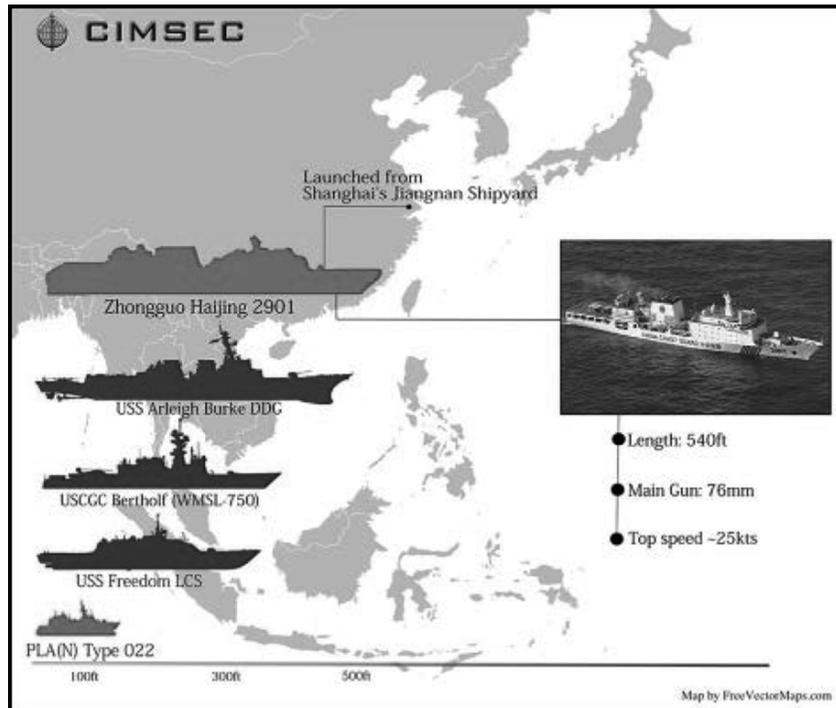
China's Maritime Disputes in the East China Sea

The dispute between China and Japan over the Senkaku Islands (called the Diaoyu Islands by China) entered a period of increased risk of escalation in 2016 as PLA Navy ships sailed within 24 nm of the islands for the first time in June. On June 9, a PLA Navy frigate entered the Japanese-administered contiguous zone—a 12-nm area adjacent to the territorial sea*—around the Senkakus; a few days later, a PLA Navy intelligence-gathering ship entered the territorial sea.⁵⁶ Previously, only China Coast Guard and other Chinese maritime law enforcement ships had patrolled within the contiguous zone. These developments followed an announcement by Japan's chief cabinet secretary in January that the Japanese government was prepared to deploy the Japan Maritime Self-Defense Force to conduct “a maritime policing operation” in response to a foreign warship that conducts activities not allowed under the principle of “innocent passage” in Japan's territorial waters.⁵⁷ The Japanese government announced that on August 6, about 230 Chinese fishing boats had sailed to the waters near the Senkaku Islands and that 6 China Coast Guard ships had entered the Senkaku Islands' contiguous zone.⁵⁸

Meanwhile, the average tonnage of China Coast Guard ships that patrol around the Senkakus increased by about 45 percent between 2014 and 2015.⁵⁹ China is also likely to deploy to the Senkakus its new China Coast Guard ship *Haijing 2901*, which is larger than the U.S. Navy's Arleigh Burke-class destroyer (see Figure 3).⁶⁰ *Haijing 2901* is armed with 76 millimeter guns.⁶¹ In contrast, the Japan Coast Guard unit dedicated to patrolling the Senkakus has ten new ships that are of much smaller tonnage.⁶² According to the Center for Strategic and International Studies' Asia Maritime Transparency Initiative, “Tokyo understands that the increasing size and capabilities of [China Coast Guard] vessels around the Senkakus present a unique challenge—sooner or later [Japan Coast Guard] counterparts could face a situation in which they cannot maintain their decades-long administrative control over the waters around the islets, at least without assistance from the Japan Maritime Self-Defense Force.”⁶³ If Japan responds to Chinese patrols with military ships, tensions would increase, as would the risk of miscalculation or an accidental collision, which could spark a crisis.

*In its territorial sea, a state has full sovereignty, subject to the right of innocent passage. In its contiguous zone, a state can enforce customs-related laws. Under UNCLOS, foreign civilian and military ships may transit through a country's territorial sea according to the principle of innocent passage, which prohibits activities that are “prejudicial to the peace, good order or security of the coastal State,” such as military exercises or intelligence gathering. UN Convention on the Law of the Sea, “Part 2: Territorial Sea and Contiguous Zone.”

Figure 3: Comparison of the China Coast Guard *Haijing 2901* with U.S. Navy and PLA Navy Ships



Source: Ryan Martinson, "East Asian Security in the Age of the Chinese Mega-Cutter," *Center for International Maritime Security*, July 3, 2015.

In addition, scrambles* by Japanese fighter aircraft in response to Chinese aircraft continue to increase, suggesting an uptick in Chinese air activity around the islands and raising the risk of an accidental collision.⁶⁴ In its 2015 fiscal year (which ended on March 31, 2016), Japan scrambled fighters 571 times against Chinese aircraft after 464 such scrambles in fiscal year 2014.⁶⁵ The number of scrambles against Chinese aircraft in the first three months of 2016 more than doubled in comparison to the same period in 2015.⁶⁶ Scrambles against Chinese aircraft increased again during the next three months, jumping from 114 during that same period in 2015 to around 200.⁶⁷ The head of public affairs at the Japanese Self-Defense Force's Joint Staff said in April 2016, "China is modernizing its air force and is clearly aiming to improve its air combat capability in faraway skies ... Concrete activities based on those targets are reflected in these numbers."⁶⁸ Regarding a scramble by Japanese fighter aircraft over the East China Sea on June 17, China's Ministry of Defense asserted that the aircraft took "provocative" actions against Chinese fighter aircraft, an assertion the Japanese government denied.⁶⁹

* In military aviation, scrambling refers to directing the immediate takeoff of aircraft from a ground alert condition of readiness to react to a potential air threat.

Reform and Reorganization of the PLA

In January 2016, China began executing the most sweeping reform and reorganization of the PLA* since the 1950s.⁷⁰ The intent of this reform is to strengthen the CCP's control over the military and improve the PLA's capability to fight regional conflicts at greater distances from China through integrated joint operations.[†]⁷¹ The reforms, announced in December 2015 by President Xi, called for restructuring China's leading military authority, the Central Military Commission, expanding the service headquarters system, transitioning the PLA from a military region to a theater joint command structure, and eventually reducing the PLA by 300,000 troops to a force size of two million personnel.⁷² China has indicated these reforms will be completed by 2020.⁷³

Reform Objectives

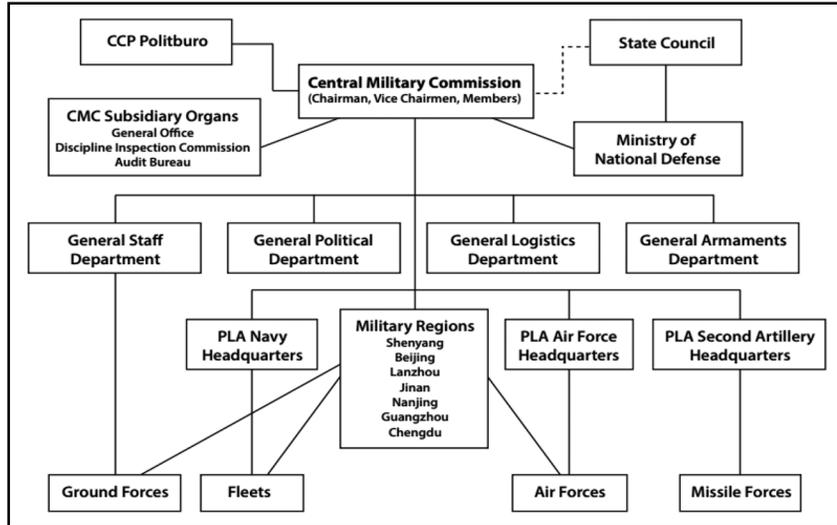
The Third Plenary Session of the CCP's 18th Central Committee, held in November 2013, established a series of objectives for PLA reforms to include restructuring the command institutions for joint operations, which led to the reorganization of the Central Military Commission's four general departments and establishment of theater joint commands.⁷⁴ A 2014 article published online in a weekly Chinese state-run newsmagazine noted that the "core objective" of reorganization was adapting the PLA to the "operational needs of modern warfare, to build . . . systems and mechanisms . . . conducive to joint operations, to advance fusion and integration of operational elements, and to achieve joint operations."⁷⁵ The reforms establish two lines of authority under the Central Military Commission: the first line creates a flatter command and control relationship with theater commands, and the second line establishes a true services structure‡ focused on the "train, man, and equip" mission for maintaining and improving the PLA.⁷⁶ Phillip C. Saunders, director of the Center for the Study of Chinese Military Affairs at the U.S. National Defense University, and Joel Wuthnow, research fellow at the Center for the Study of Chinese Military Affairs, note military reforms are intended to "tighten central political control over a force that was seen as increasingly corrupt and to build the PLA into a credible joint warfighting entity."⁷⁷

*As noted elsewhere in this Report, China's definition of "reform" often differs from that of the United States and other countries. China's military reforms, which are intended to improve the PLA's ability to achieve a true joint warfighting capability and address corruption, will not necessarily unfold along the same lines of past U.S. military reforms. This latest reform is the PLA's 11th since 1949. The largest previous structural reorganization occurred in 1985 when the PLA's 13 military regions were restructured and reduced to 7 (Shenyang, Beijing, Lanzhou, Jinan, Nanjing, Guangzhou, and Chengdu). For additional information concerning PLA troop reductions and reorganizations since 1949, see Kevin McCauley, "PLA Transformation: Difficult Military Reforms Begin," *Jamestown Foundation*, September 18, 2015.

†Integrated joint operations incorporate all service elements in a common network under a unified commander over the entire battlespace, rather than having each service conducting sequential operations within a campaign. Roy Kamphausen, David Lai, and Andrew Scobell, eds., *The PLA at Home and Abroad: Assessing the Operational Capabilities of China's Military*, Strategic Studies Institute, 2010, 208–209; U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2009*, April 2009, 15; and Major General Zhan Yu, "A Study of Theory of Integrated Joint Operations," *China Military Sciences* 20:6, 2007.

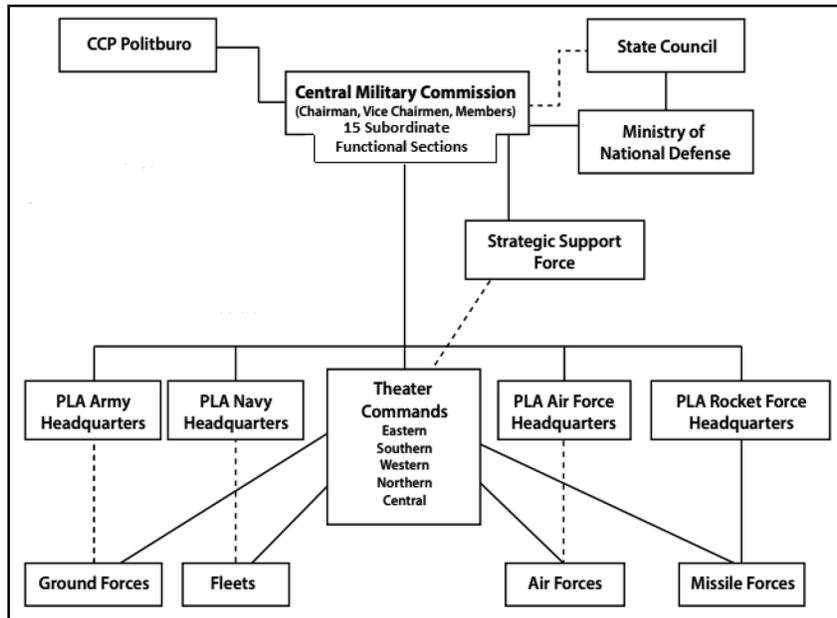
‡The PLA Army, unlike the navy and the air force, did not have a separate national-level command headquarters in Beijing as the general departments acted as the national-level army headquarters prior to the reorganization of the Central Military Commission. Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, Routledge, 2006. 31.

Figure 4A: PLA Organizational Structure before Reforms



Source: Adapted from Phillip C. Saunders and Joel Wuthnow, "China's Goldwater-Nichols? Assessing PLA Organizational Reforms," *Institute for National Strategic Studies*, April 2016, 2-3.

Figure 4B: PLA Organizational Structure after Reforms



Source: Adapted from Phillip C. Saunders and Joel Wuthnow, "China's Goldwater-Nichols? Assessing PLA Organizational Reforms," *Institute for National Strategic Studies*, April 2016, 2-3.

National-Level Military Reform and Reorganization

In an effort to improve command and control as well as tighten political control over the PLA, the four general departments of the Central Military Commission (the general staff, political, logistics, and armaments departments) were reorganized into 15 subordinate functional sections in January 2016 (see Figures 4A and 4B).^{* 78} One of the more important developments resulting from the abolishment of the general departments was the subsequent establishment of the Joint Staff Department, which will serve as a direct command and control link between the Central Military Commission and operational forces in the five new joint theater commands.⁷⁹ With this reorganization, the oversight functions that had previously resided in the General Staff Department, such as military training and education, were transferred to other new departments or offices, leaving the Joint Staff Department to focus on providing operational guidance to the PLA. However, it is too early to tell if this change will improve the Central Military Commission's command and control of PLA joint operations conducted at the theater level.^{† 80}

In addition to improving national-level command and control, military reforms also provide President Xi an opportunity to tighten CCP control over the PLA. Dr. Saunders and Dr. Wuthnow state that some "senior PLA officers at the [Central Military Commission], the general departments, and the military regions had too much power and were not always responsive to orders from the center."⁸¹ To address this problem, President Xi may have used reforms to restructure the departments across a system of many subordinate functional sections to diffuse its responsibilities and minimize the potential for concentrated power bases within the PLA.⁸²

Theater-Level Military Reform and Reorganization

A central feature of the reforms is the creation of a theater structure with combat responsibilities along China's periphery and within the geographic boundaries of the theater to replace the military region structure, improve joint operations, and meet security challenges in western China and along China's periphery.⁸³ The missions and structure associated with the five Joint Theater Commands also align with the PLA's previous war zone structure.⁸⁴ Wang Xiaohui, a scholar from China's National Defense University,

*The 15 functional sections replacing the general departments include the Joint Staff Department, Political Work Department, Logistic Support Department, Equipment Development Department, Training Management Department, National Defense Mobilization Department, Discipline Inspection Commission, Political and Law Commission, Science and Technology Commission, Strategic Planning Office, Reform and Formation Office, International Military Cooperation Office, Audit Office, and the General Affairs Administration. Kenneth Allen, Dennis J. Blasko, and John F. Corbett, "The PLA's New Organizational Structure: What Is Known, Unknown and Speculation (Part 1)," *Jamestown Foundation*, February 4, 2016, 6.

†The Joint Staff Department, in addition to having operational control over PLA troops in the new theaters, has a command and control function over troops conducting overseas operations through the department's Combat Operations Bureau and the Overseas Operations Office. U.S.-China Economic and Security Review Commission, *Hearing on Developments in China's Military Force Projection and Expeditionary Capabilities*, written testimony of David M. Finkelstein, January 21, 2016; Phillip C. Saunders and Joel Wuthnow, "China's Goldwater-Nichols? Assessing PLA Organizational Reforms," *Institute for National Strategic Studies*, April 20, 2016, 4; China Military Online, "MND Holds Press Conference on CMC Organ Reshuffle," January 12, 2016; *Global Times* (China), "CMC Reveals Combat Ops, Info Bureaus," April 12, 2016; Andrew Tate, "China Establishes Overseas Operations Office," *IHS Jane's*, March 29, 2016; and *Global Times* (China), "CMC Reveals Combat Ops, Info Bureaus," April 12, 2016.

suggests that establishing theaters and a theater-level joint command system allows Beijing to organize forces for conducting “joint training according to the theater’s strategic direction” and to “exercise operation[al] command in wartime ... of all combat forces within the theater to carry out integrated joint operations.”⁸⁵ This new structure enables PLA forces to more quickly and efficiently meet the requirements of specific anticipated regional war scenarios than the previous structure, which required a transition from an administrative to an operational structure to respond to a crisis. The operational focus and structure of the theaters is likely as follows:

- ***Eastern Theater:*** The Eastern Theater Command’s security challenges include preventing Taiwan independence, compelling Taiwan unification, countering any foreign intervention during a Taiwan conflict, and defending maritime sovereignty claims in the East China Sea.⁸⁶
- ***Southern Theater:*** The Southern Theater Command’s security challenges include defending maritime sovereignty claims and China’s sea lines of control in the South China Sea, as well as defense along the border with Vietnam.⁸⁷
- ***Western Theater:*** The Western Theater Command is focused on missions associated with combating domestic extremism and terrorism in Xinjiang Uyghur Autonomous Region and Tibet Autonomous Region, as well as addressing an Indian border dispute contingency.⁸⁸ The theater will likewise guard against infiltration by Central Asian extremist and terrorist groups.⁸⁹
- ***Northern Theater:*** The primary security concern for the Northern Theater Command is stabilizing the Korean Peninsula and conducting border stability operations associated with a North Korea contingency.⁹⁰ The theater may share responsibility for contingencies involving Japan with the Eastern Theater, and likely is responsible for northern border contingencies involving Mongolia and Russia.⁹¹
- ***Central Theater:*** The primary security concern for the Central Theater Command is conducting capital defense operations during any contingency involving another theater’s area of responsibility.⁹² This theater likely also has responsibilities for responding to domestic emergencies.

Service-Level Military Reform and Reorganization

China transformed the PLA service structure by designating the ground forces as the PLA Army and establishing a headquarters for the service, and by elevating the Second Artillery Force, responsible for China’s nuclear and conventional missiles, to a service called the Rocket Force.⁹³ Along with the PLA Navy and Air Force, this brings the total number of services to four, all of which will focus on the “train, man, and equip” mission. The new Strategic Support Force will focus on cyber, information, and electromagnetic warfare, and possibly some areas of space operations. Creating a more equitable service structure puts all four services on equal footing from an organizational standpoint.

- ***PLA Army Headquarters:*** China established a separate PLA Army service headquarters for the ground forces at the end of 2015.⁹⁴ Prior to establishing an army headquarters, leadership for the ground force was integrated into the PLA's four general departments.⁹⁵ Now, the army for the first time is aligned with the other services and will have the same responsibilities for managing and equipping the force—tasks for which the four general departments were previously responsible.⁹⁶
- ***PLA Rocket Force:*** China's elevation of the PLA Rocket Force at the end of 2015 from an independent branch to a full service puts the Rocket Force on equal footing with the PLA Navy, Air Force, and Army concerning force modernization.⁹⁷ The Rocket Force has retained the responsibility for land-based nuclear missiles and conventional missiles and is charged with enhancing China's nuclear deterrence and counternuclear strike capability, strengthening medium- and long-range precision strike, and building a powerful modernized rocket force.⁹⁸
- ***PLA Strategic Support Force:*** China created a new force under the Central Military Commission called the Strategic Support Force to oversee space and cyber capabilities.⁹⁹ While much remains unknown about the full range of missions the Strategic Support Force will conduct, the departments that resided under the General Staff Department prior to reform that appear to have been transferred to this force include elements from the First Department (operations), Second Department (intelligence), Third Department (technical reconnaissance), and Fourth Department (radars and electronic countermeasures).¹⁰⁰ This composition at a minimum would suggest the Strategic Support Force is charged with cyber, space, reconnaissance, and electronic warfare missions supporting joint integrated operations. Furthermore, the Strategic Support Force may play a role in the conduct of both information and legal warfare, though it is too early to determine whether and how these warfare areas will be addressed by the force.¹⁰¹

China's 2016 Defense and Security Budget

In March 2016, China announced a 2016 military budget of \$146.67 billion (renminbi 954.35 billion), an increase of 7.6 percent over its announced budget for 2015, but the lowest rate of growth in six years.¹⁰² This figure represents 11 percent of China's total central government outlays budgeted for 2016* and approximately 1.3 percent of projected gross domestic product (GDP).¹⁰³ Observers offer varying estimates of China's defense budget, having long noted the impossibility of accepting China's official figures at face value for numerous reasons (including Beijing's provision of only top-line numbers and its omission of major defense-related expendi-

*China's central government general public budget includes "central government expenditures, tax rebates for local governments, general transfer payments to local governments, special transfer payments to local governments, and payments to central government reserve funds." If only the central government expenditures category is counted, China's 2016 defense budget represents 35 percent of projected central government spending. National People's Congress of the People's Republic of China, *Full Text: Report on China's Central, Local Budgets (2016)*, March 23, 2016.

tures such as research and development programs, foreign arms purchases, and local government support to the PLA).¹⁰⁴ U.S. Department of Defense estimates have added roughly 25 percent to China's reported budget in each of the past four years,¹⁰⁵ projecting that it "exceeded \$180 billion" in 2015¹⁰⁶ as opposed to the \$141.9 billion figure China reported,* for example. The Stockholm International Peace Research Institute (SIPRI) typically estimates China's military budget to be around 50 percent higher than reported, projecting \$215 billion for 2015 (2016 estimates from these sources are not yet available).¹⁰⁷ The International Institute for Strategic Studies, another source of independent estimates, added around 40 percent to Beijing's reported budget from 2008 to 2014.¹⁰⁸ For comparison, the United States appropriated \$572.7 billion for DOD in 2016.¹⁰⁹ This number would represent a decline in U.S. military expenditures in both real and nominal terms for the fifth straight year, according to SIPRI data (SIPRI has not yet reported on U.S. military spending for 2016).¹¹⁰

Chinese officials have sought to highlight this slower rate of increase in military spending, beginning with the March 2016 budget announcement's observation that "China's military budget will continue rising, but more slowly compared to the previous few years,"¹¹¹ terming this "in line with China's national defense need and fiscal revenue."¹¹² President Xi stated that "it is not easy to secure a normal rise in the military budget anymore," tying this to "mounting pressure from the economic downturn."¹¹³ China's economic performance has long been touted as the reference point for its decisions on military spending, although its reported nominal military budget increases have outpaced GDP growth for four years in a row prior to 2016.¹¹⁴ With China projecting real GDP growth of 6.5 to 7 percent in 2016,¹¹⁵ this marks the fifth straight year the numbers have not aligned, albeit with a narrower gap. Importantly, however, adjusting for inflation reveals that defense spending hikes have generally been in line with GDP growth:¹¹⁶ The Department of Defense stated in 2016 that "analysis of data from 2006 through 2015 indicates China's officially-disclosed military budget grew at an average of 9.8 percent per year in inflation-adjusted terms over that period,"¹¹⁷ close to its average real GDP growth rate of 9.7 percent during this time.¹¹⁸ China's reported real defense budget growth rate will actually be lower than its real GDP growth rate in 2016, assuming a 2 percent inflation rate.¹¹⁹ Whether this alignment with GDP growth is reflected in independent estimates, and whether it continues if China's gradual economic slowdown persists, will bear watching in future years.

Outside assessments of China's lower rate of defense spending growth in 2016 have generally agreed that China's economic slowdown is playing a role.¹²⁰ Several experts have specifically suggested that China's planners are cognizant of the dangers of Soviet-style military overextension in pursuing military modernization.¹²¹ Other analysts have suggested the lower growth rate may be related to China's ongoing military reorganization.¹²²

*Due to fluctuations in exchange rates this figure may vary by source; this Report utilizes the rate at the time of the 2015 budget's announcement. U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 238.

Several trends in addition to economic performance will likely factor into China's defense budget planning going forward. Craig Caffrey, principal analyst for defense budgets at IHS Jane's, assesses that China's military reforms "will reduce pressure on the defense budget in the longer term."¹²³ On the other hand, studies have observed that the cost of ships and weapons generally tends to increase faster than inflation (even in the absence of a large-scale, high-technology military modernization effort such as China's), eventually requiring continuous spending increases to avoid force reductions.¹²⁴ Andrew S. Erickson, professor of strategy at the Naval War College, noted in testimony to the Commission in 2014 that a buildup of aircraft carriers and other large vessels—which China now appears to be pursuing under a doctrinal shift toward "far seas" protection*¹²⁵—could be detrimental to its budget for this reason.¹²⁶ China's ability to rely on large numbers of low-paid recruits will also continue to diminish as labor costs rise;¹²⁷ the September 2015 decision to cut 300,000 troops¹²⁸ is notable for this reason. However, the longstanding assessment that China's defense spending increases appear sustainable in the near term, reiterated by DOD in 2016,¹²⁹ should be expected to hold.

China's Military Hardware Development and Acquisitions Impacting Force Projection Capabilities

Over the past several years, China significantly increased its number of available weapons and weapons systems for force projection in air, sea, and amphibious missions.¹³⁰ Moreover, in addition to producing large numbers of platforms, China also has focused on improving the capabilities of individual platforms. The Congressional Research Service reported that PLA Navy modernization in particular "has appeared focused less on increasing total platform (i.e., ship and aircraft) numbers than on increasing the modernity and capability of Chinese platforms."¹³¹ China also tested new space launch vehicles and launched additional intelligence, surveillance, and reconnaissance (ISR) and navigation satellites in 2016, in an effort to further augment the capabilities of its military forces in areas such as intelligence-gathering and precision strike. Significant developments in China's defense acquisitions from late 2015 to 2016 include the following:

J-20 stealth fighter production: China's first squadron † of J-20 multirole stealth jet fighters is expected to be delivered by the end of 2016 and could become operational as early as 2018.¹³² In addition to eight prototype J-20s built to date, China has reportedly produced its first production-line J-20 and began test flights with the new aircraft in January 2016.¹³³ The J-20 is a fifth-generation fighter with modern stealth features and integrated electronic warfare capabilities that could degrade the ability of U.S. forces to detect and engage it.¹³⁴

* China typically defines its "near seas" as waters within the Yellow Sea, East China Sea, and South China Sea. China typically describes its "far seas" or "distant seas" as waters outside of its near seas.

† A squadron of J-20s would consist of two to four aircraft. Kevin Pollpeter and Kenneth W. Allen, eds., *The PLA as Organization v2.0*, Defense Group Inc., 2015, 14.

Second aircraft carrier confirmed: In December 2015, a Chinese Ministry of National Defense spokesperson confirmed for the first time that China's second aircraft carrier (Type 001A) is under construction.¹³⁵ He did not give a timeline for construction.¹³⁶ The new carrier will have a conventional power plant and a ski jump ramp rather than a powered catapult launch system.¹³⁷ The ski jump ramp will limit the carrier's capabilities by restricting the launch weight of its fighters.¹³⁸ Satellite imagery indicated that as of August 2016, construction of the new carrier was nearly complete.¹³⁹ China could build multiple additional aircraft carriers over the next 15 years.¹⁴⁰ According to DOD, "China's next generation of carriers will probably be capable of improved endurance and of launching more varied types of aircraft, including [electronic warfare], early warning, and [antisurface warfare], thus increasing the potential striking power of a [PLA Navy] 'carrier battle group' in safeguarding China's interests in areas beyond its immediate periphery."¹⁴¹

Su-35 fighter purchase: In November 2015, Russia and China signed a \$2 billion contract for Russia to deliver 24 Su-35 (FLANKER-E) multirole jet fighters to China.¹⁴² The Su-35, with its advanced avionics and targeting and passive electronically scanned array radar systems, will improve China's air-to-air and strike capabilities.¹⁴³ Moreover, the aircraft's long range (reportedly approximately 2,200 mi with internal fuel and 2,800 mi with auxiliary fuel tanks) will enhance the PLA's ability to project force in the South China Sea and Western Pacific.¹⁴⁴ The Su-35 is capable of firing advanced antisurface and air-to-air missiles.¹⁴⁵ China most likely will attempt to reverse engineer components of the Su-35—particularly its advanced turbofan engine—to aid indigenous jet fighter production.¹⁴⁶ The Su-35 could enter service in 2018.¹⁴⁷

Type 072A tank landing ship production: The PLA Navy commissioned three Type 072A tank landing ships* (see Figure 5) from May 2015 to January 2016, bringing the PLA Navy's Type 072A fleet to 12 ships.¹⁴⁸ The Type 072A can carry 10 tanks, 4 landing craft (such as China's Zubr [POMORNIK] hovercraft), and 250 soldiers, and has a helicopter landing pad.¹⁴⁹ The resumption of production could suggest Beijing wants to increase its force projection capabilities for contingencies in the South and East China seas. It may also signal to Taiwan's new Democratic Progressive Party-led government that Beijing is willing to take Taiwan by force.¹⁵⁰

*Tank landing ships are designed to carry vehicles and troops to shore during amphibious operations.

Figure 5: Type 072A Tank Landing Ship



Source: Shahryar Pasandideh, "China's Developing Naval Power Projection Capabilities," *NATO Association of Canada*, October 29, 2014.

Type 054A frigate production: China commissioned its 22nd Type 054A (JIANGKAI II) guided missile frigate in February 2016.¹⁵¹ The Type 054A has been deployed for global missions, such as Gulf of Aden antipiracy patrols. However, according to *China Signpost*, a China-focused research consultancy, the ship's limited size, armaments, and electronics suite make it suited for a limited fleet defense role rather than for high-intensity missions.¹⁵² The Type 054A reportedly is equipped with HHQ-16 surface-to-air missiles (range of 20 nm to 40 nm) and can fire YJ-83 antiship cruise missiles (range of 65 nm to 100 nm).¹⁵³

Type 052D destroyer production: In December 2015, a second Type 052D (LUYANG III) destroyer entered service with the PLA Navy.¹⁵⁴ According to the U.S. Office of Naval Intelligence, the Type 052D's advanced air defense radar "allows the [PLA Navy] surface force to operate with increased confidence outside of shore-based air defense systems, as one or two ships are equipped to provide air defense for the entire task group."¹⁵⁵ According to the U.S. Office of Naval Intelligence, the Type 052D carries the YJ-18 antiship cruise missile (range of 290 nm) and an extended-range variant of the HHQ-9 surface-to-air missile (80 nm).¹⁵⁶ The PLA Navy reportedly plans to deploy ten Type 052Ds in total.¹⁵⁷

Y-20 production: In July 2016, the PLA Air Force inducted China's first operational Y-20 heavy transport aircraft into service (see Figure 6).¹⁵⁸ The PLA likely will develop airborne early warning, maritime patrol, and tanker variants of the Y-20.¹⁵⁹ A tanker variant of the Y-20 would improve China's force projection capabilities by extending the range of its aircraft to reach farther into areas of

potential conflict, such as the South China Sea and Western Pacific.¹⁶⁰ The Y-20 reportedly has a maximum payload of roughly 55–65 tons.*¹⁶¹ By comparison, the U.S. C-17 Globemaster heavy transport aircraft has a maximum payload of approximately 76 tons.¹⁶² A March 2016 article in the state-run *People's Daily* said the Y-20 would be delivered “in bulk” to the PLA by the end of 2016.¹⁶³

Figure 6: Y-20 Heavy Transport Aircraft



Source: Jay Bennett, “China’s New Y-20 Is the Largest Military Aircraft Currently in Production,” *Popular Mechanics*, June 20, 2016.

Space: China conducted its first Long March-7 (LM-7) rocket launch in June 2016, utilizing the new Wenchang Satellite Launch Center in Hainan Province for the first time.† The LM-7 uses a less toxic and more efficient fuel than previous Chinese rockets and will reportedly serve as China’s main carrier for future space missions.¹⁶⁴ The LM-7 can carry 13.5 tons into low Earth orbit, a significant increase from the LM-2F at 8 tons and the more frequently-used LM-2C and LM-2D at 3.9 tons;¹⁶⁵ the forthcoming LM-5, expected to be launched later this year, will be able to carry 25 tons into low Earth orbit and 14 tons to geostationary transfer orbit‡ (as opposed to the LM-3E at 5.5 tons)¹⁶⁶ as China’s largest launch vehicle to date.¹⁶⁷ The LM-7 and LM-5 will thus be able to launch larger payloads, such as the three modules planned for China’s future 60-ton space station,¹⁶⁸ or greater numbers of sat-

* When used in this section, “ton” refers to “metric ton.”

† The Wenchang Space Launch Center is China’s fourth such center and closer to the equator than the others, providing fuel savings and, by extension, payload savings for satellite launches to geosynchronous orbit, as satellites require less maneuvering to get into position once launched. Wang Cong and Fu Shuangqi, “Rocket Launch Gets China One Step Closer to Own Space Station,” *Space Daily*, June 28, 2016.

‡ It is common to compare launch vehicles’ capabilities based on the amount of mass they can lift to “geosynchronous transfer orbit,” an elliptical orbit at an altitude of around 23,000 mi at the furthest point from Earth into which a spacecraft is first launched in order to later reach geosynchronous and geostationary Earth orbits. The spacecraft does this by turning and firing its rocket engine to circularize its orbit. Geosynchronous Earth orbit can be achieved at about 22,000–23,000 mi above the equator; spacecraft in this orbit return to the same point in the sky at the same time each day. Geostationary Earth orbit is the highest orbital band within geosynchronous Earth orbit; at this altitude, satellites move at the same speed as the Earth’s rotation, enabling them to cover large geographic areas. National Aeronautics and Space Administration, *Basics of Space Flight: Planetary Orbits*, 2015.

ellites.* They also represent steps along the path toward the LM-9 “heavy lift launch vehicle” that China plans to develop in the next 15 years.¹⁶⁹ China reportedly requires the ability to launch around 100 tons (likely less at higher orbits) to support manned lunar and deep space missions.¹⁷⁰ Furthering its manned space program, China launched its second space lab, the Tiangong-2, in September 2016,¹⁷¹ and launched the Shenzhou-11 spacecraft to link with Tiangong-2 in October 2016, its first manned space mission since 2013.¹⁷²

China launched numerous military-relevant satellites in 2016. Of its primary series that likely provide military ISR functions, Beijing launched a remote sensing satellite, the Gaofen-4,¹⁷³ into geosynchronous orbit† for the first time, as well as additional Yaogan and Shijian satellites.‡¹⁷⁴ China also launched its 23rd Beidou navigation satellite,¹⁷⁵ and announced plans in May 2016 to launch a total of 30 Beidou satellites during the 13th Five-Year Plan period (2016 to 2020) in pursuit of its objective to complete a global satellite navigation system by 2020.¹⁷⁶ A government white paper published in June 2016 also announced that China plans to make this service available to global users free of charge (as the United States does with the Global Positioning System [GPS]).¹⁷⁷ China launched the Aolong-1 spacecraft, equipped with a robotic arm, aboard the LM-7. While Chinese officials have described it as the first spacecraft in a series tasked with collecting man-made debris in space, one article quoted two unnamed Chinese experts noting it has potential as an antisatellite weapon.¹⁷⁸ Finally, state media reported that China launched the world’s first experimental quantum communications§ satellite in August 2016, which will test

*For reference, the U.S. Federal Aviation Administration forecast an average mass of 4.9 tons for commercial satellites in 2016, while satellites in the “extra heavy” category have a mass of over 5.4 tons. Early U.S. reconnaissance satellites weighed as much as 15 tons, but modern military satellites are much smaller: China’s first Yaogan satellite weighed 2.7 tons according to media reports, the newest U.S. Global Positioning System satellites weigh 3.9 tons, and U.S. Space-Based Infrared System early warning satellites weigh 4.8 tons. China’s prototype space station, the Tiangong-1, has a mass of 8.5 tons. Federal Aviation Administration, *2015 Commercial Space Transportation Forecasts*, April 2015, 8; Kevin Pollpeter, *China Dream, Space Dream: China’s Progress in Space Technologies and Implications for the United States* (prepared for the U.S.-China Economic and Security Review Commission by the University of California Institute on Global Conflict and Cooperation), March 2, 2015, 47; Lockheed Martin Corporation, *GPS III Fact Sheet*, 2014; Rui C. Barbosa, “Long March 4C Launches Yaogan Weixing-19,” *NASASpaceflight.com*, November 20, 2013; United States Air Force, *Space Based Infrared Systems*, March 13, 2013; and Peter Pae, “Massive Spy Satellite Program to Cost Billions,” *Los Angeles Times*, March 18, 2001.

†Geosynchronous Earth orbit can be achieved at about 22,000–23,000 mi above the equator. The highest orbital band within geosynchronous Earth orbit in frequent use is known as “geostationary Earth orbit.” At this altitude, satellites move at the same speed as the Earth’s rotation, enabling them to cover large geographic areas.

‡The Yaogan series represents the core component of China’s maritime ISR architecture and includes electro-optical (EO), synthetic aperture radar (SAR), and electronic intelligence (ELINT) variants. Some Shijian satellites have been used for strictly civilian purposes; many appear to perform military ISR functions and likely feature ELINT sensors used for broad area maritime surveillance, or infrared sensors to detect ballistic missile launches in support of a future early warning system. The Gaofen series has EO and SAR variants and features China’s first high-definition satellite and first satellite capable of sub-meter resolution. U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 299–301.

§A quantum communication network is theoretically unbreakable as any attempt to intercept the encryption key would alter the physical status of the data (quantum data, unlike bits, are in a state of “superposition,” existing in two states at the same time) and trigger an alert to the communicators. Quantum communication has thus far been limited to short distances due to the technological difficulty of maintaining the quantum data’s fragile state over a long distance. Giuseppe Vallone et al., “Experimental Satellite Quantum Communications,” *Physical Review Letters* 15:4 (July 20, 2015): 1; Yu Dawei, “In China, Quantum Communications Comes of

Continued

technology that could eventually enable secure digital communication using a virtually unbreakable encryption key.¹⁷⁹

On the commercial side, China built and launched a satellite for Laos in November 2015, a service known as “delivery-in-orbit” that it has also provided to Bolivia, Nigeria, Pakistan, and Venezuela to date.¹⁸⁰ Since U.S. restrictions prohibit exports of satellites and components to China (including for launch service purposes),¹⁸¹ China relies on launch service contracts like these to compete in the global market.¹⁸²

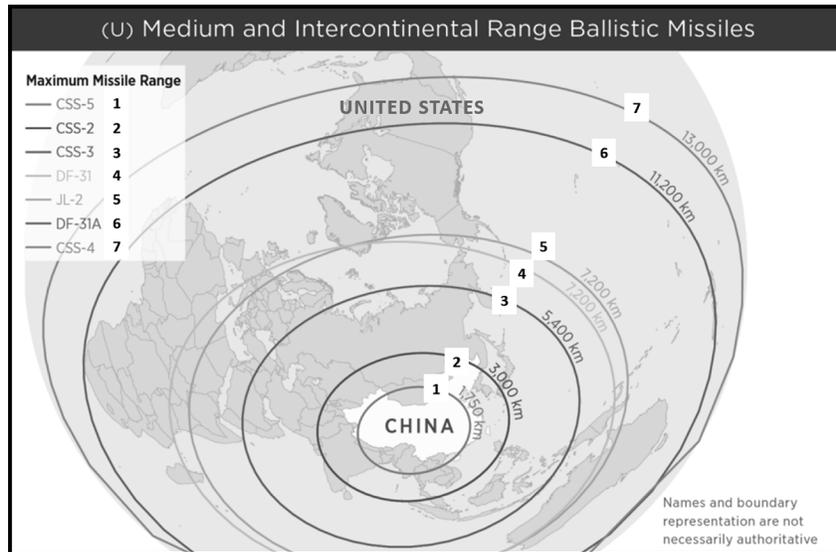
PLA Navy Nuclear Ballistic Missile Submarine Deterrent Patrol Developments

The PLA Navy currently operates four Type 094 JIN-class nuclear-powered ballistic missile submarines (SSBNs) and has a fifth submarine under construction.¹⁸³ The JIN SSBN, based in Hainan Province in the South China Sea, is supported by underground submarine facilities.¹⁸⁴ The JIN’s JL–2 submarine-launched ballistic missile (SLBM)* is armed with a nuclear warhead with an assessed range of 7,200 km (4,474 mi), far enough to strike the continental United States depending on the location of the launch (see Figure 7).¹⁸⁵ In testimony to the U.S. Senate Armed Services Committee in 2016, Lieutenant General Vincent Stewart, director of the U.S. Defense Intelligence Agency, indicated that the “PLA Navy deployed the JIN-class ... submarine in 2015, which, when armed with the JL–2 SLBM, provides Beijing its first sea-based nuclear deterrent.”†¹⁸⁶ This provides China the ability to conduct a nuclear strike from the sea and, perhaps more importantly, provides it with the potential for a survivable second strike capability should it suffer a first strike on land.

Age,” Caixin, February 6, 2015; Stephen Chen, “China to Launch Hack-Proof Quantum Communication Network in 2016,” *South China Morning Post* (Hong Kong), November 4, 2014; and Michael A. Nielsen and Isaac L. Chuang, *Quantum Computation and Quantum Information*, Cambridge University Press, 2000, 14.

* China conducted a series of JL–2 tests from the JIN SSBN beginning in 2009, with the most recent test occurring in January 2015. Jesse Karotkin, a former senior intelligence officer for China at the U.S. Office of Naval Intelligence, testified to the Commission in January 2014 that it had “been a long-road for the Chinese to get this system operational.” Another potential indication that the JL–2 is operational is a report that a JIN-class SSBN crew was given two awards for successful missile tests that occurred in November 2013 and January 2015. U.S.-China Economic and Security Review Commission, *Hearing on PLA Modernization and its Implications for the United States*, written testimony of Jesse Karotkin, January 30, 2014; China Central Television, “Focus Today’ on Type-094 Submarine, DF-26 Missile, Aircraft Carrier ‘Liaoning,’” October 1, 2015; Ge Chong, “Type 094 Nuclear Submarine High Seas Navigation Will Enhance Sea-Based Deterrence Capability—Carrying JL–2 Missiles with Range Covering the Territory of the United States,” *Wen Wei Po* (Hong Kong), February 12, 2014; and Bill Gertz, “Ready to Launch,” *Washington Free Beacon*, August 21, 2012.

† The Type 092 XIA-class SSBN was China’s first attempt to develop a sea-based nuclear deterrent; however, the XIA is likely currently incapable of conducting operational missions. DOD noted in 2010 that the XIA’s operational status was in question, and in 2015 omitted any mention of the XIA in discussing China’s SSBNs in its *Annual Report to Congress on Military and Security Developments Involving the People’s Republic of China 2015*. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2015*, April 2015, 9; U.S. Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century*, April 2015, 16.

Figure 7: JL-2 Missile Range Compared to other Chinese Ballistic Missiles

Note: The ring labeled “5” represents the range of the JL-2. DOD uses a mix of both Chinese and NATO designators in the above graphic. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2015*, April 7, 2015, 88.

Source: U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2015*, April 7, 2015, 88.

DOD currently assesses that China will conduct its first SSBN nuclear deterrence patrol before the end of 2016, a timeline that has been revised twice (DOD previously estimated the patrol would occur in 2014, then in 2015).¹⁸⁷ It will not necessarily be clear when China begins its first nuclear deterrence patrol: though some of the preparations for a patrol (such as the submarine’s movement into an underground tunnel complex prior to deployment) may be observable, it will not be apparent whether a nuclear warhead is mated to the missile, or when missiles are loaded prior to deployment.* For this reason, any JIN SSBN deployment may require senior U.S. defense officials to assume that China is conducting a deterrence patrol (i.e., a patrol in which an SSBN is armed with a nuclear warhead).† DOD assesses a fifth JIN-class SSBN will enter the PLA Navy’s order of battle by 2020, which would provide

* Hans M. Kristensen, director of the Nuclear Information Project at the Federation of American Scientists, notes there is a “covered railway ... connect[ing] a high-bay building with possible access into the mountain at the eastern part of the [Longpo naval] base [on Hainan Island] with one of the land-based tunnels to the underground submarine cave. ... The covered railway ... seems intended to keep movement of something between the two mountains out of sight from spying satellites. ... The purpose of the facilities and rail is unknown but might ... be intended for movement of SLBMs or other weapons between storage inside the mountain to the submarine cave for arming of SSBNs.” Hans M. Kristensen, “China SSBN Fleet Getting Ready—But for What?” *Federation of American Scientists*, April 25, 2014.

† Admiral Cecil Haney, Commander of U.S. Strategic Command, stated in October 2015 that when a JIN SSBN goes to sea he must assume it is conducting a deterrence patrol based on the submarine’s “operational capability.” Cecil Haney, “Transcript: Admiral Cecil Haney, Commander STRATCOM, Defense Writers Group,” *Defense Writers Group*, October 22, 2015, 16.

China the minimum SSBN force required to maintain a near continuous at-sea nuclear deterrent presence in peacetime.¹⁸⁸

Conducting nuclear deterrence patrols likely will require a series of procedures to be in place prior to SSBN patrol activity. For example, DOD states “SSBN deterrence patrols will force the PLA to implement more sophisticated [command and control] systems and processes that safeguard the integrity of nuclear release authority for a larger, more dispersed force.”¹⁸⁹ China’s policy of keeping nuclear warheads stored separately from missiles in order to prevent an accident or unauthorized use (known as “de-alerting”)¹⁹⁰ will likewise require revision for JL-2 SLBMs to be deployed on submarines during peacetime.¹⁹¹ China may also be enhancing peacetime readiness levels for these nuclear forces to ensure responsiveness,¹⁹² which may be applied to China’s SSBN force as well.

PLA Exercises and Training

China views conducting joint and transregional exercises as key to narrowing the gap between training and real combat experience for the PLA.¹⁹³ The PLA conducts exercises to enhance warfighting competencies, test and evaluate tactics, develop and refine integrated joint operations command structures and concepts, and evaluate service proficiencies.¹⁹⁴ The overall objective of PLA exercises is to develop an effective operational capability to achieve success in local wars under “informationized” conditions.*

Evolution of PLA Exercises for Joint Operations

While the development of joint integrated operations has been a focus of PLA modernization objectives since the late 1990s, it was not until the Tenth Five-Year Plan (2001 to 2005) that the PLA initiated its program to develop a credible joint operation concept.¹⁹⁵ Mark Cozad, a senior international defense policy analyst with the RAND Corporation, states that during this period, China pursued a “multifaceted effort . . . that brought together a broad body of military science research, technology development, new training guidelines, and operational experimentation.”¹⁹⁶ This phase of joint exercise development culminated with Sharp Sword-2005, an exercise that experimented with air-land integration and firepower strike coordination between the army and air force.¹⁹⁷ Mr. Cozad argues that although this “exercise highlighted several shortcomings in the PLA’s capability to perform integrated joint operations, it marked a significant foundational basis on which follow-on efforts would build.”¹⁹⁸ Between 2006 and 2008, China continued to refine and experiment with joint operational concepts that contributed to the revision of the Outline on Military Training and Evaluation, which provides training guidance to the PLA.¹⁹⁹ The revised Outline, released by the then General Staff Department in January 2009, emphasized realistic training, joint training, and training under complex electromagnetic environments.²⁰⁰ PLA joint training then entered a “standardized development” phase between 2009 and 2010 to test joint operation concepts that emerged from

* In Chinese military doctrine, “informationization” refers to the application of advanced information technology to military operations. The PLA views informationization as a required enabler of its goal to be able to win “local wars under informationized conditions.”

the Sharp Sword series of exercises.²⁰¹ During this period China conducted Stride-2009, Firepower-2009, and Mission Action-2010, which set key themes for joint exercises that followed the Tenth Five-Year Plan.²⁰² The exercise themes the PLA focused on included civil-military integration, air force and naval force projection, joint training methods, and command and control for war zones.²⁰³

Key Exercises

Since the release of the revised Outline and training standardization, China has continued to focus on incorporating greater realism, strengthening campaign training, and conducting long-distance maneuvers during exercises to develop PLA capabilities to conduct large-scale joint operations.²⁰⁴ Exercises such as Stride, Firepower, Mission Action, and Joint Action emphasize many of these focus areas.²⁰⁵

Stride (Kuayue): Stride is a long-distance ground force maneuver exercise that was held four times from 2009 to 2016.²⁰⁶ Skills practiced in this exercise series have included command and control, logistics, civil-military integration, joint campaign planning, long-range firepower strike, deployment of special operational forces, urban combat, reconnaissance, information warfare, and electronic warfare.²⁰⁷ The Stride series of exercises has sought to test and evaluate combat forces and since 2014 has made use of opposing forces to increase realism.²⁰⁸ During Stride-2016 the PLA continued the theme of long-distance maneuver operations, which included moving combined arms brigades from each of the five new theater commands, using an opposing force, and conducting operations in a complex electromagnetic (jamming) environment.²⁰⁹

Firepower (Huoli): Firepower, like Stride, was held four times between 2009 and 2016. The Firepower series focuses on long-range mobility, precision strike, command and control, and reconnaissance operations.²¹⁰ Firepower-2015 made use of opposing forces simulating U.S. tactics during the exercise.²¹¹ As in 2015, Firepower-2016 continued the use of an opposition force to create realistic battlefield conditions for the transregional exercise.²¹²

Mission Action (Shiming Xingdong): Mission Action, held in 2010 and 2013, focused on long-range maneuver. Mission Action-2010, a followup to the Stride-2009 exercise, was the first time operational PLA forces crossed military region boundaries to participate in a joint exercise and were deployed by road, rail, and air.²¹³ Mission Action-2013 built upon the 2010 transregional mobility theme by conducting the deployment while defending against an opposing force to create a more realistic training environment.²¹⁴

Joint Action (Lianhe Xingdong): Joint Action, held in 2014 and 2015, emphasized theater command and control, reconnaissance, information operations, logistics, ground-air integration, and civil-military integration for conducting joint operations.²¹⁵ During Joint Action 2015, the PLA focused on sea-air-land integration, information operations, and maritime operations.²¹⁶ The 2014 and 2015 exercises both emphasized PLA joint planning.²¹⁷

Evaluation and Prospects for Joint Exercises and Future Operations

The goal of PLA exercises is to improve joint integrated operational capabilities by collecting data to support training and doctrinal development and then implement lessons learned from training assessments* and evaluations.²¹⁸ Kevin McCauley, an independent researcher who has published widely on China's military, states the PLA views the conduct of exercises "approximating actual combat conditions as vital for supporting research for future training and operational methods, as well as a means to overcome lack of combat experience."²¹⁹ In addition to using exercises to overcome a lack of combat experience, the PLA uses them to evaluate units and ensure the highest-performing PLA troops will be deployed at the front lines of any future conflict.²²⁰ The continued monitoring of PLA exercises should provide insight into the types of operations the PLA is preparing for as well as any strengths or weaknesses the PLA experiences in preparation for those missions.

China's Global Security Activities in 2016

PLA Overseas Activities

China's global security engagement continued to expand in 2016, reflecting the PLA's improving ability to operate far from China's shores, and China's goal—outlined in its 2015 defense white paper—to "safeguard the security of [its] overseas interests."²²¹

China Constructing Djibouti Military Support Facility

In February 2016, China began constructing a naval facility in Djibouti, its first overseas military facility.²²² According to a Chinese Ministry of Foreign Affairs spokesperson, the facility "will better serve Chinese troops when they carry out international peacekeeping operations, escort ships in the Gulf of Aden and the waters off the Somali coast, and perform humanitarian rescue [operations]."²²³ The facility most likely will provide more comprehensive and streamlined logistical support than PLA Navy ships have received in past replenishment and maintenance visits to port facilities in Djibouti and other regional countries.²²⁴ According to Djibouti Foreign Minister Mahmoud Ali Youssouf, the facility will host "a few thousand" military and administrative personnel.²²⁵

China's military foothold in Djibouti will boost its power projection capabilities and influence in an area of the world crucial to China's economic interests.²²⁶ Djibouti occupies a strategic position at the Straits of Bab el Mandeb—a chokepoint for sea lines of communication between the Red Sea and the Indian Ocean—through which travels a large portion of hundreds of billions of dollars in trade between China and the Middle East and Europe.²²⁷ In 2014,

*The PLA makes assessments based on factors that include the amount of training time units receive and unit effectiveness in both confrontation and simulation training. Data are collected on operational areas such as maneuver, coordination between units, fire strike coordination, and electromagnetic spectrum management. U.S.-China Economic and Security Review Commission, *Hearing on Developments in China's Military Force Projection and Expeditionary Capabilities*, written testimony of Mark R. Cozad, January 21, 2016; Kevin McCauley, "Incomplete Transformation: PLA Joint Training and Warfighting Capabilities," *Jamestown Foundation*, March 6, 2015.

for example, 52 percent of China's crude oil imports by volume came from the Middle East.²²⁸ Moreover, China could deploy equipment to Djibouti to collect intelligence on U.S. and friendly forces in the region.²²⁹ Djibouti hosts U.S. Navy Camp Lemonnier—a critical hub for U.S. counterterrorism operations in Africa and the Middle East—as well as Japanese and French military facilities.²³⁰

Gulf of Aden Antipiracy Deployments

In August 2016, China launched its 24th PLA Navy antipiracy deployment to the Gulf of Aden.²³¹ These operations have significant implications for China's force projection capabilities. According to DOD, "The expansion of [Chinese] naval operations beyond China's immediate region will facilitate non-war uses of military force and provide China with a diverse set of capabilities for striking targets across the Pacific and Indian Ocean regions. Improving 'blue water' capabilities will extend China's maritime security buffer to protect China's near and far seas interests more effectively."²³² PLA Navy ships on antipiracy deployments in the Gulf of Aden have also conducted several other security operations in the region, such as a March 2015 non-combatant evacuation operation in Yemen²³³ and an escort operation for ships transporting chemical weapons out of Syria for destruction in 2013–2014.²³⁴ Though piracy in the Gulf of Aden has declined significantly in recent years due to the success of international piracy efforts, there is no indication that the PLA Navy will conclude operations there. David Brewster, senior research fellow at Australian National University's National Security College, testified to the Commission that "Beijing is now using its antipiracy deployment[s] as justification for expanding its naval presence in the Indian Ocean and making it more permanent."²³⁵

UN Peacekeeping Operations

In September 2015, President Xi announced China will establish a ten-year, \$1 billion "China-UN peace and development fund" to support UN activities—to include peacekeeping operations and sustainable development programs—and commit 8,000 personnel* to build a UN "peacekeeping standby force."†²³⁶ China currently has roughly 2,600 personnel active in UN peacekeeping operations.²³⁷ China's peacekeeping activities reflect its apparent desire to generate international goodwill and soft power by demonstrating that it is a responsible stakeholder in international affairs.²³⁸ These deployments also support China's goal to safeguard its overseas economic interests and expatriate citizens.²³⁹ Moreover, conducting peacekeeping operations around the world could provide Chinese personnel with valuable logistics, mobility, and operational experience.²⁴⁰ In the most notable case of Chinese peacekeeping operations, in December 2015 China deployed 1,031 personnel on a UN

*"Personnel" here refers to police, military experts, and troops.

†Although authoritative sources have not outlined the mission or role of China's proposed peacekeeping standby force, it could resemble the former Denmark-led Standby High-Readiness Brigade, an international force of thousands of soldiers that from 1997 to 2009 was available to the UN as a rapidly deployable peacekeeping force. Peter Viggo Jakobsen, "Peacekeeping Contributor Profile: Denmark," *Providing for Peacekeeping*, June 2016; UN, *SHIRBRIG: Ready to Deploy*, 2007.

peacekeeping mission in South Sudan,²⁴¹ where violence has threatened the civilian population of the country, as well as Chinese investments in oil production and the physical safety of Chinese workers.²⁴² In 2014, China successfully lobbied the other members of UN Security Council to support a resolution directing peacekeepers in South Sudan to guard oil facilities, in addition to conducting other peacekeeping duties (China is the largest investor in South Sudan's oil sector).²⁴³ Two Chinese peacekeepers were killed in July 2016 amid violence between rival factions in the country.²⁴⁴ As of August 2016, roughly 2,200 Chinese peacekeepers were active in South Sudan and five other African countries: Côte d'Ivoire, the Democratic Republic of Congo, Liberia, Mali, and Sudan, as well as Western Sahara.²⁴⁵

Overseas Humanitarian Assistance/Disaster Relief Operations

According to DOD, the PLA's ability to perform overseas humanitarian assistance and disaster relief (HA/DR) operations is "modest but growing" as it gains more experience operating far from China, and China's growing HA/DR capabilities "will increase [its] options for military influence to press its diplomatic agenda, advance regional and international interests, and resolve disputes in its favor."²⁴⁶ Moreover, in testimony before the Commission, Georgetown University professor Oriana Skylar Mastro suggested China's HA/DR operations could "provide a legitimate and nonthreatening rationale for the development of power projection capabilities."²⁴⁷ Recent developments regarding Chinese HA/DR include the following:

- In May 2016, China conducted a search and rescue exercise in the Pearl River Delta in Guangdong Province involving 35 vessels and more than 1,300 personnel, the "largest exercise of its kind" China has organized.²⁴⁸
- In May 2016, a Chinese official announced China will build a base station—apparently to include port facilities—for a search and rescue ship in the Spratly Islands in the South China Sea. According to a *China Daily* report, the ship will be equipped with advanced rescue facilities, and "might carry [unmanned aerial vehicles] and underwater robots." The ship reportedly will assist fishing boats and other vessels in distress.²⁴⁹
- In April 2016, Chinese search and rescue vessel *Dong Hai Jiu* 101 joined an international search effort for Malaysia Airlines flight MH370.²⁵⁰ Most of the passengers on MH370 were Chinese nationals.²⁵¹
- In December 2015, approximately 200 Chinese and U.S. Army troops conducted a joint HA/DR drill in Washington State.²⁵²
- The PLA deployed more than 1,000 personnel to contribute to HA/DR in Nepal following a catastrophic earthquake in April 2015.²⁵³ The Nepal mission was China's largest-ever overseas HA/DR operation.²⁵⁴

Space-Tracking Facility in Argentina

China is building a space telemetry, tracking, and control facility in Argentina.²⁵⁵ The PLA-affiliated China Satellite Launch and Tracking Control General is managing the project.²⁵⁶ The station will provide China a southern hemisphere node to communicate with its satellites to download images or conduct orbital adjustments without waiting for them to fly over Chinese territory.²⁵⁷ Many observers have suggested the station could have dual-use applications, such as the ability to track missiles and space assets.²⁵⁸ The station reportedly will support China's planned unmanned missions to the moon and Mars.²⁵⁹

Military-to-Military Engagement

As China proceeds with an ambitious military modernization program and gradually institutes reforms aimed at informationization and integration of its military services, the PLA continues to expand its engagement with foreign militaries. Since the Commission's *2015 Annual Report to Congress*, the PLA has increased the number and type of exercises it holds with other countries' armed forces.²⁶⁰ Through such engagement, China seeks to improve its international standing and enhance its presence abroad while easing foreign anxieties about the PLA's growing capabilities and expanding missions; acquire insights into other militaries' operations, doctrine, and training methods (including those of the United States and U.S. allies and partners); and gain experience operating newly introduced platforms while helping facilitate defense industrial cooperation.²⁶¹

The PLA's Bilateral and Multilateral Exercises with Foreign Militaries

Since November 2015, the PLA has been involved in 12 significant bilateral and multilateral exercises (see Table 1). Several of these exercises were the first of their kind, including Falcon Strike-2015 and Joint Evacuation-2016, demonstrating closer cooperation between the PLA and the militaries of Thailand and the United Kingdom, respectively. Many focused on non-traditional security challenges including counterterrorism, antipiracy, and HA/DR. They have also attempted to ease foreign countries' anxieties concerning China's military modernization and support President Xi's foreign policy objectives by seeking to shape the international system and improve the security environment along China's periphery.²⁶² The knowledge and experience acquired from these exercises can be applied to a variety of missions. The PLA also engaged in bilateral exercises focusing on missile defense operations and sea and air combat (some involving live-fire drills) with close defense partners, including Russia and Pakistan.²⁶³

Table 1: Significant PLA Bilateral and Multilateral Military Exercises, November 2015–October 2016 *

Date	Exercise Name or Type (Location)	Other Participants	PLA Weapons Systems and Units Involved (if reported)	Details
11/12/15–11/30/15	Falcon Strike-2015 (Thailand)	Thailand	J-11A fighters ²⁶⁴	This exercise was the first ever between the two air forces. According to a Chinese Defense Ministry spokesperson, the purpose of the exercise was to enhance mutual understanding, deepen bilateral cooperation, and increase mutual trust. ²⁶⁵
12/31/15–1/1/16	Naval Exercise (East China Sea)	Pakistan	Two missile frigates	The first naval exercise between the two countries in the East China Sea included drills on ship formation movement, search and rescue, and live-fire drills striking targets in the air and at sea. The exercise also had antipiracy and antisubmarine components. ²⁶⁶
2/7/16	China-India 2016 Cooperation (India)	India	30 border troops	The first combined exercise between Chinese and Indian border troops was focused on HA/DR. It was designed to preserve peace and stability in the border region and promote trust between the two militaries. ²⁶⁷
3/23/16–3/24/16	Joint Evacuation-2016 (Nanjing, China)	Great Britain	Not reported	The two countries conducted their first simulated tabletop non-combatant evacuation operation together, which simulated evacuating people from an unnamed third country in a civil war beset by terrorism, and each shared their respective policies and experiences in such operations. ²⁶⁸

*Not noted in this table is the PLA's involvement in military competitions with foreign armed forces, which serve as another venue for the PLA to engage with other countries' militaries and gain experience in logistics and deployment of forces in unfamiliar environments. Rather than focusing on tactics and involving specific scenarios like most military exercises, competitions typically only test certain combat skills and weapons systems. From July 30 to August 13, 2016, the PLA Army, Navy, and Air Force attended the International Army Games 2016 in Russia. Joining over 17 countries, the PLA delegation reportedly included more than 1,000 officers and soldiers participating in 21 competitions—a larger footprint than previous years. China Military Online, "International Army Games 2016 Wraps Up in Russia," August 15, 2016; China Military Online, "China Sends Troops to Participate in International Army Games 2016," July 18, 2016.

Table 1: Significant PLA Bilateral and Multilateral Military Exercises, November 2015–October 2016—Continued

Date	Exercise Name or Type (Location)	Other Participants	PLA Weapons Systems and Units Involved (if reported)	Details
4/9/16–4/30/16	Shaheed V (Pakistan)	Pakistan	JH-7A, J-8II, and J-11 fighters, and KJ-200 early warning aircraft	This annual exercise consisted of ground attack and air-to-air combat and simulated fighting against extremists in China's Xinjiang Uyghur Autonomous Region, Central Asia, and the northern tribal areas of Pakistan. ²⁶⁹
4/12/16–4/16/16	Komodo-2016 (Indonesia)	United States (and 34 other countries)	Guided-missile frigate and salvage lifting ship	This exercise (now in its second iteration) consisted of drills on maritime peacekeeping and HA/DR, live-fire drills directed at surface targets, and early warning drills. ²⁷⁰
5/2/16–5/12/16	ASEAN Defense Minister's Meeting Plus (ADMM-Plus) Maritime Security and Counterterrorism Exercise (Singapore and Brunei)	ASEAN,* the United States (and seven other countries)	Guided-missile destroyer	This semiannual exercise was larger and more complex than any previous ADMM-Plus exercise. Maritime security and counterterrorism drills included helicopter operations, divisional tactics, and land storming in a counterterrorism scenario. ²⁷¹
5/21/16–6/10/16	Blue Strike-2016 (Thailand)	Thailand	Warship, nine amphibious armored vehicles, air defense and antitank missile launchers, naval aviation troops, and 266 marines	In the third major exercise between the two militaries, China sent a warship and naval aviation troops to the exercise for the first time. Marines from both sides held seminars on anti-piracy, disaster relief, and air defense operations. The exercise also included training at sea and on land, including counterterrorism, anti-chemical warfare, and live-fire drills. ²⁷²
5/23/16–5/28/16	Aerospace Security-2016 (Russia)	Russia	Not reported	The two countries conducted their first "computer-assisted anti-missile defense exercise."

* All ASEAN members sent troops to the exercise except Burma and Laos. China Military Online, "Destroyer Lanzhou Leaves Singapore after ADMM-Plus Exercise," May 13, 2016.

Table 1: Significant PLA Bilateral and Multilateral Military Exercises, November 2015–October 2016—Continued

Date	Exercise Name or Type (Location)	Other Participants	PLA Weapons Systems and Units Involved (if reported)	Details
				The purpose of the exercise was to improve the capacity of each country to respond to intentional or accidental cruise and ballistic missile strikes. ²⁷³
6/30/16–8/4/16	Rim of the Pacific (RIMPAC) 2016 (United States)	United States (and 25 other countries)	Guided missile frigate, guided missile destroyer, hospital ship, replenishment ship, and submarine-rescue ship	During the exercise, the PLA Navy participated in HA/DR, submarine rescue, maritime blockade, and antipiracy training. ²⁷⁴
9/5/16–9/21/16	Peace Mission-2016 (Kyrgyzstan)	Shanghai Cooperation Organization (SCO) countries *	Self-propelled artillery, fighters, and Z-9 helicopters	In the eighth iteration of Peace Mission, which has been conducted since 2005, the SCO countries held the counterterrorism exercise for the first time in Kyrgyzstan. The exercise was designed to strengthen mutual trust and combat the “three evils” of terrorism, extremism, and separatism. ²⁷⁵
9/12/16–9/20/16	Joint Sea-2016 (South China Sea)	Russia	11 fixed-wing aircraft, eight helicopters, 10 ships, and 160 marines	The annual Joint Sea exercise was conducted for the first time in the South China Sea in undisputed waters near Zhanjiang, home of the PLA Navy’s South Sea Fleet. The exercise focused on amphibious operations and “island seizing,” and also included air defense, antisubmarine warfare, and search and rescue drills. ²⁷⁶
Forthcoming 2016	Gulf of Aden Counter-piracy Exercise	United States	N/A	N/A

*SCO member countries include China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. Afghanistan, Belarus, Iran, and Mongolia are observer states, and India and Pakistan are in the process of becoming full members. The organization was established in 2001 and is the primary vehicle for China’s security engagement with Central Asia.

The PLA Participates in RIMPAC 2016 Exercise

Despite opposition from some U.S. defense analysts and members of Congress,* the United States invited China to participate in its biennial RIMPAC exercise for the second time in a row. Already the world's largest naval exercise, this year's exercise expanded in size to involve 26 countries (compared to 22 in the previous iteration). The PLA Navy slightly increased its delegation from four to five ships compared to RIMPAC 2014—including a submarine rescue ship for the first time—and increased its number of participating personnel from 1,100 to 1,200.²⁷⁷ Before the exercise, the PLA Navy task force participated in a group sail† from waters near Guam to Hawaii, where the exercise was staged, with several U.S. destroyers.²⁷⁸ During the exercise, the PLA Navy participated in HA/DR, submarine rescue, maritime blockade, and antipiracy drills, but was restricted by U.S. law, per the National Defense Authorization Act for Fiscal Year 2000,²⁷⁹ from engaging in combat drills related to surface warfare, air and missile defense, and amphibious operations.²⁸⁰

China and Russia Conduct South China Sea Naval Exercise

In September, China and Russia conducted an eight-day-long naval exercise, Joint Sea-2016—their first exercise together in the South China Sea—with five Russian ships and ten PLA Navy ships participating, including surface combatants and support ships from both countries, as well as Chinese submarines.²⁸¹ According to analysts Peter W. Singer and Jeffrey Lin, the Chinese task group comprised “some of China’s most modern warships,” including a Type 052C (LUYANG II) destroyer, a Type 052B (LUYANG I) destroyer, and three Type 054A (JIANGKAI II) frigates;²⁸² the Russian task group included two 1980s-vintage UDALOY I destroyers.²⁸³ The Russian contingent also included two helicopters, amphibious assault craft, and 90 marines; the Chinese contingent included 11 fixed-wing aircraft, eight helicopters, and 160 marines. The exercise, which has been held annually since 2012, was based in Zhanjiang, a city in southern China’s Guangdong Province and the headquarters of the PLA Navy South Sea Fleet.²⁸⁴ According to Chinese state-run media, it was held in undisputed waters to the east of Zhanjiang.²⁸⁵ It focused on “island-seizing,” among other drills covering amphibious operations, air defense, anti-submarine warfare, and search and rescue; 2015’s Joint Sea-2015 II drill in the Sea of Japan also emphasized forced incursions and island landing.²⁸⁶ This is the first time the PLA has conducted a naval exercise in the South China Sea with another country. Beijing has long argued that outside countries should not “meddle” in the South China Sea dispute.²⁸⁷

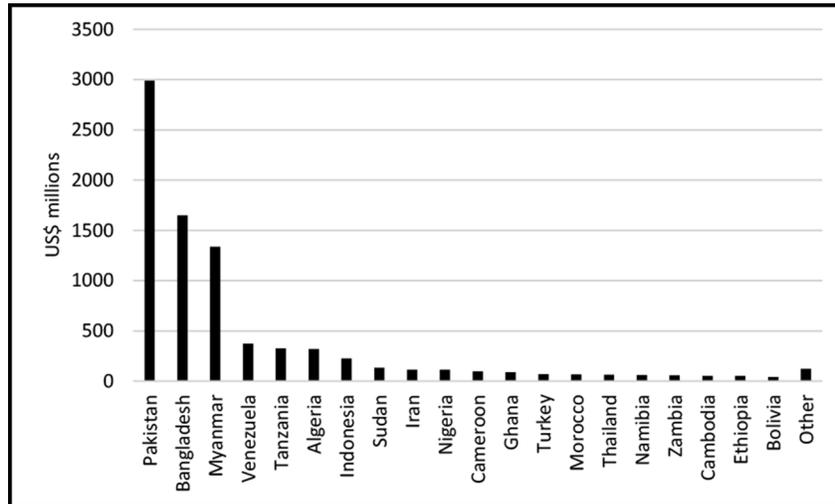
*Much of the opposition was related to China’s assertive actions in the South China Sea. Notably, in May 2015, senators Jack Reed and John McCain, the bipartisan leadership of the Senate Armed Services Committee, co-authored a letter to the Obama Administration expressing their opposition to inviting China to RIMPAC. Shirley Kan, “Rescind China’s Invitation to Join RIMPAC,” *PacNet* #35 (Center for Strategic and International Studies), April 15, 2016; USNI News, “Document: McCain, Reed Letter to SECDEF Carter on Chinese Actions in South China Sea,” May 22, 2015.

†According to the U.S. Navy, the group sail “offers participating units the chance to operate together and conduct basic training-like tactical maneuvering drills and communication system checks. [It] helps prepare participating units for the more complex exercises conducted during RIMPAC.” Commander Naval Surface Force U.S. Pacific Fleet, *International Ships Sail to Hawaii for Rim of the Pacific 2016*, June 24, 2016.

Military Sales

China was the third-largest arms exporter worldwide in aggregate terms during the 2011–2015 period with \$8.5 billion in exports, following the United States with \$46.9 billion and Russia with \$36.2 billion (all in constant 1990 dollars).²⁸⁸ Comparing five-year periods, China’s exports of major arms rose 88 percent from \$4.5 billion between 2006–2010 and 2011–2015, while U.S. and Russian exports rose 27 and 28 percent, respectively,* meaning China’s share of global arms sales rose from 3.6 to 5.9 percent.²⁸⁹ During the past five years China has sold arms to 37 countries, with Pakistan (35 percent), Bangladesh (20 percent), and Burma (Myanmar) (16 percent) as top recipients.²⁹⁰ China’s customer base has also extended to Africa, the Middle East, and South America, with exports to Algeria, Nigeria, and Venezuela surging late in this period.²⁹¹ Over two-thirds of African countries now use military equipment from China, including at least ten countries that only began using Chinese arms over the past decade, according to a report published by the International Institute for Strategic Studies in 2016.²⁹² All recipients of China’s arms exports to date have been low- and middle-income countries (see Figure 8).²⁹³

Figure 8: China’s Arms Sales by Recipient, 2011–2015
(constant 1990 dollars)



Source: Stockholm International Peace Research Institute, *SIPRI Arms Transfers Database*. <https://www.sipri.org/databases/armstransfers>.

Major Chinese arms exports agreed upon or revealed in 2016 include the following:

- Nigeria reportedly signed an agreement to purchase the JF–17, an inexpensive multirole fighter jointly produced by China and Pakistan,²⁹² in January 2016.²⁹⁵ If the agreement is fulfilled,

*This represents a decline from last year’s comparison of back-to-back five-year periods (2005–2009 and 2010–2014), which showed a 143 percent rise. U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 254.

Nigeria will be the first export customer for this aircraft; prospective customers have withdrawn from negotiations in several previous cases.*²⁹⁶

- Thailand's defense minister announced in July 2016 that the Royal Thai Navy would seek cabinet approval to purchase YUAN-class diesel-electric submarines from China, a contract reportedly worth \$1 billion, despite Thailand's government reportedly deciding to shelve the deal last year. The purchase is indicative of Thailand's efforts to pursue closer relations with China, even as relations with the United States, a treaty ally, have soured following Thailand's 2014 military coup and the suspension of U.S. military assistance programs as required by U.S. law.²⁹⁷
- Pakistan publicly displayed Chinese-made Z-10 attack helicopters for the first time during a parade in 2016 (having begun an operational evaluation in 2015), although defense officials are reportedly still weighing the purchase. Pakistan currently operates the U.S.-made AH-1F Cobra, and is awaiting delivery of the U.S.-made AH-1Z Viper and pursuing Russian-made MI-35 Hind attack helicopters to replace these in addition to considering the Z-10, according to media reports.²⁹⁸ A statement by a senior Pakistani naval official in August 2016 confirmed that the purchase of eight YUAN-class submarines, announced in 2015, is moving forward and scheduled for completion by 2028;²⁹⁹ this sale indicates that Chinese arms exports to Pakistan are advancing in sophistication.³⁰⁰
- Turkmenistan conducted a military exercise in April 2016 that revealed it purchased the FD-2000 long-range surface-to-air missile—the export version of China's HQ-9, with a range of approximately 200 km (124 mi)—as well as the export version of the medium-range HQ-12, with a range of 50 km (31 mi).³⁰¹
- Kazakhstan will purchase Pterodactyl WJ-1 unmanned aerial vehicles (UAVs) from China, according to a media report from June 2016.³⁰² The WJ-1, produced by the Chengdu Aircraft Industry Group under the state-owned Aviation Industry Corporation of China, is an integrated reconnaissance and strike variant of a medium-altitude, long-endurance UAV in the Yilong or Wing Loong series,³⁰³ which closely resembles the design of the U.S. MQ-9 Reaper.³⁰⁴ It is closer in size to the smaller U.S. MQ-1 Predator, with significantly reduced capabilities such as a lower maximum payload weight.³⁰⁵

*In February 2015, Argentina announced it would explore fighter aircraft purchases from China, potentially involving the JF-17, but did not sign a contract and no longer appears to be interested. Malaysia was reportedly discussing a JF-17 purchase, but its defense minister denied this report in December 2015. Sri Lanka was reported to have signed an agreement to buy JF-17s, but denied this in January 2016; India had lobbied hard against the purchase. At least eleven other countries have been named as potential buyers in past media reports, but none have signed agreements to date. Richard D. Fisher Jr., "DSA 2016: Pakistan Bullish on JF-17 Sales," *IHS Jane's Defence Weekly*, April 21, 2016; Ankit Panda, "Revealed: Why Sri Lanka Backed off the Sino-Pakistani JF-17 Thunder," *Diplomat (Japan)*, January 11, 2016; MercoPress (Uruguay), "Argentina's Purchase of Israeli Fighter Jets Will Be Left to Next Government," November 12, 2015; and Franz-Stefan Gady, "Is This Country the Sino-Pak JF-17 Fighter's First Customer?" *Diplomat (Japan)*, June 24, 2015.

- Media reports in early 2016 took note of the expanding use of Chinese-made UAVs worldwide, highlighted by drone strikes carried out by Iraq and Nigeria for the first time.³⁰⁶ One article noted that during the 18 months preceding February 2016 the number of states or nonstate actors with armed drones had “quietly grown to double-digit membership, largely thanks to Chinese technology that is both less expensive and easier to obtain than U.S. drone technology.”³⁰⁷ To date, China is reported to have sold armed UAVs to Egypt, Iraq, Burma, Nigeria, Pakistan, Saudi Arabia, and the United Arab Emirates,³⁰⁸ while Algeria is considering a purchase,³⁰⁹ according to public sources. One of China’s most commonly exported drones is the CH-4, one of the Caihong or Rainbow series manufactured by a subsidiary of the state-owned China Aerospace Science and Technology Corporation (see Figure 9).³¹⁰ This medium-altitude, long-endurance UAV also resembles the MQ-9 Reaper and is closer to it in size than the WJ-1, but again has lower capabilities, such as a smaller maximum payload weight;³¹¹ the series includes reconnaissance, attack, and mixed variants.³¹² According to a report from *People’s Daily*, China successfully carried out two CH-4-launched missile tests using satellite data links at a range of over 1000 km (621 mi) in May 2016, whereas operators could previously control Chinese-made UAVs at a maximum distance of 250 km (155 mi).³¹³ This capability, if achieved, could assist China’s UAV exports going forward.³¹⁴

Figure 9: CH-4 Unmanned Aerial Vehicle



Source: Xinhua, “The CH-4: The AK-47 of Drones,” April 9, 2015.

*This list included China, Iraq, Israel, Nigeria, Pakistan, Somalia, South Africa, the United Arab Emirates, the United Kingdom, and the United States, as well as nonstate actors Hezbollah and Hamas, according to this Report. At least 78 countries deploy surveillance drones. New America, “World of Drones: Military.” <http://securitydata.newamerica.net/world-drones.html>; W.J. Hennigan, “A Fast Growing Club: Countries That Use Drones for Killing by Remote Control,” *Los Angeles Times*, February 22, 2016.

U.S.-China Security Relations in 2016

U.S.-China security relations continued to be strained in 2016, with tensions in the South China Sea playing a key role. The two sides nonetheless cooperated on several areas of mutual interest, while continuing to expand and institutionalize U.S.-China security ties.

Areas of Cooperation

Iran Sanctions Lifted Pursuant to 2015 Joint Comprehensive Plan of Action

China was among the eight signatories (along with the European Union, France, Germany, Iran, Russia, the United Kingdom, and the United States) of the Joint Comprehensive Plan of Action in July 2015, which scheduled the removal of UN sanctions on Iran in exchange for the imposition of restrictions on its nuclear program. In January 2016, with these restrictions verified, the sanctions were lifted (not including unilateral sanctions imposed by specific countries).³¹⁵ During a visit to Iran by President Xi later in January, the first visit by a Chinese leader in 14 years, Beijing and Tehran agreed to boost trade to \$600 billion over 10 years and formulate a “25-year comprehensive document” covering “long-term and strategic cooperation.”³¹⁶ According to National Defense University research fellow Joel Wuthnow, “China is expected to be a prime beneficiary of the deal as Chinese firms take advantage of greater access to the Iranian market, especially in the energy sector.”³¹⁷

As the primary destination for Iranian oil exports, and a historically close security partner to Tehran, China’s involvement in this effort was crucial.³¹⁸ For example, according to China’s foreign minister, its negotiators helped resolve a key dispute over the future of Iran’s Arak heavy-water reactor during the July 2015 negotiations.³¹⁹ China’s record on the Iran sanctions program is mixed, however. Former deputy assistant secretary of State for East Asian and Pacific affairs Thomas Christensen noted that China watered down the most significant UN Security Council resolution establishing the sanctions in the first place by ensuring Iran’s largest banks and energy sector were not included, and did not join North American and European countries in passing unilateral sanctions—the primary source of pressure on Iran’s economy—alongside the UN sanctions.³²⁰ China also used its role in the UN Security Council to indirectly aid Iran by vetoing crucial resolutions affecting the Syrian government, Iran’s ally, during the sanctions period.³²¹ In addition, Chinese national oil companies were reportedly able to negotiate favorable prices on Iranian crude oil imports during the time in which UN sanctions were in effect (although these imports did decrease), and exploited a loophole by increasing their Iranian fuel oil imports—not covered by the sanctions—beginning in 2013.*³²² Analysts have pointed out several other potential con-

*The U.S. Department of Commerce also imposed severe restrictions on U.S. exports to Chinese telecommunications company ZTE in March 2016, after ZTE allegedly violated sanctions against exporting U.S.-made technology to Iran. Two weeks later the U.S. government granted a reprieve on these restrictions, since extended to November 2016. Juro Osawa, “U.S. Grants ZTE Another Extension of Trade-Sanctions Relief,” *Wall Street Journal*, August 18, 2016; Joel Schechtman, “U.S. Extends ZTE Reprieve for Alleged Iran Sanctions Violations,” Reuters, June

cerns that might arise from closer Sino-Iranian ties moving forward: whether China would be willing to roll back its trade deals in compliance with reimposed sanctions if Iran were to violate the agreement³²³ (China could not block the reimposition of sanctions, based on the agreement's construction);³²⁴ whether deeper strategic cooperation could weaken U.S. regional influence;³²⁵ whether Chinese assistance could strengthen Iran's position and indirectly benefit nonstate actors supported by Iran;³²⁶ and whether China is poised to resume major arms sales to Iran* (although most Chinese arms sales to Iran would require a UN Security Council waiver for the first eight years of the agreement).³²⁷ Thus while China's participation should be seen as an important example of international cooperation, it also likely indicates that the threshold required for Beijing to lend assistance in future challenges will be high, depending on whether the case involves vital national interests and a far-reaching threat.³²⁸ (For a detailed discussion of China's approach to the rules-based international system, see Chapter 4, "China and the U.S. Rebalance to Asia.")

2016 U.S.-China Strategic and Economic Dialogue

The official U.S. State Department press release following the eighth annual Strategic and Economic Dialogue, held in Beijing from June 6 to 7, 2016, noted that Washington and Beijing expressed general agreement on several international issues: condemnation of North Korea's 2016 nuclear and ballistic missile tests and support for relevant UN Security Council resolutions; support for the UN Mission in South Sudan and the implementation of the Sudan-South Sudan peace agreement; support for cooperative efforts to promote a "peaceful, stable, and unified Afghanistan"; support for resolving the Syrian conflict through political means; and support for the Iraqi government's reform and counterterrorism efforts, for example. They also endorsed further cooperation on civil efforts such as the Container Security Initiative program and the Community Emergency Response Team training course held by U.S. federal and Chinese central disaster management organizations in 2015. More specifically, the two sides stated they would improve the implementation of previously established bilateral confidence building measures by: (1) conducting military exercises related to the Rules of Behavior for Safety of Air and Maritime Encounters † in conjunction with port visits and (2) discussing addi-

27, 2016; and Jeffrey Sparshott, "U.S. to Provide Temporary Trade Sanction Relief to China's ZTE Corp.," *Wall Street Journal*, March 21, 2016.

*According to Dr. Wuthnow, China ended its support for Iran's nuclear program in 1997 and has largely refrained from major military sales to Iran over the last decade. Joel Wuthnow, "Posing Problems without an Alliance: China-Iran Relations after the Nuclear Deal," *National Defense University*, February 2016, 1-2.

†The Memorandum of Understanding (MOU) on Rules of Safety of Air and Maritime Encounters, agreed on by the United States and China in 2014, seeks to avoid miscalculations and misunderstandings in encounters between U.S. and Chinese surface ships by establishing best practices for unplanned encounters. During a state visit in September 2015, the United States and China announced an air-to-air annex to the Rules MOU. The original MOU followed a similar nonbinding agreement, the Code for Unplanned Encounters at Sea, signed in 2014 by China, the United States, and 19 other Pacific countries. U.S. Department of Defense and China's Ministry of National Defense, *Supplement to the Memorandum of Understanding on the Rules of Behavior for Safety of Air and Maritime Encounters between the Department of Defense of the United States of America and the Ministry of Defense of the People's Republic of China*, September 18, 2015; U.S. Department of Defense and China's Ministry of National Defense, *Memorandum of Understanding between the United States of America Department of Defense and the People's Republic of China's Ministry of Defense on Notification of Major Military Activities Con-*

tional annexes to the 2014 Notification of Major Military Activities Memorandum of Understanding, including “a mechanism for informing the other party of ballistic missile launches.”³²⁹ The dialogue was overshadowed, however, by China’s assertive behavior in the South China Sea and economic disputes,^{*}³³⁰ reflected in President Xi’s statement that “some differences can be solved through hard work . . . [but] some differences cannot be solved at the moment.”³³¹ Moreover, DOD officials reported an “unsafe” intercept in which Chinese J–11 aircraft came within 50 feet of a U.S. EP–3 reconnaissance aircraft that was conducting a routine mission in international airspace over the South China Sea in May 2016,[†] showing that concerns regarding dangerous actions persist despite statements by Administration officials that China’s behavior is becoming safer and more professional.³³²

2016 Nuclear Security Summit

Following the fourth biannual Nuclear Security Summit, hosted in Washington in March 2016, Washington and Beijing released a Joint Statement on Nuclear Security Cooperation declaring their “commitment to working together to foster a peaceful and stable international environment by reducing the threat of nuclear terrorism and striving for a more inclusive, coordinated, sustainable and robust global nuclear security architecture for the common benefit and security of all.” The statement specifically noted the outcomes of the first annual U.S.-China bilateral talks on this topic, held in Stockholm in February 2016 and intended to “intensify [U.S.-China] cooperation to prevent nuclear terrorism and continue advancing Nuclear Security Summit goals,” as means to this end.³³³ Specific outcomes have included the opening of the Nuclear Security Center of Excellence in Beijing, a joint U.S.-Chinese venue intended to provide nuclear security training, a forum for bilateral and regional best practices exchanges, and a location for demonstrating advanced nuclear security technologies.³³⁴ Another point of action has been ongoing U.S. assistance in converting Chinese-origin Miniature Neutron Source Reactors—both in China and

fidence Building Measures Mechanism, November 4, 2014; and Jeremy Page, “China Won’t Necessarily Observe New Conduct Code for Navies,” *Wall Street Journal*, April 23, 2014.

^{*}For a detailed discussion on outcomes of the economic track, see Chapter 1, Section 1, “Year in Review: Economics and Trade.”

[†]The 2015 air-to-air annex to the U.S.-China MOU on Rules of Safety of Air and Maritime Encounters calls for “safe separation” during such intercepts but does not define this term specifically, instead requiring both militaries to refer to their own national rules and relevant international guidance, among other factors. It also notes that what qualifies as safe separation can vary depending on circumstances. The annex specifically refers to the Chicago Convention on International Civil Aviation (initiated in 1944), which calls for intercepts to not endanger the lives of persons on board or the safety of aircraft, but also does not define what specifically constitutes a “safe” as opposed to “unsafe” intercept, leaving it to signatory countries to write national laws that comply with the Convention. U.S. Federal Aviation Administration regulations, which provide much greater detail and are followed by U.S. military aircraft, set the threshold for safe separation at 500 feet. U.S. Department of Defense and China’s Ministry of National Defense, *Supplement to the Memorandum of Understanding on the Rules of Behavior for Safety of Air and Maritime Encounters between the Department of Defense of the United States of America and the Ministry of Defense of the People’s Republic of China*, September 18, 2015; International Civil Aviation Organization, *Convention on International Civil Aviation Part 1*, Chapter 1, Article 3 bis, 2006, 3; and U.S. Federal Aviation Administration, *Aeronautical Information Manual Chapter 5, Section 6: National Security and Interception Procedures*, February 11, 2010.

abroad—from highly enriched uranium (HEU) fuel to low-enriched uranium (LEU) fuel.*³³⁵

Select U.S.-China Security-Related Visits and Exchanges in 2016

Shangri-La Dialogue: At the 15th Shangri-La Dialogue,[†] held in Singapore in June 2016, U.S. Secretary of Defense Ashton Carter advocated for a “principled security network” featuring expanded cooperation among regional militaries, and warned that China risked building a “Great Wall of self-isolation” through its actions in the South China Sea.³³⁶ Other regional defense officials at the dialogue voiced their support for a rules-based international order, while Chinese defense officials reiterated Beijing’s position on its territorial claims in the South China Sea.³³⁷ Admiral Sun Jianguo, deputy chief of the Joint Staff Department under the Central Military Commission, reading from prepared remarks rather than addressing other participants’ questions,³³⁸ emphasized that China did not intend to comply with the upcoming UN Tribunal ruling and insisted that China’s sovereignty is indisputable.³³⁹

High-Level Dialogue on Cybercrime and Related Issues: China’s Minister of Public Security chaired the second high-level U.S.-Chinese dialogue on cybercrime in Beijing in June 2016, pursuant to an agreement signed in Washington in September 2015 in which both sides pledged not to conduct or knowingly support cyber-enabled theft of intellectual property for commercial gain.³⁴⁰ At this event, U.S. and Chinese officials agreed to deepen cooperation on combating cybercrime, reflected positively on the cybercrime-themed “table-top exercise” held in April 2016 and decided to hold a second prior to the next dialogue, and determined they would implement a previously planned hotline for cyber-related discussions.³⁴¹ The next high-level meeting on cybercrime is planned for late 2016 in Washington.³⁴²

Port visits: Port visits have grown in frequency since the Commission’s 2015 Annual Report to Congress, with a PLA Navy antipiracy task group visiting Florida (the PLA’s first visit to the United States’ East Coast) and Hawaii in November and December 2015, respectively, and the PLA Navy hospital ship *Peace*

*According to the International Atomic Energy Agency, there are four Chinese-built Miniature Neutron Source Reactors in China, two of which are in operation, and one each in Ghana, Iran, Nigeria, Pakistan, and Syria. These are low-power (approximately 30 kilowatt) research reactors used primarily for scientific analysis, education, and training; national and international efforts have been underway since 1978 to convert them from the use of HEU to LEU fuel. HEU is enriched to the level theoretically required for the construction of a gun-type nuclear weapon (it differs substantially from weapons-grade uranium, which is enriched to a much higher level; the higher the enrichment level, the lower the amount of material needed to construct a weapon). International Atomic Energy Agency, “CRP on Conversion of Miniature Neutron Source Research Reactors (MNSR) to Low Enriched Uranium (LEU),” June 14, 2016; Nuclear Threat Initiative, “Civilian HEU Reduction and Elimination Resource Collection,” March 15, 2016.

†The Shangri-La Dialogue, or Asia Security Summit, is hosted annually by the International Institute for Strategic Studies. It is attended by defense ministers and their civilian and military chiefs of staff from over 50 Asia Pacific countries. International Institute for Strategic Studies, “About the IISS Shangri-La Dialogue.”

Select U.S.-China Security-Related Visits and Exchanges in 2016—Continued

Ark visiting San Diego in November 2015.³⁴³ Also in November 2015, U.S. Navy destroyer *Stethem* visited Shanghai, where U.S. Pacific Fleet Commander Admiral Scott Swift met with PLA Navy Commander Wu Shengli and PLA Navy East Sea Fleet Commander Admiral Su Zhiqian.³⁴⁴ Chinese authorities abruptly canceled a planned May 2016 visit to Hong Kong by U.S. aircraft carrier *John C. Stennis*—the first time Beijing had canceled a port visit since 2014—apparently in response to U.S. Navy operations in the South China Sea, but a then-ongoing visit to Hong Kong by command ship *Blue Ridge* proceeded as planned.³⁴⁵ The U.S. guided missile destroyer *Benfold* made a scheduled port visit to Qingdao, China in August 2016.³⁴⁶

High-level official visits: In November 2015, U.S. Pacific Command Commander Admiral Harry Harris met with PLA generals in Beijing and Nanjing, including Chief of the Joint Staff Department under the Central Military Commission General Fang Fenghui, Vice Chairman of the Central Military Commission General Fan Changlong, and then-Nanjing Military Region commander general Cai Yingting;* Secretary Carter also met with Chinese Minister of National Defense General Chang Wanquan in Kuala Lumpur at the ADMM-Plus summit.³⁴⁷ U.S. Chief of Naval Operations (CNO) John Richardson traveled to China for three days in July 2016, where he visited the headquarters of China's North Sea Fleet in Qingdao, toured Chinese aircraft carrier *Liaoning* and the PLA Navy's submarine academy, and met with Commander Wu, continuing the trend set by his predecessor, CNO Jonathan Greenert, who met several times with Commander Wu.³⁴⁸ Admiral Swift also visited Qingdao in August 2016.³⁴⁹

Other exchanges: CNO Richardson held a video teleconference with Commander Wu in January 2016, continuing the program of quarterly discussions begun in 2015. CNO Richardson stated after the teleconference that “face-to-face interaction and frank exchanges help build a personal connection that benefits both our navies now and into the future” and a U.S. Navy press release noted that such conversations serve to establish a dialogue that reduces the risk of miscalculation between U.S. and Chinese naval forces.³⁵⁰ In January 2016 U.S. and Chinese defense officials met in China for the Defense Policy Coordination Talks, where they reportedly “emphasized the positive momentum sustained in the U.S.-China military-military relationship over the past year” and discussed key regional and global issues.³⁵¹ The U.S. Army held its inaugural Army-to-Army Dialogue Mechanism with Chinese forces in Beijing in November 2015.³⁵²

* Due to ongoing reforms in the Chinese military structure, the former Nanjing Military Region is now the Eastern Theater Command, headquartered in Nanjing.

Areas of Tension

Planned U.S. Missile Defense Deployment in South Korea

Following North Korea's nuclear weapons test in January and satellite test using ballistic missile technology in February, South Korean officials announced they would enter talks regarding the deployment of a U.S. Terminal High Altitude Area Defense (THAAD) missile defense system to South Korea. Later in the year, the United States and South Korea agreed to deploy one THAAD battalion in South Korea by the end of 2017.³⁵³ While U.S. officials have insisted the system is solely intended to defend against missile threats from North Korea and will not affect China's nuclear deterrent,³⁵⁴ China has opposed the deployment, arguing it exceeds U.S. and Korean defense needs and will harm China's strategic interests.³⁵⁵ China's ambassador to South Korea even stated that THAAD deployment "could destroy [China-South Korea] bilateral relations in an instant,"³⁵⁶ and a Chinese Foreign Ministry spokesperson warned in late September that China "will take necessary measures to defend national security interests and [the] regional strategic balance."³⁵⁷ U.S. Army Chief of Staff Mark Milley visited Beijing in August 2016 to provide a technical briefing on the system to PLA Army General Li Zuocheng in an effort to reassure Beijing that the planned deployment will not threaten China.³⁵⁸ (For more information on the planned deployment and on North Korea-China relations, see Chapter 3, Section 4, "China and North Korea.")

South China Sea

Tensions in the South China Sea continued to affect U.S.-China relations over the past year as well. China voiced opposition to each of the freedom of navigation operations and overflights conducted by the United States in the South China Sea in 2016, and continued its attempts to shadow and warn off U.S. vessels and aircraft.³⁵⁹ As noted earlier, China firmly rejected the July 2016 arbitration ruling that voided many of its South China Sea maritime claims,³⁶⁰ while the United States urged Beijing to abide by the ruling.³⁶¹ During his three-day visit to China in July 2016, CNO Richardson reaffirmed that the U.S. Navy would continue to conduct freedom of navigation operations in the South China Sea. He also stated that his support for "a continued and deepening navy-to-navy relationship" would be "conditioned on continued safe and professional interactions [with the PLA Navy] at sea."³⁶² Commander Wu also urged cooperation, but stated that "We will never stop our construction on the Nansha [Spratly] Islands halfway ... no matter what country or person applies pressure."³⁶³

U.S. Arms Sale to Taiwan

China issued a standard condemnation regarding the U.S. arms sale to Taiwan in December 2015, and for the first time threatened sanctions against the U.S. companies involved, although it did not suspend military exchanges as it has done in the past.³⁶⁴ (For a detailed discussion on developments in cross-Strait relations in 2016, see Chapter 3, Section 2, "China and Taiwan.")

Cyber Espionage

Chinese cyber espionage against a range of U.S. entities continued in 2016, to the detriment of U.S. economic and national security. (See Chapter 2, Section 3, “China’s Intelligence Services and Espionage Threats to the United States,” for a discussion of Chinese intelligence operations and espionage against the United States. See Chapter 1, Section 1, “Year in Review: Economics and Trade,” for an update on China’s September 2015 pledge not to conduct or knowingly support cyber-enabled theft of intellectual property.)

U.S. Rebalance to Asia

Finally, Washington’s Asia Pacific strategy aimed at sustaining its regional leadership—the “Rebalance to Asia”—continued to undergo criticism in Beijing in 2016, likely based not on the strategy itself but on underlying differences in the two countries’ approaches to regional and international norms. (For a detailed discussion on the Rebalance strategy and U.S.-China relations, see Chapter 4, “China and the U.S. Rebalance to Asia.”)

Conclusions

- In 2016, an international tribunal ruled overwhelmingly in the Philippines’ favor in its case regarding China’s South China Sea claims and activities; Beijing expectedly rejected the ruling. One of the most significant findings of the ruling was that China’s claims to historic rights and resources within the “nine-dash line” have no legal basis. The strength of the ruling will be in its support from and enforcement by the international community, as the ruling itself has no enforcement mechanism. Aside from the arbitration ruling, tensions remained high in the South China Sea, as China landed several aircraft in the Spratly Islands and conducted military deployments to the Paracel Islands, both of which are disputed territories.
- The risk of escalation in tensions between China and Japan in the East China Sea and miscalculation or an accidental collision between Chinese and Japanese ships and aircraft has grown with the first instances of the Chinese navy sailing within 24 nautical miles of the disputed Senkaku Islands, the increased size of Chinese coast guard ships patrolling there, and the growing frequency of scrambles of Japanese fighter aircraft against Chinese aircraft.
- The ongoing People’s Liberation Army (PLA) reorganization, the most sweeping structural reorganization of the PLA since the 1950s, seeks to address operational and developmental challenges Beijing believes have prevented the PLA from meeting the needs of modern warfare. Operational challenges addressed by flattening command and control between Beijing and the theaters could improve the PLA’s capability to conduct joint integrated operations against a range of perceived threats along China’s periphery and within western China. Though China seeks to complete reforms by 2020, it will likely take longer. However,

once reforms are fully realized the PLA will be better positioned to execute the contingency operations assigned to each theater.

- China's reported 2016 military budget grew relative to the previous year at the lowest rate in six years, with slowing economic growth likely playing a role. Future defense spending increases should be sustainable in the near term, however. China is acquiring a growing number of increasingly advanced multi-mission ships, fighter aircraft, heavy transport aircraft, and space assets, which will increase its ability to project power both near and far from its shores. The PLA's improving force projection capabilities will strengthen its hand in regional military conflicts and support its imperative to protect its overseas interests.
- China's increasing overseas military presence reflects its interest and willingness to use military force to defend its growing overseas assets. China's global security activities likely will continue to increase as the population of Chinese nationals overseas grows along with Chinese overseas economic activity and national interests.
- China's military exercises will continue to expand in complexity and scale as the PLA works to overcome its lack of combat experience. As exercises increase in complexity they will reveal insights into specific missions or contingency operations the PLA may be preparing to conduct along China's periphery or beyond. China has also increased the number and type of military exercises it holds with other countries; many of these exercises focused on nontraditional security challenges, including counterterrorism, antipiracy, and humanitarian assistance/disaster relief, helping the PLA improve its capacity to conduct such operations and ease other countries' anxieties about China's military modernization.
- Despite cooperation on several areas of mutual interest and the continued expansion of security ties, U.S.-China relations over the past year continued to be strained. Points of tension included China's activities in the South China Sea, the planned deployment of a U.S. Terminal High Altitude Area Defense (THAAD) missile defense system to South Korea, the U.S. arms sale to Taiwan, Chinese cyber espionage activities, and the U.S. Rebalance to Asia strategy.

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SECTION 2: DEVELOPMENTS IN CHINA'S MILITARY EXPEDITIONARY AND FORCE PROJECTION CAPABILITIES

Introduction

Chinese defense and national security white papers highlight multiple military missions that would require the People's Liberation Army (PLA) to conduct operations beyond the territorial boundaries of the People's Republic of China (PRC), to include anti-piracy, peacekeeping, and humanitarian assistance/disaster relief (HA/DR) operations.¹ Chinese military strategic thinkers likewise discuss the need for the PLA to pursue long-distance, or expeditionary, operational capabilities.² The requirements to support these operations include developing long-range naval, air, as well as intelligence, surveillance, and reconnaissance capabilities to advance and safeguard national interests and conduct military operations at greater distances from China's periphery.³ The term associated with these missions is "non-war"⁴ operations. As China's interests and activities abroad grow, the U.S. Department of Defense (DOD) asserts the PLA's "military modernization program has become progressively more focused on investments for a range of missions beyond China's periphery, including power projection" operations.⁵

This capability, regardless of whether referred to as "expeditionary" or "long-distance," will boost the PLA's ability to conduct warfighting missions further into the Western Pacific and beyond. Kristen Gunness, chief executive officer of Vantage Point Asia LLC and an adjunct senior international policy analyst at the RAND Corporation, testified to the Commission that "many of the expeditionary capabilities that the PLA is investing in or improving are ... 'overlap' capabilities that are useful across a range of mission sets, including antiaccess/area denial,* cross-border [operations], and expeditionary missions."⁶ Examples of developments within the PLA that enhance these capabilities include the construction of surface warfare and amphibious ships, strike aircraft, and attack submarines; the improvement of air and sealift capacity; and the application of lessons learned from joint training and operational deployments.

This section analyzes the security challenges, evolving missions, joint operational developments, and military modernization efforts associated with China's interest in developing an expeditionary force projection capability throughout and beyond the second island

*According to DOD, "antiaccess" actions are intended to slow deployment of an adversary's forces into a theater or cause them to operate at distances farther from the conflict than they would prefer. "Area denial" actions affect maneuvers within a theater, and are intended to impede an adversary's operations within areas where friendly forces cannot or will not prevent access. U.S. Department of Defense, *Air Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges*, May 2013, 2.

chain;* it also examines the implications for the United States and U.S. allies and partners in the Asia Pacific.† This analysis draws from the Commission’s January 2016 hearing on developments in China’s military force projection and expeditionary capabilities, consultations with experts on Chinese military affairs, the Commission’s July 2016 trip to China and India, and open source research and analysis.

Factors Driving China’s Interest in Expeditionary Capabilities

Security Challenges

China’s 2015 defense white paper, entitled “China’s Military Strategy,” identifies a range of Chinese security concerns that include challenges to territorial integrity, security of citizens abroad, terrorism, ongoing border disputes, recurring regional crises, and the potential for local wars.⁷ The strategic military thinking outlined in the white paper highlights expanding military activities that are intended to enhance China’s efforts to defend “core interests,” although it does not indicate a departure from the PLA’s traditional military missions (which include defending the Chinese Communist Party [CCP], defending the homeland, and unifying with Taiwan). However, according to Timothy Heath, a senior international defense research analyst with the RAND Corporation, “The rising importance placed [by the 2015 defense white paper] on the protection of the nation’s expanding interests marks a profound shift in security policy. While continuing to prioritize peaceful means to strengthen control over its core interests and improve its strategic position, China is at the same time preparing for more coercive options short of war.”⁸

China’s Core Interests

Chinese officials began making core interest declarations in 2003 to characterize Beijing’s concern that Taiwan was steadily moving toward de jure independence. In 2011 China issued a white paper titled “China’s Peaceful Development” that defined core interests as “state sovereignty, national security, territorial integrity and national reunification, China’s political system established by the Constitution and overall social stability, and the basic safeguards for ensuring sustainable economic and social de-

*The first island chain refers to a line of islands running through the Kurile Islands, Japan and the Ryukyu Islands, Taiwan, the Philippines, Borneo, and Natuna Besar. The second island chain is farther east, running through the Kurile Islands, Japan, the Bonin Islands, the Mariana Islands, and the Caroline Islands. PLA strategists and academics have long asserted the United States relies primarily on the first island chain and the second island chain to strategically “encircle” or “contain” China and prevent the PLA Navy from operating freely in the Western Pacific. Hai Tao, “PRC Article Surveys China’s Naval Rivals, Challenges,” *Guoji Xianqu Daobao*, January 6, 2012. Staff translation; Bernard D. Cole, *The Great Wall at Sea (2nd ed.)*, Naval Institute Press, 2010, 174–176.

†Many of the long-range expeditionary capabilities the PLA is pursuing would enable the combat insertion of troops conducting island landing operations during an invasion of Taiwan. However, this section is focused on a range of contingencies or requirements driving the PLA to build an expeditionary capability for operations within and beyond the second island chain or along China’s land borders.

China's Core Interests—Continued

velopment.”⁹ In 2015, the Standing Committee of the National People's Congress passed a new National Security Law that expanded the country's authoritative rule over a far greater list of “core interests,” including space and cyberspace.¹⁰ Zheng Shuna, a National People's Congress official, explained at the unveiling of the new National Security Law in Beijing that “the country must defend its sovereignty, security, and development interests. It must also maintain political and social stability. . . . Any government will stand firm and will not leave any room for disputes, compromises, and interference when it comes to protecting core interests. China is no exception.”¹¹ Chinese officials make core interest declarations, especially those focused on national sovereignty and territorial integrity, to advance foreign policy objectives. Occasionally, Chinese officials have indicated Beijing would be willing to use force to protect China's core interests.¹²

Some core interest statements issued by senior Chinese leadership include:

- The first time a Chinese official spoke publicly about core interests in a diplomatic context was in 2003. Tang Jiaquan, then Chinese foreign minister, told then U.S. secretary of State Colin Powell concerning Taiwan that “the Taiwan issue concerns China's core interests [and] proper handling of this issue is key to ensuring the stable development of U.S.-China relations.”¹³
- In November 2008, a Chinese Foreign Ministry spokesperson responding to a question about then French president Nicolas Sarkozy's meeting with the Dalai Lama said “the Chinese Government is resolute and clear-cut on issues of major principles, including those involving China's sovereignty and territorial integrity, its national core interest, and the feelings of the Chinese people. [China] resolutely oppose[s] [the Dalai Lama's] separatist activities in any country in whatever capacity, and his contact with foreign governments and leaders in whatever form.”¹⁴
- More recently, Chinese President and General Secretary of the CCP Xi Jinping, during a July 2016 meeting with U.S. National Security Advisor Susan Rice, called upon “China and the United States to effectively manage their differences and respect each other's core interests.”¹⁵ President Xi's statement came after the July 12, 2016, ruling released by the Permanent Court of Arbitration in The Hague concerning the UN Convention on the Law of the Sea case on China's claims and activities in the South China Sea.¹⁶

These security concerns are driving China to pursue capabilities that would facilitate PLA operations abroad in defense of Chinese interests. Oriana Skylar Mastro, an assistant professor of Security Studies at Georgetown University's Edmund A. Walsh School of

Foreign Service, testified to the Commission that “commercial, economic, and political reasons are pushing China to give greater consideration to global threats and opportunities.”¹⁷ As more Chinese citizens travel abroad and China’s overseas interests expand,* China is becoming increasingly exposed to threats that instability or hostile activity pose to citizens and investments beyond China’s borders.¹⁸ In recent years, anti-China sentiment has led to the targeting of Chinese citizens and economic interests abroad:

- In August 2016, a suicide car bomber attacked the Chinese Embassy in Kyrgyzstan, killing himself and wounding three Kyrgyz employees of the embassy. Following the attack, the Chinese Ministry of Foreign Affairs stated that China “will strengthen antiterrorism cooperation with regional countries including Kyrgyzstan under bilateral and the Shanghai Cooperation Organization ... frameworks, clamp down on all forms of terrorism, and take tangible efforts to ensure the safety of Chinese institutions and people in relevant countries and uphold regional peace and stability.”¹⁹
- Also in August 2016, the Islamic State of Iraq and the Levant (ISIL) conducted a terrorist attack against a hospital in Quetta, Pakistan, that killed 74 people. Lieutenant General Asim Saleem Bajwa, director general of Inter-Services Public Relations for Pakistan’s military, claimed the attack was “specifically targeting the China-Pakistan Economic Corridor.”²⁰
- In August 2015, three Chinese tourists were killed during a terrorist attack targeting a shrine in Bangkok, Thailand. Although unconfirmed, some analysts and officials have suggested the attack specifically targeted Chinese tourists.²¹
- In July 2015, the Chinese government issued a travel warning in Turkey after Asian tourists were harassed in Istanbul during protests against China’s abuses of Uyghurs in Xinjiang.²²
- In 2015, ISIL—which in 2014 identified China as a country that deprives Muslims of their rights²³—killed a Chinese citizen who had been held hostage for several months.²⁴
- In 2014, three Filipino men angry about Chinese business and environmental practices sought to carry out attacks against Manila’s international airport, the Chinese embassy in Manila, and Chinese workers in the Philippines.²⁵ The plots failed, and Filipino authorities arrested the men.²⁶

Even if not specifically targeted, Chinese citizens traveling, working, or living abroad face safety and security concerns. For example, in 2011 four Chinese oil workers were among many foreign workers abducted by Revolutionary Armed Forces of Colombia

* Between May 2013 and May 2014, Chinese citizens conducted 98 million overseas trips and 20,000 Chinese companies operated in more than 180 countries. China’s Department of Consular Affairs has assessed that by 2020 Chinese citizens will make 150 million trips overseas per year. Oriana Skylar, “The Foreign Policy Essay: Why China Will Become a Global Military Power,” *Lawfare* (Blog), January 11, 2015; Keira Lu Huang, “‘Not Enough’ Consular Officers to Serve Chinese Nationals, Foreign Ministry Says,” *South China Morning Post* (Hong Kong), May 19, 2014.

guerrillas in Colombia and held captive for nearly 18 months before being released.²⁷

Security along China's One Belt, One Road

A potential source of security risks to Chinese citizens and investments abroad is China's "One Belt, One Road" initiative,* which employs economic engagement—primarily through infrastructure investment—to advance China's broader geostrategic goals and economic growth.²⁸ The land route associated with this initiative—the Silk Road Economic Belt—includes projects in unstable portions of South and Central Asia, making it potentially vulnerable to terrorist attacks.†²⁹ Dr. Mastro suggests the "PLA is eager to collect its portion of the political and fiscal patronage that accompanies the One Belt, One Road initiative, and has largely agreed that the PLA should be responsible for protecting Chinese interests along the One Belt and One Road," which observers note "may require China to abandon its long-standing policy of avoiding security entanglements abroad."³⁰ (For an in-depth discussion of China's One Belt, One Road initiative in South Asia, see Chapter 3, Section 1, "China and South Asia.")

Although China may initially rely on local military and security forces‡ to protect Chinese citizens working on the One Belt, One Road initiative, constituencies within China's security apparatus argue the PLA should have a larger role in protecting the corridor.³¹ China has experience deploying troops abroad while conducting counterterrorism exercises with the Shanghai Cooperation Organization (SCO),§ and enacted a counterterrorism law that provides the PLA and other Chinese security forces a legal basis to deploy abroad with host country permission.³² The existing military cooperation between SCO members, coupled

*China's "One Belt, One Road" initiative is a culmination of several policies and projects aimed at linking China with its trading partners. The "Silk Road Economic Belt," announced by President Xi in 2013, runs through South and Central Asia, and its maritime corollary, the "21st Century Maritime Silk Road," runs from China's coast through Southeast Asia and the Indian Ocean to Africa and the Mediterranean Sea. U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 23.

†According to Andrew Small, a transatlantic fellow with the German Marshall Fund of the United States, "For several years, notably from 2004 to 2008, Pakistan was the most dangerous overseas location for Chinese nationals, who faced politically-motivated targeting from groups ranging from the Balochistan Liberation Army to the Pakistani Taliban." U.S.-China Economic and Security Review Commission, *Hearing on China-South Asia Relations*, written testimony of Andrew Small, March 10, 2016.

‡While Pakistan has pledged to provide a 20,000-strong security force for Chinese workers, including 10,000 police and 10,000 military troops, China is concerned about competency and rampant corruption within the Pakistani police. Chinese scholar, meeting with Commissioners, Beijing, China, June 24, 2016.

§The SCO, established in 2001 by China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, is the primary vehicle for China's security engagement with Central Asia. In addition to the SCO's six member states, it has six observer states (Afghanistan, Belarus, India, Iran, Mongolia, and Pakistan). India and Pakistan are in the process of becoming full SCO members. Counterterrorism is the stated primary focus of the SCO, although the organization ostensibly concerns itself with a wide range of issues, including economic cooperation, energy ties, counternarcotics, tourism, cultural exchanges, and international affairs. Xinhua, "China Voice: SCO Provides New Paradigm for Global Security Cooperation," June 29, 2016; U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 406.

Security along China's One Belt, One Road—Continued

with the new counterterrorism law, could provide the PLA an opportunity to conduct limited expeditionary operations in conjunction with another SCO member should security conditions along the One Belt, One Road corridor deteriorate and Chinese citizens and infrastructure investments be threatened.

The SCO and counterterrorism training: Since 2002, China has participated in 15 SCO exercises that focused primarily on counterterrorism and provided Chinese troops experience operating in overseas locations.³³ China also pursues bilateral counterterrorism cooperation outside the SCO framework, including with Kazakhstan, Pakistan, Thailand, and the United States.³⁴

Counterterrorism and Beijing's principle of noninterference: According to a study prepared for the Commission by CNA, a non-profit research and analysis organization, China's 2015 Counterterrorism Law* suggests "Beijing is considering a more expeditionary approach to countering terrorist threats in the future," and notes that the new law "provides an explicit legal basis for Chinese public security and state security forces to engage in counterterrorism operations overseas, with permission of the host governments† and after reporting to the State Council."³⁵ This would provide Beijing an option for conducting joint counterterrorism operations along portions of the One Belt, One Road corridor and elsewhere.

Evolving PLA Missions

The growing need for Beijing to protect Chinese interests abroad is not entirely new. In 2004, then Chinese president and general secretary of the CCP Hu Jintao introduced the "New Historic Missions," which included guidance for the PLA to "safeguard national interests" and "promote world peace and common development"—a dramatic change in the PLA's mission.³⁶ The 2015 defense white paper, influenced by guidance from the New Historic Missions, outlined eight strategic tasks, or missions, currently assigned to the

*China's counterterrorism law, enacted in January 2016, defines terrorism as "advocacy or behavior aimed at realizing political or ideological objectives through means of violence, destruction, intimidation, or other methods or creating social panic, endangering public safety, violating persons or infringing property, or coercing state organs or international organizations." Murray Scot Tanner and James Bellacqua, "China's Response to Terrorism," CNA (prepared for the U.S.-China Economic and Security Review Commission), June 16, 2016, 33–34.

†China is unlikely to conduct expeditionary missions in foreign countries without first obtaining permission from the host country. In her testimony to the Commission, Dr. Mastro writes "China has had a historical aversion to alliances and overseas basing; China argues that its rejection of such 'hegemonic' behaviors is critical evidence that it will be a different, more peaceful, great power. China's policy of not interfering in the domestic affairs of other countries also continues to be an influential principle, in part because of the ongoing need to protect itself from international criticism, separatist movements, and calls for democracy or greater protection of human rights. Pressures for continuity, such as the belief that interference is ineffective, the desire to promote China's leadership in the developing world, and the deep-rooted desire to be a different type of great power than the United States or former colonial powers, affect calculations of costs, benefits, and appropriate responses to its expanding overseas interests." U.S.-China Economic and Security Review Commission, *Hearing on Developments in China's Military Force Projection and Expeditionary Capabilities*, written testimony of Oriana Skylar Mastro, January 21, 2016.

PLA.³⁷ In addition to safeguarding the CCP, the missions outlined and tasked to the PLA in the 2015 white paper are:

- Safeguarding sovereignty and security of China's territorial land, air, and sea;
- Safeguarding unification of the motherland;
- Safeguarding security and interests in new domains;*
- Safeguarding security of China's overseas interests;
- Maintaining strategic deterrence and ability to carry out nuclear counterattack;
- Participating in regional and international security cooperation and maintaining regional and world peace;
- Strengthening efforts in operations against infiltration, separatism, and terrorism so as to maintain China's political security and social stability; and
- Performing emergency rescue and disaster relief, rights and interests protection, guard duties, and support for national economic and social development.³⁸

Several of these missions require some degree of expeditionary capability.³⁹

Of note, to date many of the missions conducted by the PLA that have an expeditionary component have contributed to international efforts to enhance peace, security, and stability. For example, the PLA mobilized medical units and constructed Ebola treatment centers in Liberia during the 2014 outbreak.⁴⁰

- *Noncombatant evacuation operations* † (*NEOs*): Until recently, the PLA had little experience planning and conducting NEOs, as the Ministry of Foreign Affairs had coordinated the bulk of China's operations to evacuate Chinese citizens abroad.‡ Al-

* China's 2015 defense white paper entitled "China's Military Strategy" discusses PLA "force development in critical security domains" and contains a reference to the PLA being tasked with "safeguarding China's security and interests in new domains." The critical domains emphasized in the 2015 white paper are maritime, space, cyberspace, and nuclear deterrence. Discussion of the maritime domain centers on abandoning the "traditional mentality that land outweighs sea" and is an acknowledgement that China must develop a modern maritime force to protect its sea lines of communication and overseas interests. The white paper also states that China must "deal with security threats and challenges in [the space] domain, and secure its space assets . . . and maintain outer space security." The white paper refers to cyberspace as a new national security domain requiring the PLA to develop the capability to counter threats to China's cyber infrastructure. Finally, the white paper discusses the nuclear realm as a new domain, emphasizing nuclear deterrence by restating China's "no first use policy" and noting that "China will optimize its nuclear force structure." China's State Council Information Office, *China's Military Strategy*, May 2015.

† Noncombatant evacuation operations involve the extraction of civilians from a foreign country amid a dangerous security situation.

‡ China has conducted several evacuation operations over the past decade: In 2006, China evacuated 325 Chinese citizens from the Solomon Islands, 246 from East Timor, 170 from Lebanon, and 300 from Tonga. With the exception of the Lebanon evacuation, China relied on chartered air to extract its citizens. In Lebanon, China evacuated 170 Chinese citizens by coordinating departures through the Syrian, Cypriot, and Israeli embassies. In 2008, China evacuated 212 Chinese citizens from Chad and 3,000 Chinese tourists from Thailand. The Chadian government coordinated the transport of Chinese citizens to Cameroon. In the case of Thailand, Chinese aviation authorities arranged air transport for its citizens from Bangkok. In 2009 and 2010, China sent an aid team to Haiti to assist in earthquake relief and evacuated 48 Chinese citizens with the team upon return. In 2010, China airlifted 1,299 Chinese citizens from Kyrgyzstan. In 2011, Chinese citizens were evacuated from Egypt and Libya. In Egypt, China

Continued

though the PLA Navy did successfully plan and execute the first military-led evacuation* of Chinese citizens from Yemen in 2015,⁴¹ the operation occurred in what DOD would call a permissive environment; the PLA has no experience conducting NEOs in a hostile environment.† The success of the Yemen operation reinforced expectations of Chinese citizens that the PLA will play a greater role in such missions in the future.⁴² The PLA's limited NEO planning experience probably motivated China's participation in a March 2016 tabletop exercise with the United Kingdom focused on noncombatant evacuation operations.⁴³

- *Antipiracy operations:* The PLA Navy began Gulf of Aden antipiracy operations in December 2008. This operation, conducted by 24 consecutive task groups, marks the first time the PLA Navy has engaged in and sustained a mission beyond China's near seas.⁴⁴ The PLA Navy has used these deployments to gain logistical experience by sustaining a persistent three-ship presence off the Horn of Africa to protect Chinese merchant shipping from piracy.⁴⁵
- *Humanitarian assistance and disaster relief (HA/DR):* The PLA conducts HA/DR, both within China and overseas, in the execution of nontraditional security missions.⁴⁶ PLA HA/DR missions to date have consisted of troops deployed to conduct search and rescue, logistics, engineering, medical, and transportation operations, and have provided the PLA opportunities to strengthen overseas operational and mobilization capabilities.⁴⁷
- *Peacekeeping operations:* The PLA supports UN peacekeeping operations; as of September 2016, China maintains approximately 2,639 personnel‡ in 10 operations, largely in sub-Saha-

chartered flights to evacuate 1,848 Chinese citizens. In Libya, China rented cruise liners, cargo ships, and fishing boats to evacuate 35,000 of its citizens and for the first time used PLA Navy ships to provide security for an evacuation operation. In 2014, China evacuated 3,500 Chinese citizens from Vietnam and 1,200 from Iraq. In 2015, China evacuated roughly 600 Chinese citizens from Yemen. The NEO was carried out by two PLA Navy frigates and a replenishment ship conducting antipiracy operations in the Gulf of Aden. The Yemen operation was followed by a NEO in Nepal, where the Chinese Ministry of Foreign Affairs organized civilian Chinese aircraft to return approximately 2,700 Chinese citizens to China. Jane Perlez and Yufan Huang, "Yemen Evacuation Shows Chinese Navy's Growing Role," *New York Times*, March 31, 2015; Xinhua, "Backgrounder: China's Major Overseas Evacuations in Recent Years," March 30, 2015; and Xinhua, "China Brings Home 2,700 Citizens from Nepal," April 29, 2015; Mathieu Duchâtel and Bates Gill, "Overseas Citizen Protection: A Growing Challenge for China," *Stockholm International Peace Research Institute*, February 12, 2014.

*Although the PLA Air Force and Navy supported the evacuation of Chinese citizens in Libya with four Il-76 transport aircraft and a warship, the operation was coordinated by the Ministry of Foreign Affairs and relied heavily on commercial transport. Abraham M. Denmark, "PLA Logistics 2004–2011: Lessons Learned in the Field," in Roy Kamphausen, David Lai, and Travis Tanner, *Learning by Doing: The PLA Trains at Home and Abroad*, U.S. Army War College Strategic Studies Institute, November 2012, 311–315.

†U.S. defense doctrine identifies three environments—permissive, uncertain, and hostile—as possible during a NEO. Permissive environments exist when there is no resistance and a NEO requires little or no assembly of combat forces. Operations in a permissive environment focus on medical treatment, transportation, and administrative processing involved in an evacuation. An uncertain environment exists when a government lacks control over its territory, requiring troop reinforcement for the operation. A hostile environment exists when noncombatants are evacuated under conditions ranging from civil disorder to full-scale combat, requiring a sizable security force and possibly requiring forcible entry operations. Chairman of the Joint Chiefs of Staff, *Joint Publication 3–68: Noncombatant Evacuation Operations*, November 18, 2015.

‡A total of 13 Chinese troops have been killed to date during peacekeeping operations, with 3 fatalities—1 in Mali and 2 in South Sudan—occurring in 2016. China Military Online, "UN Peacekeeping Chief Hails Great Professionalism of Chinese Peacekeepers," July 28, 2016; Chi-

ran Africa and the Middle East.⁴⁸ In 2012, China deployed its first UN peacekeeping combat forces to the UN Mission in South Sudan to provide security for PLA engineering and medical personnel.⁴⁹ The 2012 deployment to South Sudan was followed in 2015 by the PLA's first deployment of an infantry battalion to support a peacekeeping operation.⁵⁰ Participation in peacekeeping operations has provided the PLA operational experience deploying military observers, engineers, logistics support, and medical personnel to UN missions and, according to DOD, reflects the PLA meeting requirements found in the "New Historic Missions' of taking on roles and generating capabilities for operations far beyond China's borders."⁵¹

- *Indian Ocean far sea deployments:* In early 2014, Chinese surface combatants carried out far sea training, during which they transited through the South China Sea, into the eastern Indian Ocean, and then sailed back to China through the Philippine Sea.⁵² During the 23-day deployment, the PLA Navy conducted training associated with antisubmarine warfare, air defense, electronic warfare, and expeditionary logistics.⁵³ In addition to ongoing antipiracy operations in the Gulf of Aden, China dispatched an intelligence gathering ship to the Indian Ocean in 2012, and has deployed four classes of submarines (both nuclear and conventionally powered) to the Indian Ocean.*⁵⁴ China is likely to continue to build on these developments to further the PLA's capability to conduct nontraditional security missions and to enhance its expeditionary capabilities beyond the first island chain.⁵⁵ (For more on China's recent activities in the Indian Ocean, see Chapter 3, Section 1, "China and South Asia.")

Military Modernization: Implications for Developing an Expeditionary Capability

The force structure and capabilities for supporting and sustaining a PLA expeditionary force (beyond the nascent NEO, antipiracy, and HA/DR operational capabilities currently exhibited) outside the first island chain have yet to fully take shape.⁵⁶ Nevertheless, several features of China's ongoing military modernization

na's Ministry of National Defense, *Official English Transcript of PRC National Defense Ministry's News Conference*, July 28, 2016.

*Since China deployed the SHANG-class nuclear attack submarine to the Gulf of Aden in support of PLA Navy antipiracy operations in December 2013, China has dispatched a total of three additional classes of submarine to the Indian Ocean. The PLA Navy deployed the SONG-class diesel electric submarine and the HAN-class nuclear-powered attack submarine in 2014. In 2015, China deployed the YUAN-class diesel electric submarine equipped with an air-independent power propulsion system. By deploying submarines from each of these classes, China has demonstrated the ability to conduct Indian Ocean deployments with a range of submarines from the PLA Navy's submarine order of battle. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2016*, April 26, 2016, 22; Abhijit Singh, "Deciphering China's Submarine Deployments in the Indian Ocean Region," *Institute for Defence Studies and Analyses*, July 8, 2015; Zachary Keck, "Can China's Nuclear Submarines Blockade India?" *National Interest*, June 5, 2015; Andrew S. Erickson and Austin M. Strange, "Six Years at Sea ... and Counting: Gulf of Aden Anti-Piracy and China's Maritime Commons Presence," *Jamestown Foundation*, June 2015, 100–102; Andrew S. Erickson and Austin M. Strange, "China's Global Maritime Presence: Hard and Soft Dimensions of PLAN Antipiracy Operations," *Jamestown Foundation*, May 1, 2015; and U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2015*, April 7, 2015, 19.

could enable the PLA to sustain more robust expeditionary operations in the future. The PLA is working to increase its capacity to conduct these externally focused non-war operations, as indicated by the modernization themes identified in the 2015 defense white paper, guidance to the PLA in the form of the New Historic Missions, and reforms within the Central Military Commission with implications for command and control for operational forces overseas.⁵⁷

Although China's expeditionary military capabilities are currently limited, they will increase in coming years, as will the likelihood that Beijing will use increases in capability to protect its citizens and economic interests abroad.⁵⁸ With the exception of conflicts involving Russia and India, the PLA probably can conduct these kinds of operations along China's periphery; however, according to *China's Incomplete Military Transformation: Assessing the Weaknesses of the People's Liberation Army*, a report prepared for the Commission by the RAND Corporation, the "PLA's ability to conduct effective offensive actions into neighboring countries is impeded by continuing logistics shortfalls ... (such as aerial tankers and airlift)."⁵⁹ Furthermore, to support, sustain, and defend long-range operations, the PLA must continue to develop or procure large amphibious ships, heavy lift aircraft, and logistical support capabilities, as well as continue to improve command and control capabilities.

The following aspects of the PLA's naval and air force modernization efforts will enhance China's ability to conduct expeditionary operations:

Amphibious Ships

Some expeditionary operations require amphibious ships to transport troops and equipment. Chinese analysts have suggested large amphibious ships would contribute to conducting non-war military missions such as NEOs.⁶⁰

- *Amphibious transport dock*: China commissioned its fourth YUZHAO-class amphibious transport dock in February 2016, and additional ships are likely planned for the class.⁶¹ The YUZHAO can carry up to four air cushion landing craft, four helicopters, armored vehicles, and troops for long-distance deployments, which DOD notes "provide[s] a ... greater and more flexible capability for 'far seas' operations than the [PLA Navy's] older landing ships."⁶²
- *Amphibious assault ship*: According to DOD, China seeks to construct a class of amphibious assault ships larger than the YUZHAO class that would include a flight deck for conducting helicopter operations.⁶³ China may produce four to six of these Type 081 ships with the capacity to transport 500 troops and configured for helicopter-based vertical assault.⁶⁴

Aircraft Carriers

Aircraft carriers will likely play a role in China's future military actions, such as providing air and other support for antipiracy operations, NEOs, and far seas defense.⁶⁵ Christopher D. Yung, direc-

tor of East Asian Studies at the U.S. Marine Corps University, states the PLA recognizes “an expeditionary force . . . has to operate in an integrated, self-protected manner ” in order to “create a protective bubble around a task force,” as is called for in China’s 2008 defense white paper.⁶⁶ As large amphibious ships generally lack a defensive capability against an airborne or subsurface threat, any operation occurring beyond the range of land-based aircraft will require ships capable of providing air defense and prosecuting submarines to defend task groups conducting expeditionary operations.

- *Aircraft carrier Liaoning*: The PLA Navy continues to integrate the refurbished KUZNETSOV-class aircraft carrier, *Liaoning*, into the fleet.⁶⁷ *Liaoning*’s primary mission is fleet air defense.* It may eventually embark a total of 36 aircraft: 24 J-15 fighters, 6 antisubmarine warfare helicopters, 4 airborne early warning helicopters,† and 2 rescue helicopters.⁶⁸
- *Indigenous aircraft carrier program*: China’s Ministry of Defense confirmed China’s first indigenous aircraft carrier was under construction in December 2015.⁶⁹ The carrier will have a ski jump flight deck design similar to *Liaoning*, which will limit the carrier to air defense and possibly antisubmarine warfare operations.⁷⁰ Although the PLA Navy’s first indigenously produced aircraft carrier will be similar to *Liaoning*, future carriers are likely to be flat deck ships, like U.S. aircraft carriers, that utilize steam or magnetic catapults and would enable the PLA Navy to employ aircraft armed with heavier munitions intended for maritime strike or land attack missions.⁷¹ According to DOD, China could build several aircraft carriers in the next 15 years.⁷² China may ultimately produce five ships—for a total of six carriers—for the PLA Navy.⁷³

Escort Ships

In addition to aircraft carriers, any amphibious ships conducting expeditionary operations in far seas will require escort by multi-mission-capable surface combatants. U.S. Navy Rear Admiral (Ret.) Michael A. McDevitt, a senior fellow with CNA Corporation, testified to the Commission that the

backbone of . . . [far] seas’ forces will be the multi-mission LUYANG II/III (Type 052C and 052D) class destroyers (DDG). They are likely to form the bulk of the warship escorts for Liaoning, any follow-on carriers, and expeditionary amphibious forces. These 8,000 ton destroyers . . . have phased-array radars and a long-range SAM [surface-to-air missile] system which provides the [navy] with its first credible area air-defense capability (the ability to de-

*DOD’s 2015 report on China’s military states *Liaoning*’s “smaller size limits the number of aircraft it can embark, while the ski-jump configuration . . . restricts fuel and ordnance load . . . [and] is therefore best suited to fleet air defense missions, extending air cover over a fleet operating far from land-based coverage.” U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2015*, April 7, 2015, 11.

†Shipborne early warning aircraft provide indications of approaching air threats, threat identification, and positional data to intercept aircraft operating from a carrier. Limited by its ski jump flight deck, *Liaoning* will require the PLA Navy to operate a helicopter, rather than a larger fixed wing aircraft, as an early warning aircraft.

*fend more than just oneself). Because these ships are fitted with a multi-purpose 64-cell vertical launch system, they will also be able to load land-attack cruise missiles.*⁷⁴

Attack Submarines

Nuclear attack submarines, conventional diesel electric attack submarines, or attack submarines that employ air-independent power* are likely to provide security for PLA Navy surface forces conducting expeditionary operations. Since 2014, China has deployed all three types of attack submarines to the Indian Ocean in support of PLA Navy antipiracy operations in the Gulf of Aden.⁷⁵

- *Nuclear attack submarine:* Nuclear attack submarines are well suited for long-range and endurance operations. Rear Admiral McDevitt testified to the Commission that the PLA Navy has modernized its nuclear attack submarine force to include SHANG-class (Type 093) submarines, “and is expected to introduce a new class that could result in a 2020 inventory of 7–8 ... [submarines], which would exceed the United Kingdom and French ... forces and place China third globally in operational nuclear powered attack submarines, behind the United States and Russia.”⁷⁶
- *Conventional attack submarine:* China’s deployment to the Indian Ocean of diesel-electric submarines (some of which employ air-independent power) suggests the PLA Navy will consider dispatching both conventionally and nuclear-powered attack submarines in support of far sea operations. Conventionally powered submarines lack the speed of nuclear submarines, but with enough lead time, dispatching a diesel-electric submarine may provide the PLA Navy more deployment flexibility with regard to managing the overall operational readiness of the submarine force.

Large Transport Aircraft

In addition to a sealift capability, expeditionary operations may require heavy lift aircraft. The Y-20 large transport aircraft entered service with the PLA Air Force in July 2016.⁷⁷ The Y-20 is a heavy lift aircraft in the same category as the Russian Il-76 or the U.S. C-17. The Y-20 is estimated to be capable of carrying 140 troops and flying 2,700 miles with a maximum payload capacity of 66 metric tons.⁷⁸ The Y-20 has been accepted by the PLA Air Force, and the aircraft could eventually support or conduct airborne command and control, logistics support, aerial refueling, and HA/DR missions.⁷⁹

In addition to the Y-20, China and Ukraine have agreed to joint licensed production of the Antonov An-225 strategic airlift aircraft in China,⁸⁰ which will greatly improve the PLA Air Force’s strategic lift capacity for conducting expeditionary operations. The An-

*According to the Nuclear Threat Initiative, an air-independent power propulsion system “uses liquid (or compressed) oxygen or hydrogen fuel cells, thereby allowing submarines to stay submerged for longer periods without the need for external sources of oxygen. This increased endurance also increases a submarine’s survivability.” Nuclear Threat Initiative, “Nuclear Threat Initiative Glossary.”

225 is the largest transport aircraft in the world, is powered by six Progress D-18T jet engines, and is capable of lifting a payload of more than 250 tons.⁸¹ China may begin flying the An-225 by 2019.⁸²

Logistics Support

Expeditionary operations require replenishment and access to repair facilities. In addition to access to overseas logistics nodes, any PLA Navy ships conducting or supporting expeditionary operations will likely require underway replenishment ships to replenish surface combatants at sea.⁸³ Sustaining operations in areas where the PLA does not currently have an established presence will require a more robust underway replenishment capability for the PLA Navy, and access to support facilities for both naval and overseas air operations.

- *Fleet replenishment oilers:* Chinese warships, especially those conducting extended overseas deployments, may require continuous resupply at times when they are beyond the near seas and do not have access to a reliable resupply port.⁸⁴ The PLA Navy currently has seven FUCHI-class replenishment oilers, and could have ten replenishment ships by 2020.⁸⁵
- *Overseas supply points:* Although the PLA Navy has improved access to ports overseas, replenishment (and logistics more generally) remains a concern among PLA Navy leadership.*⁸⁶ In February 2016, China's Ministry of Defense announced it was constructing infrastructure for "support facilities" in Djibouti to support PLA Navy antipiracy operations in the Gulf of Aden.⁸⁷ This announcement may indicate the PLA is pursuing permanent access to facilities with the capabilities to support communications requirements, medical needs, ship and equipment repair, and replenishment and resupply functions along the lines of the United States' "places not bases" concept.†⁸⁸ (For more detail on the PLA's facility in Djibouti, see Chapter 2, Section 1, "Year in Review: Security and Foreign Affairs.") China may also seek to establish military facilities elsewhere in the region—though its ability to do this will depend on host country agreement. China has played a large role in financing and constructing civilian port infrastructure in the Indian Ocean, including the Port of Colombo and Port

*Dr. Mastro highlights some guiding principles the PLA is likely considering regarding operations from an overseas support facility, noting "China's purpose for the base would need to be in line with host countries' interests and neighboring countries' preference and the base must be set up to protect overseas rights and interests, and cannot be used to attack other countries. Also, China's overseas access policies no doubt take into account a desire to minimize [the] 'China Threat Theory' or concerns nations have with how China may use its newfound military power in the future." U.S.-China Economic and Security Review Commission, *Hearing on Developments in China's Military Force Projection and Expeditionary Capabilities*, written testimony of Oriana Skylar Mastro, January 21, 2016.

†The term "places not bases" is used by U.S. officials to distinguish between agreements the United States has with allies, such as Japan, to permanently station forces in a country, and pacts offering temporary and limited access to overseas facilities, such as the agreement the United States has with Singapore. Prashanth Parameswaran, "Beware China's 'Basing' Strategy: Former U.S. Navy Chief," *Diplomat* (Japan), July 29, 2015; U.S. Pacific Air Forces Public Affairs, "Pacific Air Forces Modifies Command Strategy," October 10, 2014; and Emma Chanlett-Avery, "Singapore: Background and U.S. Relations," *Congressional Research Service*, July 26, 2013, 3.

of Hambantota in Sri Lanka, and Gwadar Port in Pakistan. (For more on China's port infrastructure investments in South Asia, see Chapter 3, Section 1, "China and South Asia.")

Nonmilitary assets could also contribute to China's logistics capabilities in expeditionary operations. For example, the PLA Navy has relied on Chinese state-owned shipping companies to resupply antipiracy task forces in the Gulf of Aden. According to Chinese security experts Andrew S. Erickson and Austin Strange, China Ocean Shipping (Group) Company, or COSCO, has used its extensive network of regional contacts to facilitate relations between the PLA Navy and local replenishment services suppliers in countries near the Gulf of Aden.*⁸⁹ Rear Admiral McDevitt testified to the Commission that the PLA Navy has

mastered the logistics of sustaining small task groups on distant stations. The advantage of a state-owned enterprise that is in the logistics services business worldwide (such as] COSCO) means that China enjoys a built-in shore-based support structure at virtually all the major ports along the Pacific and Indian Oceans. When combined with its modern multi-product replenishment ships that have developed significant skill in at sea support, this has become a successful approach to logistic sustainment halfway around the world from Chinese homeports.⁹⁰

Intelligence, Surveillance, and Reconnaissance Facilitating Command and Control

The PLA will continue improving intelligence, surveillance, and reconnaissance (ISR) capabilities for supporting operational troops. Deployed PLA commanders will require a significant amount of ISR to support their missions, and space-based sensors and aircraft will play a vital role in improving commanders' operational situational awareness.⁹¹ For instance, the PLA has increased its ISR coverage in the Asia Pacific with shore-based unmanned aerial vehicles (UAVs) capable of long-duration reconnaissance operations.⁹² In addition to improving shore- and space-based sensors, surface ships—including intelligence-gathering ships—and aircraft directly supporting an operation would likely require their own ISR capability. The U.S. Office of Naval Intelligence assesses the PLA Navy "will probably emerge as one of China's most prolific UAV users,† employing UAVs to supplement manned ISR aircraft as ... they are ideally suited for this mission ... [due to] their long loiter time,

*According to Dr. Erickson and Mr. Strange, "[A] COSCO subsidiary, COSCO West Africa, Ltd., has become the PLA [Navy's] largest partner in procuring supplies for escort ships. ... According to COSCO's website, at the close of fiscal year 2011 the company operated a fleet of 157 vessels, which were active at 159 ports in 48 countries." Andrew S. Erickson and Austin Strange, "Learning by Doing: PLAN Operational Innovations in the Gulf of Aden," *Jamestown Foundation*, October 24, 2013.

†The PLA Navy has operated UAVs from ships since at least June 2011, when a P-3C maritime surveillance aircraft operated by the Japan Maritime Self-Defense Force detected a small UAV operating above a PLA Navy frigate conducting training in the East China Sea. In addition to shipborne UAVs, China is developing long-range high-endurance UAVs such as the "Sacred Eagle" for early warning, targeting, and electronic warfare missions, as well as for satellite communications. Both ship- and land-based UAVs will likely be used in future overseas operations. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2016*, April 26, 2016, 62; James C. Bussert, "Chinese Navy Employs UAV Assets," *SIGNAL Magazine*, April 2012.

slow cruising speed, and ability to provide near real-time information through the use of a variety of onboard sensors.”⁹³

Joint Training and Operational Deployments: Lessons Learned for Developing China’s Expeditionary Capability

Joint Training

While China continues to standardize training across the PLA by focusing on integrated joint training, the PLA has yet to conduct joint exercises specifically focused on preparation for conducting expeditionary operations. To date, the PLA has primarily focused exercises on China’s most important conflict scenarios: a Taiwan contingency or a sovereignty crisis that occurs along China’s periphery.⁹⁴ However, the capabilities being tested during these exercises may also provide the PLA insights for conducting future joint expeditionary operations.⁹⁵ For example, although the PLA’s major recurring joint exercises such as Stride, Mission Action, and Joint Action,* described later, do not specifically focus on expeditionary operations per se, they have elements that would apply to operations in which the PLA is required to deploy a force to protect Chinese citizens abroad or defend against a challenge to a Chinese territorial claim in the East and South China seas. Mark Cozad, a senior international defense policy analyst with the RAND Corporation, underscores this issue by noting that “the skills developed during joint exercises are applicable to a range of potential future expeditionary operations.” He continues, “PLA joint training involving long-range mobility, local logistical procurement, and adapting to new operational environments is translatable to future operations to secure and protect PRC citizens and interests overseas.”⁹⁶ The recurring exercises that provide the best insight into these emerging skills are Stride, Mission Action, and Joint Action.

- *Stride (Kuayue)*: Stride is a long-distance ground force maneuver exercise that the PLA held three times between 2009 and 2015.⁹⁷ The training scenarios have ranged from a generic threat within China to a Taiwan contingency operation.⁹⁸ Some of the skills practiced in this exercise series have included command and control, logistics, civil-military integration, joint campaign planning, long-range firepower strike, deployment of special operational forces, urban combat, reconnaissance, information warfare, and electronic warfare.⁹⁹ The skills tested and evaluated could easily apply to non-war missions such as NEOs.
- *Mission Action (Shiming Xingdong)*: Mission Action, held in 2010 and 2013, was—like Stride—focused on long-range maneuver and could be applicable to a range of externally focused operations beyond a Taiwan contingency.¹⁰⁰
- *Joint Action (Lianhe Xingdong)*: The Joint Action exercise series involves training that could be applied to supporting joint expeditionary operations. Joint Action exercises held in 2014

*The Stride, Mission Action, and Joint Action series of exercises focus on realistic operational conditions, campaign training, and long-distance maneuvers to develop PLA capabilities to conduct large-scale joint operations. For an in-depth discussion of PLA exercises and training in general, see Chapter 2, Section 1, “Year in Review: Security and Foreign Affairs.”

and 2015 included joint operations, theater command and control, reconnaissance, information operations, logistics, ground-air integration, and civil-military integration.¹⁰¹ Joint Action 2015 incorporated sea-air-land integration, information operations, and maritime operations.¹⁰² The training during the 2015 exercise had a strong joint operations focus, and included an amphibious landing component that would be applicable for expeditionary operations, particularly against Taiwan or in the South China Sea.¹⁰³

In addition to the benefit the PLA gains from evaluating its capability to conduct long-range mobility and logistics during these exercises, the PLA also gains experience exercising its joint operational planning and intelligence support. Mr. Cozad testified that a “major point of emphasis for PLA’s joint exercises is . . . improving the ability of commanders and their staffs to plan and direct operations involving forces from multiple services and arms in unfamiliar, complex environments.”¹⁰⁴ This experience would be valuable to PLA commanders executing operations abroad.

Operational Deployments

In addition to conducting joint exercises, the PLA has been studying and applying lessons learned from its own operational deployments regarding planning and logistical challenges that could have applications for future expeditionary operations. Some notable PLA deployments include:

- *PLA Army*: According to the Congressional Research Service, over the past 15 years the PLA Army has been active in conducting operational deployments, sending over “27,000 military personnel to 24 UN peacekeeping operations around the world.”¹⁰⁵ These types of deployments provide the PLA with experience in crowd control, patrolling, operational intelligence gathering, civic affairs, and interoperability with foreign forces.¹⁰⁶ Dr. Yung argues “the deployment of an infantry battalion [to South Sudan] into an austere environment will have provided the PLA with direct experience in expeditionary logistics* and the requirements of preparing a ground combat force to deploy overseas for contingency operations.”¹⁰⁷
- *PLA Air Force*: The PLA Air Force has conducted some notable overseas deployments. In 2010, China sent fighter aircraft to Turkey for the Anatolian Eagle exercise and participated in the Peace Mission exercise with Kazakhstan and Russia.¹⁰⁸ During the Peace Mission deployment, the PLA Air Force flew fighters from China, supported by aerial refueling tanker aircraft, to conduct training strikes against targets in Kazakh-

*The PLA conducts logistics support for deployed Chinese peacekeeping troops. Dennis J. Blasko, an independent consultant who has written extensively about the Chinese military, notes that in 2004 the then General Logistics Department “issued training material entitled ‘Logistics Support for Peacekeeping Forces’ based on UN guidance and the PLA’s own experience.” In addition to the PLA training to support peacekeepers, Beijing is looking to expand the PLA’s capability to preposition material to support peacekeeping operations. China’s planned military facility in Djibouti is expected to enable this capability. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2016*, April 26, 2016, 6; Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, Routledge, 2006, 179.

stan.¹⁰⁹ In 2014, the PLA Air Force deployed aircraft to Russia to participate in Avidarts, a Russian-held contest that tests combat skills.¹¹⁰ In 2015, the PLA Air Force deployed aircraft to Australia to participate in search and rescue operations for missing Malaysian Airlines Flight 370.¹¹¹ PLA Air Force overseas deployments have not been without their challenges: during the Peace Mission exercise, for example, there were not enough foreign linguists to translate between Russian and Chinese air crews, and the PLA relied on rail rather than air transport to support logistics, which could be a constraining factor in an actual operation.¹¹² The PLA Air Force could use the lessons learned to develop processes—to include identifying requirements and developing plans for mitigating language barriers, and predeployment and logistical requirements for supporting air operations outside China—well in advance of operations.¹¹³

- *PLA Navy*: The PLA Navy has conducted multiple out-of-area deployments, sustained antipiracy operations in the Gulf of Aden since December 2008, planned and executed a NEO in Yemen, and provided at-sea security for the UN operation to remove Syrian chemical weapons.¹¹⁴ Some of the lessons learned during these deployments involve addressing the wellbeing of deployed personnel, resolving logistical challenges, and improving communications between Chinese and foreign ships.¹¹⁵

The application of lessons learned from these types of activities should assist the PLA with mission planning in support of future expeditionary operations. However, the PLA may still have to work through additional planning challenges, such as dealing with any new logistical requirements that would come from expanding operations beyond geographic areas to which the PLA is currently deployed.

Indicators for Monitoring Developments Concerning Near- and Long-Term Joint Expeditionary Operations

According to a National Defense University study co-authored by Dr. Yung and Ross Rustici, a researcher with National Defense University's Institute for National Strategic Studies, five criteria could be used for monitoring the PLA's potential to further develop expeditionary capabilities:

- *Distance*: Chinese military experts have discussed the problem distance poses to operations in far seas.¹¹⁶ Dr. Yung notes China is working toward addressing the “tyranny of distance in its ‘out of area’ operations,” and “the modernization of China’s surface combatants has allowed China’s [antipiracy] task forces to operate at greater distances.”¹¹⁷ He continues, “A second development in support of China’s ‘distance’ problem is ... evidence that China is building a more formalized network of facilities ... for the purposes of

**Indicators for Monitoring Developments Concerning
Near- and Long-Term Joint Expeditionary
Operations—Continued**

servicing and supporting its ... forces.”¹¹⁸ In addition to support facilities enabling maritime operations in far seas, overseas support facilities will likely be required to sustain PLA Air Force strategic lift operations abroad. Mr. Heath and Cristina Garafola, a project associate at the RAND Corporation, note “access to foreign airfields will enable the [PLA Air Force] to better carry out its non-war missions to meet these requirements.”¹¹⁹

- *Duration:* The duration of extended out-of-area or expeditionary operations is likely a concern for the PLA. To address this planning concern, the PLA Navy is working to improve its logistical capability. Dr. Yung states that during the early stage of the antipiracy deployments, “PLA task forces had initially been operating for a 3–4 month duration, [and] this duration has increased to the point that a typical task force is expected to operate for about 170 to 200 days.”¹²⁰ He notes this is in part the “result of improved logistical support networks as well as modernized surface combatants.”¹²¹ As part of the ongoing reorganization of the PLA, in September 2016, the PLA established a “Joint Logistics Support Force” to support “strategic battle support missions,” indicating China is working to improve joint logistics support, which would apply to expeditionary forces operating abroad.¹²²
- *Capacity:* China is demonstrating the ability to sustain antipiracy and other far seas operations while maintaining the capability to conduct operations in the near seas simultaneously. China has been able to achieve this capability because the PLA Navy has produced modern surface ships, such as the LUYANG II/III-class destroyers and FUCHI-class logistics ships. The acquisition of additional replenishment ships brings China’s replenishment force up to seven, and the continued acquisition of modern surface combatants provides China a larger pool of ships for deployments to increase operational capacity.¹²³ Capacity is also a limitation for the PLA Air Force’s nascent air expeditionary capability. The air force, Mr. Heath and Ms. Garafola note, “has focused heavily on developing a small number of elite units to carry out high profile missions abroad.”¹²⁴ Furthermore, the limited number of tanker aircraft will remain a constraint on expeditionary operations until China begins producing a tanker variant of the Y-20 to supplement its fleet of three Il-78 (MIDAS) tanker aircraft (acquired from Ukraine) and 12 H-6U tankers.¹²⁵ Therefore, additional tanker and strategic lift capacity would be a strong indicator the PLA Air Force intends to continue to develop an expeditionary capability.

**Indicators for Monitoring Developments Concerning
Near- and Long-Term Joint Expeditionary
Operations—Continued**

- *Coordination:* Coordination between ships escorting amphibious transports and ships providing logistical support during any future expeditionary operation will be essential to the success of that operation. The PLA Navy appears to be making progress here as well. Dr. Yung highlights that PLA Navy “exercises in the Western Pacific have been increasingly more complex, suggesting a process of improved command and control at the task force level. Additionally, there is some evidence of improved ability of the PLA Navy to coordinate and control vessels being escorted [in the Gulf of Aden] through an effective use of VHF [very high frequency communications] with foreign flagged vessels. This is furthermore manifested in coordinating rendezvous, managing ships of varying speeds and duration, and working out optimal formations for the protection of the escorted vessels.”¹²⁶
- *Environments:* China is building military capabilities to deal with hostile air, surface, and subsurface operational environments in the far seas. The PLA Navy is working to incorporate the *Liaoning* aircraft carrier into the fleet, has begun construction of its first indigenous aircraft carrier, and likely is constructing a Type 081 amphibious assault ship, all of which would increase the anti-air and anti-surface warfare capabilities to support future anti-piracy operations.¹²⁷ Furthermore, the PLA Navy is equipping surface combatants with hangars to shelter anti-submarine helicopters and towed sonar arrays, which are expected to improve anti-submarine warfare capabilities.¹²⁸ However, Dr. Yung notes the PLA still requires “dedicated anti-missile ships capable of providing protection to its task forces like [U.S. Navy] cruisers do for the U.S. carrier strike groups.”¹²⁹ He surmises that “China’s [anti-air warfare] and missile defense systems are still in their infancy, so it is safe to say that for the foreseeable future [PLA Navy] ‘far seas’ operations would still be vulnerable to a concerted missile attack from land-based aircraft and other seaborne aircraft.”¹³⁰

Implications for the United States and U.S. Allies and Partners

Implications for U.S. Defense Policy

Although China’s current expeditionary capabilities are limited in comparison to those of the United States, they will improve over the next 10 to 20 years and likely will be on par with second-tier powers.*¹³¹ As the PLA develops a more robust expeditionary capability, it will likely increase its capacity to conduct the types of

*Dr. Mastro notes that second-tier military powers—such as Russia, France or the United Kingdom—have the capacity to project limited but meaningful force outside their immediate regions. Oriana Skylar Mastro, “China’s Military Is about to Go Global,” *National Interest*, December 18, 2014.

previously noted deployments in the Gulf of Aden, intercept training in the South China Sea, HA/DR operations in Southeast Asia, and naval deployments in the Indian Ocean. These capabilities, however, could also be used in combat scenarios with potential implications for U.S. interests. For example, training for visit, board, search, and seizure operations* in conjunction with at-sea intercept training could easily be applied to a blockade operation against Taiwan and pose a threat to merchant shipping. Increased sea and airlift capacity would improve the PLA's capability to conduct combat insertion of troops during an island landing campaign.¹³² And PLA Navy submarines operating in the Indian Ocean could delay U.S. ships headed for the South China Sea from transiting through the Indian Ocean.¹³³

Expeditionary Capabilities and China as a Responsible Stakeholder

Since the 2005 address given by Robert Zoellick, then deputy secretary of State, to the National Committee on U.S.-China Relations calling for China to become a “responsible stakeholder,” the West had hoped China would play a larger role in maintaining the global order.¹³⁴ China has indicated an interest in working to solve pressing global problems and cooperating with the United States, to some extent, to address common threats such as climate change, piracy, terrorism, and natural disasters.¹³⁵ Mr. Heath notes that “the logic underpinning the argument for China to become a ‘responsible stakeholder’ . . . assumes that if Beijing contributed more to combating commonly shared threats, such as nuclear proliferation, North Korean provocations, terrorism in the Middle East, and climate change, the world would benefit—and China and the United States would enjoy healthier, more cooperative relations.”¹³⁶ China’s development of an expeditionary capability could facilitate cooperation, particularly in the areas of HA/DR and antipiracy operations. The United States and its allies in Asia face a conundrum, however: the same expeditionary capabilities that would enable China to embrace the role of “responsible stakeholder” and contribute to regional security could enable the PLA to pose a military threat and spur greater military competition.¹³⁷ This reality will likely be a great concern to U.S. allies in Asia and will require the United States to reassure allies that the United States will remain present in the region.¹³⁸

While China’s development of an expeditionary capability could make China a useful partner for cooperation on nontraditional security issues in the region, the United States will need to engage both Beijing and U.S. allies concerning how this emerging capability could be employed to improve regional security.¹³⁹ Gabe Collins, a private researcher focused on Chinese security issues, suggests “any engagement [between the U.S. and Chinese militaries] needs to incorporate discussions to assess how China intends to use its growing power projection abilities and also explore ways to de-

*The PLA Navy during predeployment training for Gulf of Aden antipiracy operations conducts simulations of rescue operations and participates in live fire exercises; the special operations units take part in training involving rappelling off of shipborne helicopters and visit, board, search, and seizure techniques. U.S.-China Economic and Security Review Commission, *Hearing on Developments in China’s Military Force Projection and Expeditionary Capabilities*, written testimony of Christopher D. Yung, January 21, 2016.

conflict Chinese expeditionary operations and those of other militaries in strategic regions like Africa and the Middle East.”¹⁴⁰ Mr. Collins goes on to state, “China’s developing expeditionary capabilities make it a more useful partner for cooperation on nontraditional security issues and the United States should try to increase discussions on this topic with its Chinese partners, both bilaterally and in multilateral for[a].”¹⁴¹

Increased Potential for U.S. and Chinese Forces to Operate in Close Contact

China is concerned about U.S. military presence in the Asia Pacific region.¹⁴² Any development of PLA expeditionary capabilities expands Beijing’s military options for responding to perceived threats along China’s periphery, within the region beyond the first island chain, or beyond the region to defend Chinese interests and citizens abroad. This expanding presence could result in U.S. and Chinese forces conducting missions within the same operational space. PLA Navy and Air Force patrols in and beyond the South China Sea put U.S. and Chinese forces in closer operating proximity and raise the risk of miscalculation or escalation should an incident at sea occur.¹⁴³ This concern is reinforced by more than a decade of aggressive maneuvers by Chinese military and maritime militia forces operating close to U.S. surveillance and reconnaissance aircraft, survey ships, and naval ships conducting routine operations in and around the East and South China seas.¹⁴⁴

Aggressive Chinese Military or Maritime Militia Encounters

Examples of aggressive Chinese military or maritime militia encounters include the following:

- In May 2016, two PLA Air Force fighters conducted an unsafe intercept of a U.S. EP-3 aircraft, causing the EP-3 to dive away to avoid a collision.¹⁴⁵
- In 2013, a PLA Navy ship crossed the U.S. guided missile cruiser *Cowpens*’ bow, causing the ship to alter course to avoid a collision.¹⁴⁶
- In 2009, the U.S. Navy ship *Impeccable* was harassed by maritime militia boats in the South China Sea.¹⁴⁷
- In 2001, a PLA Navy fighter collided with a U.S. Navy EP-3 reconnaissance aircraft over the South China Sea.¹⁴⁸

Expeditionary Force and Chinese Core Interests

While China’s nontraditional security concerns may be driving the PLA’s pursuit of an expeditionary force, the increased capabilities will provide Beijing additional tools to address traditional regional security objectives.¹⁴⁹ Mrs. Gunness highlights this concern, testifying that a recent policy shift involving Chinese leadership in

Beijing indicates China is taking an increasingly harder stance on defending issues that have been defined as core interests:

For example, in 2013, Xi Jinping pledged that China would not ‘compromise an inch’ of any of its territorial and sovereignty claims. In June 2015, China enacted a sweeping security law intended to protect its core interests, including defending sovereignty claims and territorial integrity. Beijing also has demonstrated a growing willingness to ‘impose costs’ to deter countries from impinging on PRC core interests. Examples include the PRC restriction on imports of Philippine bananas in response to the Scarborough Reef crisis and the freezing of high-level diplomatic activity for a year in response to British Prime Minister David Cameron’s meeting with the Dalai Lama. These activities have so far been primarily nonmilitary in nature and are seen by China as efforts to manage crises and deter further escalation into the military realm. However, the development of PLA expeditionary capabilities, particularly the “overlap” capabilities that also can be used for anti-access/area denial missions, adds greater tools for potential coercive force.¹⁵⁰

Implications for U.S. Allies

China’s pursuit of an expeditionary capability is a concern among U.S. allies and partners in Asia. The expeditionary capabilities sought by the PLA provide Beijing a wider range of options for using force to resolve territorial disputes in the future.¹⁵¹ Furthermore, many of the capabilities required for HA/DR, NEOs, and peacekeeping operations are dual-use capabilities that can be employed in traditional war-fighting missions against weaker regional opponents.¹⁵² Thus far, China has sought to manage its security interests in the Asia Pacific in part through economic engagement and military-to-military cooperation to burnish its “peaceful rise” or “peaceful development”^{*} image and enhance its security environment by seeking to mitigate the security concerns of its neighbors.¹⁵³ However, recent developments, particularly concerning China’s island-building campaign in the South China Sea and the militarization of those reclaimed features, suggest Beijing is willing to risk criticism by the United States, the region, and the wider international community for eroding the Asian security environment.¹⁵⁴

- *South China Sea land reclamation:* In the South China Sea’s Spratly Islands, China has reclaimed more than 3,200 acres of land.¹⁵⁵ Although DOD states these “artificial islands do not provide China additional territorial or maritime rights within

^{*} Established in the 1990s, China’s “peaceful rise” strategy, later renamed “peaceful development,” emphasized Chinese modernization and sought to downplay fears of Chinese regional hegemonic ambitions, often referred to in Beijing as the “China threat theory.” Beijing continues to reassure its neighbors of China’s peaceful rise; however, Chinese actions to enforce its territorial and jurisdictional claims in the East and South China seas have resulted in contradiction between Beijing’s words and deeds. Robert G. Sutter, Michael E. Brown, and Timothy J. A. Adamson, “Balancing Acts: The U.S. Rebalance and Asia-Pacific Stability,” *Elliott School of International Affairs, George Washington University*, August 2013, 7; Ian Storey, “The South China Sea Dispute (Part 2): Friction to Remain the Status Quo,” *Jamestown Foundation*, June 21, 2013.

the South China Sea, China will be able to use them as persistent civil-military bases to enhance its long-term presence in the South China Sea significantly.”¹⁵⁶ Because of these activities, some countries in the region—such as Vietnam and the Philippines—have increased military modernization efforts and support for U.S. freedom of navigation operations in the South China Sea.¹⁵⁷

- *Chinese South China Sea presence operations and coercion:* China is using coercion to enhance its presence and control in disputed areas in the South China Sea. Beijing continues to employ China Coast Guard and PLA Navy ships to enforce claims by maintaining presence in disputed areas.¹⁵⁸ The land reclamation in the South China Sea will support China’s ability to sustain these presence operations.¹⁵⁹ The Congressional Research Service reports that South China Sea territorial disputes have “intensified in the past few years, leading to numerous confrontations and incidents involving fishing vessels, oil exploration vessels and oil rigs, coast guard ships, naval ships, and military aircraft. The intensification of the disputes ... has substantially heightened tensions between China and other countries in the region, particularly ... the Philippines ... and Vietnam.”¹⁶⁰ As with its land reclamation activities, China’s military and law enforcement coercion operations have had a similar effect. For example, Vietnam is seeking U.S. defense equipment to improve the capability of the Vietnamese military to monitor and respond to Chinese challenges in the South China Sea.¹⁶¹

According to an interlocutor with whom the Commission met during its June 2016 trip to China and India, India is concerned about China’s expanding presence in the Indian Ocean.¹⁶²

- *Submarine deployments:* Abhijit Singh, an analyst with the Institute for Defense Studies in India, notes that since a “Yuan-class submarine visited Karachi [in 2015], New Delhi has been worried over the possibility of a Chinese takeover of its maritime neighborhood. In the [guise] of antipiracy operations, Indian observers believe, Chinese submarines have been performing specific standalone missions—a process meant to lay the groundwork for a rotating but permanent deployment in the Indian Ocean.”¹⁶³
- *PLA Navy surface combatant deployments:* In 2014 the PLA Navy conducted its first far seas deployment in the Indian Ocean, and carried out exercises first in the South China Sea and then in the eastern Indian Ocean with a three-ship task force.¹⁶⁴ Furthermore, PLA Navy antipiracy deployments in the Indian Ocean have included the Type-71 class amphibious ship, suggesting interest in a greater PLA Navy littoral presence beyond the first island chain.¹⁶⁵

Regardless of Beijing’s ultimate intention, many countries in the region, including India, view any expansion in PLA expeditionary capabilities as a security concern. Dr. Mastro suggests:

In terms of regional stability, while the Chinese leadership may only plan on building expeditionary forces to address

non-traditional threats, the increased capabilities may shape Chinese interests and preferred methods of achieving traditional regional security objectives. The implications for the United States and its regional allies and partners are uncertain. China's increased military role in global affairs and enhanced expeditionary capabilities could create a balancing backlash among its Asian neighbors and contribute to instability in the region, as incentives for preventive war increase with the rapid shifts in the regional balance of power. China could become confident in its ability to achieve its objectives by brute force alone, especially with domestic support. However, a global expeditionary PLA could also create a more assertive China that is positioned to provide international public goods, further enmeshing Beijing into the current world order and reducing the incentives for it to use force to resolve disputes.¹⁶⁶

The dual-use nature of expeditionary capabilities, therefore, is resulting in China's neighbors remaining interested in the United States being politically, economically, and militarily engaged in the Asia Pacific as a counter to an aggressive China if necessary.

Conclusions

- The military capabilities China is developing will expand or improve the ability of the People's Liberation Army to conduct a range of externally focused operations, to include combat insertion, island landing operations, humanitarian assistance/disaster relief operations, noncombatant evacuation operations, and peacekeeping missions. Improvements in these areas can also strengthen China's traditional warfighting capabilities against weaker neighbors. Given its enhanced strategic lift capability, strengthened employment of special operations forces, increasing capabilities of surface vessels and aircraft, and more frequent and sophisticated experience operating abroad, China may also be more inclined to use force to protect its interests.
- China's pursuit of expeditionary capabilities, coupled with the aggressive trends that have been displayed in both the East and South China seas, are compounding existing concerns about China's rise among U.S. allies and partners in the greater Asia. This also is driving additional increases in defense acquisitions throughout the region.
- The People's Liberation Army will continue to modernize in the area of logistics, with implications for expeditionary operations. The air force will continue to see additional strategic airlift aircraft incorporated into the air order of battle, particularly once the Y-20 heavy lift aircraft enters serial production. Furthermore, China is likely to continue to seek opportunities to secure military facilities abroad, such as the one it has begun constructing in Djibouti, to facilitate a range of operations.
- Regardless of China's interest in developing a more robust expeditionary capability, regional contingencies, such as a conflict with Taiwan or concerning maritime disputes in the East or South China seas, will remain the focus of Chinese war planning.

RECOMMENDATIONS

Developments in China's Military Expeditionary and Force Projection Capabilities

The Commission recommends:

- Congress require the U.S. Department of Defense to conduct a study identifying the risks and gains associated with the United States pursuing a burden sharing strategy that utilizes emerging People's Liberation Army expeditionary capabilities to help stabilize the Asia Pacific region during a crisis or to counter a shared threat such as the spread of terrorism in Southeast Asia.

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SECTION 3: CHINESE INTELLIGENCE SERVICES AND ESPIONAGE THREATS TO THE UNITED STATES

Introduction

The United States faces a large and growing threat to its national security from Chinese intelligence collection operations. Among the most serious threats are China's efforts at cyber and human infiltration of U.S. national security organizations. These operations are not a recent phenomenon, but reports of Chinese espionage against the United States have risen significantly over the past 15 years.¹ The threat from Chinese intelligence operations also extends overseas. For example, China's growing technical intelligence* collection capabilities are increasing its ability to monitor deployed U.S. military forces. Moreover, by infiltrating and attempting to infiltrate defense entities in U.S. ally and partner countries, China could affect U.S. alliance stability and indirectly extract sensitive U.S. national defense information. Meanwhile, the national security implications of Chinese intelligence collection operations have grown amid U.S.-China competition and Beijing's expanding military might.

This section examines the threat to U.S. national security from Chinese intelligence collection. It discusses the structure, role, capabilities, process, and operations of China's intelligence services; U.S. responses to Chinese espionage; and the implications of Chinese intelligence collection for U.S. national security.

China's Intelligence Services

China's intelligence community includes Chinese government, People's Liberation Army (PLA), and Chinese Communist Party (CCP) institutions that target U.S. national security organizations. The following are descriptions of these organizations and their roles within China's intelligence community. In all cases, the top priority for these organizations is to support and preserve the CCP-led Chinese party-state.²

Ministry of State Security

The Ministry of State Security (MSS) is a Chinese government ministry answerable to both China's State Council—the chief administrative authority of the Chinese government—and the CCP Politburo Standing Committee.³ According to Peter Mattis, fellow at the Jamestown Foundation, the MSS “is not unlike an amalgam of [the U.S. Central Intelligence Agency] and [the U.S. Federal Bureau of Investigation].”⁴ The MSS conducts a variety of intelligence col-

*“Technical intelligence” here refers to signals, imagery, electronic, and measurements and signatures intelligence.

lection operations, such as human intelligence (HUMINT) and cyber operations.⁵

PLA Intelligence

PLA intelligence is responsible for collecting foreign military, economic, and political intelligence* to support military operations.⁶ The PLA—with its subsidiary units responsible for intelligence collection—answers to China’s Central Military Commission (CMC), China’s leading military authority, which is dual-hatted as a Chinese government organization and a CCP organization.⁷ PLA intelligence organizations conduct HUMINT operations, as well as technical intelligence collection operations, to include cyber operations.⁸

Reforms to PLA Intelligence

Since late 2015, China has initiated several reforms to the structure of the PLA† that have reshaped major elements of PLA intelligence. Although much is unknown about these reforms, some information has emerged that gives insight into the evolution of PLA intelligence.

New PLA Agencies

In January 2016, Chinese President and General Secretary of the CCP Xi Jinping announced the reorganization of the PLA’s four general departments (the general staff, political, logistics, and armaments departments) into 15 new agencies under the CMC.⁹ The PLA General Staff Department, which had been the primary authority for PLA foreign intelligence collection, was reorganized into the new Joint Staff Department; however, it is still unclear whether the newly created Strategic Support Force or the Joint Staff Department will take on the former General Staff Department’s supervisory responsibilities for intelligence activities.¹⁰

Before the dissolution of the General Staff Department, the most prominent PLA organizations responsible for foreign intelligence collection were the second, third, and fourth departments of the General Staff Department. The Second Department (2PLA) was responsible for the collection and analysis of HUMINT, imagery intelligence, and tactical reconnaissance.¹¹ The Third Department (3PLA) was responsible for collecting signals intelligence and conducting cyber operations.¹² According to John Costello, fellow at think tank New America, 3PLA was “roughly equivalent to the U.S. National Security Agency in function and mission.”¹³ The Fourth Department (4PLA)—responsible for electronic warfare and electronic countermeasures—surveilled foreign information networks.¹⁴ In addition, theater-level PLA Army, Navy, Air Force, and missile forces contained intelligence units that mirrored the structure of General Staff Department intelligence units.¹⁵ It is unclear how elements of PLA intelligence under the former General Staff Department will be reorganized within the new Joint Staff Department.

*Political intelligence is intelligence concerned with the dynamics of the internal and external political affairs of foreign countries, regional groups, multilateral treaty arrangements, and organizations and foreign political movements directed against or having an impact on established governments or authority. Bruce W. Watson, Susan M. Watson, and Gerald W. Hopple, *United States Intelligence: An Encyclopedia*, Garland Publishing, Inc., 1990, 447.

†For more information on recent PLA reforms, see Chapter 2, Section 1, “Year in Review: Security and Foreign Affairs.”

Strategic Support Force

In December 2015, President Xi announced the formation of the Strategic Support Force, a new branch of the PLA.¹⁶ According to Song Zhongping, a professor at the PLA Rocket Force Equipment Research Academy and former PLA Second Artillery Force officer, the Strategic Support Force will consist of cyber forces “focusing on attack and defense,” space forces “focus[ing] on reconnaissance and navigation satellites,” and electronic warfare forces focusing on “jamming and disrupting enemy radar and communications.”¹⁷ This suggests the Strategic Support Force will take on and centralize some intelligence collection missions and processes previously spread among various elements of the PLA. It is likely that the former 3PLA and 4PLA will be subordinated to the Strategic Support Force.¹⁸

New Theater Command Structure

In February 2016, President Xi announced the reorganization of China’s seven military regions into five “theater commands.”¹⁹ The structure of theater- and tactical-level military intelligence before and after this reorganization is difficult to discern using open sources, but it appears the PLA is moving toward greater jointness and integration of the intelligence collected by various military services to inform military decision makers.*²⁰

Other Chinese Intelligence Services

Several other actors in the Chinese intelligence community collect foreign intelligence. The following are two notable examples of these organizations. Both have conducted influence operations in addition to intelligence collection operations.²¹

PLA General Political Department International Liaison Department

In addition to the PLA’s primary military intelligence forces under the former General Staff Department, before the dissolution of the PLA’s four general departments, the PLA General Political Department International Liaison Department was responsible for collecting foreign intelligence through networks of official and unofficial agents abroad.²² International Liaison Department agents used informal contacts with foreign actors to identify and investigate individuals and organizations to collect intelligence and expand China’s influence abroad.²³ It appears the new CMC Political Work Department may take over this mission.

CCP United Front Work Department

The United Front Work Department under the CCP Central Committee is responsible for, among other things, building and managing relationships with actors overseas to expand China’s soft power and further the CCP’s political agenda.²⁴ The department reported-

*It appears that PLA military services (the PLA Army, Air Force, Navy, and Rocket Force), in addition to the theater commands, will have integrated technical reconnaissance units and electronic warfare and electronic countermeasure units. However, the relationship between these units and the new CMC departments and Strategic Support Force is unclear. Junichi Takeda, “President Xi’s Strong Army Strategy,” *Gunji Kenkyu* (Japan), May 2016, 50–65; Chinese military expert, interview with Commissioner.

ly participates in building foreign intelligence collection networks, particularly in Taiwan.²⁵

China's Intelligence Collection Capabilities

Assessing China's intelligence collection capabilities is difficult. Open source analysts often must rely on media reports, which are not necessarily authoritative and do not necessarily provide a full picture of China's intelligence activities. Case studies offer some insight, but public reports might not reflect the most sophisticated Chinese espionage operations.

Human Intelligence Capabilities

Because the affiliation of Chinese intelligence agents is unknown in many cases, it is often difficult to attribute reported infiltrations to either the MSS or the former 2PLA, the two primary foreign HUMINT collectors in China's intelligence community.²⁶

- *2PLA*: 2PLA has demonstrated it can use HUMINT operations to infiltrate and extract intelligence from prominent U.S. national security organizations. Notably, between 2004 and 2008, an agent reportedly affiliated with 2PLA successfully recruited two U.S. Department of Defense (DOD) employees, James Fondren and Gregg Bergersen. Both men passed classified U.S. national defense information to the agent (see "Targets of Chinese Espionage," later in this section).²⁷ Open sources have not indicated how the reorganization of the CMC departments will affect the subordination and control of the PLA's HUMINT organizations.
- *MSS*: In the past ten years, reported cases of Chinese espionage against the United States have not suggested MSS HUMINT operations have been effective.²⁸ In the most recent high-profile HUMINT case reportedly handled by the MSS, the ministry's U.S. informant received tens of thousands of dollars from his handlers to apply for employment at U.S. national security organizations, but was apprehended by U.S. authorities before infiltrating these organizations (see "China's Approach to HUMINT," later in this section).²⁹ However, the MSS has been notably active and successful conducting HUMINT operations against Taiwan.³⁰

China's HUMINT agencies could become more effective as China's intelligence community pursues more aggressive operations, and as China's access to detailed sources of personal information on U.S. actors—such as the information China reportedly obtained through the U.S. Office of Personnel Management (OPM) hack—gives Chinese HUMINT collectors a wealth of information to target and recruit U.S. actors.³¹

Technical Intelligence Collection Capabilities

The PLA operates an extensive and increasingly sophisticated array of ground-, sea-, air-, and space-based assets for the collection of technical intelligence.*³² Many recent developments in China's military modernization—such as the rapid development and deployment

*"Technical intelligence" here refers to signals, imagery, electronic, and measurements and signatures intelligence.

of advanced intelligence, surveillance, and reconnaissance (ISR) ships, aircraft, and satellites—will increase China’s ability to collect intelligence on U.S. military forces and the military forces of U.S. allies and partners.* Moreover, the PLA’s drive to increase information sharing between military units will facilitate the integration of technical intelligence to create a more accurate, real-time picture of battlefield conditions.³³ These developments would strengthen China’s hand in a military confrontation, or in the lead-up to a military confrontation, with the United States.³⁴

Cyber Espionage

China has a large, professionalized cyber espionage community. Chinese intelligence services have demonstrated broad capabilities to infiltrate a range of U.S. national security (as well as commercial) actors with cyber operations (see “Targets of Chinese Espionage,” later in this section). Units within the former 3PLA, in particular, have been responsible for a large number of cyber operations against U.S. actors.³⁵ According to Director of National Intelligence James Clapper, China—along with Russia, Iran, and North Korea—poses the most significant cybersecurity threat to the United States.³⁶ Moreover, according to DOD,

China is using its cyber capabilities to support intelligence collection against the U.S. diplomatic, economic, and defense industrial base sectors that support U.S. national defense programs. The information targeted could potentially be used to benefit China’s defense industry, high-technology industries, and provide the CCP insights into U.S. leadership perspectives on key China issues. Additionally, targeted information could inform Chinese military planners’ work to build a picture of U.S. defense networks, logistics, and related military capabilities that could be exploited during a crisis.³⁷

In addition to the cyber espionage elements of the MSS and PLA, many unofficial Chinese actors target the United States with cyber espionage operations. These actors include government contractors, independent “patriotic hackers,” and criminal actors.³⁸ Distinguishing between the operations of official and other Chinese cyber actors is often difficult, as is determining how these groups interact with each other. Some observers suggest China is shifting cyber espionage missions away from unofficial actors to centralize and professionalize these operations within its intelligence services.³⁹

China’s Intelligence Process

Understanding how Chinese intelligence services receive tasks, fuse intelligence, and disseminate intelligence products to decision makers is crucial to identifying what information reaches Chinese decision makers and how effectively that information is delivered. Analyzing this aspect of Chinese intelligence is difficult using open sources, but public reports and expert commentaries offer some insight.

*For more information on China’s military modernization affecting its ISR capabilities, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 240–246; U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 299–314.

- *Tasking*: China's intelligence services are responsible for serving the interests of the Chinese state and the CCP.*⁴⁰ The extraction of U.S. national defense information would advance these priorities by aiding China's military modernization and offering insight into U.S. national security decision making. The MSS and PLA are subordinate to—and most likely receive tasks from—the CCP Politburo Standing Committee and the CMC, respectively, and tasking from these organizations may be coordinated by a variety of organizations across the CCP, the Chinese government, and the PLA.⁴¹
- *Processing and communication to decision makers*: China may lack a well-organized system for processing and communicating intelligence to decision makers.⁴² However, Chinese intelligence services probably share intelligence to support each other's operations. In testimony before the Commission, Mark Stokes, executive director of the Project 2049 Institute, wrote that “the PLA's [signals intelligence] community presumably provides direct support to senior policymakers and [the] HUMINT community, including the MSS, CMC Joint Staff Department Intelligence Bureau, and the CMC Political Work Department Liaison Bureau.”⁴³ Moreover, the PLA's increasing jointness most likely will facilitate the processing and communication of diverse sources of intelligence to military decision makers.⁴⁴

China's Intelligence Collection Operations against U.S. National Security Entities

Chinese intelligence services conduct extensive intelligence collection operations against U.S. national security entities, including private U.S. defense companies. This section examines how China conducts HUMINT operations, in particular, and highlights the threat of Chinese espionage to U.S. national security by providing examples of Chinese infiltrations and alleged infiltrations of a wide range of U.S. national security entities.

China's Approach to HUMINT

China's approach to HUMINT is broadly similar to U.S. intelligence agencies' approach to HUMINT.⁴⁵ Chinese intelligence services conduct overt, covert, and clandestine intelligence collection operations † against U.S. targets through a network of agents within and outside of China working as—among other things—diplomats, defense attachés, and academics.⁴⁶ They employ a variety of means to recruit and handle intelligence collectors, such as blackmail, financial incen-

*Thomas Woodrow, former senior intelligence analyst for the Pacific Command Joint Intelligence Operations Center China Division, notes that Chinese leaders describe “national strategic priorities as ‘core interests’ [and that] ... China's core interests include ‘the political stability of China’ and the ‘sovereignty and security, territorial integrity, and national unity of China.’ These core interests can also be viewed as red lines indicating a Chinese threshold for the potential use of military force.” Thomas Woodrow, “The PLA and Cross-Border Contingencies in North Korea and Burma,” in Andrew Scobell et al., *The People's Liberation Army and Contingency Planning in China*, National Defense University Press, 2015, 206.

†Overt operations are openly acknowledged by or are readily attributable to their sponsor. Covert operations are planned and executed to conceal the identity of or permit plausible denial by their sponsor. Clandestine operations are sponsored or conducted with the intent to assure the secrecy and concealment of the operation. U.S. Department of Defense, *Department of Defense Dictionary of Military and Associated Terms*, November 8, 2010, 33, 55, 180; William Safire, “Spookspeak,” *New York Times Magazine*, February 13, 2005.

tives, and sexual entrapment.⁴⁷ They recruit and employ agents to collect a wide range of information, including U.S. national security secrets. Chinese intelligence services seek to recruit agents from a variety of backgrounds. According to the authors of *Chinese Industrial Espionage: Technology Acquisition and Military Modernization*, William C. Hannas, James Mulvenon, and Anna B. Puglisi,

*While Chinese intelligence does have a historically strong track record of attempting to recruit ethnic Chinese, primarily because of cultural and language affinity, more recent cases suggest that they have broadened their tradecraft to recruit non-ethnic assets as well.*⁴⁸

Moreover, China has demonstrated interest in collecting intelligence through U.S. sources with indirect access to U.S. national security information.⁴⁹ According to Mr. Mattis,

*In one case that I am aware, Chinese intelligence pitched someone with a think tank affiliation in D.C., and his value was in, at least as it was described to him, being able to write reports about U.S.-China relations or U.S. policy toward [China] because of a broad range of contacts to whom he could reach out and speak.*⁵⁰

Notably, in at least one confirmed case, Chinese intelligence recruited a recent U.S. college graduate, Glenn Duffie Shriver, while he was living in China shortly after studying abroad in China in 2002–2003.⁵¹ In October 2010, Mr. Shriver pleaded guilty to conspiring to provide U.S. national defense information to Chinese intelligence officers.⁵² He received more than \$70,000 from his Chinese handlers to apply to the U.S. Foreign Service and the Central Intelligence Agency National Clandestine Service with the intention of communicating classified U.S. national defense information to them after gaining employment.⁵³

Although Chinese intelligence services approach foreign HUMINT collection with a similar framework to their U.S. counterparts,⁵⁴ their tactics differ on several points. In testimony before the Commission, Mr. Mattis said, “The distinctions between the U.S. and Chinese approaches to HUMINT probably are questions of specific techniques and comfort operating overseas.”⁵⁵ For example, Chinese intelligence agents have not been observed conducting dead drops,* a common method in Western intelligence collection for the transmission of items between agents and their case officers.⁵⁶ Moreover, Chinese intelligence services historically appeared to recruit nearly all their agents within China, rather than recruiting agents in target or other foreign countries, although in a significant evolution, Chinese intelligence services in recent years have appeared increasingly willing to recruit agents abroad.⁵⁷

Targets of Chinese Espionage

Chinese intelligence services target a broad range of U.S. national security actors, including military forces, defense industrial compa-

*A “dead drop” is a covert procedure in which an agent leaves a message or material in a safe location for retrieval by another agent or controller at a later time. Bruce W. Watson, Susan M. Watson, and Gerald W. Hopple, *United States Intelligence: An Encyclopedia*, Garland Publishing, Inc., 1990, 148.

nies, national security decision makers, and critical infrastructure entities. These operations have far-reaching implications for U.S. national security.⁵⁸ Moreover, the threat to U.S. national security extends overseas. China's infiltration of the systems of U.S. allies and partners could have serious implications for U.S. alliance stability and the security of U.S. national defense information.

Although this section focuses on Chinese intelligence collection against U.S. national security entities, Chinese commercial espionage also harms U.S. national security. As National Counterintelligence Executive Bill Evanina said in July 2015, "Economic security is national security."⁵⁹ Intrusions by Chinese actors into U.S. companies and other commercial institutions harm both the individual companies and the overall U.S. economy, to the benefit of China.* China recognizes the link between economic and national security, and its commercial and national security espionage efforts function in tandem to exploit it.⁶⁰

The following are selected examples of China's infiltration or alleged infiltration of entities with a role in U.S. national security. In general, China's attempts to infiltrate these targets are almost certainly increasing.⁶¹

U.S. Military Forces

China's intelligence collection operations targeting U.S. military forces could give China insight into U.S. operational plans. This could allow China to more fully anticipate and more efficiently and effectively counter U.S. military operations.

- According to the Senate Committee on Armed Services, "Hackers associated with the Chinese government successfully penetrated the computer systems of U.S. Transportation Command contractors at least 20 times in a single year [from June 2012 to May 2013], intrusions that show vulnerabilities in the military's system to deploy troops and equipment in a crisis."⁶²
- In March 2014, Benjamin Pierce Bishop, a former defense contractor at U.S. Pacific Command and retired lieutenant colonel in the U.S. Army, pleaded guilty to communicating classified national defense information, including information on joint training between the U.S. and South Korean militaries, to an unauthorized person—a Chinese woman with whom he was involved in a romantic relationship.⁶³
- In September 2009, James Fondren, former deputy director of Pacific Command's liaison office in Washington, DC, was found guilty of engaging in unlawful communication of classified information.⁶⁴ According to court documents, he had written "opinion papers" containing classified DOD information concerning the PLA and sold them to a Chinese intelligence agent.⁶⁵
- In March 2008, Gregg Bergersen, former analyst at the Defense Security Cooperation Agency (an agency within DOD), pleaded guilty to conspiring to disclose national defense information to persons not entitled to receive it.⁶⁶ Mr. Bergersen had passed

*For additional discussion of China's commercial cyber espionage, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 192–228.

information to a Chinese intelligence agent and received money and gifts from the agent.⁶⁷ Mr. Bergersen leaked information about anticipated U.S. arms sales to Taiwan, among other subjects.⁶⁸

U.S. Defense Industrial Entities

China's intelligence collection operations targeting U.S. defense industrial entities and its acquisition of sensitive defense technology could undermine U.S. military superiority by accelerating China's military modernization and giving China insight into the capabilities and operation of U.S. weapons and weapons systems.

- In June 2016, Wenxia “Wency” Man, a Chinese-born naturalized U.S. citizen, was convicted of conspiring with an agent in China to illegally export to China the MQ-9 Reaper/Predator B unmanned aerial vehicle, as well as engines used in the F-35, F-22, and F-16 jet fighters and technical data associated with these platforms.⁶⁹
- In June 2016, Amin “Amy” Yu, a Chinese national and permanent resident of the United States, pleaded guilty to illegally acting as an agent of the Chinese government.⁷⁰ Ms. Yu illegally exported commercial technology used in marine submersible vehicles* to conspirators at China's Harbin Engineering University, a research institute that supports PLA Navy military modernization.⁷¹
- In March 2016, Su Bin, a Chinese national, pleaded guilty to conspiring from 2008 to 2014 to steal U.S. military technical data, including data on the Boeing C-17 Globemaster military transport aircraft and jet fighter aircraft, and export this information to China.⁷² Some of Mr. Su's co-conspirators were members of the PLA Air Force.⁷³

National Security Decision Makers and Government Organizations

China's intelligence collection operations targeting U.S. national security decision makers and government organizations could give China insight into highly sensitive U.S. national security decision making processes.

- In August 2016, Kun Shan “Joey” Chun, a Chinese-born naturalized U.S. citizen, pleaded guilty to illegally acting as an agent of the Chinese government.⁷⁴ Mr. Chun was a Federal Bureau of Investigation (FBI) electronics technician. He passed sensitive information to China on, among other things, surveillance technologies used by the FBI.⁷⁵ Mr. Chun's Chinese contacts provided him with financial payments and partially paid for a trip to Italy and France, during which he met with a Chinese intelligence officer.⁷⁶
- According to an NBC report from August 2015, since 2010 China has targeted and infiltrated the personal e-mail accounts of

*According to the U.S. Department of Justice, “marine submersible vehicles” refers to “unmanned underwater vehicles, remotely operated vehicles, and autonomous underwater vehicles.” U.S. Department of Justice, *Florida Woman Charged in 18-Count Indictment for Conspiracy to Illegally Export Systems, Components, and Documents to China*, April 21, 2016.

many Obama Administration officials.⁷⁷ As of 2014 the infiltrations were ongoing, according to the report.⁷⁸

- In July 2015, OPM announced that hackers had extracted personnel records of roughly 22 million U.S. citizens.⁷⁹ The hackers were reportedly affiliated with the MSS.⁸⁰ Some of the stolen files contained detailed personal information of federal workers and contractors who have applied for security clearances. Among the information extracted were the fingerprints of 5.6 million people, some of which could be used to identify undercover U.S. government agents or to create duplicates of biometric data to obtain access to classified areas.⁸¹
- In 2010, China reportedly attempted to infiltrate the e-mail accounts of top U.S. national security officials, including then Joint Chiefs of Staff chairman Admiral Mike Mullen and then chief of naval operations Admiral Gary Roughead.⁸²
- In May 2016, Mr. Clapper said U.S. intelligence has seen evidence that foreign actors have targeted the 2016 presidential campaigns with cyber operations.⁸³ These actors most likely include Chinese intelligence services, as well as actors in Russia and other countries.⁸⁴ During the 2008 U.S. presidential election, China reportedly infiltrated information systems of the campaigns of then senator Barack Obama and Senator John McCain.⁸⁵

U.S. Critical Infrastructure

U.S. critical infrastructure* entities are a major target of Chinese cyber operations, and China is capable of significantly disrupting or damaging these entities.⁸⁶ In 2013, the U.S. Department of Homeland Security reported that attacks—including cyber intrusions—on critical infrastructure could disrupt “the ability of government or industry to ... carry out national security-related missions.”⁸⁷ At a November 2014 hearing of the House of Representatives Permanent Select Committee on Intelligence, Admiral Michael Rogers, commander of U.S. Cyber Command and director of the National Security Agency, indicated he believed “advanced nation state adversaries” like China or Russia have the capability to “shut down vital infrastructure like oil and gas pipelines, power transmission grids, and water distribution and filtration systems.”⁸⁸ China reportedly has already infiltrated many U.S. critical infrastructure entities,†

*According to the U.S. Department of Homeland Security, critical infrastructure entities are entities “considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health or safety, or any combination thereof.” A Presidential Policy Directive from February 2013 defines 16 critical infrastructure sectors: chemical; commercial facilities; communications; critical manufacturing; dams; defense industrial base; emergency services; energy; financial services; food and agriculture; government facilities; healthcare and public health; information technology; nuclear reactors, materials, and waste; transportation systems; and water and wastewater systems. U.S. Department of Homeland Security, *Critical Infrastructure Sectors*, October 27, 2015; White House Office of the Press Secretary, *Presidential Policy Directive: Critical Infrastructure Security and Resilience*, February 12, 2013.

†In April 2016, Szuhsung “Allen” Ho, a Chinese-born naturalized U.S. citizen, and China General Nuclear Power Company, a Chinese state-owned enterprise, were indicted for conspiracy to unlawfully engage and participate in the production and development of special nuclear material outside the United States. Maria L. La Ganga, “Nuclear Espionage Charge for China Firm with One-Third Stake in UK’s Hinkley Point,” *Guardian*, August 10, 2016; U.S. Department of Justice, *U.S. Nuclear Engineer, China General Nuclear Power Company, and Energy Technology International Indicted in Nuclear Power Conspiracy against the United States*, April 14, 2016.

such as power transmission grids, and installed software that could be used to disable or destroy infrastructure components in a crisis or military conflict.⁸⁹

U.S. Allies and Partners

At a minimum, China has targeted several U.S. ally and partner countries with intelligence collection operations. To the extent that the United States has shared military technology, weapons and weapons systems, and operational plans with these countries, China's infiltration of their defense establishments could compromise U.S. national security. These infiltrations also threaten U.S. alliance stability.

Among U.S. allies and partners, Taiwan is a prominent target of Chinese espionage. David Major, chief executive officer and president of the CI Centre, testified to the Commission that 56 agents of China were arrested in Taiwan from 2002 to 2016 for involvement in Chinese espionage plots to extract sensitive information—including U.S. military technology shared with Taiwan—from Taiwan defense and intelligence organizations.⁹⁰ The implications of this challenge for the U.S.-Taiwan relationship are particularly significant.⁹¹ Taiwan relies on defense cooperation with the United States—including the transfer of U.S. military equipment—to help maintain its self-defense capabilities in the face of China's rapidly growing military might.⁹² Moreover, Taiwan's strategic position in the Western Pacific makes its defensibility an important aspect of the U.S. alliance system and strategy for the region.⁹³

In addition, cases of alleged Chinese infiltrations, including the following, have affected other U.S. partners:

- In July 2016, the Finnish cybersecurity firm F-Secure published a report suggesting China was responsible for cyber intrusions into the information systems of the Philippines Department of Justice, organizers of the Asia Pacific Economic Cooperation summit, and an unidentified international law firm representing the Philippines in the lead-up to the July 2016 decision by the Permanent Court of Arbitration at The Hague regarding the China-Philippines territorial dispute in the South China Sea.⁹⁴
- In February 2016, a senior Norwegian intelligence official said actors in China had stolen confidential information from Norwegian companies that is now being used in Chinese military technology.⁹⁵ Norway is a member of the North Atlantic Treaty Organization.
- In December 2015, the Australian Broadcasting Corporation published a report suggesting China was responsible for a massive cyber intrusion into the systems of the Australian Bureau of Meteorology, which provides data to the Australian Department of Defence.⁹⁶ Australia is a U.S. treaty ally.
- China-based actors have conducted extensive cyber operations targeting Japan.⁹⁷ In February 2015, the Japan National Institute of Information and Communications Technology reported that China was responsible for 40 percent of approximately 26 billion attempts to compromise Japanese information systems in 2014.⁹⁸ Japan is a U.S. treaty ally.

- Chinese intelligence has recruited agents in Thailand and, reportedly, the Philippines, both of which are U.S. treaty allies.⁹⁹ Moreover, China allegedly handled a U.S. informant while he was traveling in Italy and France.¹⁰⁰ China's apparent shift toward more overseas recruitment and handling operations¹⁰¹ could create a greater espionage threat environment in these and other U.S. partner countries.

U.S. Responses to Chinese Espionage

Recent U.S. responses to Chinese espionage have included an April 2015 executive order allowing for sanctions in response to foreign “malicious cyber-enabled activities,”* a September 2015 memorandum of understanding between the United States and China agreeing that neither government would “conduct or knowingly support cyber-enabled theft of intellectual property ... with the intent of providing competitive advantages to companies or commercial sectors,”¹⁰² and increased U.S. Department of Justice (DOJ) investigations and prosecutions of espionage cases involving Chinese actors. (For more information on the status of the September 2015 memorandum of understanding, see Chapter 1, Section 1, “Year in Review: Economics and Trade.”) This section considers DOJ's responses in detail, as well as the U.S. Intelligence Community's response and enhanced U.S. government cybersecurity measures.†

DOJ Responses

U.S. prosecutions of alleged Chinese commercial espionage have risen sharply over the past several years. From 2014 to 2015 alone, Chinese commercial espionage cases accounted for a large portion of a 53 percent rise in commercial espionage cases investigated by the FBI.‡¹⁰³ Because DOJ sometimes has approached cases of defense-related espionage as commercial espionage cases—that is, cases prosecuted under commercial espionage laws, rather than defense espionage laws—these statistics probably capture a rise in Chinese espionage operations targeting U.S. national security actors.¹⁰⁴ Moreover, as noted earlier, non-defense-related Chinese commercial espionage itself threatens U.S. national security.

In February 2013, as a part of the Obama Administration's roll-out of a national strategy to protect U.S. trade secrets, then attorney general Eric Holder said DOJ “has made the investigation and prosecution of trade secret theft a top priority,” and that DOJ's National Security Division Counterespionage Section “has taken a leading role in economic espionage cases—and others affecting national security and the export of military and strategic commodities or technology.”¹⁰⁵ In the same speech, Mr. Holder highlighted the threat from China by listing successful prosecutions of individuals

*The Obama Administration has not yet applied the sanctions against China or any other country. For additional information about the sanctions, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 204–205.

†For more information on the April 2015 executive order, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 204–205.

‡In May 2014, a federal grand jury indicted five PLA officers for computer hacking and economic espionage conducted against U.S. companies, among other offenses. Since the indictment, the U.S. government has taken no further actions in the case. U.S. Department of Justice, *U.S. Charges Five Chinese Military Hackers for Cyber Espionage against U.S. Corporations and a Labor Organization for Commercial Advantage*, May 19, 2014.

for transferring trade secrets—including, in one case, defense information—to China.¹⁰⁶

U.S. Intelligence Community Responses

The U.S. counterintelligence response to Chinese espionage has suffered from a lack of coordination within the U.S. Intelligence Community. According to the Office of the Director of National Intelligence (ODNI) *National Counterintelligence Strategy of the United States of America 2016*, “The current and emerging [counterintelligence] challenges facing the United States require an integrated, whole-of-government response.”¹⁰⁷ The document outlines priorities for achieving this objective, such as “strengthen[ing] secure collaboration, responsible information sharing and safeguarding, and effective partnerships” among counterintelligence organizations.¹⁰⁸ However, ODNI’s Office of the National Counterintelligence Executive, which is statutorily responsible for developing the U.S. government National Counterintelligence Strategy, does not appear to have practical authority to make structural changes within the U.S. Intelligence Community toward this goal.¹⁰⁹ Michelle Van Cleave, former national counterintelligence executive, testified to the Commission that “instead of looking at the strategic implications of China’s intelligence operations, the U.S. government for the most part has adopted a case-by-case approach to dealing with the threat they represent.”¹¹⁰ This approach has—at least publicly—largely manifested as a series of isolated espionage prosecutions, rather than a coordinated counterintelligence effort across the Federal Government.

Enhanced U.S. Government Cybersecurity Measures

The Obama Administration has taken some steps to enhance cybersecurity measures at federal agencies and government contractors, including the following:

- In December 2015, DOD issued an interim amendment to the Defense Federal Acquisition Regulation Supplement that strengthened cybersecurity requirements and cyber incident reporting requirements for defense contractors.¹¹¹
- In February 2016, the Obama Administration announced the creation of the Commission on Enhancing National Cybersecurity.¹¹² The commission’s mandate includes making recommendations for measures to increase “the quality, quantity, and level of expertise of the cybersecurity workforce in the Federal Government and private sector.”¹¹³ In August 2016, the commission released a request for information on critical infrastructure cybersecurity and cybersecurity research and development, among other topics.¹¹⁴
- In May 2016 the Federal Acquisition Regulation was amended to impose higher requirements on U.S. government contractors to safeguard their information systems from cyber intrusions and to require them to “identify, report, and correct information and information system flaws in a timely manner.”¹¹⁵
- The Obama Administration’s fiscal year (FY) 2017 budget proposal allotted more than \$19 billion for cybersecurity—an increase of more than 35 percent over FY 2016.¹¹⁶

- In July 2016, the White House issued a Presidential Policy Directive on “Cyber Incident Coordination.”¹¹⁷ The directive created a coordination mechanism and clarified the division of labor between U.S. government agencies responsible for responding to “significant cyber incidents” affecting U.S. government and private entities.¹¹⁸

The U.S. government’s efforts to increase cybersecurity at national security organizations have not always been communicated clearly. In April 2016, an e-mail from U.S. Air Force Cyber Command circulated within the Air Force indicated that products of Lenovo Group Ltd.—a technology company affiliated with the Chinese government—would be removed from DOD’s “Approved Products List,” and that all Lenovo products currently in use would be removed from DOD systems.¹¹⁹ However, within several days an Air Force spokeswoman said the message should not have been sent and indicated that DOD had not banned Lenovo products.¹²⁰ It is unclear how this situation was resolved.

Increased cybersecurity measures could mitigate, but will not eliminate, the threat of Chinese cyber espionage. Cyber intruders generally develop new approaches more quickly than their targets can develop defenses.¹²¹ Moreover, the human element of cyber espionage is difficult, and sometimes impossible, to defend against. Poor personal cybersecurity practices and procedures among insiders, as well as intentional leaks by insiders, can aid infiltrators.¹²²

Implications for U.S. National Security

China’s illicit extraction of sensitive U.S. national security information has far-reaching consequences for U.S. interests.

In recent years, Chinese agents have extracted data on some of the most advanced weapons and weapons systems in the U.S. arsenal, such as jet fighters and unmanned submersible vehicles. The loss of these and other sensitive defense technologies undermines U.S. military superiority by accelerating China’s military modernization and giving China insight into the capabilities and operation of U.S. weapons and weapons systems.

The United States shares weapons, weapons systems, and operational plans with its allies and partners, many of whom China has targeted with espionage operations. China’s infiltrations of these countries’ defense establishments have significant implications for U.S. alliance stability. If the United States perceives significant security risks in sharing information and equipment with its partners, it could hesitate to provide such support in the future.¹²³ Even when China is not successful in extracting sensitive information, public reports of failed espionage attempts—such as the many recent reports of Chinese agents apprehended in Taiwan¹²⁴—could undermine U.S. confidence in its partners and contribute to a deterioration in bilateral defense relations.

China’s infiltrations of the information systems of U.S. government organizations with a role in national security, along with infiltrations of the e-mail accounts of prominent U.S. government officials, could give China insight into U.S. government national security decision making and provide China with opportunities to manipulate it. These breaches could give China insight into inter-

nal U.S. discussions of issues relevant to U.S.-China contingencies, potentially allowing China to anticipate and counter U.S. actions, including military operations. Moreover, these breaches could give Chinese intelligence information useful for targeting and recruiting agents for espionage and influence operations.

The Chinese intelligence threat to U.S. national security will grow as China reforms and centralizes its intelligence apparatus and gains experience conducting intelligence collection operations. Its HUMINT operations, in particular, already appear to be growing more aggressive and extensive.¹²⁵ China's intelligence processing and communication to decision makers is likely to become more effective and efficient as the PLA moves toward joint, integrated intelligence operations. The potential resubordination and centralization of elements of the former PLA General Staff Department intelligence departments to the new Strategic Support Force also could create a more streamlined and well-coordinated intelligence apparatus.

Conclusions

- Chinese intelligence has repeatedly infiltrated U.S. national security organizations and extracted information with serious consequences for U.S. national security, including information on the plans and operations of U.S. military forces and the designs of U.S. weapons and weapons systems. This information could erode U.S. military superiority by aiding China's military modernization and giving China insight into the operation of U.S. platforms and the operational approaches of U.S. forces to potential contingencies in the region.
- China's growing technical intelligence collection capabilities could strengthen China's hand in a contingency. Its extensive network of intelligence, surveillance, and reconnaissance (ISR) assets and continued development and deployment of increasingly advanced ISR platforms will increase the ability of the People's Liberation Army (PLA) to monitor U.S. forces. Moreover, the enhanced jointness of PLA intelligence at the theater level will facilitate the integration of data collected by these platforms to form a more comprehensive, real-time battlefield picture.
- Chinese intelligence reportedly has repeatedly targeted and succeeded in infiltrating the personal e-mail accounts of leading U.S. government officials. These infiltrations could give China insight into highly sensitive U.S. national security decision-making processes.
- China's infiltration of the national security establishments of U.S. allies and partners could allow China to indirectly access sensitive U.S. national security information. Moreover, these breaches could undermine the strength and stability of U.S. alliances by causing the United States to hesitate to share sensitive information with its partners.

RECOMMENDATIONS

Chinese Intelligence Services and Espionage Threats to the United States

The Commission recommends:

- Congress direct the U.S. Department of State to develop educational materials to alert U.S. citizens living and traveling abroad about recruitment efforts by Chinese intelligence agents, and to make these materials available to U.S. universities and other institutions sending U.S. students to China. Congress should also direct the U.S. Department of Defense to develop and implement a program to prepare U.S. students studying in China through Department of Defense National Security Education Programs to recognize and protect themselves against recruitment efforts by Chinese intelligence agents.
- Congress direct the Federal Bureau of Investigation to provide a classified report to Congress on what risks and concerns have been identified as associated with information systems acquired by the U.S. government, and how those risks are being mitigated. This report should identify information systems or components that were produced, manufactured, or assembled by Chinese-owned or -controlled entities.

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CHAPTER 3

CHINA AND THE WORLD

SECTION 1: CHINA AND SOUTH ASIA

Introduction

Although China's assertiveness in Southeast Asia—particularly when it comes to the South China Sea—tends to dominate discourse about China's growing global ambitions, China has also been active in cultivating influence among South Asian countries (Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka). This section surveys China's economic, diplomatic, and security engagement with South Asia. In addition to discussing China's overarching objectives in the region, it profiles China's relationships with South Asia's two largest countries: India and Pakistan. It concludes with an examination of how China's South Asia policies impact the United States, which also has significant and evolving interests in the region. This section draws from the Commission's March 2016 hearing on China-South Asia relations; its June 2016 fact-finding trip to China (Beijing and Kunming) and India (New Delhi and Mumbai); consultations with experts on Chinese and South Asian economics, foreign policy, and security affairs; and open source research and analysis.

China's Objectives in South Asia

China has not publicly articulated a formal South Asia "strategy," although Beijing's key objectives and interests in the region can be observed in its activities in and diplomacy toward these countries. The key interests, concerns, and objectives of China's South Asia strategy fall into four broad categories: (1) checking India's rise by exploiting the India-Pakistan rivalry, (2) expanding economic activity and influence in the region, (3) enhancing access to the Indian Ocean, and (4) countering terrorism and religious extremism (often at the expense of religious freedom and other human rights). These objectives enable China to compete with potential rivals, increase China's overall influence in the region, and diminish the influence of the United States.¹

Check India's Rise by Exploiting the India-Pakistan Rivalry

The overall balance of power between China and India currently is in China's favor,² and Beijing intends to keep it that way. Although India lags behind China in most categories, from economic growth to military might, it is still the most powerful South Asian country, and its influence in greater Asia is expanding. China exploits the longstanding rivalry between India and Pakistan to en-

sure its own ambitions in South Asia are achieved. This strategy aims to keep India so preoccupied with its western neighbor that it will not have the ability to mount a serious challenge to China's power and influence in Asia.³ During the Commission's trip to India, several Indian interlocutors emphasized their perception that China seeks to encircle or contain India.⁴

Figure 1: Map of South Asia



Source: U.S.-China Economic and Security Review Commission, 2016.

China's bilateral relationships with India and Pakistan are informed by the India-Pakistan rivalry. Moreover, China's approach to the broader South Asian region is colored in large part by China's relationships with these two countries. China's relationship with Pakistan has been defined by mutual animosity toward India since the early 1960s (just after Sino-Indian relations began to deteriorate over Tibet and the border dispute, discussed later in this section). This relationship was further forged during the 1962 Sino-Indian border war and the 1965 Indo-Pakistani war (China threatened to enter the latter on Pakistan's behalf).⁵ Since then, China's increasingly sophisticated military assistance to Pakistan—particularly on

missiles and nuclear weapons—has been instrumental to Pakistan’s ability to credibly threaten India’s security. Andrew Small, senior transatlantic fellow at the German Marshall Fund of the United States, summarizes this dynamic in his book, *The China-Pakistan Axis: Asia’s New Geopolitics*:

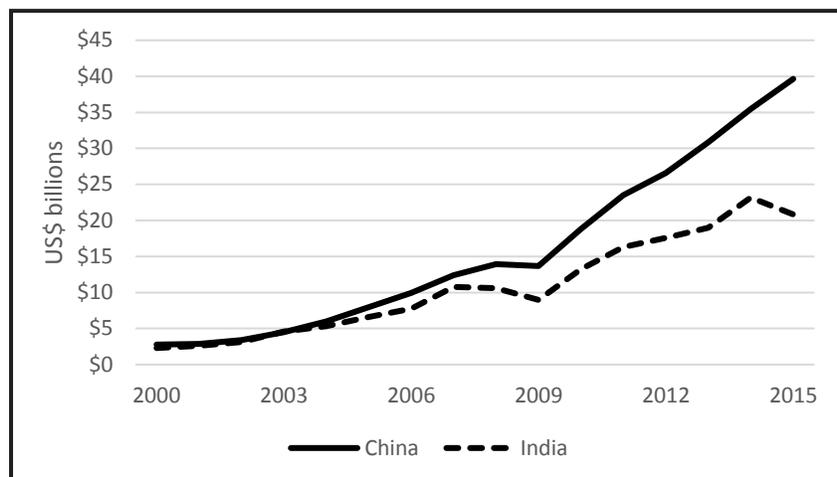
The balancing role that Pakistan plays in Beijing’s India policy goes well beyond forcing India to keep a large number of troops and military assets focused on its western frontier, though that undoubtedly helps. It also ensures that India is kept off balance, distracted, absorbing diplomatic, political, and strategic energies that could otherwise be directed towards China. It puts a constant question mark over India’s aspirations to transcend its own neighborhood. Every time a U.S. secretary of State declares support for New Delhi’s policy to “Look East,” towards the Pacific, China sees another reason to keep India on edge in its own backyard.⁶

For additional discussion of China’s military assistance to Pakistan, see “Bolstering Pakistan’s Defense vis-à-vis India,” later in this section.

Expand Economic Activity and Influence in the Region

Until recently, China lagged far behind India in terms of economic engagement with South Asia, forging a relationship with Pakistan but otherwise remaining a minor player. As Figures 2 and 3 demonstrate, however, over the past decade China’s economic engagement (including trade, loans, and investment) with countries in the region has expanded dramatically, challenging India’s position.⁷ China has been a particularly prolific exporter of manufactured goods—often aided by domestic policies that subsidize production and promote exports—an area where India cannot keep up due to its lagging manufacturing capacity.⁸

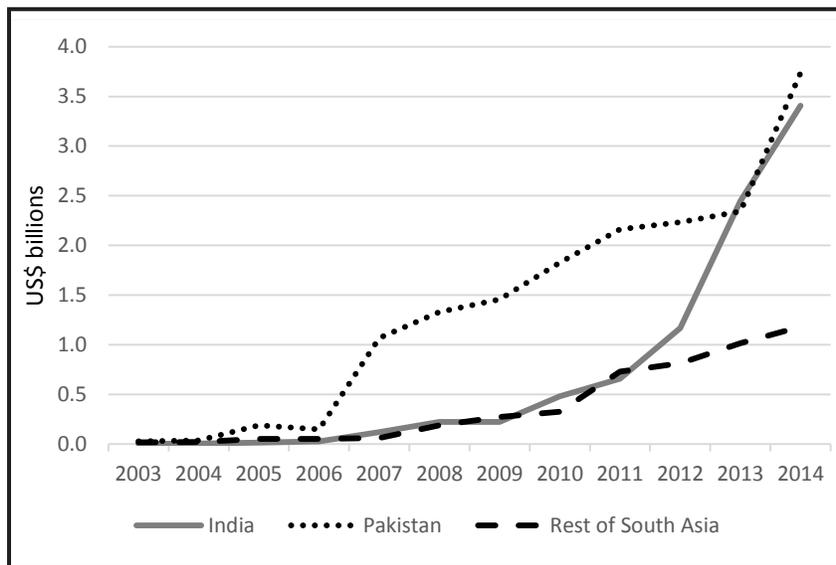
Figure 2: China’s and India’s Trade with South Asia, 2000–2015



Note: Data for China’s trade with South Asia exclude India.
Source: International Monetary Fund, “Direction of Trade Statistics.”

Chinese foreign direct investment (FDI) in the region has also been growing (see Figure 3), with India and Pakistan taking the lion's share. Chinese FDI in Pakistan shows a particularly rapid expansion, jumping 621 percent from 2006 to 2007 before settling into more measured growth (this development appears to correlate with the signing of the China-Pakistan free trade agreement, which went into force in July 2007).⁹

Figure 3: Stock of Chinese FDI in South Asia, 2003–2014



Note: “Rest of South Asia” includes Afghanistan, Bangladesh, Nepal, and Sri Lanka. Data for Bhutan and the Maldives are not available.

Source: China’s Ministry of Commerce via CEIC database.

China’s efforts to expand regional connectivity, embodied by the “One Belt, One Road” (OBOR) initiative (with its land-based “Silk Road Economic Belt” and maritime “21st Century Maritime Silk Road” components, see Figure 4), are gaining some traction. China’s economic activities in South Asia through OBOR present both opportunities and challenges. On the one hand, South Asia is one of the least economically integrated regions in the world. In 2015, the World Bank noted that intraregional trade accounted for only 5 percent of South Asia’s total trade, while intraregional investment accounted for less than 1 percent of total investment. In addition to “limited transport connectivity, onerous logistics and regulatory impediments,” the World Bank pointed to “historical political tensions and mistrust, with cross-border conflicts and security concerns” as causes of this limited regional integration.¹⁰ Chinese-driven transportation and other connectivity infrastructure projects may help alleviate these regional divisions. On the other hand, China’s activities in the region may exacerbate tensions and revive long-simmering conflicts, including those between India and Pakistan. Some of these challenges and opportunities are highlighted here:

- *Sri Lanka*: Sri Lanka is a model case study of China's rising influence in South Asia. While India and Sri Lanka share long-standing historical and cultural ties, and India remains Sri Lanka's top trading partner, China's exports to Sri Lanka are rising fast.¹¹ Outside of Pakistan, Sri Lanka has been the leading beneficiary of Chinese infrastructure investment in South Asia, with nearly \$15 billion worth of projects between 2009 and 2014.¹² In recent years, though, the relationship has been marred by tensions. After a new government came to power in Sri Lanka in January 2015, it demanded a review of several Chinese projects, including the \$1.4 billion Colombo Port City real estate development (the project ultimately went ahead after some terms were renegotiated).^{*} The government raised concerns about environmental impacts of Chinese projects, as well as cozy ties between Chinese contractors and the previous Sri Lankan government.¹³ Hambantota, another major port in Sri Lanka, has also been constructed primarily by Chinese companies.[†] India's worries about China's growing presence in Sri Lanka, which is located on a key trade route in the Indian Ocean, prompted India's Prime Minister Narendra Modi to visit Colombo, signing agreements for new economic assistance, an expanded free trade area, and a civil nuclear deal.¹⁴
- *Bangladesh*: China overtook India as Bangladesh's top source of imports in 2004,¹⁵ displacing many Indian goods, including cotton, which is central to Bangladesh's garment industry.¹⁶ Bangladesh has allocated two special economic zones for Chinese investors in Chittagong, a major port, and Dhaka, the capital.¹⁷ India has also been watching with unease China's investment in Bangladesh's port infrastructure along the Bay of Bengal: China helped upgrade Chittagong and had been pursuing a port project at Sonadia Island.¹⁸ In February 2016, however, Bangladesh quietly closed the Sonadia project, opting instead to develop another deep sea port, which India wants to help build.¹⁹ Bangladesh also permitted Indian cargo ships to access Chittagong Port—a move Deepa M. Ollapally, professor at George Washington University, characterized in her testimony before the Commission as “a historic break from the past.”[‡]²⁰

^{*}The Chinese projects in Sri Lanka that underwent a review were initiated during the administration of President Mahinda Rajapaksa, who had a close relationship with the Chinese government dating back to the last years of the Sri Lankan civil war, when China supplied Sri Lanka with ammunition, jet fighters, and nonmilitary aid. After Maithripala Sirisena narrowly defeated Mr. Rajapaksa to become Sri Lanka's new president, he sharply criticized Mr. Rajapaksa's close ties with China (for example, Hambantota, which received the lion's share of Chinese projects, is Mr. Rajapaksa's hometown and political base), and called for a review of Chinese projects, alleging corruption and overpricing. Ranga Sirilal and Shihar Aneez, “Rajapaksa Comeback Bid Checked by Sri Lanka Bribery Probe,” Reuters, July 24, 2015; Jeff M. Smith, “China's Investments in Sri Lanka: Why Beijing's Bonds Come at a Price,” *Foreign Affairs*, May 23, 2016.

[†]Mr. Rajapaksa said India was offered to develop the Hambantota project first, but rejected the offer. Sandeep Unnithan, “One-Upmanship in Sri Lanka: India and China Fight It out to Rebuild the Island Nation's Economy,” *Daily Mail* (UK), March 30, 2013; Ankit Panda, “China's Sri Lankan Port Ambitions Persist,” *Diplomat* (Japan), July 27, 2015.

[‡]The agreement permitting Indian use of Chittagong and Mongla, another Bangladesh port, was supposed to be signed in 2011, but fell through due to India's failure to sign another bilateral agreement (water-sharing accord for Teesta River). Although the water-sharing agreement remains unsigned, the signing of the Indo-Bangladeshi Land Boundary Agreement in 2015, which resolved a long-standing dispute, has reportedly improved the political climate enough to allow the port deal to advance. Ranjana Narayan, “India, Bangladesh Business Set to Grow through Ports, Waterways,” *Economic Times* (India), June 9, 2015.

- *Pakistan*: In 2015, China and Pakistan launched the China-Pakistan Economic Corridor (CPEC)—which falls under the OBOR umbrella—with the signing of 49 agreements to finance a variety of projects with a total expected value of \$46 billion, including upgrades to Pakistan’s Gwadar Port, oil and gas pipelines, road and railway infrastructure, and a series of energy projects.²¹ CPEC aims to connect Kashgar in China’s Xinjiang Province with Gwadar, located at the edge of the Strait of Hormuz in the Arabian Sea, via 2,000 miles of rail, road, and pipelines (see Figures 4 and 7). China’s economic commitment to Pakistan, if fulfilled, will dwarf U.S. civilian assistance to Pakistan, which totaled around \$5 billion between 2010 and 2014.²² Although much of CPEC remains in the planning stages, financing arrangements have been finalized or are nearing finalization on projects worth \$30 billion, according to Ahsan Iqbal, Pakistan’s Minister for Planning, Development, and Reform.²³ (China’s broader relationship with Pakistan is discussed in greater depth later in this section.)

Figure 4: China’s One Belt, One Road



Source: Galina Petrovskaya, “‘Silk Road’ in EU: Trans-Caspian Transit Bypassing Russia,” *Deutsche Welle*, September 3, 2016. Staff translation.

- *Nepal*: Nepal showcases another facet of China’s ongoing bilateral rivalry with India. Unlike Sri Lanka and Bangladesh, which can give China access to strategically located ports, Nepal is a small, landlocked country entirely dependent on Indian ports and transit infrastructure. Its location, however—squeezed between Tibet and India—makes it an important buffer zone for China (see Figure 5). Concerned that Tibetan exiles living in Nepal may stir dissent in Tibet, China has been expanding its ties with Nepal.* Although trade with India still accounts for

*There are around 20,000 Tibetans living in Nepal. According to a 2014 report by Human Rights Watch, under pressure from China, Nepal’s government has been repressing Tibetan refugees living in the country. Nepalese government abuses against Tibetan refugees documented by

more than half of Nepal's total trade, China has been gaining ground fast; for example, China became the largest source of FDI in Nepal in 2014.²⁴ Recent developments in Nepal's politics gave China a chance to outplay India. Displeased with the new constitution adopted by Nepal in September 2015,* India held an informal blockade on trucks heading to Nepal across India's border, cutting off Nepal's access to vital energy supplies.²⁵ China, which earned much goodwill in Nepal with its swift assistance following the devastating earthquake in April 2015, responded once again, sending fuel and opening trade routes that had been closed since the earthquake.²⁶ In response, Nepal signed several agreements with China, including a permanent arrangement for energy supplies and a transit treaty granting Nepal access to Chinese ports.²⁷ India's blockade ended in February 2016.²⁸ In an effort to normalize the relationship with India, then prime minister of Nepal K.P. Sharma Oli traveled to India in March 2016—his first foreign trip after assuming the position in 2015—and the two sides signed nine agreements, including for infrastructure, rail, and road transit.²⁹

India “Acts East” and Puts Its “Neighborhood First”

Under Prime Minister Modi, India has been pursuing better relations with its neighbors and countries in broader Asia through two important policy initiatives. The first has been the transformation of India's “Look East” policy into an “Act East” policy. The Look East policy dates back to the 1990s, when a worsening domestic economic situation prompted India's government to seek economic opportunities beyond South Asia; the policy later developed to include a strategic dimension.³⁰ Prime Minister Modi used the November 2014 Association of Southeast Asian Nations (ASEAN)-India summit to unveil the Act East policy, which emphasizes more active economic and security cooperation with the region.³¹ On the economic side, Prime Minister Modi focused on—among other goals—boosting trade and increasing connectivity, proposing a new investment vehicle “to facilitate project financing and quick implementation.”³² On the security side, Prime Minister Modi broke with the tradition of India's neutrality on the South China Sea territorial dispute, saying, “For peace and stability in South China Sea, everyone should follow inter-

Human Rights Watch included repatriation and “excessive use of force by police, preventive detention, torture and ill-treatment when detained, intrusive surveillance, and arbitrary application of vaguely formulated and overly broad definitions of security offenses.” Human Rights Watch, “Under China's Shadow: Mistreatment of Tibetans in Nepal,” March 2014, 1, 33–36.

*When Nepal's new constitution came into effect in September 2015, protests opposing the constitution erupted in the southern parts of the country along the Indo-Nepal border (which is an open border, meaning Nepalese and Indian nationals may move freely across the border without passports or visas and may live and work in either country). Among other issues, the communities living along the border—the Madhesi (who share close ethnic ties with Indian people) and Tharu ethnic minorities—expressed concerns that the new constitution would marginalize them. The Indian foreign ministry issued a statement expressing concern over unrest on the border and saying, “We urge that issues on which there are differences should be resolved through dialogue in an atmosphere free from violence and intimidation, and institutionalized in a manner that would enable broad-based ownership and acceptance.” Sanjoy Majumder, “Why Is India Concerned about Nepal's Constitution,” BBC, September 22, 2015.

**India “Acts East” and Puts its “Neighborhood First”—
*Continued***

national norms and law,” without referring to China explicitly.*³³ The Act East policy reaches beyond ASEAN and includes cooperation with Japan and Australia, reflecting Prime Minister Modi’s greater emphasis on maritime security.³⁴

The other important initiative is the “Neighborhood First” policy, aimed at reinforcing India’s commitment to smaller South Asian countries. Dr. Ollapally noted in her testimony to the Commission that the Neighborhood First policy has been evident “both in symbolic terms like the invitation to all neighboring leaders to [Prime Minister] Modi’s inauguration,” and in practical terms like the resolution of the longstanding border dispute with Bangladesh.³⁵

As the examples of Sri Lanka, Bangladesh, and Nepal demonstrate, far from passively accepting China’s growing influence as a substitute for India’s historic dominance in the region, small South Asian countries try to balance the two powers against each other. James Moriarty, then senior advisor at Bower Group Asia, noted in his testimony to the Commission, “When the government of one of these other countries runs into a difficult patch in its relations with India, that government tries to garner support and assistance from China.”³⁶

Expand Influence and Capabilities in the Indian Ocean

The Indian Ocean is growing in importance to China, which relies on sea lines of communication running through the Persian Gulf, Arabian Sea, Indian Ocean, Malacca Strait, and South China Sea for its growing energy needs. Beijing is highly sensitive to the fact that these resources, which are essential to China’s economic productivity (and by extension to China’s domestic stability and the Chinese Communist Party’s political legitimacy), could be interdicted by hostile state or nonstate actors.³⁷ Other strategic interests China perceives it needs to protect include a growing number of Chinese nationals working and living along the Indian Ocean littoral³⁸ and the aforementioned economic investments of Chinese companies in the region.³⁹

The fruits of China’s naval modernization have been manifesting in the Indian Ocean since December 2008, when the People’s Liberation Army (PLA) Navy sent its first antipiracy task force to the Gulf of Aden. Since then, 24 consecutive task groups have maintained a near-continuous presence in the Indian Ocean; the PLA Navy has conducted at least four submarine patrols in the Indian Ocean since 2013;⁴⁰ the PLA Navy conducted its first combat readiness patrol in the Indian Ocean in 2014;⁴¹ and in 2015 China announced it will establish its first ever overseas military logistics facility in

*Leading up to the high-profile July 2016 ruling by the Permanent Court of Arbitration in The Hague in a case about China’s South China Sea claims, Beijing attempted to secure international support for its position. India refrained from taking a position on the case (although Beijing claimed it had Delhi’s support), but soon after the ruling was announced, the Indian minister of state remarked that India “has respected the decision of the International Tribunal to resolve maritime disputes” and “urges all parties to show the utmost respect for UNCLOS.” India’s Ministry of External Affairs, *Closing Remarks by Minister of State for External Affairs Dr. V.K. Singh at the 14th ASEAN-India Foreign Ministers’ Meeting in Vientiane (July 25, 2016)*, July 25, 2016.

Djibouti.⁴² According to David Brewster, senior research fellow at Australian National University's National Security College, "China's overall military modernization program has the long term potential to significantly enhance its ability to project military power into the Indian Ocean region."⁴³

China's "String of Pearls"

Chinese investment in port facilities in strategic locations in the Indian Ocean (including Chittagong in Bangladesh, Gwadar in Pakistan, Colombo and Hambantota in Sri Lanka, Marao in the Maldives, Kyaukpyu in Burma [Myanmar], Lamu in Kenya, and Bagamoyo in Tanzania) is viewed by many in India as part of a concerted plan by China to develop a geopolitical "string of pearls"* to contain India.⁴⁴ Although all of these facilities are intended for commercial use, some experts argue they could eventually serve strategic purposes for the Chinese navy, either as full-fledged naval bases or more limited facilities (as in the case of China's military logistics facility in Djibouti).⁴⁵ This concern was illustrated in 2011 when the Pakistani defense minister at the time told the *Financial Times* that Pakistan had asked China to build a naval base at Gwadar; another Pakistani defense official quoted in the report said, "The naval base is something we hope will allow Chinese vessels to regularly visit in [the] future and also use the place for repair and maintenance of their fleet in the [Indian Ocean region]."⁴⁶ India's worries were further stoked when a Chinese submarine made two port calls in Colombo in 2014, and another submarine surfaced in Karachi, Pakistan, in 2015.⁴⁷

The Chinese government has sought to emphasize the commercial and unthreatening nature of these investments with initiatives like the 21st Century Maritime Silk Road,⁴⁸ but according to South Asian security expert C. Raja Mohan, who heads the Carnegie Endowment for International Peace's India center, the dividing line between a commercial port and a military base is not so distinct. In his words, "If the Chinese military can use a civilian facility, then is that facility still civilian or military? Their ships will have to dock somewhere."⁴⁹ Dean Cheng, senior research fellow at the Heritage Foundation, cautions that Chinese investment in Indian Ocean port facilities does not automatically result in the encircling of India, or at least not easily so, noting: "To become military bases, these investments would require a far larger, more overt military presence, including access treaties with the host countries, hardening of facilities to withstand attack, and most likely the presence of units of the People's Liberation Army."⁵⁰

(See "Rising Competition in the Indian Ocean," later in this section, for an in-depth look at China's interests and activities in the Indian Ocean, and India's response.)

*The "string of pearls" concept originated in 2005, and predicted China would enable the expansion of its military presence in the Indian Ocean region by investing in civilian infrastructure in friendly countries. *Washington Times*, "China Builds up Strategic Sea Lanes," January 17, 2005.

Counter Terrorism and Religious Extremism

As the threat of extremism and terrorism facing China grows,* counterterrorism has become an increasingly important facet of Beijing's engagement with South Asia. Chinese leaders have for decades been concerned about Islamic extremism and terrorism in Xinjiang, China's westernmost region and home to the majority of China's Uyghurs, a mostly Muslim ethnic group. The extent and nature of this threat is difficult to assess given the Chinese government's tendency to conflate and crack down on religious expression, political dissent, extremism, separatism, and terrorism.⁵¹ Nevertheless, open source reporting clearly demonstrates a rise in terrorist attacks in China in recent years.⁵²

Many reported terrorist activities in China have been linked to groups based in (or otherwise supported by groups in) Pakistan and, to a lesser extent, Afghanistan and Central Asia.† In the past, the Chinese government downplayed the role specific foreign countries play in its domestic extremism and terrorism problems. In recent years, however, as terrorist activities have become more frequent and high profile, Beijing has been more willing to apply pressure—privately and publicly—on Pakistan in particular to take steps to eliminate any Pakistan-based extremist, separatist, or terrorist activities that could potentially be directed at China or Chinese citizens abroad.⁵³ Further, cognizant of the influence official and unofficial Pakistani entities have in Afghanistan, Beijing is increasingly insistent that Islamabad commit to promoting the peace and reconciliation process there. China itself has been enhancing its bilateral security engagement with Afghanistan, perceiving a need to take greater responsibility for regional security as U.S. and coalition forces withdraw.⁵⁴

China has engaged with South Asian countries on counterterrorism in multilateral contexts as well. In August 2016, China, Pakistan, Afghanistan, and Tajikistan created the Quadrilateral Cooperation and Coordination Mechanism, an institution that aims to counter terrorism and extremism by “provid[ing] mutual support” in areas such as intelligence sharing and military training and exercises.⁵⁵ In addition, India and Pakistan are both set to join the Shanghai Cooperation Organization,⁵⁶ a Beijing-dominated institution focused on counterterrorism that also includes Russia and Central Asian countries.‡

It is worth noting that even as the Chinese government begins to take the threat of terrorism seriously, it is selective in its treatment of terrorist organizations and actors in South Asia.⁵⁷ According to two experts who testified to the Commission, China's growing concerns about terrorism in South Asia do not extend to anti-India terrorist groups. In 2015, for example, China defended Pakistan's decision to release Zaki-ur-Rehman Lakhvi—a commander of a Pakistani anti-India terrorist group Lashkar-e-Taiba—who had been

*For a comprehensive assessment of China's terrorism challenge and its response, see Murray Scot Tanner and James Bellacqua, “China's Response to Terrorism,” *CNA* (prepared for the U.S.-China Economic and Security Review Commission), June 2016.

†Xinjiang shares a border with Afghanistan, India (claimed), Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Russia, and Tajikistan. For a discussion of the role terrorism plays in China's relations with Central Asia in particular, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 393–395, 406–410.

‡For more on the Shanghai Cooperation Organization, and China-Central Asia relations more broadly, see U.S.-China Economic and Security Review Commission, in *2015 Annual Report to Congress*, November 2015, 391–427.

imprisoned for his suspected role in planning the 2008 Mumbai terrorist attack that killed more than 160 people.⁵⁸ At the same time, China's history of committing domestic human rights abuses in the name of counterterrorism⁵⁹ and the Shanghai Cooperation Organization's failure to meet UN standards for human rights protection⁶⁰ raise questions about China's efforts to address terrorism in South Asia. According to Human Rights Watch:

It's understandable that China, Pakistan and Tajikistan all fear the spillover security effects of the continuing war in Afghanistan. But [China's] rhetoric about how they should collaborate to "fight terrorism" is effectively code for imposing repressive security measures and clamping down on domestic dissent—in other words, the same strategy China has pursued in Xinjiang. ... China, Pakistan and Tajikistan do not provide the model Afghanistan needs to address the growing Taliban threat while upholding fundamental rights.⁶¹

(For more on China's counterterrorism engagement with Pakistan and Afghanistan, see "Pakistan, China, and Terrorism" and "Afghanistan," later in this section.)

China-India Relations

In general, China and India have maintained cordial relations in recent decades, and the likelihood of conflict between the two—either at the border or in the Indian Ocean—is low.⁶² Tensions in the relationship are driven primarily by China's longstanding support for Pakistan (discussed later), Tibet and the border dispute, and to a lesser extent by growing distrust and competition in the Indian Ocean and by economic imbalances. Taken together, these various features of China-India relations have led many to perceive that China is pursuing a strategy of containment or encirclement of India, according to several experts with whom the Commission met in India.⁶³ For its part, China perceives India's growing ties with the United States—discussed later—as part of a U.S.-led effort to contain or encircle China.⁶⁴ As a result, both countries are deeply suspicious of each other.

Tibet and the Dalai Lama

Tibet has been a persistent irritant in China-India relations since 1951, when the People's Republic of China took control of Tibet. Tensions escalated in 1959 when the Dalai Lama fled from the Tibetan capital of Lhasa to India in the midst of a popular rebellion and PLA crackdown.⁶⁵ These events transformed Tibet from a strategic buffer to a lasting flashpoint in China-India relations.

The Chinese government perceives Delhi's decades-long willingness to host the Dalai Lama and the Tibetan Government in Exile in Dharamsala as an affront to China's sovereignty and evidence of nefarious intentions toward China.⁶⁶ As part of a larger effort to discredit the Dalai Lama, Beijing requests that Delhi prevent the Dalai Lama from engaging in "political activities" in India. Although neither government has defined "political activities," Indian leaders nevertheless have generally taken care over the decades to exert some control over the ac-

tivities of the Dalai Lama and the Tibetan refugee community out of sensitivity to Beijing (for example, Indian officials are not allowed to appear publicly with the Dalai Lama, and there are restrictions on Tibetan refugees' ability to participate in political activities like protests).⁶⁷ Indian government officials have also reiterated the Indian government's stance that Tibet is part of China.⁶⁸ It is clear to both sides, however, that India wields leverage over China when it comes to Tibet and that India could play "the Tibet card" against China if necessary⁶⁹—for example, by stirring dissent among Tibetans in the disputed border region.⁷⁰ According to Jeff Smith, director of Asian Security Programs and Kraemer security fellow at the American Foreign Policy Council, although India historically has hesitated to rely on this point of leverage, "there are signs that if the Sino-Indian competition continues to sharpen in the decades ahead, Delhi may increasingly look to Tibet to balance perceived Chinese aggression."⁷¹

The influence the Dalai Lama heretofore has wielded over the political status of Tibet, the culture of Tibetan communities inside and outside Tibet, and the extent of India's leverage over China will become an increasingly urgent consideration in the coming years. The Dalai Lama is 81 years old, and the politically fraught problem of his reincarnation looms. He has not indicated how the next Dalai Lama will be identified, although the Chinese government has already indicated it will choose his successor. Since the 1990s, the Chinese government has made efforts to increase its influence and control over Tibetan Buddhism by claiming a role in the reincarnation process. In 1995, shortly after the Dalai Lama selected the Panchen Lama, the second-highest-ranking figure in Tibetan Buddhism, the Chinese government kidnapped and detained the 6-year-old Panchen Lama and hand-picked its own replacement; the whereabouts of the Dalai Lama's designated Panchen Lama have been unknown since then.⁷² In 2007, the Chinese government began implementing laws requiring government approval for reincarnation.⁷³ In 2011, the Dalai Lama suggested he might not reincarnate at all but rather emanate, a Tibetan succession method that involves the designation of a lama's successor while the current lama is still alive. In his statement, he acknowledged "there is an obvious risk of vested political interests misusing the reincarnation system to fulfil their own political agenda. Therefore, while I remain physically and mentally fit, it seems important to me that we draw up clear guidelines to recognize the next Dalai Lama, so that there is no room for doubt or deception."⁷⁴ In a 2014 BBC interview, he suggested he may be the last Dalai Lama, saying, "The Dalai Lama institution will cease one day. These man-made institutions will cease."⁷⁵

The confluence of several factors—including China's insecurities about Tibet and its resultant heavy-handed policies there, the unusual geographic and political circumstances of a major religious succession in exile, the current Dalai Lama's worldwide popularity, and Tibetan Buddhism's unique reputation in the world's collective imagination—suggest the transition will not be smooth. The succession process is complicated further by the fact that in 2011, the Dalai Lama voluntarily renounced the political authority of his position to the office of the prime minister of the Tibetan Government in Exile, ending a 400-year tradition in which the Dalai Lama was

both the spiritual and political leader of the Tibetan people in favor of a more democratic process. The current prime minister of the Tibetan Government in Exile, Lobsang Sangay, referred to this shift as an opportunity as well as a challenge as to “whether we can rally around a system and a principle, rather than the cult of a leader.”⁷⁶

In addition to having potentially far-reaching implications for the future of Tibetan Buddhism, Tibetan identity, and Tibet’s political status in China, the transition from the current Dalai Lama’s leadership may impact China-India relations significantly.⁷⁷ Even if the transition is managed smoothly, the balance of power between China and India likely will shift depending on the outcome. If the Dalai Lama selects a successor in India, Delhi may find its existing leverage over China sustains or increases. Conversely, Delhi’s leverage could decrease if Beijing succeeds in appointing a pro-China successor in China and discrediting the Dalai Lama’s chosen successor. India might also have to contend with challenges such as the exacerbation of emergent political divisions in its Tibetan refugee communities (potentially to include the rise of more vocal pro-independence constituencies). Should the Dalai Lama select a successor from a disputed area along the China-India border (such as Tawang, a small but famous Buddhist enclave claimed by China but controlled by India, where the sixth Dalai Lama was born), the border dispute could intensify.⁷⁸

Also of note, Chinese President and General Secretary of the Chinese Communist Party Xi Jinping’s recently announced military reforms will impact China’s military posture in Tibet. The reforms included the dismantling of the PLA’s former military regions and the establishment of a joint theater command structure with a regional combat orientation. One of these new theater commands is the Western Theater Command, which is focused in part on missions related to Tibet and the Indian border dispute.⁷⁹ One scholar with whom the Commission met in China noted that India is concerned that China’s development of rail infrastructure on the Tibetan Plateau would allow it to deploy troops to the region more quickly.⁸⁰ China’s road and rail infrastructure on the Tibetan side of the border is much more robust and reliable than that on the Indian side, allowing China to more quickly deploy personnel, materiel, and weapons in a contingency.⁸¹

The Border Dispute

The border dispute remains the most likely source of armed conflict between China and India, although the probability of such a confrontation is low, particularly if other facets of the relationship are relatively calm.⁸² As noted previously, Tibet served as a buffer between China and India until the 1950s, when China’s invasion of Tibet “shrank the strategic distance” between the two countries, according to Srinath Raghavan, senior fellow at the Centre for Policy Research in New Delhi.⁸³ The PLA launched a surprise invasion across the border in 1962, winning decisively in 32 days; although there were no major border clashes after 1967, hostility continued until the two countries restored diplomatic relations in 1976. More recently, the dispute is characterized by diplomatic sparring, the buildup and occasional movement of troops, and regular claims of

incursions across the border from both sides⁸⁴ (India claimed 334 “transgressions” by Chinese border troops in the first nine months of 2014,⁸⁵ for example).

Geographically, the border dispute spans several sections of the two countries’ 2,500-mile-long border (see Figure 5). The Western Sector (Aksai Chin) refers to a 14,670-square-mile area that China has occupied since the 1962 war but which India claims as part of the state of Jammu and Kashmir (which in turn is contested by Pakistan), and a 580-square-mile area controlled by India but which China claims. The Middle Sector refers to several small pockets of disputed territory, as well as Sikkim, which is controlled by India but which China has claimed with varying degrees of resolve over time. The Eastern Sector, a 34,700-square-mile area controlled by India (which refers to it as the state of Arunachal Pradesh), is the most volatile and strategically significant section of the contested border due to its large population and rich resources, and because it is home to the town of Tawang.*⁸⁶

Figure 5: China-India Border Dispute



Note: Areas claimed by China but occupied by India are noted in black; areas claimed by India but occupied by China are noted in white.

Source: Adapted from Jeff Smith, *Cold Peace: China-India Rivalry in the Twenty-First Century*, Lexington Books, 2014, 23.

In 1981, China and India began border talks, and more than 30 rounds of negotiations and related meetings have been held to date.⁸⁷ Overall, little progress has been made on resolving the

*Technically not part of the China-India border dispute, the 2,000-square-mile Shaksgam Valley was ceded to China by Pakistan in 1963, although India claims it and maintains that Pakistan did not have the authority to cede the territory. Jeff Smith, *Cold Peace: Sino-Indian Rivalry in the Twenty-First Century*, Lexington Books, 2014, 24–25.

dispute, and there are few signs of a breakthrough in negotiations in the near to medium term.⁸⁸ In fact, Mr. Smith argues that “domestic constraints are likely to materially restrict the ability of the leadership in Beijing and Delhi to make territorial concessions in the future,” suggesting “the window to reaching a border resolution may be closing.”⁸⁹ Nevertheless, the border talks have built valuable resiliency and predictability into the two countries’ relations. Some of the practical notable accomplishments of the negotiations have been the establishment of confidence-building measures and the de-linking of the border dispute from the broader diplomatic relationship.⁹⁰ These confidence-building measures, announced in 1996, include requirements such as reducing the number of military forces and armaments in specific areas near the border, avoiding large-scale military exercises close to the border, restricting flights of combat aircraft near the border, and sharing information about military presence and activities near the border. Subsequent agreements, such as the 2013 Border Defence Cooperation Agreement, have expanded these kinds of measures.⁹¹

China, with its fairly robust military infrastructure and troop presence in Tibet, historically has been in a more militarily advantageous position along the border than has India.⁹² In the mid-2000s, however, the Indian government began an extended effort to upgrade and enhance access to the border and initiated a troop buildup on the Indian side.⁹³ Observers disagree whether this will ultimately build stability into the border dispute, or invite confrontation.⁹⁴

China-India Tensions over the Brahmaputra River

All of China’s major rivers (including three of the world’s five largest rivers measured by discharge) originate in the Tibetan plateau.⁹⁵ One of these rivers, the Brahmaputra, flows from China through India and Bangladesh; the river is important for irrigation and transportation and affects the lives of more than 100 million people. It is also a source of tension between China and India. India fears China—which has a history of damming and diverting water from transboundary rivers without consulting downstream countries⁹⁶—will disrupt the flow of the river, and some Indians have suggested China might seek to use its control over the river as leverage in a future conflict with India.⁹⁷ In recent years, China has assuaged India’s concerns somewhat by signing agreements to share hydrological data. For its part, China is concerned that India’s planned construction of dams in the disputed territory of Arunachal Pradesh is enabling India to consolidate its de facto control over the area.⁹⁸

Rising Competition in the Indian Ocean

As noted earlier, China seeks greater presence and influence in the Indian Ocean region, primarily to protect the sea lines of communication upon which its economy depends,⁹⁹ as well as to expand its influence. China will have to depend on the stability and goodwill of South Asian countries to ensure a peaceful maritime environment

conducive to sea lane protection, and much of Beijing's diplomatic efforts in the region are designed to cultivate such an environment. In addition to pursuing access through diplomacy, China is enhancing the PLA's ability to operate and protect Chinese interests in the Indian Ocean. The following developments point to China's growing military presence in the Indian Ocean:

- *China's 2015 defense white paper signals a shift to maritime security and sea lane protection:* China's 2015 defense white paper, *China's Military Strategy*, decisively elevates the maritime domain in China's strategic thinking, asserting that "the traditional mentality that land outweighs sea must be abandoned." Although the Indian Ocean was not mentioned, the paper notes China will increasingly shift from focusing exclusively on its near seas to a "combination of 'offshore waters defense' with 'open seas protection.'"¹⁰⁰
- *China's antipiracy patrols in the Gulf of Aden:* The PLA Navy has maintained a near-continuous presence in the Indian Ocean for seven years since it began conducting antipiracy patrols, and has made significant contributions to the international effort to eradicate piracy in the region. Although piracy in the Gulf of Aden has declined significantly in recent years due to the success of international antipiracy efforts, the PLA Navy has not indicated it will conclude operations there. Dr. Brewster testified to the Commission that "Beijing is now using its antipiracy deployments as justification for expanding its naval presence in the Indian Ocean and making it more permanent."¹⁰¹
- *Chinese submarine deployments:* The PLA has conducted at least four submarine patrols in the Indian Ocean since 2013. Chinese officials claim these submarines support China's antipiracy activities. The more likely purpose of these deployments is to collect intelligence on U.S., Indian, and other forces in the Indian Ocean; test and enhance the ability of China's submarine crews to operate for long durations at extended distances from mainland China; prepare for potential crises and wartime operations in the Indian Ocean; and demonstrate China's growing interests in the region.¹⁰²
- *China's military logistics facility in Djibouti:* In 2015, China announced it would establish its first overseas military logistics facility in Djibouti.¹⁰³ The facility, for which Chinese company China Merchant Holding International holds a ten-year lease, will augment the PLA Navy's existing presence in the region with replenishment and repair services. For more information on recent developments regarding the Djibouti facility, see Chapter 2, Section 1, "Year in Review: Security and Foreign Affairs."

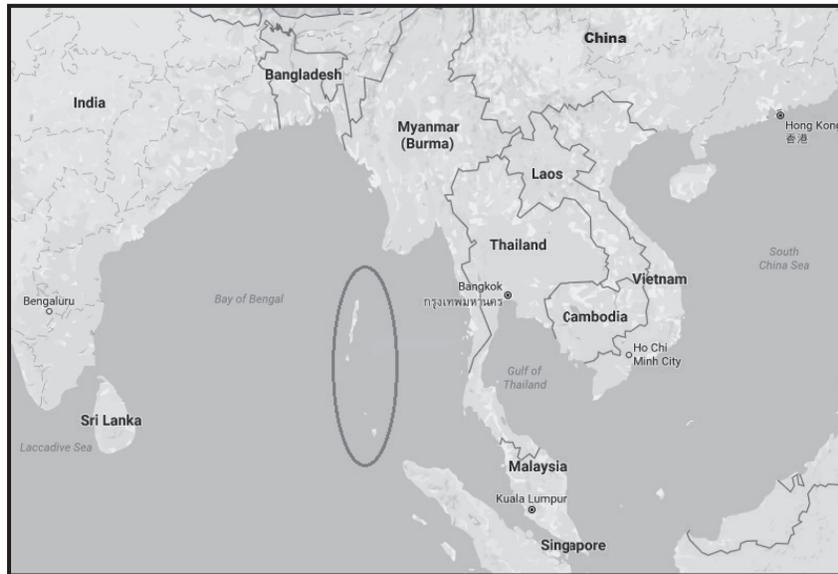
Predictably, these developments cause anxiety in India, which already struggles to maintain parity with the Chinese military across the contested land border.¹⁰⁴ In addition to Indian interlocutors who spoke of Chinese "encirclement" or "containment" of India, one expert told the Commission that India worries China's recent aggres-

siveness in the South China Sea may manifest in its conduct in the Indian Ocean as its presence grows there.¹⁰⁵ Currently, India remains the dominant military power in the Indian Ocean, and India “takes a fairly proprietary view of the Indian Ocean,” according to Dr. Brewster’s testimony to the Commission. He elaborates, saying, “India aspires to be recognized as the leading naval power in the Indian Ocean in the long term, and many Indian analysts and decision-makers have a strong instinctive reaction against the presence of extra-regional powers in the Indian Ocean, essentially seeing such presence as unnecessary and even illegitimate.”¹⁰⁶ Beside security, India has a compelling economic reason for protecting its access to the Indian Ocean: India shares a land border with only one of its top 25 trade partners (China), with most of its trade, including energy imports, coming across the sea.¹⁰⁷ As a result, the Indian Ocean is likely to become an area of increasing competition between China and India. Early indicators suggest this competition will manifest in the following ways:

- *Greater emphasis on naval modernization in India:* Indian naval modernization has been ongoing since the mid-1980s, but progress has been slow. The recent uptick in Chinese naval activities in the Indian Ocean has accelerated this process, however, “[leading] the Indian Navy to effectively ‘rebalance’ its fleet from its Western Fleet facing Pakistan, towards its Eastern Fleet facing China,” according to Dr. Brewster.¹⁰⁸ In particular, the Indian Navy is seeking to enhance its position at the strategically located Andaman and Nicobar Island chain (see Figure 6), which stretches almost 400 nautical miles at the western end of the Strait of Malacca. It is increasing its intelligence, surveillance, and reconnaissance capabilities there with the deployment of P-8I Poseidon reconnaissance aircraft and expanding its naval and air infrastructure in several locations along the island chain.¹⁰⁹ Additionally, over the next decade, the Indian Navy plans to expand its power projection capabilities with more aircraft carriers, major surface combatants, diesel and nuclear-powered submarines, fighter aircraft, helicopters, and long-range surveillance aircraft.¹¹⁰
- *Growing Chinese naval presence in the region:* In addition to antipiracy patrols and activities out of China’s new facility in Djibouti, the PLA Navy can be expected to continue deploying submarines to and conducting combat readiness patrols in the Indian Ocean.
- *Competitive military diplomacy in the region:* As China seeks access and influence in the region, and as India seeks to reinforce its own, both countries can be expected to use military diplomacy—from arms sales to joint training and other incentives for cooperation—to further their interests. India is stepping up its maritime aid to countries like Mauritius and the Maldives,¹¹¹ while China has provided military technology to Bangladesh, Burma, the Maldives, Pakistan, and Sri Lanka.¹¹² As noted earlier, China has invested in maritime infrastructure throughout the region, including in places like Gwadar Port and

Karachi Port, that could eventually enable Chinese naval access to these areas.¹¹³

Figure 6: India's Andaman and Nicobar Island Chain



Source: Google Maps.

For the time being, India enjoys a significant advantage over China in the Indian Ocean: its influence over Indian Ocean states outweighs that of China, and more importantly, it enjoys a geographic advantage while China suffers from the “tyranny of distance.” According to Dr. Brewster, “China’s ability to project significant power in to the Indian Ocean remains highly constrained by the long distance from Chinese ports and air bases, the lack of logistical support, and the need for Chinese naval vessels to deploy to the Indian Ocean through chokepoints.”¹¹⁴

The nature of Sino-Indian competition in the Indian Ocean currently is fairly low-intensity, for a couple of reasons. First, China’s primary security interests still reside in the Western Pacific, with Taiwan and maritime disputes in the East and South China seas being Beijing’s (and the PLA’s) top priorities.¹¹⁵ China’s preoccupation with these areas, combined with the PLA Navy’s limited (albeit growing) ability to sustain a robust presence far from China’s shores, will limit its influence and capabilities in the Indian Ocean for now.¹¹⁶ Second, China’s primary interest in the Indian Ocean—sea lane security—does not in and of itself pose a threat to or challenge the interests of other countries (in contrast to China’s efforts to advance its maritime claims in its near seas). However, China’s recent record of flouting international norms and laws and employing bullying tactics against weaker states to advance its interests—particularly in the maritime realm—throws doubt on this

assumption, and likely will cause India and other countries to be suspicious of China's real intentions in the Indian Ocean.

Economic Tensions

Sino-Indian economic competition, security tensions, and India's wariness of China's expanding influence in the region contribute to the relative weakness of economic ties between the two Asian giants, but the two countries do cooperate, especially on the multilateral front. India is the second-largest shareholder in the China-led Asian Infrastructure Investment Bank and a cofounder (with other BRICS* countries) of the New Development Bank. India and China are not members of the U.S.-led Trans-Pacific Partnership (TPP), but are parties to the China-led Regional Comprehensive Economic Partnership (RCEP), a "mega-regional" agreement currently being negotiated by the ten members of ASEAN and six major economies in the Asia Pacific (for further discussion of TPP and RCEP, see Chapter 4, "China and the U.S. Rebalance to Asia").

India wants to attract Chinese investment. Prime Minister Modi's "Make in India" initiative is aimed at boosting Indian manufacturing capability and attracting capital investment, in large part from China.¹¹⁷ India also seeks to sell more to China, with which it runs a persistent trade deficit (reaching over \$50 billion, or 2 percent of India's GDP, in 2015).¹¹⁸ To facilitate economic exchanges, India and China have established a Strategic Economic Dialogue, a Joint Economic Group, and a Financial Dialogue; there are also plans for a new dialogue between India's Department of Economic Affairs and China's Development Research Center of the State Council.¹¹⁹

Realizing enhanced economic cooperation will not be easy. While China is India's top source of imports and third-largest export market (after the United States and United Arab Emirates), India is a minor trade partner for China (accounting for 2 percent of China's exports and 1 percent of imports in 2014).¹²⁰ Several factors contribute to this imbalanced relationship; chief among them is India's growing imports of Chinese manufactured goods, which sharply contrasts with China's tepid interest in India's main exports—agriculture and services.¹²¹ During the Commission's trip to India, Indian business representatives and think tank scholars noted that growing imports from China are displacing local producers and hurting India's manufacturing industry.¹²² Responding to rising concerns, in 2015 and 2016 India's government imposed import restraints on select products from China, including steel, mobile phones, and milk.¹²³ Security suspicions continue to undermine deeper engagement: according to one report, when President Xi visited India in 2014, he intended to announce investment deals worth \$100 billion, but ended up promising only \$20 billion after a border standoff between Indian and Chinese soldiers began days before the visit.¹²⁴ Chinese border incursions have coincided with major bilateral meetings in the past;¹²⁵ on this occasion, 1,000 troops from each side were locked in an "eyeball-to-eyeball confrontation" after China advanced across the temporary border, according to an Indian media report.¹²⁶

*BRICS refers to the informal grouping of emerging economies Brazil, Russia, India, China, and South Africa.

India and OBOR

India has not endorsed China's OBOR initiative, which it views with suspicion. Tanvi Madan, director of the India Project at the Brookings Institution, testified to the Commission that many Indian policymakers disapprove of Beijing's "unilateralist" approach to OBOR.¹²⁷ Indian Foreign Secretary S. Jaishankar described OBOR as a "national initiative devised with national interest," noting, "The Chinese devised it, created a blueprint. It wasn't an international initiative they discussed with the whole world, with countries that are interested or affected by it."¹²⁸

Scholars and analysts who met with the Commission in India emphasized that India's government is particularly troubled by the China-Pakistan Economic Corridor (CPEC), the centerpiece of China's OBOR initiative in South Asia.¹²⁹ In June 2015, India declared that CPEC was "not acceptable" because it would pass through the territory India claims in the disputed Kashmir region.¹³⁰ Analysts at the Observer Research Foundation, an Indian think tank, said, "A formal nod to [CPEC] will serve as a de facto legitimization to Pakistan's rights on Pakistan-occupied Kashmir."¹³¹ (For a more detailed discussion of CPEC, see "China-Pakistan Economic Corridor," later in this section.) At the same time, India is investing in alternative connectivity frameworks that circumvent China and Pakistan. In May 2016, India signed an agreement to develop a transport corridor between Afghanistan and Iran, anchored at the Iranian port of Chabahar, which is located across the border from Pakistan's Chinese-backed Gwadar Port.¹³² Indian interlocutors told the Commission that India is pursuing the port deal with Iran in part to mitigate the security and economic challenges India might face from China's OBOR projects, and from CPEC in particular.¹³³

India's approach to OBOR is complicated, however, by its tentative endorsement of the Bangladesh-China-India-Myanmar (BCIM) economic corridor, a project that predates OBOR, but which the Chinese government has since tried to integrate as the southwestern route of the initiative.¹³⁴ BCIM would link Kolkata (India) with Kunming (the capital of China's Yunnan Province) by high-speed rail and other infrastructure, passing through Burma and Bangladesh.¹³⁵ On the one hand, BCIM presents an attractive prospect for India because it will "cross horizontally through India's underdeveloped northeastern states, a region Prime Minister Modi has targeted as a priority for development," according to Mr. Smith.¹³⁶ On the other hand, interlocutors who met with the Commission in Beijing and New Delhi noted India is wary of having China-led projects "at its front door."¹³⁷ On the security side, India fears China's presence on its border—for example, to protect Chinese workers; on the economic side, there are worries BCIM will flood India with Chinese-made products, which will compete with domestically produced goods.

China-Pakistan Relations

China's relationship with Pakistan has been uniquely close (although the two are not formal allies) since the early 1960s when China-India relations began to unravel. Officials from both countries term China and Pakistan "all-weather friends,"¹³⁸ and Pakistani officials often describe Sino-Pakistani friendship as "higher than mountains, deeper than oceans, and sweeter than honey."¹³⁹ Security relations, particularly as they relate to India, are at the heart of Sino-Pakistani ties, although in the past two years economic cooperation has come to the fore with the establishment of CPEC. At the same time, as China's interests in Afghanistan have expanded, so has its engagement with Pakistan on issues related to Afghanistan's security and the wider threat of terrorism in the region. The following are key facets of the relationship.

Bolstering Pakistan's Defense vis-à-vis India

As previously noted, China's support for Pakistan is driven in large part by shared concerns about India: for China, India represents a potential challenge to China's regional dominance. For Pakistan, India represents the country's top security threat, a perception informed by their history of partition, four wars, territorial disputes, terrorism, and overall deep-seated distrust.¹⁴⁰ Mr. Small summarized this longstanding dynamic in testimony to the Commission, saying, "China benefitted from Pakistan's role as a counter-balance to India, while Pakistan benefitted from China's willingness to provide the capabilities it needed to do so effectively."¹⁴¹ Although China has never intervened in an India-Pakistan conflict on Pakistan's behalf, its diplomatic, material, training, and intelligence support have enabled Pakistan to present a formidable military challenge to India.¹⁴² This support drives India's concerns about having to face a "two-front war" with both Pakistan and China.¹⁴³

China's Arms Sales to Pakistan

China, now the world's third-largest supplier of arms, exports more to Pakistan than to any other country, according to the Stockholm International Peace Research Institute (SIPRI).¹⁴⁴ China was instrumental in enabling Pakistan's indigenous ballistic missile capability in the 1980s and 1990s (even in the face of U.S. sanctions), and China's generosity in military cooperation reached its zenith when Beijing assisted Islamabad in building its first nuclear bomb. Beijing's assistance with Pakistan's nuclear program continues today, though mostly in the civilian sphere.¹⁴⁵ And although China's military assistance over these years had a game-changing effect on Pakistan's military capabilities, many of the conventional military items Beijing provided were fairly rudimentary.

More recently, according to Mr. Small, "As the PLA's technical capabilities improve, Pakistan is becoming one of the principal beneficiaries of these advances."¹⁴⁶ SIPRI data show Pakistan received 35 percent of China's arms exports in the period from 2011 to 2015. Arms transferred (or, in some cases, licensed) by China

China's Arms Sales to Pakistan—Continued

to Pakistan since 2014 have included antiship missiles, torpedoes, combat helicopters, a surface-to-air missile system, a patrol vessel, and most recently, eight air independent propulsion equipped diesel-electric submarines (half of which will be built in China; the other half will be built in Pakistan).¹⁴⁷ Pakistan's first armed unmanned aerial vehicle, which conducted its first acknowledged operational strike in 2015, also appears to have been produced with China's cooperation.¹⁴⁸

In 2016, *IHS Jane's* reported that Pakistan appears to have taken delivery of two Chinese transporter erector launchers for its new Shaheen-III medium-range ballistic missile, allegedly conventional- and nuclear-capable with a range of 2,750 kilometers (1,700 miles). Transporter erector launchers are designated items covered by the Missile Technology Control Regime, which China is not party to, but which it has applied to join and pledged to abide by.*¹⁴⁹

The Sino-Pakistani defense relationship has left Islamabad greatly indebted to Beijing,¹⁵⁰ although it benefits Beijing as well. In addition to ensuring that India will always be too preoccupied with its ongoing rivalry with Pakistan to devote sufficient strategic energy and resources to countering China, Islamabad on occasion has offered China more concrete benefits, including access to advanced U.S. arms. For example, unexploded U.S. Tomahawk cruise missiles used in Afghanistan in the 1990s were acquired by the Pakistani military and passed to the PLA; reverse-engineered cruise missiles began appearing in Pakistani and Chinese arsenals shortly thereafter.¹⁵¹ In 2011, Pakistan allowed Chinese analysts to examine the U.S. stealth helicopter that crashed in Abbottabad during the Osama Bin Laden raid.¹⁵²

China's support for Pakistan's defense has its limits. Beijing values Pakistan's ability to act as a check on Indian power, but it also values stability in the region and thus is uninterested in enabling or encouraging Pakistan to instigate a major confrontation with India.† Beijing's decision to provide Pakistan with the means to develop nuclear weapons would seem to contradict this, although Chinese officials would argue that helping Pakistan develop the bomb would create parity and strategic stability with India.¹⁵³ In 1975, at the height of China's cooperation on Pakistan's nuclear program and one year after India's first successful nuclear test, China's soon-to-be leader Deng Xiaoping remarked that China does “not advocate for nuclear proliferation at all, but we even more strongly oppose nuclear monopolies.”¹⁵⁴ As discussed

*The Missile Technology Control Regime is a nontreaty association of 35 countries including the United States that aims to control the proliferation of missiles and related technologies. Member countries are to “exercise restraint in the consideration of all transfers” of designated items. Missile Technology Control Regime, “Missile Technology Control Regime (MTCR) Annex Handbook – 2010,” 2010, 12.

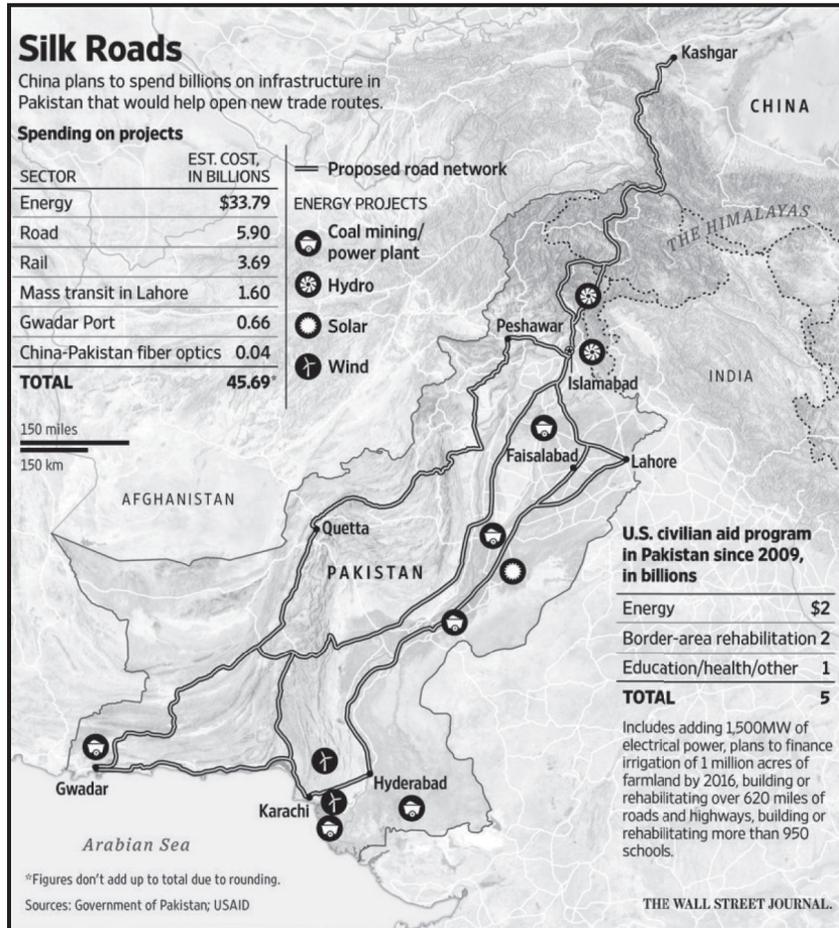
†This was the case as far back as the 1971 war between Pakistan and India when, to Islamabad's disappointment, China declined to intervene in the war on Pakistan's behalf. Again in 1999, Chinese officials emphasized to their counterparts in Islamabad that China would not support Pakistan in an ongoing conflict over the India-Pakistan border. Andrew Small, *The China-Pakistan Axis: Asia's New Geopolitics*, Oxford University Press, 2015, 14–16, 56–57, 59–61; Jeff Smith, *Cold Peace: China-India Rivalry in the Twenty-First Century*, Lexington Books, 2014, 131.

later, China’s enabling of Pakistan’s nuclear program could yet have major implications for regional stability, particularly if Pakistan’s nuclear weapons were to fall into the hands terrorists or rogue elements of the defense establishment.¹⁵⁵

China-Pakistan Economic Corridor

China’s commitment to Pakistan has always been strategic in nature, driven by their mutual rivalry with India, with the economic dimension of the relationship lagging. Although China is Pakistan’s top source of imports and second-largest export market (after the United States), the amounts involved account for a negligible portion of China’s trade (\$9.2 billion in exports and \$2.7 billion of imports in 2014).¹⁵⁶ The potential game-changer for Pakistan is the \$46 billion CPEC (see Figure 7).

Figure 7: CPEC in Detail



Source: Saeed Shah and Jeremy Page, “China Readies \$46 Billion for Pakistan Trade Route,” *Wall Street Journal*, April 16, 2015.

For China, the goals of CPEC are threefold. First, China seeks to create an alternative trade route through Pakistan to facilitate the transit of its energy imports from the Middle East and exports of its goods to the Middle East, Africa, and Europe. As in the case of China's engagement with Central Asian states, the overland route taken by CPEC may allow China to reduce its reliance on energy shipments through vulnerable chokepoints in the Indian Ocean and South China Sea (the so-called "Malacca Dilemma").¹⁵⁷ Second, through economic development, China hopes to counter Islamic terrorism and extremism in Xinjiang, and in Pakistan and Afghanistan.¹⁵⁸ Finally, China hopes the investment will support Pakistan, which has been struggling with unstable economic and security environments.¹⁵⁹

In many ways, CPEC is the most well-articulated project under the OBOR umbrella, primarily because factors driving China's deeper economic engagement with Pakistan—in particular the need to stabilize its western border—predate OBOR and CPEC. As Mr. Small noted in his testimony, under President Xi, "China has also more actively sought to use economic tools as means to achieve regional stability, including in Pakistan itself."¹⁶⁰

Although China's OBOR projects usually involve construction of transportation corridors—and CPEC does include a number of such projects*—CPEC's main emphasis is on energy projects, to which nearly \$34 billion of the proposed investment is dedicated.¹⁶¹ This makes it especially important for Pakistan, which suffers from chronic energy shortages; the shortfall was estimated at 4,500 megawatts (MW) in 2015.¹⁶² In January 2016, China and Pakistan broke ground on the \$1.65 billion Karot hydropower plant, a flagship CPEC energy project. Other projects include the construction of the world's largest solar power plant in Punjab Province and a coal power plant in Port Quasim. All told, China plans 21 energy projects in Pakistan, which would provide an additional 16,400 MW of energy, roughly equivalent to Pakistan's current capacity.¹⁶³

Despite high-level bilateral commitment to the project from China and Pakistan, CPEC faces a number of challenges, including domestic opposition from provinces along CPEC and significant security concerns:¹⁶⁴

- *Territorial disputes:* CPEC's gateway from China to Pakistan is in Gilgit-Baltistan, which is part of Jammu and Kashmir, a territory claimed by both India and Pakistan. India views China's activities in Kashmir as a security challenge, and has launched an official protest, declaring CPEC "unacceptable."¹⁶⁵
- *Insurgency threats:* CPEC will also have projects in the provinces of Khyber Pakhtunkhwa and Balochistan, both of which are plagued by militancy, separatism, and rampant human rights abuse by the military. Pakistan says it will establish a special security division of Pakistani guards to protect Chinese workers there. According to Chinese government scholars who met with the Commission in Beijing, Pakistan will provide a

*Pakistan's government announced three new highway routes and construction or upgrading of existing railways, as well as a cross-border optical cable project. Board of Investment, Prime Minister's Office Government of Pakistan, *China Pakistan Economic Corridor (CPEC)*, January 13, 2016. <http://boi.gov.pk/ViewNews.aspx?NID=%20892>.

20,000-strong security force, including 10,000 police and 10,000 military troops.¹⁶⁶

- *Corruption*: Pakistan has a history of awarding projects to those in political favor. Already, the governments of Khyber Pakhtunkhwa and Balochistan have complained that their concerns about CPEC routes and resource allocation were being ignored.¹⁶⁷
- *Human rights abuses*: Pakistani military forces tasked with protecting CPEC projects in Gilgit-Baltistan and Balochistan reportedly displaced citizens from areas designated for projects, and cracked down on local dissent over CPEC.¹⁶⁸

Even if CPEC is realized successfully, questions remain about its ability to satisfy China's priorities. For example, in his testimony before the Commission, Daniel S. Markey, adjunct senior fellow for India, Pakistan, and South Asia at the Council on Foreign Relations, expressed reservations about CPEC's ability to help solve China's Malacca Dilemma, noting:

*The terrain through Pakistan and over the Himalayas into western China is some of the most difficult in the world. Pipelines through restive Balochistan can hardly be considered more secure than the maritime tanker trade, and the sheer volume of China's energy demand—projected to double U.S. energy consumption by 2040—could not be slaked by this route, even if China follows through on every penny of the promised investments in Pakistan's port and transit infrastructure.*¹⁶⁹

More importantly, there is no guarantee that China's investments into Pakistan's economy will address China's fears of growing terrorist and separatist threats on its western periphery.

Pakistan, China, and Terrorism

Some manifestations of extremism, militancy, and terrorism in China have roots in Pakistan. Groups such as the East Turkestan Islamic Movement (ETIM)* and the Islamic Movement of Uzbekistan have Uyghur membership, are designated terrorist organizations by the United States and the UN, and have been implicated in several terror plots or activities directed at China.†¹⁷⁰ They also have at some time been based in—or received support from groups in—Pakistan.¹⁷¹

As far back as the 1990s, China relied on its official contacts in Islamabad to apply pressure on militant Uyghur groups and their sponsors residing in Pakistan. The Pakistani military—and Pakistan's Inter-Services Intelligence (ISI) in particular—was well placed to play this role, given its ties to Pakistan's militant groups:

*ETIM's organization has at various points in its history been known as, or associated with, the Turkistan Islamic Party, the Turkistan Islamic Movement, and the East Turkestan Islamic Party. The location, leadership, and makeup of these groups have evolved, but in many ways they are one and the same.

†According to the Chinese government, "Incomplete statistics show that from 1990 to 2001, the 'East Turkestan' terrorist forces inside and outside Chinese territory were responsible for over 200 terrorist incidents in Xinjiang." The Chinese government has not updated this figure, nor has the figure been corroborated by other sources. China's Information Office of the State Council, 'East Turkestan' Terrorist Forces Cannot Get Away with Impunity, January 21, 2002.

according to Mr. Small, “The ISI used its influence to dissuade the groups that it sponsored from directing any of their energies towards China. It also facilitated meetings for Chinese officials and intelligence agents to strike deals with whomever they needed to in order to isolate the Uyghur militants from potential supporters among extremist organizations in Pakistan and Afghanistan.”¹⁷² At China’s behest, Pakistani officials would also crack down on Uyghur communities in Pakistan (whether or not there was legitimate evidence of terrorist activities in these communities) and attempt to prevent cross-border flows of militants, their arms, and their propaganda.¹⁷³

More recently, Beijing has not been able to count on Islamabad to contain ETIM and other militant groups targeting China. This has prompted an increasingly frustrated China to publicly implicate Pakistan in ETIM attacks on Chinese soil on several occasions.¹⁷⁴ Moreover, in the latter part of the 2000s, Pakistan was the most dangerous overseas location for Chinese citizens.¹⁷⁵ In times of desperation—such as in 2007 when several Chinese workers were kidnapped in a mosque in Pakistan and authorities in Islamabad seemed unable to extract them—Beijing bypassed diplomatic channels and liaised directly with militant contacts in the hopes of retrieving the hostages, who were later freed.¹⁷⁶

According to one expert, the inability or unwillingness of Islamabad to eradicate Pakistan-linked terror threats against Chinese targets is leading some Chinese analysts to conclude that the creeping “Islamization” of the Pakistani armed forces (particularly ISI) it has long supported is beginning to undermine China’s strategic interests. In his 2015 book on Sino-Pakistani relations, Mr. Small warns, “Inevitably, as the Pakistani state’s relationship with various militant organizations has fractured, its capacity to persuade them to steer clear of the Uyghurs’ cause has diminished. . . . These groups have been willing to make a specific target of China—especially its economic activities in Pakistan—if it helps to exert pressure on the Pakistani government. They certainly have not been deterred from affording protection to Uyghur militants.”¹⁷⁷ Assessing the links between Pakistan’s security apparatus and its terrorist groups and the implications of this relationship is beyond the scope of this Report. However, Pakistan’s apparent inability to address the seemingly minor challenge of neutralizing dozens of Uyghur militants raises other questions about the professionalism of Pakistan’s military, the security of Pakistan’s sophisticated array of weaponry,¹⁷⁸ and the wisdom of China’s past and continuing work with Pakistan in the nuclear realm.

Afghanistan

China has slowly expanded its diplomatic and security engagement with Afghanistan in recent years.* China’s recognition that it must shoulder greater responsibility in shaping Afghanistan’s future is driven by the following factors: First, China seeks to ensure Afghanistan does not provide a safe haven for extremists who might

*For a summary of China’s diplomatic and security engagement with Afghanistan through 2015, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 410–412.

target China.¹⁷⁹ Second, and relatedly, China fears the departure of the International Security Assistance Force from Afghanistan could leave the country in turmoil, potentially negatively impacting the security situations of neighboring countries, including China.¹⁸⁰ Third, Beijing seeks to create opportunities for Chinese companies to operate safely and profitably in Afghanistan; it also wants to spur investment and economic growth in Afghanistan, which it hopes will encourage greater stability and security in the country.*¹⁸¹

The most notable element of China's engagement with Afghanistan in 2016 was its involvement in the Quadrilateral Working Group. After laying the groundwork in 2015, China, the United States, Afghanistan, and Pakistan established the group in 2016 in an effort to start peace talks between the Afghan government and the Taliban,¹⁸² with which China has had longstanding, if unofficial, contact.† The Quadrilateral Working Group met several times in 2016, but so far has failed to convince the Taliban to enter negotiations, and it remains uncertain whether the group will emerge as a serious contributor to the peace and reconciliation process. Other examples of China's small but growing security outreach to Afghanistan include \$70 million in military aid pledged as of early 2016¹⁸³ and a proposal for a regional antiterror mechanism with Afghanistan, Pakistan, and Tajikistan—all countries that border Xinjiang. The details of the proposal are not clear, although Afghan President Ashraf Ghani has already endorsed it.¹⁸⁴

China's concerns about Pakistan's ability and willingness to eliminate ETIM and counter Islamic extremism more generally manifest in Afghanistan as well, where ISI has deep ties with the Taliban and other terrorist groups. One Chinese official has noted, "Pakistan's interests are still central to our Afghanistan policy but we don't see things the same way. ... They're more optimistic about the Taliban than we are, and more optimistic about controlling them. We're not so sure."¹⁸⁵

Implications for the United States

China's evolving relationship with South Asia, and its growing presence in the Indian Ocean, present an array of potential challenges and opportunities for the United States.

China-India Rivalry and U.S.-India Cooperation

Although the United States has had generally positive ties with India over the past several decades, significant ideological differences prevented a close partnership, including India's remaining out-

* China made initial investments in Afghanistan's natural resource sector, although these have stalled and show no signs of resuming in the near term. Frank Jack Daniel and Mirwais Harooni, "Chinese Demands, Rebels, and Buddhist Ruins Stall Afghan Copper Dream," Reuters, April 11, 2015.

† Before September 11, 2001, Beijing maintained good relations with the Afghan Taliban, offering engagement in exchange for the Taliban's promise that it would not provide cover or assistance to Chinese Uyghurs engaging in militant or extremist activities. Following the September 11 attacks and the start of the U.S. war in Afghanistan, China became more circumspect in its dealings with the Taliban, but it continued to quietly maintain ties. Now that reconciliation between Kabul and the Taliban is a stated priority for the Afghan government, China is reaching out as well, not least of all because it seeks a favorable position in the event the Taliban continues to be a major political player in Afghanistan. Andrew Small, *The China-Pakistan Axis: Asia's New Geopolitics*, Oxford University Press, 2015, 128; Andrew Small, "Why Is China Talking to the Taliban?" *Foreign Policy*, June 21, 2013; and U.S.-China Economic and Security Review Commission, *Hearing on China-Europe Relations*, oral testimony of Christina Lin, April 19, 2012.

side the Treaty on the Non-Proliferation of Nuclear Weapons* and its Cold War legacy of “nonalignment” (i.e., maintaining strategic autonomy).¹⁸⁶ It was not until the George W. Bush Administration that Washington sought significantly enhanced strategic ties with Delhi.¹⁸⁷ In many respects, U.S.-China tensions in the Asia Pacific and Sino-Indian rivalry in South Asia have nurtured a much closer relationship between the United States and India. According to Ashley Tellis, senior associate at the Carnegie Endowment for International Peace, “Indian interests and American interests fundamentally converge with respect to China. ... Obama understands China is really the big game the [United States] has to get right, and I think it’s in that context that the relationship in India is viewed today.”¹⁸⁸

The United States and India laid out a path of enhanced cooperation during President Barack Obama’s visit to India in January 2015, issuing a “Joint Strategic Vision for the Asia-Pacific and Indian Ocean Region” emphasizing cooperation in economics and security. Although it did not mention China or the OBOR initiative, the statement makes a commitment to accelerate regional economic integration “in a manner that links South, Southeast and Central Asia, including by enhancing energy transmission and encouraging free trade and greater people-to-people linkages.” The two sides affirmed “the importance of safeguarding maritime security and ensuring freedom of navigation and over flight throughout the region, especially in the South China Sea.” The United States also welcomed India’s interest in joining the Asia-Pacific Economic Cooperation forum.¹⁸⁹

The two countries built on this progress during President Modi’s June 2016 visit to Washington, DC, when they agreed to enhance defense technology sharing (including for aircraft carriers), begin a Maritime Security Dialogue, deepen cooperation on cybersecurity and outer space, and strengthen economic and trade ties, among other areas.¹⁹⁰ The United States named India a “Major Defense Partner” at this time as well, which commits the United States to working toward sharing defense technology with India “commensurate with that of [the United States]’ closest allies and partners” and the eventual provision of “license-free access to a wide range of dual-use technologies” to India.¹⁹¹ The Obama Administration has repeatedly said India is part of the U.S. Rebalance strategy, and the U.S. defense establishment has increasingly begun to use the term “Indo-Asia-Pacific” in statements and policy documents about the Rebalance and U.S. Asia policy more generally, suggesting U.S. policymakers are taking an increasingly holistic approach to East Asia and South Asia.

The U.S.-India economic relationship has never been particularly strong (in 2014, India accounted for only 1 percent of U.S. exports and 2 percent of U.S. imports).¹⁹² The two countries, however, are taking

* Because India has not signed the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), it is excluded from the Nuclear Suppliers Group (NSG), which controls international trade in nuclear energy technology. In 2008, India received a special waiver from the NSG, granting it most benefits of membership, but India’s efforts to get full membership have not been successful. In June 2016, India’s most recent bid to join failed, in part due to opposition from several countries—such as Norway, New Zealand, South Africa, Brazil, and China—to granting membership to a nonsignatory of the NPT. India has singled out China as one of the most vocal countries opposing India’s membership, with India’s Foreign Minister Sushma Swaraj stating that China had created “procedural hurdles” by particularly questioning how a non-NPT signatory could become a member. Manu Balachandran, “China Has Foiled India’s Bid to Join the Nuclear Suppliers Group,” *Quartz*, June 24, 2016; *Indian Express*, “Centre Names China as Country Blocking India’s Entry into Nuclear Suppliers Group,” July 21, 2016.

steps to strengthen their trade and investment flows (for example, through the annual U.S.-India Strategic Dialogue, which has been expanded to include a commercial component, and a significant number of other dialogues, including the Trade Policy Forum and the U.S.-India Economic and Financial Partnership).¹⁹³ China's economic slowdown is also presenting an opportunity for India to attract U.S. and other foreign companies, since India's growth shows no signs of slowing down (it reportedly grew at 7.6 percent in 2015).¹⁹⁴ Despite these steps, U.S.-India trade faces significant obstacles, including disagreements at the World Trade Organization and India's own domestic economic constraints, including continued dominance of the state, limits on foreign investment, and bureaucratic inefficiency.¹⁹⁵

Meanwhile, the United States and India have been growing closer on issues related to the global commons. On Prime Minister Modi's second official visit to the United States in June 2016, he announced India's intention to formally join the Paris climate change agreement by the end of 2016—a coup for the Obama Administration, which has championed multilateral action on climate change.*¹⁹⁶ The two countries also announced several joint initiatives to finance clean energy development, including a \$20 million U.S.-India Clean Energy Finance initiative and a \$40 million U.S.-India Catalytic Solar Finance Program.¹⁹⁷

As China's influence and assertiveness in East Asia has grown in recent years, there has been much speculation over whether India would become part of a formal or informal coalition of countries that could cooperate in deterring the more destabilizing aspects of China's rise (namely, China's behavior in the South China Sea).¹⁹⁸ U.S.-India naval cooperation has expanded in recent years, particularly under Prime Minister Modi, and in March 2016, Commander of the U.S. Pacific Command Admiral Harry Harris proposed reestablishing the U.S.-India-Australia-Japan Quadrilateral Security Dialogue to “[support] the international rules-based order” in the region.¹⁹⁹ Whether India will be receptive to this is unclear. Earlier efforts to institutionalize such a quadrilateral failed, and while India's growing concerns about China's rise will continue to drive expanding U.S.-India defense ties, Delhi's nonalignment proclivities may preclude it from overtly challenging China (for example, by joining the U.S. Navy in a freedom of navigation operation in the South China Sea) in the near future.²⁰⁰ On the economic front, in a subtle counterpoint to China's OBOR, the U.S.-India-Japan Trilateral Ministerial dialogue promotes regional economic linkages, identifying “collaborative efforts that can help strengthen regional connectivity, including between South and Southeast Asia.”²⁰¹

Facets of U.S.-India Defense Relations

The U.S.-India defense relationship is “one of the biggest, fastest moving defense relationships in the world, period,” according to Frank Wisner, U.S. ambassador to India during the Bill Clinton Administration.²⁰² U.S.-India defense ties came to the forefront of the bilateral relationship in 2005, when the two countries signed

*India ratified the Paris climate change agreement on October 2, 2016. *Hindu* (India), “Paris Climate Pact to Enter into Force on Nov. 4,” October 6, 2016.

Facets of U.S.-India Defense Relations—Continued

their first formal defense agreement.* That ten-year agreement was renewed and expanded with another ten-year agreement in 2015.²⁰³ As noted earlier, in 2016, the United States formally recognized India as a “Major Defense Partner.”²⁰⁴ The following are some of the most notable areas of U.S.-India defense cooperation:

- *Military Exchanges and Exercises:* Bilateral and multilateral military exercises between the two countries have expanded in number and scope since the first U.S.-India military exercise in 1992;²⁰⁵ today, India conducts more annual military exercises with the United States than it does with any other country.²⁰⁶ Malabar, the flagship U.S.-India naval exercise that Japan permanently joined in 2015 after sporadic participation since 2007,[†] occurs annually and takes place alternately in the Indian Ocean and the Western Pacific. It aims to enhance interoperability and features complex surface, undersea, and air operations.²⁰⁷ In addition to Malabar, the U.S. and Indian militaries conduct five major exercises annually, as well as dozens of defense exchanges.²⁰⁸
- *Defense Cooperation Agreements:* In August 2016, the United States and India signed a long-awaited Logistics Exchange Memorandum of Agreement, which will enable (but not obligate) the two countries’ militaries to use each other’s facilities for military logistics support. According to U.S. Secretary of Defense Ashton Carter, the agreement will “make the logistics of joint operations so much easier and so much more efficient.”²⁰⁹ Pending agreements include the Communication and Information Security Memorandum of Agreement, which would enable India to use the United States’ proprietary encrypted communications system, allowing commanders from both militaries to communicate securely;²¹⁰ and a Basic Exchange and Cooperation Agreement for Geospatial Cooperation, which would enhance bilateral geospatial intelligence sharing.[‡]²¹¹
- *Defense Technology Trade:* U.S.-India defense technology trade has grown significantly in recent years, although Russia remains India’s primary arms supplier.²¹² In 2012, the two countries established the Defense Technology and Trade Initiative, which seeks to strengthen India’s indigenous defense industry, expand coproduction and codevelopment of

*Among other things, the 2005 agreement sought to enhance cooperation in the following areas: military exercises and exchanges, counterterrorism, counterproliferation, defense trade, defense science and technology exchanges, missile defense, disaster relief, and intelligence exchanges. It also created several mechanisms to coordinate efforts in these new areas of cooperation. U.S. Department of Defense, *Framework for the U.S.-India Defense Relationship*, June 28, 2005.

†In 2007, Malabar was expanded to include other militaries for the first time, with Australia, Japan, and Singapore participating in addition to the United States and India. China lodged a formal protest in response to the exercise, and India has since been careful to avoid multilateral exercises with several East Asian countries that exclude China. S. Amer Latif and Karl F. Inderfurth, “U.S.-India Military Engagement: Steady as They Go,” *Center for Strategic and International Studies*, December 2012, 24.

‡The United States and India also share a General Security of Military Information Agreement, which provides security measures for the protection of classified military information; it was signed in 2002. U.S. Department of State, *2002 Treaty Actions (July 2003 Update)*. <http://www.state.gov/s/ll/treaty/13897.htm#1>.

Facets of U.S.-India Defense Relations—Continued

defense technologies, and overcome bureaucratic obstacles to defense transfers between the United States and India.²¹³ Since 2010, the United States has also sold or licensed (or plans to sell) several military systems and components to India, including P-8I Poseidon antisubmarine aircraft, C-130 Hercules and C-17 Globemaster transport aircraft, Apache combat helicopters, CH-47F Chinook transport helicopters, aircraft engines, and munitions.²¹⁴

Although the bilateral defense relationship has achieved notable accomplishments recently, U.S. defense planners often find cooperation materializes slowly, with the United States warming to defense cooperation much more quickly than India. India's reluctance is due to several factors, including its lethargic defense bureaucracy, its nonalignment legacy and the principle of "strategic autonomy,"* and its distrust over the United States' continued military cooperation with Pakistan.²¹⁵

China is highly sensitive to U.S.-India defense cooperation, perceiving it as an effort to counter China's rise. As U.S.-India security cooperation advances, China almost certainly will view it with suspicion. As a result of this and other factors (such as India's instinctive aversion to alliance-like arrangements due to its history of nonalignment), Delhi likely will go to some lengths to avoid unnecessarily stoking tensions with Beijing. To this end, pursuing region-centric, rather than U.S.-centric, security cooperation is likely to be India's primary line of effort. India, in particular under Prime Minister Modi, has expanded high-level engagement with many countries in China's periphery with whom the United States has alliances (such as Australia, Japan, and South Korea) or growing partnerships (such as Vietnam).²¹⁶

Indian Ocean Security

China's unorthodox and destabilizing approach to advancing its maritime interests in its near seas—which has been criticized by the United States and others—raise questions about how China will pursue its objectives in the Indian Ocean, where the United States and others have an interest in upholding freedom of navigation.

Aside from the now-marginal threat of piracy and the potential for natural disasters and accidents, the Indian Ocean currently is a zone of relative peace and stability. This is due in large part to the fact that India and the United States have been the primary and uncontested maritime security providers in the region.

The Future of Tibet

On the question of Tibet, the United States has taken a nuanced approach. The U.S. government officially recognizes Tibet as part

*According to Dr. Brewster, "One of the biggest challenges in developing a [U.S.-India] security relationship is India's attachment to 'strategic autonomy'—the idea that India should never need to rely upon other countries." David Brewster, "PacNet #70: The Challenges of Building an Australia-India-US Partnership in the Indo-Pacific," *Center for Strategic and International Studies*, September 13, 2016.

of China, but has advocated for the protection of human rights, religious freedom, and the cultural and linguistic identity of the Tibetan people.²¹⁷ U.S. policy toward Tibet is guided primarily by the Tibetan Policy Act of 2002, which established the position of Special Coordinator for Tibetan Issues within the Department of State, and lists the Coordinator's "central objective" as promoting "substantive dialogue between the Government of the People's Republic of China and the Dalai Lama or his representatives."²¹⁸ With the Dalai Lama advancing in years, observers are increasingly speculating about the fate of Tibet after his death. As discussed earlier, the Chinese government has made it known that the authority of managing the Dalai Lama's succession lies with the central government—not with the current Dalai Lama, Tibetan people, or the Tibetan Buddhist religious establishment. The U.S. government has been critical of the Chinese government's position. In a June 2015 speech, Sarah Sewall, the United States Special Coordinator for Tibetan Issues, noted that "the basic and universally recognized right of religious freedom demands that any decision on the next Dalai Lama must be reserved to the current Dalai Lama, Tibetan Buddhist leaders, and the Tibetan people."²¹⁹ As a practical matter, however, the U.S. government has not made it known how it would respond if, following the death of the current Dalai Lama, the Chinese government chose to interfere in the process.

The U.S.-China-Pakistan Nexus

Pakistan holds the unique position of being a "major non-NATO ally" of the United States while also being China's closest partner. This presents both opportunities and challenges for the United States. Regarding the former, Pakistan presents opportunities for U.S.-China and U.S.-China-Pakistan cooperation on counterterrorism, both in Pakistan and in Afghanistan. The ongoing Quadrilateral Cooperation Group talks on Afghanistan's future are a potentially promising example of this kind of cooperation. However, Pakistan has also shared sophisticated U.S. defense technology with China, as in the cases of the downed U.S. stealth helicopter in Abbottabad and the transfer of an unexploded Tomahawk missile from the battlefield in Afghanistan to China via Pakistan. Pakistan also has a history of exploiting U.S.-China tensions or competition to its advantage, a situation that could intensify as the region becomes more strategically important and U.S.-China competition for influence increases. Moreover, India is deeply skeptical about U.S.-Pakistan cooperation, and views U.S. military support for Pakistan as strengthening Pakistan's capability to harm India's security.²²⁰

Conclusions

- China's key interests, concerns, and objectives in South Asia fall into four broad categories: (1) checking India's rise by exploiting the India-Pakistan rivalry, (2) expanding economic activity and influence in the region, (3) enhancing access to the Indian Ocean, and (4) countering terrorism and religious extremism. China's engagement in South Asia serves to expand its influence in the region and on the global stage.

- By virtue of its size, location, and historical and cultural influence, India has been the traditional regional power in South Asia. China, on the other hand, has forged a strong relationship with Pakistan since the 1960s, but otherwise has been a minor player in the region. Over the past decade, however, China's economic engagement (including trade, loans, and investment) with South Asia has expanded dramatically, challenging India's position. China has also been investing in infrastructure in the region, particularly ports in the Indian Ocean littoral states. South Asian countries take advantage of the Sino-Indian competition for influence in the region by playing the two countries against one another.
- Although China and India have begun to cooperate on issues of mutual interest, including Afghanistan and global economic integration, mutual suspicions undermine deeper engagement. Tensions in the relationship are driven by China's close relations with Pakistan, China's growing regional presence, the border dispute, and Tibet. To a lesser extent, tensions are aggravated by competition in the Indian Ocean and economic imbalances. Many of these trends have led Indians to perceive China is pursuing a strategy to encircle or contain India.
- In response to China's expanding activities in South Asia, India appears to have moved away from its traditional strategy of nonalignment toward more proactive engagement with its neighbors and countries in broader Asia, as well as the United States. Indian Prime Minister Narendra Modi's "Act East" and "Neighborhood First" policy initiatives, which include diplomatic, security, and economic components, are part of this effort.
- China's security concerns in South Asia historically have centered on its desire to enable Pakistan to thwart India's rise as a challenger to China's dominance in broader Asia. While this remains the most important determinant of Chinese security support to Pakistan, the rise of terrorism as a major perceived threat to China's security may be prompting a shift in this calculus as Beijing grows more concerned about Pakistan's complicated relationship with terrorist groups.
- Although China's relationship with Pakistan continues to be primarily based on shared security concerns, it has recently expanded to encompass economic and diplomatic components. China's economic commitment to Pakistan got a boost with the launch of the China-Pakistan Economic Corridor (CPEC), a \$46 billion infrastructure investment plan under the One Belt, One Road umbrella. For China, the goals of CPEC are threefold: (1) to create an alternative trade route through Pakistan and gain access to ports on the Arabian Sea; (2) to contain Islamic terrorism and insurgency in Xinjiang, and in Pakistan and Afghanistan through economic development; and (3) to stabilize Pakistan's economic and security environment. For Pakistan, CPEC presents an opportunity to address major infrastructure shortfalls, particularly energy shortages.

- Recent U.S.-China tensions in the Asia Pacific and Sino-Indian rivalry in South Asia have nurtured a much closer relationship between the United States and India. In 2015, the United States and India issued a “Joint Strategic Vision for the Asia-Pacific and Indian Ocean Region,” emphasizing cooperation in economics and security. The relationship was further enhanced during Prime Minister Modi’s visit to Washington, DC, in 2016, which culminated in extensive agreements to enhance defense technology sharing, begin a Maritime Security Dialogue, deepen cooperation on cybersecurity and outer space, and strengthen economic and trade ties. This, in turn, has led China to perceive that the United States and India are seeking to counter China’s influence in the region.
- Despite these agreements, U.S.-India cooperation in the economic, diplomatic and security realms is expected to develop slowly due to India’s adherence to the principle of “strategic autonomy,” or the idea that India should not rely on other countries.

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SECTION 2: CHINA AND TAIWAN

Introduction

On May 20, 2016, Taiwan's President Ma Ying-jeou, whose policies led to an eight-year period of improved relations between Taiwan and China, left office and Tsai Ing-wen of the Democratic Progressive Party (DPP) became president of Taiwan. President Tsai has pursued a pragmatic cross-Strait policy of "maintaining the status quo" of neither formal independence for Taiwan nor unification of Taiwan and China. However, she has not acquiesced to Beijing's demand that she endorse the "one China" framework for cross-Strait relations that Taipei and Beijing both endorsed during the Ma Administration. Although Beijing's approach to the Tsai Administration is still developing, cross-Strait relations have entered a new period, and Beijing is using various levers to pressure President Tsai, including the suspension of official communication with Taipei.

President Tsai faces tremendous challenges in formulating a cross-Strait policy, boosting Taiwan's economic growth, and addressing the threat from China's military modernization. She is pursuing the objectives of diversifying Taiwan's export markets and enhancing Taiwan's deterrent capability, efforts in which Taiwan's relationship with the United States plays a key role. U.S.-Taiwan economic and security ties are robust, but they also have areas in need of strengthening.

The United States continues to support Taiwan's efforts to participate in the international community. Taiwan's international engagement expanded during the Ma Administration, but it remains limited in many ways due to Beijing. Since President Tsai's election, Beijing has increased its pressure on Taiwan in the international arena, a problem that could grow more severe in the coming years if cross-Strait relations sour significantly.

This section explores cross-Strait relations since President Tsai's election, cross-Strait trade and investment, Taiwan's international engagement, Taiwan's military and security situation, and U.S.-Taiwan relations. It is based on consultations with experts on Taiwan and cross-Strait relations, the Commission's fact-finding trip to Taiwan and China in 2016, and open source research and analysis.

Cross-Strait Relations

Cross-Strait Political Relations after President Tsai's Election

Despite President Tsai's efforts to reassure Beijing of her policy direction, the Chinese government has suspended official communication with Taipei. Also, during the Commission's June 2016 trip to Taiwan, a Taiwan official told the Commission that China had

reduced visits to Taiwan by Chinese tourists.¹ So far, however, Beijing has refrained from taking some of the more drastic costs-imposing measures it could direct against Taipei, such as enticing countries with diplomatic relations with Taipei to cut ties and establish relations with Beijing instead, or stopping the implementation of cross-Strait agreements that were signed under the Ma Administration.²

Taiwan's 2016 Elections

Taiwan's electorate achieved several milestones in 2016: the election of Taiwan's first female president, the third peaceful transition of presidential power between political parties, and the DPP's first absolute majority in Taiwan's legislature—the Legislative Yuan. Tsai Ing-wen won the election with 56.1 percent of the vote, while Eric Chu, the presidential candidate of the Chinese Nationalist Party (Kuomintang or KMT), finished with just 31.1 percent.³ DPP candidates also won 68 seats in the Legislative Yuan compared to 35 seats for the KMT and 10 for other parties.⁴

The election outcomes were the result of voter dissatisfaction with the outgoing Ma Administration and the KMT as well as with Taiwan's struggling economy, President Tsai's focus on domestic economic issues (rather than cross-Strait relations) during the campaign, and the rising concern among Taiwan citizens about the potential negative impact of growing ties with China on Taiwan's economy and political autonomy.⁵ According to Lin Chien-fu, a professor in the department of economics at National Taiwan University, who met with the Commission in Taiwan, the problem of unaffordable housing in Taiwan also was an important issue for voters.⁶ The housing price to income ratio increased by almost one-half.⁷ Real wages fell following the 2008–2009 global financial crisis and failed to recover to pre-crisis levels in subsequent years.⁸

During President Ma's tenure, which was characterized by a thaw in some aspects of cross-Strait relations and a reduction in overall tensions, Taiwan and China signed 23 cooperation agreements and expanded economic, educational, travel, and government-to-government contacts and communication. These initiatives culminated in a meeting between President Ma and Chinese President and General Secretary of the Chinese Communist Party Xi Jinping in Singapore in November 2015, the first meeting between the leaders of Taiwan and China since 1949. During President Ma's two terms in office, however, Taiwan's economic growth slowed significantly amid stagnant wages, unemployment in Taiwan's largely high-skilled workforce, weak entrepreneurial innovation, low inbound investment, and an electorate increasingly worried about China's ability to influence Taiwan and the impact of agreements with China on Taiwan's economy.⁹

Taiwan's Economic Challenges

Taiwan faces many economic challenges. First among them is the Taiwan economy's dependence on exports, particularly to China. (See section on "Cross-Strait Trade and Investment" for more information.) The Tsai Administration seeks to shift Taiwan's "efficiency-driven model" to an "innovation-driven model."¹⁰ The efficiency-driven model refers to Taiwan's economic strategy of linking itself to regional supply chains, primarily through China, and expanding exports to increase growth. A Taiwan official told the Commission that the Taiwan government wants to collaborate with the United States, Japan, Europe, and Israel to develop a model for innovation in Taiwan and collaborate in the areas of research and development (R&D), human resources, and financial capital. Taipei is also interested in expanding economic exchanges with India by, for example, encouraging Indian engineers to move to Taiwan and by encouraging collaboration among Indian and Taiwan technology industries.¹¹ Furthermore, the Tsai Administration is promoting the development of five "strategic industries": green energy, defense, the Internet of Things, biotechnology, and smart precision machinery.¹²

Access to energy is a looming concern: observers in Taiwan told the Commission that Taiwan may face electricity brownouts by 2017 due to low energy reserves.¹³ Taiwan is highly dependent on imported energy sources to fuel its export-oriented industries. Currently, about 98 percent of the energy that Taiwan consumes is imported. Of that amount, the vast majority comprises fossil fuels from the Middle East.¹⁴ Taiwan has three active nuclear power stations, all of which are scheduled to be decommissioned between 2018 and 2025.¹⁵ The state-owned electricity provider, Taipower, financed the construction of a fourth nuclear power station, which was set to become operational by 2015. In 2014, however, Taiwan's government voted to halt construction of the plant amid protests and safety concerns following the 2011 Fukushima nuclear disaster in Japan.¹⁶

Observers in Taiwan also told the Commission that Taiwan is experiencing a "brain drain."¹⁷ A scholar explained that this problem is the result of low wages, income disparity, and high housing prices.¹⁸

Although there is no indication that developments in Hong Kong played a role in the election outcomes in Taiwan, activists in Taiwan are concerned about the fate of freedom and democracy in Hong Kong and have demonstrated support for activists there.¹⁹ More broadly, the idea of adopting Hong Kong's "one country, two systems"* framework—Beijing's stated framework for cross-Strait unification—as a model for Taiwan has long been unpopular among the Taiwan public. However, J. Michael Cole, senior non-resident

*The "one country, two systems" framework is a policy measure adopted by the People's Republic of China following the establishment of Hong Kong and Macau as Special Administrative Regions. The system grants Hong Kong and Macau the right to self-govern their economy and political system to a certain extent, excluding foreign affairs and defense.

fellow at the University of Nottingham's China Policy Institute, told the Commission that developments in Hong Kong have intensified the Taiwan public's opposition to Chinese rule and the one country, two systems framework.²⁰ (See Chapter 3, Section 3, "China and Hong Kong," for more information on developments in Hong Kong.)

President Tsai's Cross-Strait Policy

President Tsai campaigned on solving domestic economic and social problems and a pragmatic cross-Strait policy of "maintaining the status quo" in Taiwan's relations with China. She expressed her commitment to peace in the Taiwan Strait and a "consistent, predictable, and sustainable" cross-Strait relationship.²¹ During a speech in Washington, DC, in June 2015, she explained that "the conduct of cross-Strait policy must transcend the position of a political party and incorporate different views."²² She went on to say, "If elected President, I will push for the peaceful and stable development of cross-Strait relations in accordance with the will of the Taiwanese people and the existing [Taiwan] constitutional order. [The accumulated outcomes of more than 20 years of negotiations and exchanges] will serve as the firm basis of my efforts."²³ These statements appeared intended to reassure the Chinese government that she would not pursue formal independence for Taiwan.

Since her election, President Tsai has built on this policy platform and taken several additional steps to signal goodwill and flexibility and reassure Beijing about her intentions. During the campaign and in the months after the Taiwan elections, Beijing consistently and repeatedly insisted cross-Strait relations must be conducted through the framework of the "1992 Consensus"—a tacit understanding reached at a meeting between representatives of Taiwan and China in 1992 that there is only "one China" but that each side may maintain its own interpretation of the meaning of "one China."²⁴ Unlike President Ma, President Tsai has not explicitly endorsed the 1992 Consensus, but she has moved closer to China's framework in her articulation of her cross-Strait policy. Explaining the policy in an interview with Taiwan's *Liberty Times* several days after the election, President Tsai reiterated that representatives of Taiwan and China had in fact met in 1992 and that they sought to "find common ground and put aside differences."²⁵ She also said that during the meeting, the two sides "achieved several common understandings and acknowledgments" and that she "understands and respects that historical fact."²⁶ Then, during her inauguration address in May 2016, she stated that her administration would conduct cross-Strait relations in accordance with Taiwan's Act Governing Relations between the People of the Taiwan Area and the Mainland Area.²⁷ Richard C. Bush, director of the Brookings Institution's Center for East Asia Policy Studies, wrote that "the references to the two 'areas' could be taken to imply that

*The KMT and the Chinese government assert that this consensus was reached, but the DPP rejects the existence of this consensus.

†This law, which was passed in 1982 and has been amended many times, pertains to travel, employment, marriage, and other legal matters. It refers to Taiwan and mainland China as areas and thus implies they are part of the same country. Taiwan's Mainland Affairs Council, *Act Governing Relations between the People of the Taiwan Area and the Mainland Area*.

they are part of the same country and so satisfy Beijing.”²⁸ These statements do not seem to have satisfied Beijing, however.

Beijing’s Approach to President Tsai

Beijing’s approach to President Tsai has been a combination of statements of insistence on the 1992 Consensus and opposition to independence for Taiwan, warnings and other measures meant to put pressure on her administration, and some demonstrations of nuance and potential flexibility. During a press conference at the end of January 2016, in response to a question about cross-Strait relations, a spokesperson for China’s Taiwan Affairs Office (TAO)* said, “For over 20 years, the history of the development of cross-Strait relations has already thoroughly proven that by insisting on the common political framework of the ‘1992 Consensus’ and opposition to ‘Taiwan independence,’ the prospects for cross-Strait relations are bright. If this does not happen, the boat of peaceful development of cross-Strait relations will encounter terrifying waves and could even capsize completely.”²⁹ The spokesperson made a similar statement in his response to another question later in the press conference, and in several other responses to questions he gave implicit warnings about what might happen if the Tsai Administration did not accept Beijing’s cross-Strait framework.³⁰

Despite these hardline statements, Beijing later demonstrated some nuance and potential flexibility in the remarks of Minister of Foreign Affairs Wang Yi. In February, after delivering a speech in Washington, DC, Minister Wang responded to a question about the impact of the election on ties between China and Taiwan first by striking a calm tone about President Tsai’s election, saying it was “just a change of government in Taiwan. . . . It’s something natural. It should not come as too big a surprise.”³¹ Then, in the most noteworthy part of his response, he said that he hopes and expects President Tsai would “indicate that she wants to pursue the peaceful development of cross-straits relations, and that she will accept the provision in Taiwan’s own constitution that the mainland and Taiwan belong to one, the same China.”³² Minister Wang then added a veiled warning,[†] but his statement about Taiwan’s constitution—although not identical to President Tsai’s statement—echoed her pledge to conduct cross-Strait relations according to the “existing [Taiwan] constitutional order.” Mr. Cole wrote, “Although we should not read too much into the foreign minister’s comments . . . it nevertheless hints at the possibility of a more flexible, and perhaps more pragmatic, approach to Taiwan.”³³

During March meetings in China with a delegation of U.S. analysts organized by the Center for Strategic and International Studies, Chinese interlocutors articulated several areas where Beijing claimed to demonstrate goodwill and flexibility. Bonnie S. Glaser, senior advisor for Asia and director of the China Power Project at

*The Taiwan Affairs Office is an agency within China’s State Council that is responsible for overseeing China’s cross-Strait policies.

†Minister Wang said that people in Taiwan will not accept a violation of Taiwan’s constitution, because “they want to see the continued peaceful development of cross-straits relations. They want to see more mainland visitors. They want to pursue more business ties with the mainland. And they want to live in a climate of peace and tranquility. The next government in Taiwan must think about these issues in a serious way.” Wang Yi, “Statesman’s Forum: Wang Yi, Minister of Foreign Affairs, PRC” (Washington, DC, February 25, 2016).

the Center for Strategic and International Studies, writes that the interlocutors made the following points:

The Chinese believe that they have shown some flexibility and goodwill to Tsai Ing-wen and the DPP. For example, Beijing has indicated that if the DPP cannot embrace the 1992 Consensus, it “can come up with a new version” using alternative wording to express its core meaning. Another example of the Mainland’s goodwill cited by the Chinese side is the policy of not demanding more from the DPP than it has asked of the KMT. From Beijing’s perspective, it is not raising the bar and is not unilaterally changing the cross-Strait status quo. Rather, it is Tsai and the DPP that is changing the status quo. A third example that the Mainland says is a sign of its goodwill toward the DPP is Xi Jinping’s statement at the [National People’s Congress] that Beijing’s policies and principles toward Taiwan will not change because of changes in Taiwan’s political situation, including willingness to pursue peaceful development of cross-Strait relations.³⁴

In March, China re-established diplomatic relations with The Gambia, which Beijing had theretofore opted against following The Gambia’s severing of its diplomatic ties with Taiwan in 2013.³⁵ In 2008, at the beginning of the Ma Administration, Taiwan and China reached a tacit understanding—what President Ma unilaterally declared to be a “diplomatic truce”—to stop poaching each other’s diplomatic partners in order to maintain positive momentum in the cross-Strait relationship.³⁶ Although Beijing’s move to establish relations with The Gambia technically did not break the diplomatic truce—because The Gambia had already cut ties with Taiwan in what appears to have been a decision that was not influenced by Beijing*—it was almost certainly intended to convey to the Tsai Administration that Beijing is willing to draw away countries with which Taiwan has diplomatic relations.³⁷

In the context of a discussion of the Chinese government’s response to the Tsai Administration, one Taiwan official told the Commission that China had significantly reduced Chinese tourism to Taiwan.³⁸ According to Taiwan’s Mainland Affairs Council (MAC),† between May 20 and August 16, Chinese tourists traveling to Taiwan with tour groups fell by 37 percent.³⁹ In September, an estimated 10,000 Taiwan tourism industry workers and representatives marched in Taipei to call for assistance from the government in response to the drop in Chinese tour groups.⁴⁰ During the Ma Administration, Taiwan reduced barriers to Chinese tourists visiting Taiwan and the number of Chinese tourists increased from around 330,000 in 2008 to about 4.2 million in 2015.⁴¹ According to one calculation based on data from Taiwan’s Bureau of Tour-

*There is no public evidence that suggests Beijing enticed or pressured The Gambia to cut diplomatic relations with Taiwan. According to Taiwan’s Minister of Foreign Affairs, The Gambia’s decision was the result of Taiwan’s rejection of a request by The Gambia’s president for more aid. Angela Tsai and Scully Hsiao, “Gambian Aid Request Linked to Broken Ties with Taiwan: Minister,” Central News Agency (Taiwan), November 25, 2013.

†The Mainland Affairs Council is a cabinet-level agency in Taiwan’s executive branch that is responsible for overseeing Taiwan’s cross-Strait policies.

ism, the revenue from Chinese tourists in Taiwan reached \$6.8 billion in 2015.⁴²

Beijing's insistence on the "one China" principle precludes any country or international organization from simultaneously diplomatically recognizing China and Taiwan, thereby restricting Taiwan's full participation in the international community. Due to Beijing's insistence on this principle, Taiwan generally can only participate in international fora using other names, such as "Chinese Taipei." In May, Beijing apparently agreed to Taiwan's continued participation as an observer in the annual conference of the UN World Health Organization's World Health Assembly. The World Health Organization has extended an invitation to Taiwan to participate as an observer every year since 2009. This year's conference was held several days after President Tsai's inauguration, and a Taiwan official announced that Taiwan had received the invitation on May 6.⁴³

Beijing has tried to put the onus on the Tsai Administration to maintain positive cross-Strait relations and positioned itself to deflect all responsibility should relations sour. During a press conference on May 11, a TAO spokesperson said:

*Who is working hard to protect the common political foundation and protect the peaceful development of cross-Strait relations and who is destroying the common political foundation of cross-Strait relations and changing the status quo of cross-Strait relations, who is protecting roads and who is tearing down bridges, I believe everyone can see very clearly. . . . If there is gridlock in cross-Strait relations or a crisis occurs, the responsibility is on those who change the status quo.*⁴⁴

Beijing continued to pressure the Tsai Administration in its response to President Tsai's inauguration speech on May 20. TAO director Zhang Zhijun delivered a statement in which he said, "The contact and communication mechanism between the Mainland's Taiwan Affairs Office and Taiwan's Mainland Affairs Council and the consultation and negotiation mechanism between the Association for Relations Across the Taiwan Straits and Taiwan's Straits Exchange Foundation* are built on the political foundation of the 1992 Consensus. Only by affirming the political foundation that embodies the One China principle can the institutionalized cross-Strait exchanges continue."⁴⁵

Since President Tsai's inauguration, Beijing has followed through on its warning, at least in part, and suspended "the cross-Strait contact and communication mechanisms."⁴⁶ In June 2016, a TAO spokesperson announced that "the cross-Strait contact and communication mechanisms have been suspended because Taiwan did not recognize the 1992 Consensus, the political basis for the One China principle."⁴⁷ The spokesperson noted the mechanism had been suspended since President Tsai's inauguration.⁴⁸ Earlier that month, the deputy minister of MAC said that communication between the

*The Straits Exchange Foundation and the Association for Relations Across the Taiwan Strait facilitate cross-Strait negotiations in the absence of formal ties between the governments of Taiwan and China. Although the two bodies are semiofficial organizations, they receive direction from their respective governments.

two governments was ongoing at the division director level.⁴⁹ Also in June, a Taiwan official told the Commission that Beijing suspended formal exchanges between MAC and TAO, but informal communications through “desk phones and fax machines” still occur.⁵⁰ Beijing also has suspended communication and meetings between the Straits Exchange Foundation and the Association for Relations Across the Taiwan Straits.⁵¹ According to an article published on May 31, an anonymous individual affiliated with China’s Association for Relations Across the Taiwan Straits told Taiwan’s *United Daily News* that the association had not responded to any faxes or telephone calls from the Taiwan side since the inauguration.⁵² In July, during an interview with the *Washington Post*, President Tsai was asked, “Since your inauguration in late May, the Chinese have cut off the official channel that was used to communicate between Taiwan and the mainland. How do you plan to handle day-to-day relations with Beijing?” President Tsai responded, “We have always had diverse channels of communication across the strait. These include not just official communications but also people-to-people contacts.” Then, when asked, “Are you, the president, in touch with your counterparts in the Chinese government?” she said, “Different levels of the government have different ways of communicating with their counterparts in China. At this stage, I cannot go into too much detail.”⁵³

Cross-Strait Agreements

In August, the TAO director told Taiwan business representatives in China that Beijing would continue to honor the 23 existing cross-strait agreements signed under the Ma Administration.⁵⁴ However, since China has made official and quasi-official cross-strait exchanges contingent on Taiwan’s acknowledgement of the 1992 Consensus and thus far has expressed dissatisfaction with President Tsai’s attempts to reach a compromise on this issue, the potential for additional cross-strait agreements is uncertain. Regarding potential new agreements, the TAO director said, “It is impossible for the doors to be open without the ‘1992 consensus’ as a foundation.”⁵⁵ The Ma Administration had engaged in negotiations with Chinese counterparts on a trade in goods agreement and an agreement on reciprocal representative offices in each other’s territory, but the two sides had not yet concluded the talks on either of these potential agreements.

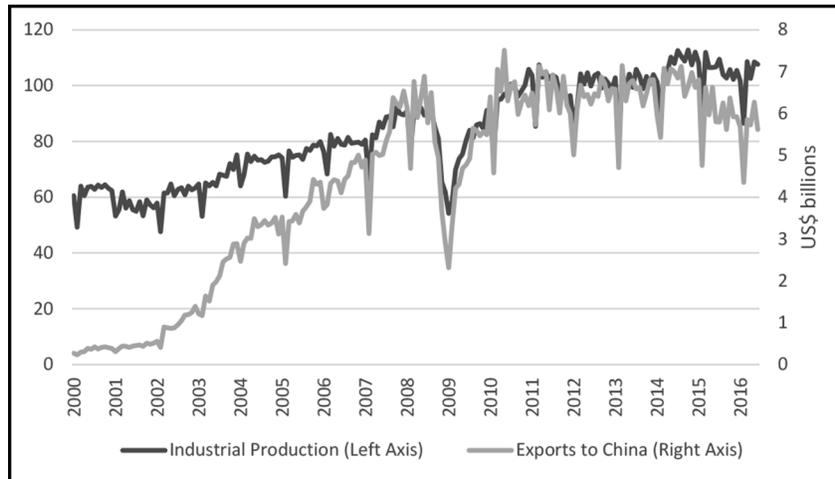
The fate of the Cross-Strait Trade in Services Agreement (CSSTA), which Taiwan and China signed in 2013 but the Taiwan legislature has not ratified, is also uncertain. The Tsai Administration plans to wait until the legislature passes a cross-strait agreements oversight bill before it addresses the future of the CSSTA and continues negotiations on the trade in goods agreement.⁵⁶ The CSSTA has been stalled in the legislature since March 2014, when protestors occupied the legislative chamber in opposition to the agreement—a protest movement that was given the name the Sunflower Movement. Protestors were concerned that the Ma Administration conducted the negotiations in a nontransparent manner and the Legislative Yuan had not reviewed the agreement. To end the occupation, one of the terms to which the then legislative speaker agreed was the creation of an oversight mechanism for cross-strait

agreements.⁵⁷ Since then, many draft bills for such a mechanism have been proposed, but they were not debated.⁵⁸ Much of the political logjam was the result of disagreement over the roles of the Legislative Yuan and the Executive Yuan (Taiwan's executive branch) in the oversight process.⁵⁹ Ker Chien-Ming, head of the Legislative Yuan's DPP caucus, said in August 2016 that the Legislative Yuan would review the bill during the fall legislative session.⁶⁰ How the bill will fare is uncertain. Although the DPP has a majority in the Legislative Yuan, the version of the bill proposed by the DPP caucus has been criticized by civil society groups.⁶¹ In addition, Mr. Ker in January 2016 said that the DPP's stance on the CSSTA was that the agreement should be renegotiated.⁶² Although it is unknown whether the Tsai Administration will call for the agreement to be renegotiated, if it chooses to do so, the question remains whether Beijing will agree.

Cross-Strait Trade and Investment

In 2015, Taiwan's economic growth slowed to less than 1 percent as exports dropped significantly amid China's economic slowdown and low global demand.⁶³ Taiwan's exports also were hurt by increased competition from Chinese high-tech suppliers, which undercut them on cost.⁶⁴ With China ranking as its largest trading partner, Taiwan's export-oriented economy is dependent on China and vulnerable to fluctuations in China's economy.⁶⁵ Taiwan's industrial production* has grown increasingly tied to its China-bound exports. In the years after Taiwan joined the World Trade Organization, Taiwan's exports to China grew rapidly as Taiwan-based firms expanded manufacturing operations in China and established regional supply chains, especially in information technology products. By the time the Ma Administration took office in 2008, fluctuations in Taiwan's industrial production closely tracked exports to China (see Figure 1).⁶⁶

*Industrial production is quantified using the industrial production index, which measures outputs of the industrial sector of the economy, including manufacturing, mining, and utilities.

Figure 1: Taiwan's Industrial Production, 2000–2016

Note: 2016 data are through June. The export data in this figure include re-exports.

Source: Taiwan Ministry of Economic Affairs and Ministry of Finance via CEIC database.

Scholars at the Chung-Hua Institute for Economic Research told the Commission that although Taiwan's economy showed negative gross domestic product (GDP) growth in the first two quarters of 2016, Taiwan's manufacturing will pick up in the final two quarters to make up for these losses. Taiwan's GDP growth tends to fluctuate based on the release schedules of certain products that Taiwan companies help to produce. For example, Taiwan had exceptionally good GDP growth in 2014, mainly attributable to high sales of the iPhone 6 rather than any sustained improvement in Taiwan's economic situation.⁶⁷

To address Taiwan's economic dependence on China, the Ma Administration strived to diversify Taiwan's export markets, efforts that President Tsai has continued. President Tsai and the DPP have emphasized their objective of moving Taiwan toward participation in the U.S.-led Trans-Pacific Partnership (TPP) trade agreement, and President Tsai is moving forward with plans to enhance Taiwan's trade and investment with the countries of Southeast Asia, South Asia, and Oceania, part of her "New Southbound Policy," which is discussed later in this section.⁶⁸

Goods Trade

As of August 2016, China remains Taiwan's largest trading partner, biggest export market, and top source of imports.*⁶⁹ In 2015, annual cross-Strait trade totaled \$111.4 billion,† comprising 22.6 percent of Taiwan's total trade.⁷⁰ However, total cross-Strait trade also decreased by about 11 percent in 2015 compared to 2014.⁷¹

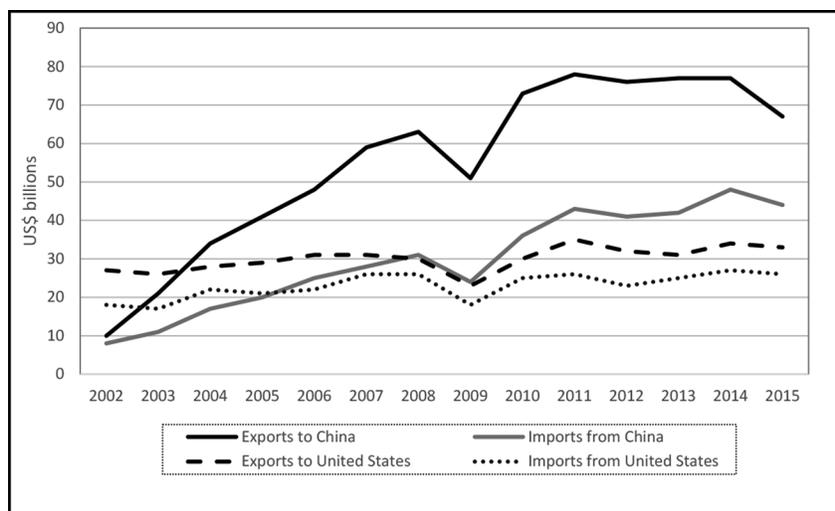
Taiwan's exports to China have been hit hard by the slowdown of China's economy.⁷² Taiwan's exports to China in 2015 were

*Trade statistics in this section do not include Taiwan's trade with Hong Kong.

†All trade statistics from Taiwan's Bureau of Foreign Trade in this section exclude re-exports and re-imports.

\$67.2 billion, comprising 25.4 percent of Taiwan's exports to the world.⁷³ Year-on-year, Taiwan's exports to China shrank by 13.2 percent and its trade surplus with China decreased by 21.5 percent in 2015 (see Figure 2).⁷⁴ Taiwan's exports to China were dominated by semiconductor-related and liquid crystal display-related products in 2015.⁷⁵ These products composed all of Taiwan's top five exports to China and more than a quarter of the value of Taiwan's total exports to China (see Figure 3).⁷⁶ Taiwan's exports of these top five products to China decreased by 17.8 percent in 2015.⁷⁷

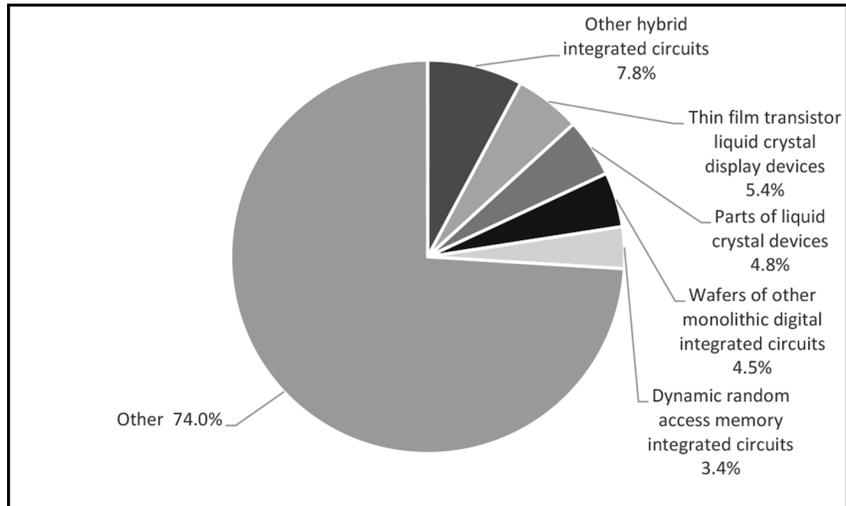
Figure 2: Taiwan's Trade with China and the United States, 2002–2015



Source: Taiwan's Bureau of Foreign Trade, "Trade Statistics." <http://cus93.trade.gov.tw/ENGLISH/FSCE/>.

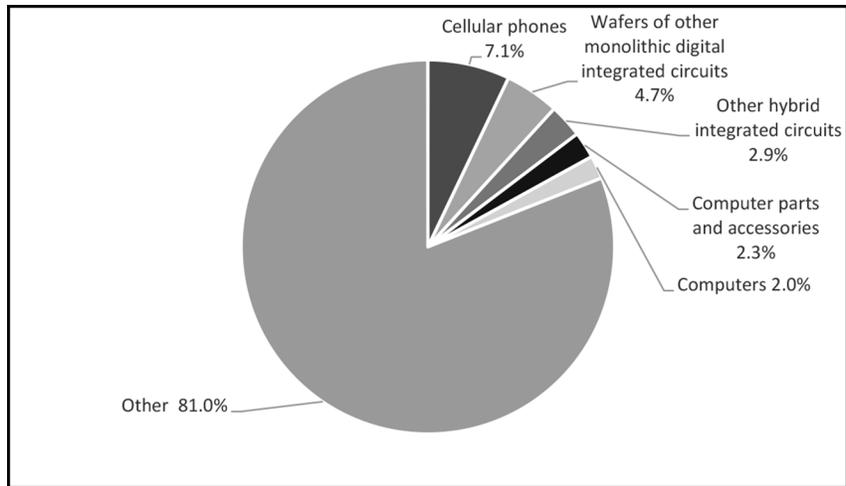
Taiwan's imports from China in 2015 were \$44.2 billion, comprising 19.4 percent of its total imports.⁷⁸ Despite imports from China decreasing by 8 percent, China remained Taiwan's largest source of imports.⁷⁹ Just as semiconductor-related products were among Taiwan's top exports to China, they also were among Taiwan's main imports from China.⁸⁰ (Taiwan firms generally design and manufacture unfinished microchips and other semiconductor-related products in Taiwan for assembly and testing in China; China then typically exports the finished products back to Taiwan.)⁸¹ Taiwan's other major imports from China included cellular phones and computers and computer parts and accessories.⁸² Despite the overall decrease in imports, imports of cellular phones increased by 37.6 percent and imports of wafers for microchips increased by 10.2 percent.⁸³ Both cellular phones and wafers for microchips were among Taiwan's top five imports from China (see Figure 4).⁸⁴ Imports of the other top five products all decreased, with microchips decreasing by 14.3 percent, computer parts and accessories decreasing by 7.1 percent, and computers decreasing by 15.8 percent.⁸⁵

Figure 3: Taiwan's Top Five Exports to China, 2015



Source: Taiwan's Bureau of Foreign Trade, "Trade Statistics." <http://cus93.trade.gov.tw/ENGLISH/FSCE/>.

Figure 4: Taiwan's Top Five Imports from China, 2015



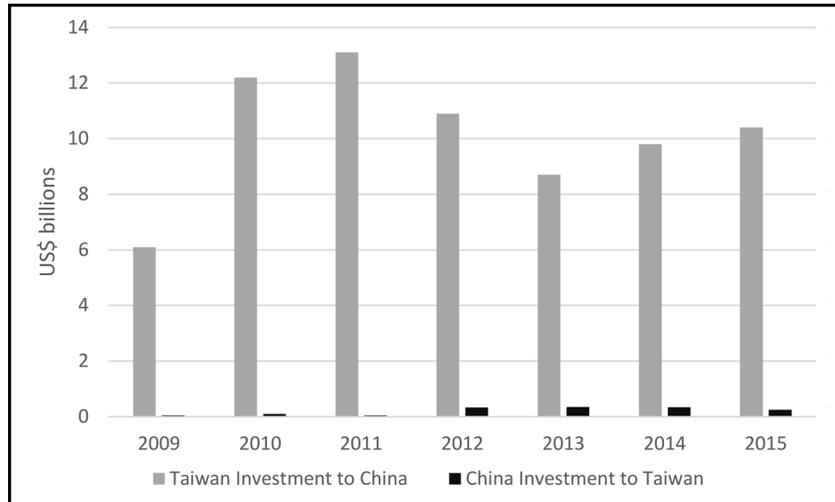
Source: Taiwan's Bureau of Foreign Trade, "Trade Statistics." <http://cus93.trade.gov.tw/ENGLISH/FSCE/>.

Foreign Direct Investment

China is Taiwan's top destination for foreign direct investment (FDI).⁸⁶ According to official Taiwan data, Taiwan FDI to China in 2015 totaled \$10.4 billion.⁸⁷ Between 2014 and 2015, this number increased by 5.8 percent.⁸⁸ In 2015, for the second year in a row, Taiwan FDI to China recorded growth after decreasing in 2012 and 2013 (see Figure 5).⁸⁹ The growth in FDI over the past two years was primarily the result of new Taiwan FDI in the electronic parts manufacturing and computer manufacturing sectors in 2014, followed by an increase in Taiwan FDI in the financial and insurance sectors and the non-metal mineral products manufacturing industry in 2015.⁹⁰ In 2015, investment in the financial and insurance sectors comprised the largest percentage of Taiwan's total FDI in China, with 25.4 percent.⁹¹ The next largest recipients of Taiwan FDI in China in 2015 were electronic parts and components manufacturing (11.2 percent) and computers, electronic, and optical products manufacturing (10.1 percent).⁹²

Year-on-year, the value of Chinese investment in Taiwan dropped by about 27 percent to approximately \$244 million in 2015, but the number of Chinese investment cases approved by the Taiwan government increased by 25 percent to 170.⁹³ According to Taiwan's National Development Council, a policy planning organization under the Executive Yuan, the number of cases increased while the value decreased, primarily because the majority of Chinese investment in Taiwan is in services, and investments in services are generally smaller than those in manufacturing. The council reported that the percentage of Chinese investments in services increased by 9.7 percent to a total of 79.4 percent of all Chinese investment in Taiwan in 2015.⁹⁴ FDI from China had been steady between 2012 and 2014 after it more than tripled between 2010 and 2012,⁹⁵ a spike largely due to the Ma Administration's loosening of investment caps and regulations on Chinese investment into Taiwan.* Chinese investments are still limited. All investments require Taiwan government approval, and the Taiwan government prohibits Chinese investors from appointing managers or having controlling stakes.⁹⁶ In 2015, 62.4 percent of the value of Chinese FDI to Taiwan was in wholesale and retail, 10.4 percent was in electronic parts and electronic components manufacturing, and 7.3 percent was in information and software services.⁹⁷

* For example, in March 2012, Taiwan loosened Chinese investment caps of 10 percent stakes in local firms and 50 percent in joint ventures in Taiwan's semiconductor and metal tool manufacturing sectors, among others. PricewaterhouseCoopers, "Chapter 4: The Bigger Picture—China's Impact on the Semiconductor Industry 2012 Update," September 2012.

Figure 5: Cross-Strait Investment, 2009–2015

Source: Taiwan's Ministry of Economic Affairs, Investment Commission, *Monthly Report*, December 2015.

Taiwan's International Engagement

Taiwan continues to pursue greater participation in the international community through its official diplomatic relations with 22 countries,* efforts to expand its participation in international organizations, and initiatives to strengthen economic and unofficial diplomatic partnerships with countries other than China. As discussed previously, one of Taiwan's successes in 2016 was its continued participation in the World Health Assembly as an observer. This year also saw new and ongoing challenges to Taiwan's ability to participate in the international community, however. It is unclear whether all of these developments were part of a concerted effort by Beijing to pressure the Tsai Administration, but should Beijing seek to increase pressure on Taipei, it may move to further limit Taiwan's participation in international organizations and invite some countries with which Taiwan has diplomatic relations to cut ties and establish diplomatic relations with China.

Efforts to Expand International Participation

Taiwan's "New Southbound Policy": One of the Tsai Administration's main initiatives to expand Taiwan's international participation is its "New Southbound Policy" of enhanced engagement with the countries of Southeast Asia, South Asia, and Oceania.⁹⁸ Although a major objective of the initiative is to expand Taiwan's trade and investment with these countries in order to diversify its export markets, President Tsai and James Huang, the official who

* Taiwan has diplomatic relations with Belize, Burkina Faso, the Dominican Republic, El Salvador, Guatemala, Haiti, the Holy See, Honduras, Kiribati, the Marshall Islands, Nauru, Nicaragua, Palau, Panama, Paraguay, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sao Tome and Principe, Solomon Islands, Swaziland, and Tuvalu. Taiwan's Ministry of Foreign Affairs, "Diplomatic Allies."

is leading the initiative, have said that it will be focused on much more than trade and investment.⁹⁹ According to its guidelines, the initiative will include cooperation in the areas of agriculture, education, culture, and tourism.¹⁰⁰

Seeking participation in INTERPOL: According to Taiwan's Criminal Investigation Bureau, Taiwan's exclusion from the International Criminal Police Organization (INTERPOL) means that it does not receive updates from the organization on transnational crimes, and Taiwan police cannot participate in training provided by INTERPOL.¹⁰¹ In March, U.S. President Barack Obama signed a bill (S. 2426) that mandates the secretary of State to report to Congress within 90 days on the U.S. government's strategy for supporting Taiwan's participation in INTERPOL as an observer. This bill is another step in the U.S. government's longstanding efforts to advocate on behalf of Taiwan's participation in international organizations. President Obama signed a similar bill (H.R. 1151) in 2013 regarding a U.S. strategy to support Taiwan's participation as an observer in the UN's International Civil Aviation Organization (ICAO).*

Challenges

Not invited to participate in the 2016 ICAO Council Assembly: In September, Taiwan's Minister of Foreign Affairs confirmed that ICAO did not invite Taiwan to participate in the ICAO Council Assembly, which was held in late September and early October, in a reversal from the previous assembly. A spokesperson for China's TAO said Taiwan could not participate because the Tsai Administration had not endorsed the 1992 Consensus.¹⁰² The president of the ICAO Council invited Taiwan to participate as his guest in the 2013 ICAO Council Assembly, a forum which is held every three years. The 2013 assembly was the first official ICAO meeting to which Taiwan had been invited in 42 years.¹⁰³

Blocked from other UN meetings and OECD meeting: In April, under pressure from China, the Belgian government barred a Taiwan government delegation from attending a meeting on the steel sector organized by the Belgian government and the Organisation for Economic Co-Operation and Development (OECD) in Brussels. The delegation had already attended a meeting that was part of the same symposium earlier in the day. Although Taiwan is not a member of the OECD, it has been allowed to attend some OECD meetings since 2002.¹⁰⁴ In June, a professor of labor relations from Taiwan's Chung Cheng University and a study group she was leading were blocked twice from attending an annual conference of the UN's International Labor Organization. The professor had led study groups to attend the conference in 2014 and 2015 without a problem.¹⁰⁵ In July, Taiwan officials were not allowed to participate in a meeting of the Food and Agriculture Organization of the UN's Committee on Fisheries, an organization in which they have been permitted to participate since 2003.¹⁰⁶

*The U.S. Department of State submitted both reports to Congress. Executive Communication EC5932, 114th Cong., 2nd Sess., June 28, 2016.

Difficulty joining the Asian Infrastructure Investment Bank: In early April, the president of the Asian Infrastructure Investment Bank announced that if Taiwan wanted to join the bank China's Ministry of Finance would have to apply on its behalf. This is the same standard the bank applied to Hong Kong, thereby treating Taiwan as if it were part of China. The Taiwan government rejected this condition, stating, "It hurts our dignity."¹⁰⁷

Failed repatriation of fraud suspects: Between April and September, about 200 Taiwan citizens living in Armenia, Cambodia, Kenya, and Malaysia who were accused of committing telecommunications fraud against people in China were deported from those countries to China, rather than to Taiwan.¹⁰⁸ At the beginning of the Ma Administration, Taipei and Beijing signed the Cross-Strait Joint Crime-Fighting and Judicial Mutual Assistance Agreement, which includes the return of individuals suspected of and convicted of crimes from one side to the other.¹⁰⁹ In 2011, after the Philippines deported 14 Taiwan citizens suspected of telecommunications fraud to China, cross-Strait negotiations led Beijing to return the suspects to Taiwan.¹¹⁰ Subsequently, Taipei and Beijing developed a pattern of law enforcement cooperation in countries with which Taiwan does not have official diplomatic relations, though this cooperation was not part of the 2009 agreement.¹¹¹ This cooperation enabled Taiwan to bring many Taiwan citizens who were suspected of committing crimes in those countries back to Taiwan.¹¹² Beijing has been unwilling to continue this cooperation since President Tsai was elected. However, Beijing's initial motivation for not allowing the suspects to be sent to Taiwan may solely have been its desire to crack down on telecommunication fraud against Chinese citizens. The first group of Taiwan citizens who were deported from Kenya in April 2016 had been arrested in December 2014 and Beijing requested that they be sent to China in January 2015, one year before President Tsai was elected.¹¹³ Nonetheless, Beijing is now likely also using these cases as another means to pressure Taipei.*¹¹⁴

Threat of severed diplomatic relations: No countries have severed diplomatic ties with Taiwan since President Tsai's election, and there is no evidence to suggest China has invited them to do so. Zhang Zhixin, a research fellow at the Shanghai Institute for International Studies, estimated in 2013 that Beijing had rejected overtures from at least five countries with diplomatic relations with Taiwan since then President Ma was elected in 2008.¹¹⁵ However, Beijing could establish ties with some of these countries if cross-Strait relations significantly worsen.¹¹⁶ In 2016, Beijing and the

*During a press conference in August a reporter requested a TAO spokesperson confirm whether MAC had protested to Beijing through cross-Strait communication channels regarding Kenya's deportation of Taiwan citizens to China. In his response, the spokesperson reiterated that the mechanisms for cross-Strait communication and talks had been suspended because Taipei had not endorsed the 1992 Consensus. He added that "the Taiwan side should face up to this fact and make practical efforts to resume the working of these mechanisms." Xinhua, "Taiwan Affairs Office: The People on Both Sides of the Strait Support Cracking Down on Telecommunications Fraud According to Law. The Taiwan Side Should Make Practical Efforts to Resume the Working of the Cross-Strait Contact and Communication Mechanisms," *China's Taiwan Affairs Office*, August 8, 2016.

Vatican—which has diplomatic relations with Taiwan*—were reportedly in talks to address longstanding areas of disagreement. The two sides have disagreed about whether the Vatican should be allowed to appoint bishops in China as it does elsewhere. The Vatican also does not approve of eight bishops that were appointed by the Chinese government.¹¹⁷ A resolution of these issues and warming of relations between China and the Holy See could put Taiwan's relations with the Vatican at risk.

Difficulty signing free trade agreements: Taiwan is at a disadvantage when competing economically with other countries such as South Korea, because it is more difficult for Taiwan to sign free trade agreements¹¹⁸—in large part because Beijing pressures other countries not to sign free trade agreements with Taiwan.¹¹⁹

The Tsai Administration's Approach to the East and South China Sea Disputes

Taiwan, which is one of six claimants of land features in the South China Sea,† rejected the ruling of the arbitral tribunal at the Permanent Court of Arbitration in The Hague in the case *The Republic of Philippines v. The People's Republic of China* in July,‡ though Taipei's response has not been nearly as vociferous as Beijing's. Taiwan stated several reasons for rejecting the ruling: (1) it deemed the tribunal's designation for Taiwan ("Taiwan Authority of China") incorrect and "demeaning to the status of [Taiwan] as a sovereign state;" (2) the tribunal did not formally invite Taiwan to participate in the case or ask for Taiwan's views;¹²⁰ and (3) although Taiwan-controlled Itu Aba (a land feature in the Spratly Islands called Taiping Island by Taiwan and China) was not originally included in the Philippines' submission, the tribunal ruled that it is a rock rather than an island (see Figure 6).§ Itu Aba is the largest natural land feature in the Spratly Islands and the only one that Taiwan controls; some observers thought it had a strong chance of being designated an island, instead of a rock, by the tribunal.¹²¹ Taiwan's Ministry of Foreign Affairs also stated, "That [Taiwan] is entitled to all rights over the South China Sea Islands and their relevant waters in accordance with international law and the law of the sea is beyond dispute."¹²² The day after the tribu-

*The Vatican established ties with the Republic of China government in 1942 and maintained those ties after the government moved to Taiwan and Beijing expelled the Vatican's ambassador from China in 1951. Kevin Hsu, "China and the Vatican: Toward a New Era?" *Diplomat* (Japan), September 22, 2016.

†The other claimants are Brunei, China, Malaysia, the Philippines, and Vietnam. See Chapter 2, Section 1, "Year in Review: Security and Foreign Affairs" for more information on the East and South China seas disputes.

‡For more information on the tribunal's ruling, see Caitlin Campbell and Nargiza Salidjanova, "South China Sea Arbitration Ruling: What Happened and What's Next?" *U.S.-China Economic and Security Review Commission*, June 12, 2016.

§The distinction, as defined by the UN Convention on the Law of the Sea, between an island and a rock is important because each type of feature generates a different maritime entitlement. Islands, which must be above water at high tide and be capable of sustaining human habitation or economic activity of their own, can generate exclusive economic zones out to 200 nautical miles. (An exclusive economic zone is a 200-nautical-mile zone extending from a country's coastline within which that country can exercise exclusive sovereign rights to explore for and exploit natural resources, but not full sovereignty.) Rocks, which are defined as being above water at high tide but unable to sustain human habitation or economic activity, only generate a 12-nautical mile territorial sea. UN Convention on the Law of the Sea, "Article 121: Regime of Islands;" UN Convention on the Law of the Sea, "Part 2: Territorial Sea and Contiguous Zone;" and UN Convention on the Law of the Sea, "Part 5: Exclusive Economic Zone."

nal's ruling, President Tsai addressed officers and enlisted personnel on a Taiwan Navy frigate. In President Tsai's remarks she said the ruling "has seriously harmed the rights and interests of our country with respect to the South China Sea islands."¹²³ The ship was originally scheduled to leave the next day for a routine patrol of the South China Sea, but, as part of Taiwan's response to the tribunal's ruling, it set sail the same day.¹²⁴ Taiwan is not a signatory to the UN Convention on the Law of the Sea (UNCLOS), because it lost its seat at the UN before the convention was established. Thus, Taiwan is not bound by the tribunal's decision.

Figure 6: Map of South China Sea



Source: Figure adapted from *Economist*, "Hai-handed," January 13, 2014.

Prior to the ruling, Taiwan had taken some positive steps to clarify its claims in the South China Sea in accordance with UNCLOS and initiated efforts to reduce tensions and establish coordination and cooperation mechanisms with other claimants.¹²⁵ Taiwan has an opportunity to further clarify its position now that the tribunal has clarified the legal status of the features in disputed waters.

Taiwan and the 11-Dash Line

The nine-dash line on Chinese maps of the South China Sea is based on a map with a line containing 11 dashes that was published in 1947 by the government of the Republic of China, which later moved to Taiwan at the end of the Chinese civil war.¹²⁶ There are various explanations of the original meaning of the line. Although the line clearly encompasses the land features that the Taiwan government claims, it is unclear whether it also indicates a claim of sovereignty or jurisdiction over the waters within the line.¹²⁷

One interpretation is offered by Dustin Kuan-Hsiung Wang, a professor in the Graduate Institute of Political Science at National Taiwan Normal University. Dr. Wang discussed the original purpose of the 11-dash or U-shaped line in e-mail correspondence with Commission staff. Dr. Wang wrote: “The meanings of the U-shaped line were probably twofold: one was to demarcate an area of the South China Sea within which the Republic of China claimed all islands. Under this, the claim was not intended to encompass all the water within the lines, but rather, all the land sovereignty within the lines. The other was to express the perception of undecided maritime boundaries between the Republic of China and her neighbors. However, further negotiations were needed between them, therefore the U-shaped line was expressed in (eleven) dashes.”¹²⁸

In 1993, the Taiwan government adopted the Policy Guidelines for the South China Sea, which declared that “the South China Sea area within the historic waters limit is the maritime area under the jurisdiction of the Republic of China, where the Republic of China possesses all rights and interests.”¹²⁹ The Taiwan government continues to claim the land features in the South China Sea, but its position regarding the waters appears to have changed over time. During the last 20 years, Taipei has gradually stopped using the term “historic waters.”¹³⁰ In September 2014, then President Ma said, “The principle that ‘sovereignty over land determines ownership of the surrounding waters,’ which is set out in [UNCLOS], applies to disputes concerning sovereignty over both land and sea.”¹³¹ President Ma’s clarification of Taiwan’s position that maritime entitlements should be derived from sovereignty over land in accordance with UNCLOS contrasts with China’s vague and expansive sovereignty claims to nearly all of the land and sea within its nine-dash line, which encompasses around 90 percent of the South China Sea (the South China Sea encompasses more than 1.4 million square miles of water). The Tsai Administration appears to be continuing this trend away from Taiwan’s earlier, more expansive claims, choosing not to mention the dashed line in its response to the arbitral tribunal’s ruling.¹³²

The Tsai Administration's policy toward the disputes in the East and South China seas* has been similar so far to that of the Ma Administration, which proposed diplomatic frameworks and signed agreements with other claimants to encourage the setting aside of territorial disputes and promotion of joint resource development. The most recent agreement was reached between Taiwan and the Philippines in November 2015, with the two sides achieving consensus on "avoiding the use of violence or unnecessary force, establishment of an emergency notification system, and establishment of a prompt release mechanism" for fishermen from one country who are detained by the other.¹³³ In March 2016, Taiwan and the Philippines agreed to establish a hotline to notify each other of fishing accidents, to conduct joint inspections of fishing boats, and to exchange inspection reports.¹³⁴ Keeping with the spirit of these previous endeavors, in her inaugural address President Tsai said, "Regarding problems arising in the East China Sea and South China Sea, we propose setting aside disputes so as to enable joint development."¹³⁵ Later, in June, the Tsai Administration announced that it was establishing a maritime affairs cooperation dialogue with the Japanese government to address the dispute between Taiwan fishermen and the Japanese government over rights to fish at Okinotori Atoll, a land feature in the East China Sea that Japan asserts is entitled to a 200 nautical mile exclusive economic zone and that Taiwan and China believe does not have this right, among other issues.¹³⁶

Taiwan Military and Security Issues

Cross-Strait Military Balance

As the Tsai Administration took office, it faced the challenges of a Chinese military modernization program that had dramatically increased despite eight years of enhanced cross-Strait economic, people-to-people, and government ties. Broadly, the cross-Strait military balance has shifted toward China.¹³⁷ The People's Liberation Army (PLA) possesses both a quantitative and a qualitative military advantage over the Taiwan military and is capable of conducting a range of military campaigns against Taiwan.

- The PLA Rocket Force (previously the Second Artillery Force) has approximately 1,200 short-range ballistic missiles and 200–500 ground-launched land-attack cruise missiles.†¹³⁸ According to congressional testimony by U.S. Defense Intelligence Agency Director Lieutenant General Vincent R. Stewart in February 2015, all of China's short-range ballistic missiles are deployed across from Taiwan.¹³⁹ The primary purpose of the majority of these missiles is to deter a move toward formal independence by Taiwan or to destroy Taiwan's ports and air-

*Taiwan is one of three claimants to the Senkaku Islands (known as the Diaoyutai in Taiwan and Diaoyu in China) in the East China Sea. The other claimants are China and Japan.

†Official U.S. and Taiwan estimates of China's number of short-range ballistic missiles and land-attack cruise missiles vary. According to the Taiwan Ministry of National Defense's August 2015 report on China's military power for the Legislative Yuan, China has 1,700 ballistic and cruise missiles, and 1,500 of these missiles are deployed against Taiwan. Senate Armed Services Committee, *Hearing on Worldwide Threats*, written testimony of Vincent R. Stewart, February 26, 2015; Zhu Ming, "Ministry of National Defense: China Keeps 1,500 Missiles Deployed against Taiwan," *Storm Media* (Taiwan), August 31, 2015. Staff translation.

fields should Beijing choose to do so. Although it has not greatly expanded in size since the late 2000s, China's short-range ballistic missile arsenal has become more lethal with the introduction of new missile variants with longer ranges and improved accuracies and warheads.¹⁴⁰

- The PLA Air Force and Navy have about 2,100 combat aircraft, of which approximately 600 are modern.*¹⁴¹ Fewer than 330 of Taiwan's combat aircraft are modern. As part of its efforts to further enhance the capabilities of its fleet of combat aircraft, China signed a contract with Russia to purchase 24 Su-35 fighter aircraft in November 2015.¹⁴² China is also developing the J-20 fifth-generation fighter aircraft and has already tested its fifth and sixth prototypes of the aircraft.¹⁴³
- The PLA Navy has more than 300 surface combatants, submarines, and missile-armed patrol craft, in addition to China's highly capable coast guard and maritime militia.¹⁴⁴ Taiwan, on the other hand, has 90 naval combatants, comprising four submarines† and 86 surface ships.‡¹⁴⁵ As China's naval modernization continues, an increasing percentage of these ships will be modern§ and feature advanced weaponry. For example, the PLA Navy recently has acquired a land-attack capability, as the new LUYANG III-class guided missile destroyer is capable of launching land-attack cruise missiles.¹⁴⁶ In addition, China continues to enhance its amphibious capabilities.¹⁴⁷ Most recently, in January 2016, the PLA Navy launched a new tank landing ship and in March 2016 it commissioned three others.¹⁴⁸ (See Chapter 2, Section 1, "Year in Review: Security and Foreign Affairs," for more information on developments in Chinese military modernization.)

In its preparation for a Taiwan contingency, the PLA conducts a variety of exercises, including antisurface warfare and amphibious exercises, and it has increased the complexity and realism of these exercises.¹⁴⁹ For example, the PLA conducted an amphibious landing exercise in an undisclosed location off of southeastern China in May 2016. The forces involved in the exercise belonged to the 31st Group Army from the Eastern Theater Command, the theater command that is responsible for contingencies involving Taiwan and

* "Modern" combat aircraft are defined as possessing advanced avionics and weapons systems. These aircraft include the J-10, J-11, JH-7, Su-27, and Su-30. For more information on the Commission's definition of "modern" combat aircraft, see U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 309.

† Two of these submarines are only used for training.

‡ Taiwan's coast guard is in the midst of a ten-year shipbuilding program that will bring its forces to 173 ships. Taiwan does not have a maritime militia. Mrityunjay Mazumdar, "Taiwanese Coast Guard Launches OPV amid Ongoing Force Development Programme," *Jane's Defence Weekly*, May 28, 2015.

§ In reference to China's submarine force, the term "modern" is used in this Report to describe a submarine capable of employing antiship cruise missiles or submarine-launched intercontinental ballistic missiles. These include the JIN nuclear ballistic missile submarine, SHANG nuclear attack submarine (SSN), SONG diesel attack submarine (SS), KILO 636 SS, and YUAN diesel air-independent power attack submarine. In reference to China's surface force, the term "modern" is used to describe a surface ship that possesses a multi-mission warfare capability, is armed with more than a short-range air defense capability, and has the ability to embark a helicopter. These include the following: LUHU destroyer (DD), LUHAI DD, LUZHOU guided missile destroyer (DDG), LUYANG I/II/III DDG, SOVREMENNYY I/II DDG, JIANGWEI I/II frigate (FF), JIANGKAI I FF, and JIANGKAI II guided missile frigate. For more information on the Commission's definition of "modern" submarines and surface ships, see U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 300.

Japan. The exercise included amphibious armored assault vehicles, helicopters, and special operations forces attacking a hypothetical enemy beach.¹⁵⁰

China's large defense expenditures are a major challenge for Taiwan. China's defense budget grew by double digits almost every year between 2005 and 2015,* increasing the official defense spending gap to more than \$130 billion. In contrast, Taiwan's defense budget has grown modestly.¹⁵¹ The defense budget submitted by Taiwan's Executive Yuan for 2016 of 321.7 billion New Taiwan Dollars or \$9.8 billion (about 2 percent of GDP) represented an increase of 2.8 percent over the 2015 budget.¹⁵² In 2016, China's announced military budget grew by single digits for the first time since 2010 with an increase of 7.6 percent to 954.35 billion renminbi or \$146.7 billion (1.3 percent of projected GDP).[†]¹⁵³ The slow growth of Taiwan's defense budget was due to a number of factors, including: the improvement in cross-Strait relations that reduced the concern of some in Taiwan regarding China's military threat to Taiwan; growing competition for government resources, particularly from social welfare programs; increasing government debt; partisan political wrangling; and uncertainty about the future of U.S. arms sales to Taiwan, particularly requested sales that Taiwan factors into its budget but are not completed due to delays resulting from unresolved issues on both sides.¹⁵⁴ In the years prior to President Tsai's election, the DPP promised to raise Taiwan's defense budget to 3 percent of GDP.¹⁵⁵ However, in June 2016, Taiwan Premier Lin Chuan said the 2017 defense budget would not reach that level due to financial constraints.¹⁵⁶

Faced with a growing threat from PLA modernization, Taiwan has sought to enhance its military capabilities in part by indigenously developing platforms and weapons systems. Advanced anti-ship cruise missiles, air defense missiles, and fast attack and stealthy catamaran-style patrol ships are among the newest platforms and weapons systems that Taiwan has produced. Some of the developments in Taiwan's procurement of domestic military equipment over the past year include the following:

- *Missile corvette*: Taiwan's TUO JIANG-class catamaran-style missile corvette is projected to enter serial production in 2018.¹⁵⁷ Taiwan commissioned the first ship in this class in March 2015, and after identifying several areas in which the ship needed improvement, has since created a new design for serial production.¹⁵⁸ Taiwan may build up to 11 more ships in the TUO JIANG-class. The new corvette has stealth features and better range, endurance, and sea-keeping ability than Taiwan's other patrol ships, and it is equipped with 16 anti-ship cruise missiles.¹⁵⁹ It also has two torpedo tubes and a towed sonar array.¹⁶⁰ These features will enhance the survivability and lethality of Taiwan's antisurface and antisubmarine forces in a potential cross-Strait conflict.¹⁶¹

* This measurement is according to China's announced defense budgets, not actual aggregate spending. China's announced budget omits major defense-related expenditures, such as purchases of advanced weapons, R&D programs, and local government support to the PLA.

† See Chapter 2, Section 1, "Year in Review: Security and Foreign Affairs," for more information on China's defense budget.

- *Naval combat system:* Taiwan is developing the Hsun Lien combat system with which it will equip ships across the Taiwan Navy.¹⁶² With Hsun Lien, Taiwan seeks to develop a combat system that can track and engage numerous targets in various domains in order to enhance Taiwan's fleet air defense against China's antiship cruise missiles as well as the Taiwan Navy's ability to attack the PLA Navy's surface combatants and submarines.¹⁶³
- *Submarines:* Taiwan is moving ahead with its plan to indigenously build submarines with foreign assistance. The Tsai Administration has expressed hope that the U.S. government will assist with this process.¹⁶⁴ Taiwan has begun to design the indigenous submarine, a stage it hopes to complete by 2019, and announced the opening of its development center.¹⁶⁵ Taiwan currently has four submarines; two are operational Zwaardvis-class submarines and two are decommissioned U.S. Navy GUPPY-class submarines (which have undergone upgrades since the 1940s) used only for training.¹⁶⁶ The Taiwan Navy's already limited ability to conduct antisurface warfare against China's expanding fleet of modern surface ships will continue to erode as Taiwan's submarine force ages.

Taiwan also seeks to enhance its military capabilities through procurement of military platforms and weapons systems from overseas. Select military equipment Taiwan is acquiring from the United States* includes the following (see also the discussion on arms sales, military-to-military contacts, and U.S.-Taiwan defense relations in "U.S.-Taiwan Relations," later in this section):

- *F-16 fighter upgrade:* Taiwan and the United States continue to move forward with the upgrade of Taiwan's 144 F-16 A/B fighter aircraft. Following the initial flight in October 2015 of the first two upgraded fighters, which were built by Lockheed Martin, the chairman of the board of Taiwan's Aerospace Industrial Development Corporation announced in May 2016 that the company's facility in Taiwan—where the upgrade for the rest of the fleet will occur—is projected to be completed by the end of 2016, and the upgrade will begin in 2017.¹⁶⁷ The most important part of the upgrade is the installation of active electronically scanned array scalable agile beam radar made by Northrup Grumman.¹⁶⁸ This radar will enable Taiwan's F-16s to better detect China's advanced combat aircraft.¹⁶⁹
- *P-3C Orion maritime patrol aircraft:* By July 2016, Taiwan was projected to receive the remaining two of 12 P-3C antisubmarine aircraft it purchased from the United States in 2007 (they had not been delivered at the time this Report went to print).¹⁷⁰ The P-3Cs, which began arriving in 2013, will replace the Taiwan Air Force's fleet of 11 S-2T antisubmarine aircraft that have been in service for over 40 years.¹⁷¹ The P-3C will increase the capabilities and endurance of the Taiwan

*Although the United States is Taiwan's most important source of advanced military equipment, companies based in Germany and Singapore, among other countries, supplied technology for Taiwan's TUO JIANG-class missile corvette. Wendell Minnick, "Taiwan Navy Accepts New Catamaran," *Defense News*, December 31, 2014.

military's fixed-wing maritime patrol aircraft force, improving Taiwan's ability to perform antisubmarine warfare and intelligence, surveillance, and reconnaissance missions.¹⁷²

Defense Policy and Strategy under the Tsai Administration

During its first year in office, the Tsai Administration further articulated its defense policies and defense strategy, which will build on and refine the policy platform expressed by the DPP and President Tsai in recent years and during her campaign.* In a May 2015 policy paper, the DPP announced that a DPP administration would initiate an open defense policy discussion and issue its own quadrennial defense review within ten months of taking office.¹⁷³ Between June 2013 and May 2015, the New Frontier Foundation, the DPP's think tank, issued 12 defense-related policy papers that call for: building and acquiring asymmetric platforms; creating a new military service for cybersecurity and electronic warfare; bolstering missile defense capacity; building improved combat survivability against missile strikes; restructuring the ground force into specialized rapid response units; and maintaining capabilities in air and sea control.¹⁷⁴ In May 2016, following President Tsai's inauguration, Minister of Defense Feng Shih-kuan told the Foreign Affairs and National Defense Committee of the Legislative Yuan that the Administration would move forward with establishing the new cyber service of the military.¹⁷⁵

Support for Taiwan's defense industry and indigenous R&D are major components of President Tsai's defense policy. Three of the New Frontier Foundation's 12 defense policy papers focus on these issues and President Tsai held a press conference in October 2015 to discuss her defense industrial policy. During the press conference she outlined the three areas of domestic defense technology on which her administration would focus its efforts: aviation and aerospace, shipbuilding, and cybersecurity. She specifically called for the development of a new trainer aircraft and next-generation fighter aircraft and pledged that Taiwan would begin the development of a prototype of an indigenous submarine in 2016, with a plan for the first boat to be launched in ten years.¹⁷⁶ Regarding funding for such programs, in addition to the DPP's pledge to restore defense spending to 3 percent of GDP annually, one of the DPP's policy papers advocated for 70 percent of all new defense spending to go toward "military investments," including procurement of weapons and equipment, defense construction, and R&D.¹⁷⁷ Another policy paper also set the goal that by 2020 no less than 60 percent of these military investments will be spent on indigenous R&D.¹⁷⁸

President Tsai will continue Taiwan's building of an all-volunteer force, which began under former President Ma. During her campaign she advocated for several changes to military personnel policy and voiced support for slowing the transition away from con-

*President Tsai faced an early challenge in her tenure as commander-in-chief of the Taiwan military when a Taiwan Navy patrol ship accidentally launched an antiship cruise missile during an exercise and the missile struck a Taiwan fishing boat, killing the captain and injuring three crew members. The subsequent investigation found that procedural errors by crew members led to the accidental launch of the missile. Chen Wei-han, "MND Explains Cause of Missile Incident," *Taipei Times*, August 30, 2016.

scription.¹⁷⁹ Taiwan's transition to an all-volunteer force has been far more costly than expected, increasing budgetary pressure on R&D as well as operations and maintenance funding.¹⁸⁰ To find additional savings, Taiwan in 2013 decided to reduce its active duty force from 275,000 to 215,000 by 2015,¹⁸¹ and had planned to reduce the force to 170,000 by the end of 2019.¹⁸² The Legislative Yuan passed a resolution to suspend the latter reduction.¹⁸³ Taiwan has struggled with recruitment and retention, and despite recent improvements, the Ministry of National Defense's projection for personnel at the end of 2016 was still below the force level it assessed to be necessary to meet Taiwan's defense needs.¹⁸⁴ Therefore, the ministry decided to conscript approximately 23,100 men in 2016 for one year of compulsory active duty service.¹⁸⁵

Taiwan Military Training and Activities

The Taiwan military routinely conducts a range of exercises to maintain combat readiness; integrate new weapons systems and tactics; test and improve its capabilities; and demonstrate to the Taiwan people, China, and others that it has a credible deterrence capability. In 2016, select major exercises and activities included the following:

- *Antisubmarine exercise:* In January 2016 the Taiwan Navy conducted antisubmarine reconnaissance and escort exercises involving an antisubmarine helicopter, a frigate, a destroyer, a replenishment vessel, and a missile patrol ship.¹⁸⁶
- *Han Kuang exercises:* Taiwan's annual Han Kuang exercises began in April with a five-day, computer-assisted command post exercise, a combat simulation exercise in which commanders, staff, and communications personnel participate.¹⁸⁷ Live-fire exercises were held in August and were scheduled to be held again between October and November.¹⁸⁸ The live-fire exercises in August included information and electronic warfare, joint air defense, counter airborne and amphibious landing, joint antisubmarine warfare, and reserve mobilization, among other missions.¹⁸⁹ The exercises were held at many locations across Taiwan, including offshore islands. For the first time, civilian information technology specialists were recruited to participate in the cyber defense and attack portions of the exercises.¹⁹⁰

China's Espionage against Taiwan

China's aggressive intelligence activities against Taiwan pose a threat to Taiwan's security and to the security of U.S. military information and equipment to which Taiwan has access. (See Chapter 2, Section 3, "Chinese Intelligence Services and Espionage Threats to the United States," for more information on Chinese intelligence operations.)

These activities showed no sign of abating during the eight years of cross-Strait rapprochement.¹⁹¹ Many cases of Chinese espionage against Taiwan have come to light in recent years.¹⁹² According to a report by Taiwan's National Security Bureau, in 2014 there were 15 cases of alleged spying.¹⁹³ In his written testimony for the Com-

mission's hearing on Chinese intelligence services and espionage threats to the United States, David Major, the founder and president of CI Centre, presented a list with the names of 56 individuals who were arrested or indicted in Taiwan due to their alleged involvement in Chinese espionage plots over the past 14 years. According to Mr. Major, these were plots to "accrue the most significant technology and intelligence from [Taiwan's] military and all three intelligence services. Much of this technology was developed by the U.S. defense community in the United States and sold to Taiwan. Justifiable concerns about the security of U.S. defense systems sold to Taiwan is a byproduct of this espionage activity."¹⁹⁴

The increased travel between Taiwan and China that resulted from the warming of cross-Strait ties under the Ma Administration increased Taiwan's vulnerability to espionage by expanding China's opportunities for intelligence operations against Taiwan targets in both Taiwan and China. With its loosening of regulations on Chinese tourists, Taiwan has allowed individuals to travel independently without a tour group. Among other espionage risks, this development has made ensuring the security of Taiwan defense installations more difficult. Taiwan's *Liberty Times* reported that in October 2015 many Chinese independent travelers were riding electric scooters and bicycles taking pictures of the Jioupeng Military Base, where Taiwan tests missiles.¹⁹⁵

In the face of the Chinese espionage threat, the Taiwan military has implemented measures to impede Chinese intelligence activities. Peter Mattis, China fellow at the Jamestown Foundation, writes that "Taiwan has made several substantial efforts to improve security—including trip reporting and routine polygraphs for personnel with sensitive access as well as boosting its counterintelligence staff—and serious offenders can, but not always, receive heavy prison sentences."¹⁹⁶

William Stanton, former director of the American Institute in Taiwan and current director of Taiwan's National Tsinghua University's Center for Asia Policy, said in 2013 that cases of Chinese espionage against Taiwan "have been harmful not only because of the potential loss of unknown quantities of classified information, but also because their success and frequency serves to undermine U.S. confidence in security cooperation with Taiwan."¹⁹⁷ However, Mr. Major testified to the Commission that "if the USA begins to slowdown or stop the transfer of needed technology and information with Taiwan for fear of espionage loss then the PRC wins and Taiwan is doomed."¹⁹⁸ He noted that "during the period 2001 to 2016 154 individuals arrested in the USA were involved in providing sensitive information and/or technology to entities in China. Thus PRC 'espionage' is a problem and reality for both [Taiwan], the USA and the world as a whole."¹⁹⁹

Beyond Chinese espionage, Taiwan faces the challenge of Chinese political warfare. A scholar told the Commission that China conducts influence operations against Taiwan through academic institutions, cultural groups, and artistic organizations.²⁰⁰ Chinese political warfare not only seeks to affect views within Taiwan but also views of Taiwan held by people in other countries. For example, Mr. Cole wrote that some of the ways that China conducts political warfare against Taiwan are through PLA "officers at inter-

national conferences (if they speak good English, they are likely political warfare officers) and through comments to the media (including specialized publications such as *Defense News*) portraying the Taiwanese military apparatus as incompetent, careless, and/or entirely penetrated by Chinese intelligence.”²⁰¹ These activities are part of a longstanding and extensive effort by Beijing that is ultimately aimed at subjugating Taiwan under Beijing’s rule by influencing views of China within Taiwan, undermining Taiwan’s status in the international community, and sowing distrust between Washington and Taipei.²⁰²

U.S.-Taiwan Relations

Political Relations in the Tsai Ing-wen Era

U.S.-Taiwan relations are on track to expand on the growth in cooperation and mutual trust that developed during the Ma Administration. During her speech in Washington, DC in 2015, now President Tsai emphasized that Taiwan will be a reliable partner of the United States, and in an op-ed published by the *Wall Street Journal* during her trip she described the United States as “Taiwan’s most important strategic partner” and advocated for “broadening multi-faceted cooperation with the [United States].”²⁰³ Later, in September 2015, she explained that Taiwan’s relationship with the United States and other like-minded democracies will be based on “mutual trust, respect, and communication.”²⁰⁴ Immediately following President Tsai’s election, the U.S. government praised Taiwan’s democracy and expressed its anticipation for partnering with the Tsai Administration and its appreciation to then President Ma for his contribution to strengthening U.S.-Taiwan relations.²⁰⁵ In the following months, other U.S. officials expressed praise for Taiwan’s democracy.²⁰⁶ In Congressional testimony in February on U.S.-Taiwan relations, Deputy Assistant Secretary of State in the Bureau of East Asian and Pacific Affairs Susan Thornton said, “The people on Taiwan have built a prosperous, free, and orderly society with strong institutions, worthy of emulation and envy. . . . Last month’s free and fair elections were yet another victory for Taiwan’s vibrant democracy.”²⁰⁷ Prior to President Tsai’s inauguration, Deputy Assistant Secretary Thornton also expressed support for President Tsai’s approach to cross-Strait relations. In an interview with Taiwan’s Central News Agency she said, “I think there has been a very good political basis laid for the continuation of cross-strait exchanges, as President-elect Tsai also has mentioned.”²⁰⁸

Trade and Investment

President Tsai’s emphasis on the importance of Taiwan’s relations with the United States, on strengthening economic partnerships beyond China, and on Taiwan joining TPP almost certainly will help to deepen U.S.-Taiwan economic ties during her administration.

In 2015, Taiwan became the United States’ ninth largest trading partner, surpassing India, Italy, and Brazil.²⁰⁹ Bilateral trade to-

taled \$66.6 billion, a 1.2 percent decline since 2014.*²¹⁰ The United States exported \$25.9 billion in goods to Taiwan and imported \$40.7 billion in goods from Taiwan.²¹¹ Taiwan is also the seventh-largest importer of U.S. agricultural products.²¹² The United States remained ahead of Japan as Taiwan's second largest trading partner.[†]²¹³ The United States is Taiwan's third largest export market and source of imports.²¹⁴ The top U.S. exports to Taiwan include industrial machinery, semiconductors, civilian aircraft, and military equipment.²¹⁵ The top U.S. imports from Taiwan include semiconductors, telecommunications equipment, vehicle parts, cellular phones, and computer accessories.²¹⁶ In addition, the United States is Taiwan's largest source of FDI.²¹⁷ Taiwan is the 29th largest investor in the United States in terms of total stock of FDI, and Taiwan companies employed more than 12,000 U.S. workers as of 2013. Taiwan is also a major participant in the U.S. Department of Commerce's SelectUSA Investment Summit.[‡]²¹⁸

Although U.S.-Taiwan economic ties remain strong, substantive progress in some areas of ongoing trade and investment negotiations slowed in recent years.²¹⁹ Both sides discuss bilateral economic issues primarily through a Trade and Investment Framework Agreement (TIFA), established in 1994. The last TIFA meeting was held in October 2016, during which the United States and Taiwan discussed a range of bilateral economic issues, including agriculture, pharmaceuticals and medical devices, intellectual property rights protection, trade barriers, and investment.²²⁰ However, the two sides have yet to resolve a dispute over U.S. pork imports, one of the most contentious issues in the economic relationship.²²¹ Although Taiwan loosened some restrictions on residual levels of ractopamine § in U.S. beef imports in 2012, it maintains these restrictions on pork imports. Several key roadblocks to overturning restrictions include pressure from Taiwan's pork industry and Taiwan citizens' aversion to the use of ractopamine in pork production.²²² The Tsai Administration has not announced whether or not it will remove the restrictions.

One area with great potential for expanding the scope of U.S.-Taiwan economic relations is cooperation in the information and communications technology (ICT) industry. According to Lotta Danielsson, vice president of the U.S.-Taiwan Business Council, who spoke at an event at the Center for Strategic and International Studies in August 2016, Taiwan has evolved from a purely

*Trade statistics from the U.S. Census Bureau in this section include re-exports and re-imports.

†Trade statistics from Taiwan's Bureau of Foreign Trade in this section exclude re-exports and re-imports.

‡The U.S. Department of Commerce's SelectUSA program helps foreign companies invest in the United States and assists U.S. economic development organizations in attracting FDI. The annual SelectUSA Investment Summit is the program's most high-profile conference for promoting FDI in the United States. U.S. Department of Commerce, "SelectUSA."

§ Taiwan banned imports of U.S. beef because Taiwan citizens were concerned safeguards to prevent mad cow disease were insufficient and because U.S. farmers' use of ractopamine, a controversial feed additive that promotes leanness in meat. Ractopamine is widely used in U.S. pork and beef production, but Taiwan, the EU, and China have banned the use of ractopamine based on health and safety concerns. The issue was partially resolved when the Taiwan government established a maximum residue limit for ractopamine in beef in September 2012, allowing U.S. beef exports greater access to Taiwan. In 2013, the U.S. became Taiwan's largest beef supplier by value. J.R., "Gored," *Banyan Asia (Economist blog)*, March 8, 2012; Shirley Kan and Wayne Morrison, "U.S.-Taiwan Relationship: Overview of Policy Issues" *Congressional Research Service*, April 22, 2014, 34-36; and Cleo Fu and Emily Scott, "U.S. Beef Exports to Taiwan Realize 2013 as Record Year," *USDA Foreign Agricultural Service*, March 31, 2014.

trade-based partner to an innovation partner of the United States.²²³ Cooperation in R&D between the United States and Taiwan is strong. U.S. companies HP, DuPont, and Dell have R&D centers in Taiwan; and Google and IBM have cloud computing centers in Taiwan.²²⁴ The U.S. and Taiwan governments hosted the inaugural U.S.-Taiwan Digital Economy Forum in December 2015. In an upcoming meeting later this year, both sides will continue to focus on bilateral collaboration on cross-border ICT applications, legal and regulatory frameworks, the expansion of global ICT connectivity, data privacy, and intellectual property protection.²²⁵

Military and Security Cooperation

U.S.-Taiwan security cooperation includes arms sales, training, advising, exchanges, and equipment maintenance.²²⁶ This partnership helps Taiwan enhance its ability to deter and, if necessary, defend against an attack from the Chinese military.

On December 16, 2015, the U.S. Department of State notified Congress* that it had approved the potential sale of \$1.83 billion in arms to Taiwan,²²⁷ including the following items: (1) two refurbished and upgraded OLIVER HAZARD PERRY-class guided-missile frigates; (2) AAV-7 amphibious assault vehicles; (3) Javelin antitank missiles; (4) BGM-71F tube-launched, optically-tracked, wireless-guided (TOW) antitank missiles; (5) man-portable Stinger missiles; (6) MK-15 Phalanx close-in weapons systems (CIWS); (7) Multifunctional Information Distribution System Low Volume Terminals (MIDS/LVT-1) and Joint Tactical Information Distribution System (JTIDS) data communications support; and (8) Taiwan Advanced Tactical Data Link System (TATDLS) and Link-11 communication systems integration (see Table 1).²²⁸

This most recent notification brings the value of the Obama Administration's total notifications of Taiwan arms sales to Congress to over \$14 billion.²²⁹ Despite the large value of arms sales notifications, the Administration's prior notification occurred more than four years before in 2011. The package also did not include advanced fighter aircraft and assistance to Taiwan's indigenous submarine program, in which Taiwan has expressed interest. Although the time period between notifications to Congress was almost certainly affected by concern within the executive branch about the impact of arms sales to Taiwan on U.S.-China relations,²³⁰ budgetary constraints in Taiwan also likely were a factor. Ongoing payments for U.S. weapons that were notified previously likely put pressure on Taiwan's budget.²³¹

*The executive branch is required to notify Congress of arms sales through the foreign military sales process that meet or exceed the following values: \$14 million in major defense equipment, \$50 million in defense articles or services, and \$200 million in design and construction services. Paul K. Kerr, "Arms Sales: Congressional Review Process," *Congressional Research Service*, April 19, 2016.

Table 1: 2015 U.S. Arms Package and Its Utility in a Cross-Strait Conflict

Platforms, Weapons, and Systems	Utility in a Cross-Strait Conflict
Two PERRY-class guided missile frigates (refurbished)	These general-purpose escort ships, which will be equipped for antisubmarine, surface-to-surface, and surface-to-air operations ²³² would help Taiwan protect other ships against PLA submarines, surface combatants, and aircraft.
36 AAV-7 Amphibious Assault Vehicles	The AAV-7s will strengthen the expeditionary capability and mobility ²³³ of the Taiwan Marine Corps and would help Taiwan deploy troops along Taiwan's coastline in the event of an invasion.
208 Javelin antitank missiles	These portable missiles ²³⁴ would help Taiwan defend against PLA tanks, mechanized infantry, and helicopters.
769 BGM-71F TOW 2B-Aero antitank missiles	With a range of 4.5 kilometers (3 miles), ²³⁵ these missiles would help Taiwan engage PLA tanks and mechanized infantry at a distance.
250 Stinger surface-to-air missiles	These missiles, with a range of five miles, ²³⁶ would help Taiwan engage PLA aircraft approaching or over Taiwan.
13 MK-15 Phalanx CIWS guns	The Phalanx CIWS is a close-range point-defense system ²³⁷ and would help to defend Taiwan's surface combatants against PLA missiles and aircraft.
Support for MIDS/LVT-1 and JTIDS	MIDS—a command, control, communications, computers, and intelligence system—and JTIDS—a radio communications system ²³⁸ —would enhance communication and coordination across the Taiwan military during a cross-Strait conflict.
TATDLS and Link-11 Integration	TATDLS is a beyond line-of-sight datalink system that would enhance communication, data sharing, and integration between Taiwan's surface ships. ²³⁹

Source: Information about the number and type of each weapons system is compiled from U.S. Defense Security Cooperation Agency, "Major Arms Sales," December 16, 2015.

The items in the December 2015 announcement will provide modest improvements to Taiwan's military capabilities.²⁴⁰ Mr. Cole wrote about the package, "Political symbolism aside, this week's arms package does have some defensive value."²⁴¹ Moreover, the announcement sent a message to Beijing and Taipei that the United States remains committed to Taiwan's defense.

Military-to-military contacts between the United States and Taiwan have dramatically increased in recent years. According to Deputy Assistant Secretary Thornton, the number of annual "security cooperation events" with Taiwan has nearly doubled in recent years.²⁴² Furthermore, the number of U.S. Department of Defense personnel visiting Taiwan increased from around 1,500 in 2012 to more than 3,200 in 2015.²⁴³ Among other areas of training, the United States provides training to Taiwan fighter pilots, special operations personnel, and rapid runway repair personnel, and Taiwan military personnel study at U.S. military institutions.²⁴⁴

Nevertheless, the U.S. government practice of limiting the highest rank of U.S. military personnel who can visit Taiwan to colonels and captains (O6 level) prevents the most senior U.S. officers from gaining firsthand knowledge of the Taiwan military and the operational environment in a potential cross-Strait conflict.*²⁴⁵ In addition, Taiwan is not invited to a number of major U.S.-led military exercises, such as the biennial Rim of the Pacific (RIMPAC) exercise—which included China in 2014 and 2016—and the Red Flag air-to-air combat training exercise, and other security exercises, such as the biennial cybersecurity exercise Cyber Storm. Participating in such exercises, even as an observer, could help Taiwan enhance its ability to defend itself and provide the Taiwan military with more opportunities to interact with other militaries.

Other Areas of Cooperation

Beyond commercial and security ties, U.S.-Taiwan relations span many other areas, including environmental protection and humanitarian assistance and disaster relief.²⁴⁶ One of the most dynamic U.S.-Taiwan initiatives is the Global Cooperation and Training Framework, which the two countries established in June 2015. Through this initiative, the United States and Taiwan jointly train experts from the Asia Pacific in areas including the empowerment of women, public health, energy, and information and communication technology.²⁴⁷ Taiwan has already hosted several programs under the initiative, such as a training course for laboratory professionals on diagnosing, preventing, and responding to Middle East Respiratory Syndrome, and a training course for government officials and health care professionals on the prevention and control of dengue fever.²⁴⁸

Another area where the United States and Taiwan are collaborating is cybersecurity. In May, a delegation led by Assistant Secretary of Commerce for Industry and Analysis Marcus Jadotte visited Taiwan to attend the first-ever U.S.-Taiwan Cyber Security Forum and advance cybersecurity cooperation.²⁴⁹ Assistant Secretary Jadotte and the Taiwan Computer Association signed a statement of intent, which the assistant secretary said “calls for both sides to explore ways to work together to counter cybersecurity risks and make the Internet a safer place for individuals and businesses.”²⁵⁰ The delegation included representatives of companies such as Cisco Systems and Lockheed Martin.²⁵¹

Taiwan’s Role in the U.S. Rebalance to Asia

In May 2015, the Obama Administration provided its most detailed explanation of Taiwan’s role in the U.S. Rebalance to Asia

*The versions of the National Defense Authorization Act for Fiscal Year 2017 passed by the Senate (S. 2943) and the House (H.R. 4909) include a sense of Congress that “the Secretary of Defense should conduct a program of senior military exchanges between the United States and Taiwan that have the objective of improving military-to-military relations and defense cooperation between the United States and Taiwan.” The exchanges would occur at least once a year in the United States and in Taiwan and would involve active-duty general or flag officers and civilian Department of Defense officials at the level of assistant secretary of defense or above. The bill was still in conference negotiations at the time of the publication of this Report. Joe Gould, “Congress Girds for Defense Spending, Policy Fights,” *Defense News*, September 2, 2016; National Defense Authorization Act for Fiscal Year 2017, S. 2943, 114th Cong., 2nd Sess., July 7, 2016; and National Defense Authorization Act for Fiscal Year 2017, H.R. 4909, 114th Cong., 2nd Sess., May 26, 2016.

strategy. (See Chapter 4, “China and the U.S. Rebalance to Asia,” for more information on the Rebalance to Asia strategy.) U.S. Secretary of State John Kerry, in a written response to a question from the House Foreign Affairs Committee, described deepening U.S.-Taiwan engagement on trade and investment, cooperating on regional economic integration through the Asia Pacific Economic Cooperation forum, and making available U.S. defense articles and services to Taiwan. He said, “Collectively, these activities demonstrate our continued commitment to Taiwan’s peace, security, and prosperity as part of the U.S. rebalance.”²⁵² Prior to Secretary of State Kerry’s letter, other U.S. officials have mentioned Taiwan’s role in the Rebalance but have not elaborated about how Taiwan fits into the strategy.²⁵³ This lack of clarity could be due to concerns about the impact on U.S.-China relations of openly emphasizing Taiwan in the strategy.

The Tsai Administration is striving for Taiwan to be included in the second round of negotiations of TPP, which has been described by Obama Administration officials as the central economic component of the Rebalance strategy. In her meeting with the delegation led by Assistant Secretary Jadotte in May, President Tsai said, “The 12 TPP member states account for 37 percent of Taiwan’s total trade. It’s crucial for us to join TPP.”²⁵⁴ Some analysts have advocated for the United States to support Taiwan’s bid to join TPP.²⁵⁵ A place in TPP would enable Taiwan to participate more fully in regional economic integration and expand market access for its exports,²⁵⁶ supporting its efforts to diversify its export markets. One business representative in Taiwan told the Commission that joining TPP is a crucial step toward ensuring Taiwan maintains its economic competitiveness.²⁵⁷ For the United States, Taiwan’s participation in TPP would allow U.S. companies greater access to Taiwan’s economy,²⁵⁸ which ranks 22nd in the world in terms of GDP by purchasing power parity and is larger than the economies of half of the current TPP member countries.²⁵⁹ In addition, Dr. Bush and Joshua Meltzer, senior fellow in global economy and development at the Brookings Institution, explained that by including Taiwan, TPP would include an “important driver of trade and investment in the Asia Pacific region.”²⁶⁰ Scholars at the Chung-Hua Institute for Economic Research in Taiwan told the Commission that even if Taiwan is unable to join TPP, carrying out the economic reforms necessary to meet TPP’s standards, including a better regulatory environment and increased government transparency, will benefit Taiwan.²⁶¹ Another scholar added that these reforms also would improve Taiwan’s prospects for a free trade agreement with the United States.²⁶²

Other ideas raised in recent years for enhancing U.S. engagement with Taiwan include increasing science and technology and defense-industrial cooperation, expanding U.S.-Taiwan joint training programs in various fields for experts from third countries, collaborating with the Taiwan military to enhance maritime domain awareness in the Pacific Ocean, and inviting Taiwan to participate in U.S.-led multilateral military exercises.²⁶³ In February 2016, Randall Schriver, president and chief executive officer of the Project 2049 Institute, in testimony to Congress stated, “The Taiwanese economy has long relied upon maintaining a technological

comparative advantage, and sustaining this advantage is an important driving force shaping the future of the region. . . . The U.S. and Taiwan could deepen and broaden their economic relationship by expanding [science and technology] cooperation. Additionally, [science and technology] cooperation could help Taiwan maintain its technological advantage and produce mutually beneficial innovations.”²⁶⁴ In March, at an event at the George Washington University, Mr. Shriver suggested that the United States consider expanding the U.S.-Taiwan Global Cooperation and Training Framework to include other like-minded countries, such as Australia, Japan, and India, among the trainers and to include training in areas such as antipiracy and counterterrorism.²⁶⁵

Scholars in Taiwan told the Commission that humanitarian assistance and disaster relief and search and rescue are areas with great potential for expanded U.S.-Taiwan cooperation. They said that Taiwan has very capable humanitarian assistance and disaster relief and search and rescue forces and pointed out that the second-largest humanitarian assistance and disaster relief training center in East Asia is in Taiwan.²⁶⁶ One example of U.S.-Taiwan cooperation in humanitarian assistance and disaster relief occurred in 2010 when a Taiwan Air Force transport aircraft landed in the United States to refuel during its flight to deliver relief supplies to Haiti following a major earthquake.²⁶⁷ The previous year, after Typhoon Morakot hit Taiwan, the U.S. military assisted with the recovery effort by transporting construction vehicles and equipment and relief supplies to the affected areas.²⁶⁸

Implications for the United States

Taiwan’s presidential and legislative elections in January 2016 once again demonstrated the vibrancy of its democracy and the common values that are one of the pillars of U.S.-Taiwan relations. The elections also demonstrated that Taiwan is a model for other countries in the region and around the world. As Kurt Tong, principal deputy assistant secretary in the Department of State’s Bureau of Economic and Business Affairs, explained in a speech about Taiwan in March 2016, “Taiwan’s evolution into a robust democracy, and a strong free market economy, with a vibrant civil society, make it a model for others.”²⁶⁹

Taiwan’s robust democracy, civil society, and technology sector, and its vast expertise and experience in various areas, such as humanitarian assistance and disaster relief, make it a strong partner for the United States in facing global challenges. As the United States seeks to engage in capacity building in the Asia Pacific, Taiwan is assisting with these efforts through the Global Cooperation and Training Framework.

Taiwan also is a contributor to regional peace and stability through its efforts to promote the setting aside of territorial disputes and joint resource development in the East and South China seas. Two examples of this policy are the fisheries agreements that Taiwan signed in recent years with Japan and the Philippines, respectively. Other actions by Taiwan that support U.S. objectives of rule of law and peaceful resolution of disputes include taking steps

to clarify its claims in the South China Sea and expressing support for multilateral negotiations on the South China Sea.²⁷⁰

Going forward, in this new period of cross-Strait relations following the election of President Tsai, whether tension between Taiwan and China will increase is unclear. Should tension grow significantly, the United States may have to devote more attention to cross-Strait relations. Furthermore, Ms. Glaser writes that “a spike in cross-Strait tension increases the risk of a wider conflict through political and even military escalation, which could draw in the United States.”²⁷¹ Beijing further limited Taiwan’s participation in international organizations, which is not in U.S. interests. Taiwan has much to contribute to the international community in areas including aviation safety, public health and combating the spread of infectious diseases, and law enforcement and fighting transnational crime.²⁷²

The U.S.-Taiwan security partnership contributes to regional peace and stability by enhancing Taiwan’s ability to deter an attack by the Chinese military. However, China’s military modernization presents a significant challenge both to Taiwan’s ability to defend itself and to the United States’ ability to intervene effectively in a cross-Strait conflict should it choose to do so. It also improves China’s ability to use the threat of military force to coerce Taiwan into making political concessions.

Conclusions

- In 2016, Taiwan held historic elections, in which Tsai Ing-wen of the Democratic Progressive Party (DPP), was elected Taiwan’s first female president and the DPP gained an absolute legislative majority for the first time. Despite President Tsai’s pragmatic cross-Strait policy focused on maintaining the status quo, Beijing appears to remain skeptical of President Tsai and has applied pressure on her administration with various statements and actions.
- China remains Taiwan’s largest trading partner, biggest export market, and top source of imports. However, cross-Strait trade has slowed, in large part due to the negative impact of China’s economic slowdown and the emergence of Chinese competitors on Taiwan’s information technology exports to China, which underscores the vulnerability of Taiwan’s export-dependent economy to developments in China.
- Taiwan’s ability to participate in the international community is not only crucial to the wellbeing of its people but is also key to Taiwan’s ability to contribute to international safety, security, and prosperity. Beijing restricts Taiwan’s participation in international organizations and has placed additional limitations on Taiwan’s international activities since President Tsai was elected. Should Beijing seek to further increase pressure on Taipei, it may take additional steps to restrict Taiwan’s international space, including by enticing some countries with which Taiwan has diplomatic relations to cut ties and establish diplomatic relations with China.

- China's military modernization remains focused on preparing for a range of Taiwan contingencies, and the advancement in the capabilities of the People's Liberation Army (PLA) presents a significant challenge to Taiwan's ability to defend itself and the U.S. military's ability to effectively intervene in a cross-Strait conflict. Taiwan is engaged in a robust program to enhance its defensive capabilities through its domestic defense industrial production, the procurement of U.S. weapons systems, and its transition to an all-volunteer force, efforts which the Tsai Administration seeks to refine and build upon. However, the cross-Strait military balance has shifted toward China, and the PLA possesses both a quantitative and a qualitative military advantage over the Taiwan military.
- U.S.-Taiwan relations have transitioned smoothly from the Ma Administration to the Tsai Administration and continue to strengthen and expand in scope. Security cooperation remains a robust area of the U.S.-Taiwan relationship.

RECOMMENDATIONS

China and Taiwan

The Commission recommends:

- Members of Congress and Congressional staff seek opportunities to advance U.S.-Taiwan economic, political, and security relations, support Taiwan's participation in international organizations, and draw attention to Taiwan's democratic achievements and contributions to the international community.
- Congress urge the executive branch to make available to Taiwan, consistent with the Taiwan Relations Act, defense articles and services required to address the continuing shift in the cross-Strait military balance toward China.
- Congress direct the U.S. Department of State to reexamine its policy guidelines on reciprocal visits by senior U.S. and Taiwan military officers and civilian officials with the aim of increasing high-level exchanges.
- Congress request briefings by the Office of the U.S. Trade Representative (USTR) on the status of the Trade and Investment Framework Agreement negotiations with Taiwan and direct the USTR to identify enhanced negotiating procedures to resolve outstanding issues and ensure an accelerated path to conclude such talks.

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SECTION 3: CHINA AND HONG KONG

Introduction

The year 2016 saw notable developments in Hong Kong politics and society. Many of these events were indicative of mainland China's increasing efforts to control political life and the flow of information, and Hong Kong citizens' resistance to them. This was illustrated most clearly in the September legislative election, which saw a record voter turnout and prodemocracy candidates gaining three seats, despite Beijing's efforts to undermine those running on prodemocracy or pro-independence platforms. The election outcome was influenced in part by the emergence of a small but vocal political minority supporting self-determination (and among some, outright independence). The election took place against the backdrop of an alarming rise in mainland interference in Hong Kong. One example of this was the apparent abduction and detention of five Hong Kong booksellers by mainland authorities and the consequent chilling effect on the publication and distribution of politically sensitive books and books that have been banned in the Mainland. This incident has threatened the maintenance of the "one country, two systems" framework* and led some observers to question Hong Kong's long-standing status as a leading global financial hub.

In addition to these developments, this section examines Hong Kong's economic and security ties with the Mainland, and the implications of these trends for the United States. It is based on open source research and analysis and consultations with U.S. and foreign nongovernmental experts.

Hong Kong's Changing Political Landscape

Background

As previous Commission reports have illustrated, Hong Kong's politics and governance since the United Kingdom's (UK) handover of Hong Kong to Beijing in 1997 have been characterized by its unique "one country, two systems" framework and two competing impulses: mainland China's desire to exercise control over Hong Kong, and Hong Kong citizens' desire for greater autonomy and more democratic governance. This tension has been evident in recent years, particularly as it relates to Hong Kong's electoral process.

In June 2014, Beijing moved to restrict Hong Kong's political development, rejecting calls for democratic reform and shaping the conditions of Hong Kong's current political strife. That month, the Mainland's State Council Information Office issued a strongly

*The "one country, two systems" framework is a policy measure adopted by the People's Republic of China following the establishment of Hong Kong and Macau as Special Administrative Regions. The system grants Hong Kong and Macau the right to self-govern their economy and political system to a certain extent, excluding foreign affairs and defense.

worded white paper on the implementation of the “one country, two systems” policy in Hong Kong. The white paper reiterated Beijing’s jurisdiction over Hong Kong and asserted that “loyalty” and “loving the country” are “basic political requirements for Hong Kong’s administrators,”¹ prompting concerns among Hong Kong’s prodemocracy advocates.²

Two months later, according to procedures set out in Hong Kong’s mini constitution, the Basic Law, mainland China’s central government submitted its proposal for the nomination mechanism in Hong Kong’s upcoming 2017 chief executive election. After an earlier ruling by the Mainland’s legislature that Hong Kong’s 2017 election could be decided by universal suffrage—defined as election on a “one person, one vote” basis³—many in Hong Kong were hopeful Beijing’s proposal would feature robust reforms and the introduction of universal suffrage (currently, Hong Kong’s chief executive is chosen by a committee representing only 0.03 percent of eligible voters).⁴ In a major disappointment for prodemocracy advocates, Beijing’s proposed reform stopped far short of true universal suffrage. Although the proposal would have allowed all Hong Kong permanent residents to vote, it still would have used a nomination mechanism that impeded democratic candidates from standing for election and effectively guaranteed the ultimate selection of a Beijing-approved candidate. The proposal violated the spirit of Beijing’s commitments made in the Basic Law to hold elections “in accordance with democratic procedures” and eventually institute universal suffrage.⁵

The combination of the “loyalty” requirements and electoral reform proposal was perceived by many as a blow to Hong Kong’s democratic progress,⁶ and dissatisfaction gave rise to the Occupy Central prodemocracy protests (also referred to as the “Umbrella Revolution”), which advocated for true universal suffrage according to international standards in future Hong Kong elections. The largely nonviolent protests, which lasted 79 days and concluded in December 2014, demonstrated Hong Kong citizens’ frustration with Beijing’s increasing reach into Hong Kong and served to bring more students and young people into the political process.*

When it came time to vote on Beijing’s proposal in June 2015, Hong Kong’s legislative body, the Legislative Council (LegCo), rejected it. Although the Hong Kong government supported the proposal as a baseline for future reforms, and pro-Beijing (or “pro-establishment”) legislators largely voted in favor of the proposal, prodemocracy legislators (known as “pan-democrats”) asserted it was a “sham” that would provide an opportunity for Beijing to screen out candidates it opposes, and prevented the proposal from moving forward.⁷ As a result, the 2017 chief executive election will be decided based on the preexisting election framework, and the next opportunity to implement electoral reform will be ahead of the 2022 chief executive election.†

* For more information on the 2014 prodemocracy protests, see U.S.-China Economic and Security Commission, *2014 Annual Report to Congress*, November 2014, 523–527.

† For a more in-depth examination of the electoral reform process and political development in Hong Kong in 2015, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 533–537.

Developments among Hong Kong's Political Groups in the Run-up to the 2016 LegCo Elections

Fueled in large part by the fallout from the electoral reform debate and the Occupy movement, mounting feelings of frustration and disillusionment among prodemocracy advocates—particularly among young people—appear to be driving divisions in the prodemocracy camp between the traditional, older cohort favoring gradual reform through working with Beijing and the new, younger cohort favoring more comprehensive reforms and a more confrontational approach toward Beijing. Some of the student-led groups affiliated with the 2014 Occupy movement shifted their attention away from electoral reform to the September 2016 LegCo elections. In March 2016, Joshua Wong Chi-fung—one of the student leaders of the 2014 protests—established the political party Demosistō, which would run one candidate in the LegCo elections. Rather than focusing on electoral reform, Mr. Wong said the party would turn its attention to Hong Kong's future after 2047, at which time the “one country, two systems” governance framework established during Hong Kong's handover from the UK in 1997 will expire.⁸ Mr. Wong said the party would advocate for a referendum for Hong Kong voters to decide whether to split from mainland China after 2047.⁹ Oscar Lai Man-lok, one of the party's leaders, said, “No one in the legislature right now has brought up the issue of Hong Kong's future after 2047. We're going to bring the same dogged resistance protesters showed in the Umbrella Movement into the legislature.”¹⁰

The emergence of new “localist” political parties in the run-up to the LegCo elections also demonstrates this division.* Localists are a political minority predominantly composed of students who support self-determination (and in some cases, outright independence) and the preservation of Hong Kong's culture. In February 2016, after protesting the apparent crackdown on unlicensed food vendors in Mong Kok District, over 700 localist activists clashed with police in a ten-hour standoff. Some observers called it the most violent mass demonstration since the 1967 riots triggered by pro-Beijing protesters against British colonial rule.†¹¹ The localist parties, many of which are led by former student participants in the 2014 Occupy protests, were previously viewed as fringe political actors

* Like the chief executive elections, LegCo elections are not decided by universal suffrage. The Mainland's legislature ruled that universal suffrage cannot be implemented in LegCo elections until it is implemented in the chief executive election. Standing Committee of the National People's Congress, *Decision of the Standing Committee of the National People's Congress on Issues Relating to the Methods for Selecting the Chief Executive of the Hong Kong Special Administrative Region and for Forming the Legislative Council of the Hong Kong Special Administrative Region in the Year 2012 and on Issues Relating to Universal Suffrage* (Adopted at the 31st Session of the Standing Committee of the Tenth National People's Congress on December 29, 2007).

† It is unclear what led to the unrest. According to some sources, reports that food and health inspectors were cracking down on unlicensed street food vendors led localist activists to organize protests in defense of the vendors. However, the Hong Kong government claimed inspectors were only conducting “general squad patrol” in the area when they were “surrounded, scolded, and pushed around” by over 50 people, leading the inspectors to call for police assistance. The clashes resulted in at least 100 injured—most of which were police, according to the Hong Kong government. According to the Hong Kong police commissioner, 54 were arrested in the immediate aftermath of the incident. Reports in the months following the incident indicate at least 75 people were arrested in total. Alan Wong, “China Labels Protesters ‘Radical Separatists,’ and They Agree,” *New York Times*, February 20, 2016; Legislative Council Panel on Security, *Hawker Management and Policy*, February 16, 2016; Asia Times (Hong Kong), “HK's Mong Kok Protesters: ‘This is the First Time, But Won't Be the Last,’” February 11, 2016; and BBC, “Hong Kong Clashes as Police Clear Food Stalls,” February 9, 2016.

among mainstream political circles in Hong Kong, but increasing support among Hong Kong citizens—especially young people—for greater Hong Kong autonomy from mainland China has given these groups momentum. According to a July 2016 poll conducted by the Chinese University of Hong Kong—the first ever poll measuring support for Hong Kong independence—over 17 percent of Hong Kong citizens and nearly 40 percent between the ages of 15 and 24 support full independence after 2047.¹²

Annual Vigil to Commemorate the Tiananmen Square Massacre

On June 4, Hong Kong held its annual candlelight vigil to commemorate the victims of the 1989 Tiananmen Square Massacre and express support for political change in mainland China.¹³ According to the vigil organizers, 125,000 people attended, but the turnout was 10,000 fewer than the 2015 event and the lowest attendance since 2009, which commemorated the 20th anniversary.¹⁴ Although the event has long been one of the most popular and visible demonstrations of prodemocracy sentiment in Hong Kong, some young prodemocracy activists and nearly all university student unions decided not to attend the vigil, viewing the 2016 event as less relevant to the challenges Hong Kong currently faces under Beijing's increasing encroachment.¹⁵ Instead of attending the vigil, many of the groups hosted or attended other events across Hong Kong, including seminars discussing what the Tiananmen Square Massacre means in the context of today's Hong Kong and its future.¹⁶

The 2016 LegCo Elections

The specter of Beijing's control loomed over the September 2016 LegCo elections as well. Less than two months before the election, the Hong Kong Electoral Affairs Commission*—reportedly under pressure from Beijing¹⁷—announced a new requirement for all LegCo candidates: to sign a form agreeing Hong Kong is an “inalienable” part of China that “come[s] directly under the Central People's Government.”¹⁸ Those who refused to sign the form would face potential disqualification, and candidates who signed it but did not follow through with the pledge would face potential criminal charges, according to a spokesperson for the Electoral Affairs Commission.¹⁹ In response to the announcement, most pan-democratic candidates refused to sign the pledge, viewing the requirement as political censorship and arguing it had no legal basis; some filed legal challenges to the new form.²⁰ However, civil servants tasked with reviewing the candidate application forms, which were fully supported by the Hong Kong government,²¹ decided the action of signing or not signing the form had no bearing on whether a can-

*The Electoral Affairs Commission describes itself as an “independent, impartial, and apolitical body” of the Hong Kong government, and is charged with overseeing elections. Electoral Affairs Commission, Government of the Hong Kong Special Administrative Region, *Chairman's Welcome Message*. <http://www.eac.gov.hk/en/about/chairman.htm>.

didate could run in the elections—only the measure of a candidate’s character based on previous activities would determine candidate eligibility. In the end, however, six candidates were banned, reportedly for refusing to back down from their pro-independence stance,* despite several signing the pledge.²² One of these candidates whom observers viewed as having good prospects for winning a seat, was Edward Leung Tin-kei of localist party Hong Kong Indigenous.† Just days before the deadline to confirm all candidates, in an apparent effort to adhere—or at least appear to adhere—to the Electoral Affairs Commission’s new requirements, Mr. Leung retracted his previous pro-independence statements, including on social media platforms, and signed the pledge form. Despite this, the officer overseeing his application denied his candidacy, arguing Mr. Leung’s apparent policy shift was not genuine.²³

Mainland China’s heavy-handed efforts to limit support for the prodemocracy camp backfired, however. Demonstrating the Hong Kong public’s deepening dissatisfaction with Beijing’s moves to apply pressure on Hong Kong’s political system, a record 58 percent voter turnout saw prodemocracy candidates capture 30 of 70 total seats in the LegCo elections.²⁴ Although prodemocracy candidates won a majority of the popular vote,‡ the Basic Law only allows the general public to vote for a total of 35 seats, while a small group of electors in functional constituencies decide the remaining 35 seats; these seats heavily tilt in Beijing’s favor and therefore ensure pro-establishment candidates retain a majority of seats in LegCo.§

With a net gain of three seats, the pan-democrats denied the pro-establishment camp the two-thirds majority it needed to pass major changes to the Basic Law (such as electoral reform).²⁵ Notably,

* One of these candidates was Chan Ho-tin, a former activist in the 2014 Occupy protests and convener of the Hong Kong National Party—the first political party in Hong Kong to publicly advocate for outright independence from mainland China. Beijing and the Hong Kong government have strongly opposed the party since its formation in March 2016. Although the party probably will remain on the fringes of the political landscape, its presence alone sheds light on the widening gap between some political groups in Hong Kong and shows Beijing’s fear of pro-independence parties gaining popular support. Xinhua, “China Voice: ‘Hong Kong Independence,’ A Dangerous Absurdity,” April 1, 2016; Hong Kong Special Administrative Region Information Services Department, *Independence Calls Breach Basic Law*, March 30, 2016; and KC Ng and Owen Fung, “Hong Kong National Party Is Born: Will Push for Independence, Will Not Recognize the Basic Law,” *South China Morning Post* (Hong Kong), March 29, 2016.

† Mr. Leung surprised observers with strong results, despite a lack of political experience, in the February 2016 New Territories East by-election to fill a vacant seat in LegCo until the September elections. He participated along with his political group, Hong Kong Indigenous, in the violent Mong Kok demonstrations weeks before the by-election. Gary Cheung, “Despite Facing a Rioting Charge, Localist Edward Leung Garnered 16 Per Cent of Legco By-Election Votes. Who Voted for Him . . . and Why?” *South China Morning Post* (Hong Kong), February 29, 2016.

‡ According to the *South China Morning Post*, for the 35 seats decided by popular vote, pro-establishment candidates won 871,864 votes (40.3 percent), pan-democrats captured 586,595 votes (27 percent), “localist/radical” candidates received 601,851 votes (27.6 percent), and moderates won 5 percent of the vote. In total, prodemocracy candidates received 59.7 percent of the vote compared to pro-Beijing candidates’ 40.3 percent. *South China Morning Post* (Hong Kong), “2016 Legislative Council Election Counting Room.” <http://multimedia.scmp.com/counting-room/>; Suzanne Pepper, “The Voters Have Spoken . . . But is Anyone Listening?” *HK Focus* (Blog), September 20, 2016.

§ Electors who choose the 35 functional constituency seats are part of 28 different groups that include businesspeople, professionals, and corporations. Of the 239,724 electors registered in 2016, 167,257 votes were cast, electing 24 of the pro-establishment camp’s 40 seats. *South China Morning Post* (Hong Kong), “2016 Legislative Council Election Counting Room.” <http://multimedia.scmp.com/counting-room/>; Suzanne Pepper, “The September Election: Early Polling,” *HK Focus* (Blog), August 18, 2016; Voter Registration of the Hong Kong Special Autonomous Region Government, *Distribution of Registered Electors by Functional Constituencies in 2016*, July 16, 2016; and Tanna Chong, “Legco Election 2016: How a Handful of Voters Select 30 Hong Kong Lawmakers,” *South China Morning Post* (Hong Kong), February 6, 2016.

eight of the prodemocracy candidates who won seats—five of whom are part of the post-Occupy generation of prodemocracy political parties—advocate for self-determination; several of these winning candidates are young localists.²⁶ These newly elected lawmakers unseated some veteran prodemocracy legislators, reflecting the recent shift in Hong Kong’s political landscape.²⁷ Demosistō’s Nathan Law Kwun-chung, one of the student leaders of the 2014 prodemocracy protests, at 23 years old became the youngest legislator ever elected to LegCo, overcoming numerous roadblocks along the way.* Mr. Law and several other new lawmakers have pledged to continue filibuster tactics used in the previous legislative session (2012–2016) to oppose the Hong Kong administration’s policies, suggesting LegCo will remain deadlocked as its membership becomes further polarized.²⁸

Beijing heavily restricted all mainland media coverage of the election and censored discussion of the election on the Internet and social media in mainland China.²⁹ A spokesperson for the State Council’s Hong Kong and Macau Affairs Office in Beijing issued a statement expressing its “resolute opposition to any form of Hong Kong independence activities inside or outside of [LegCo], and support for the Hong Kong Special Administrative Region government to punish [such activities] according to law.”³⁰

Disappearance of Hong Kong Booksellers

Among the many incidents over the last several years that have caused a steady erosion of the freedoms guaranteed to Hong Kong citizens under the Basic Law, perhaps none has had as significant a chilling effect as the mainland authorities’ apparent abduction and detention of five Hong Kong sellers of political gossip books banned in mainland China. The booksellers were all tied to Mighty Current Media, Hong Kong’s largest political gossip book publisher (which reportedly produced around one-third of such books over the last five years).³¹ It is unclear what exactly instigated Beijing’s crackdown on the booksellers, but a source at Mighty Current suggested the publishing company was preparing to release a particularly salacious book on Chinese President and General Secretary of the Chinese Communist Party (CCP) Xi Jinping’s love life.³² The incident involved not only Hong Kong residents, but also a British citizen and a Mainland-born bookseller with a Swedish passport. The disappearance of the booksellers, whose whereabouts were unknown for six months, raised concerns about Hong Kong’s autonomy and rule of law among Hong Kong citizens, including those not previously worried about such issues, and demonstrated the deterioration of the “one country, two systems” framework.³³

*These roadblocks included delays in government approval for campaign mailings and for registering Demosistō as a company for fundraising purposes. Cannix Yau, “Six Months and Counting: Demosisto Party Still Waiting for a Reply on Its Registration,” *South China Morning Post* (Hong Kong), September 11, 2016; Chester Yung, “Hong Kong Elections: New Parties Pick Up Seats,” *Wall Street Journal*, September 5, 2016; and Tony Cheung, “Undue Caution? Joshua Wong Blasts Hong Kong Officials over Hold-Ups in Demosisto Party Registration and Mailings,” *South China Morning Post* (Hong Kong), August 4, 2016.

Hong Kong's Political Gossip Book Industry

The market for banned books in mainland China was a key driver in the emergence of Hong Kong's political gossip book industry. Customers included Chinese citizens interested in learning about the inner workings of Chinese politics, and mainland officials using the publications to either leak salacious details about other officials or seek out these details in existing publications for political gain.³⁴ Observers note that in recent years, following the Bo Xilai scandal,* the industry has expanded significantly and become highly profitable.³⁵ In a January 2016 interview, Bei Ling, a U.S.-based exiled Chinese journalist and close friend of one of the detained Hong Kong booksellers, estimated that about half of all books published in Hong Kong are on topics banned in the Mainland and reach nearly one million people per month (but these numbers appear reduced in light of the booksellers incident, as discussed below). According to Mr. Bei, "The severe restrictions on information in China, and its huge number of readers, makes Hong Kong the perfect venue for vendors of banned political books."³⁶

Within a nine-day span in October 2015, three Hong Kong citizens tied to Mighty Current and one of its Hong Kong bookstores, Causeway Bay Books, went missing from Hong Kong and mainland China. These included Mighty Current shareholder and general manager Lui Por (also spelled Lu Bo), Mighty Current assistant general manager Cheung Chi-ping (also spelled Zhang Zhiping), and Causeway Bay Books manager Lam Wing-kee. Mighty Current shareholder and Swedish national Gui Minhai, went missing from his vacation home in Thailand that same month.[†]³⁷ In December 2015, a fifth person, Mighty Current shareholder and dual British and Hong Kong citizen Lee Bo disappeared after crossing into mainland China. It is unclear how Mr. Lee crossed the border into the Mainland, and many suspect Chinese agents were involved in abducting him.³⁸ The booksellers remained missing for months until mainland authorities finally confirmed in January and February 2016 that they were in Chinese custody in the Mainland.³⁹

The behavior and activities of the booksellers during the ordeal suggest they were intimidated and otherwise treated unlawfully. Following a trend throughout President Xi's anticorruption campaign in which individuals detained in the Mainland have issued confessions on state-run television, all five of the detained booksellers appeared on Chinese television to confess to their alleged crimes.⁴⁰ Notably, Mr. Lee said he decided to relinquish his British

* Bo Xilai was a member of the CCP Politburo and the party secretary of Chongqing Municipality from 2007 to 2012. In April 2012, the CCP removed Mr. Bo from his party positions, and the following September he was found guilty of corruption, bribery, and abuse of power and sentenced to life in prison. BBC, "Bo Xilai Scandal: Timeline," November 11, 2013.

† In May 2016, Mr. Gui's daughter testified before the U.S. Congressional-Executive Commission on China regarding her father's case. She said her father was abducted by "Chinese state agents" in Thailand, and he has not had any legal representation or access to consular visits with his home country Sweden. Congressional-Executive Commission on China, *Hearing on The Long Arm of China: Global Efforts to Silence Critics from Tiananmen to Today*, written testimony of Angela Gui, May 24, 2016.

passport as a result of the case. He said, “Many have sensationalized my British citizenship and have complicated the situation, so I have decided to give up my British citizenship.”⁴¹ It is unclear if the detained individuals had access to a lawyer or were forced to confess.⁴²

After months in detention, Beijing finally allowed three of the booksellers—Mr. Cheung, Mr. Lui, and Mr. Lee—to return to Hong Kong in March 2016. Upon arrival, the booksellers told the Hong Kong authorities to cancel their missing persons investigations, and then returned almost immediately to mainland China.⁴³ Mr. Lee informed Hong Kong police he went to mainland China “by his own means voluntarily,” and told the media he would never publish books again.⁴⁴ In June, the Chinese authorities allowed Mr. Lam to return to Hong Kong, reportedly to retrieve and bring back a hard drive containing records of the bookstore’s customers.⁴⁵ Instead, he stayed in Hong Kong and held a press conference with then Democracy Party lawmaker Albert Ho Chun-yan, describing in detail his detention after crossing into mainland China to see his girlfriend. Mr. Lam said he was sent to a detention facility in Ningbo and forced to sign away his rights to a lawyer and not contact any family members. During his five months in Chinese custody, he was under constant monitoring and was forced to read from a script in a filmed statement he made confessing to operating an illegal business.⁴⁶ In the days following the press conference, Mr. Lam led thousands of people in Hong Kong protesting the booksellers’ detention.* Perhaps indicative of mainland efforts to discredit Mr. Lam’s account, shortly thereafter a Hong Kong news outlet published interviews with several individuals—including some of the other detained booksellers and Mr. Lam’s girlfriend—challenging Mr. Lam’s version of events.⁴⁷ As of the publication of this Report, Mr. Gui is reportedly the only bookseller still in Chinese custody.⁴⁸

As the situation unfolded, the Hong Kong government expressed concern, while emphasizing the importance of adhering to the “one country, two systems” framework and the Basic Law.⁴⁹ Chief Executive Leung in January 2016 said the Hong Kong government was “highly concerned” about the situation, and that if mainland authorities conducted law enforcement activities in Hong Kong it would be “unacceptable and unconstitutional.”⁵⁰ The Hong Kong government stated that police have yet to find any evidence to indicate mainland agents conducted law enforcement across the border in Hong Kong.[†]⁵¹

*Notably, Mr. Lam was scheduled to lead the annual July 1 protest against mainland China marking the day the UK returned Hong Kong to the PRC, but cancelled after feeling “gravely threatened” by apparent Chinese security forces closely tracking his movements. Rishi Iyengar, “Freed Hong Kong Bookseller, Due to Lead Massive Protest, Pulls out Citing Threats,” *Time*, July 1, 2016; Luisetta Mudie, “Returned Hong Kong Bookseller Leads Thousands on Protest March,” Radio Free Asia, June 18, 2016.

†Following Mr. Lam’s revelations to the media in June 2016, Chief Executive Leung wrote a letter to Beijing expressing Hong Kong’s concern about the case and indicated he would seek to improve the cross-border notification mechanism system between the Hong Kong and Mainland authorities. The mainland government responded that it would work with Hong Kong authorities to improve the mechanism in place. The two sides have held several meetings to date. Hong Kong Special Autonomous Region Government, *Hong Kong and Mainland Hold Second Meeting on Notification Mechanism*, July 28, 2016; Kris Cheng, “Beijing Agrees to Talks on HK-China Communication Mechanism Following Bookseller Incident,” *Hong Kong Free Press*, June 27, 2016; Reuters, “Hong Kong Presses Beijing on Case of Missing Booksellers,” June 21, 2016;

Many Hong Kong and international observers have voiced concerns that mainland China is depriving Hong Kong of its rights granted under the Basic Law, and that the incident could impact Hong Kong's status as a global financial center.⁵² In February 2016, a U.S. Department of State spokesperson said, "These cases, including two involving individuals holding European passports, raise serious questions about China's commitment to Hong Kong's autonomy under the "one country, two systems" framework as well as its respect for the protection of universal human rights and fundamental freedoms."⁵³ The same month in a biannual report on developments in Hong Kong, then British Foreign Secretary Philip Hammond said the "involuntary removal" of Mr. Lee to the Mainland "constitutes a serious breach of the Sino-British Joint Declaration on Hong Kong and undermines the 'One Country, Two Systems' principle, which assures Hong Kong residents of the protection of the Hong Kong legal system."⁵⁴ An April 2016 European Commission report to the European Parliament and Council stated the following:

*The [EU] considers the case of the five book publishers to be the most serious challenge to Hong Kong's Basic Law and the "one country, two systems" principle since Hong Kong's handover to the [People's Republic of China (PRC)] in 1997. The case raises serious concerns about the respect for human rights and fundamental freedoms and about the application of PRC criminal law to acts that are not punishable under Hong Kong law. The case has potentially lasting implications for Hong Kong's rule of law and could impact on Hong Kong's standing as an international business centre.*⁵⁵

While the long-term effects of the Hong Kong booksellers incident are unclear, immediate impacts were felt throughout the book publishing industry and beyond. In April 2016, Hong Kong lawyer and blogger Jason Ng released his new English-language account of the 2014 Occupy movement, after facing a more than three-month delay because local printing companies refused to take on the work. Mr. Ng's British publisher, who has run a Hong Kong-based publishing company since 2003, said this was the first time he had been declined by a local printer.⁵⁶ In addition, Andrei Chang, founder of the influential defense magazine *Kanwa Asian Defense* (which carries analysis of People's Liberation Army [PLA] developments), decided to move from Hong Kong to Tokyo out of fear for his safety following Chinese Foreign Minister Wang Yi's comments describing one of the detained booksellers and British passport holder Lee Bo as "first and foremost a Chinese citizen."⁵⁷ Mr. Chang had held both Hong Kong and Canadian passports until he decided to cancel his Hong Kong passport shortly after Minister Wang's remarks.⁵⁸

Perhaps most troubling, several Hong Kong bookstores have reportedly removed politically sensitive titles and stopped selling banned books altogether.⁵⁹ Some bookstores known for carrying

and Jeffie Lam, et al., "Delegations, Notifications, and a Formal Letter: CY Leung's Three-Pronged Strategy for Settling Booksellers Row," *South China Morning Post* (Hong Kong), June 20, 2016.

books banned in the Mainland have closed entirely, notably in the Hong Kong airport, where some have been replaced by Chinese state-owned Chung Hwa Book Company.* The scope of the impact of the booksellers incident is not yet clear,† but the Chinese government's willingness to strike fear in an industry that represents Hong Kong's role as a bastion for free speech and political openness does not bode well.

Joshua Wong Denied Entry to Thailand and Returned to Hong Kong

In October 2016, following the LegCo elections, Joshua Wong Chi-fung was invited to speak at two universities to share his experiences about the 2014 Occupy protests and youth participation. When he arrived at Bangkok's main airport, Mr. Wong said more than 20 Thai police and immigration officers were waiting for his arrival. According to Mr. Wong, they confiscated his passport and detained him for almost 12 hours without access to a lawyer, providing little explanation except that he was on a "blacklist" and would never be allowed entry into Thailand.⁶⁰ The Thai authorities eventually placed him on a flight back to Hong Kong and upon his arrival he said that he felt lucky to have not shared the same fate as Gui Minhai, the Hong Kong bookseller who was apparently abducted from Thailand and sent back to mainland China.⁶¹ A Thai student activist who was to meet Mr. Wong at the airport said that Thai authorities claimed Beijing wrote a letter requesting Mr. Wong be denied entry to Thailand, but Bangkok denied receiving such a request.⁶² In a similar incident in May 2015, Malaysia blocked Mr. Wong's entry into the country, where he was due to participate in Malaysian youth activist forums, citing the visit could "jeopardize [Malaysia's] ties with China."⁶³

Declining Freedom of Expression in Hong Kong

Press Freedoms Continue to Be at Risk

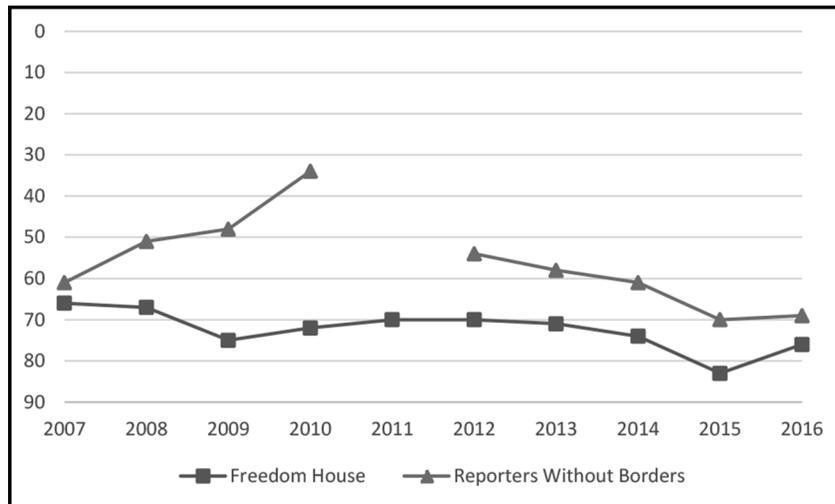
In addition to the impact of the booksellers case on freedom of expression in Hong Kong, according to watchdog organizations several other developments demonstrate continued strains on press freedom, even though the Basic Law guarantees freedom of the press in Hong Kong (see Figure 1). International nonprofit Reporters Without Borders ranked Hong Kong 69th among 180 countries and territories evaluated in its 2016 global press freedom index,

* According to the Hong Kong Airport Authority, it decided to consolidate the number of bookstores from 16 to 10 based on "a regular customer survey and an assessment on passenger needs." Elaine Yu, "Hong Kong Airport Shuttles Bookstores Amid Fears of Eroding Press Freedoms," CNN, April 12, 2016.

† Some in Hong Kong's book publishing business have contested the impact of the incident on the industry, citing the continued publishing of some political gossip books and the active underground market. Oliver Chou, "Banned Books: Hong Kong Publication Industry Collapsing," Sings Chief Editor of New York-Based Publishing House," *South China Morning Post* (Hong Kong), March 11, 2016.

moving up one place compared to 2015.* Despite the slightly improved position on the index, Hong Kong's overall score declined, mainly due to the encroaching influence of the Chinese government in Hong Kong newspapers' editorial positions and Chinese e-commerce group Alibaba's purchase of the *South China Morning Post* (discussed later in this section).⁶⁴ According to Freedom House, an independent international organization, Hong Kong's position also improved in the organization's global press freedom ranking—moving up seven spots to 76th among 199 countries and territories evaluated—primarily due to easing tensions following the 2014 pro-democracy protests and the establishment of several new online independent Hong Kong media organizations.[†] However, Freedom House also dedicated a special section of its global press freedom report to Hong Kong developments, asserting the further deterioration of Hong Kong's press freedom due to Alibaba's acquisition of the *South China Morning Post* and the booksellers incident.⁶⁵ Notably, both rankings only account for developments occurring in 2015, and thus do not include full coverage of the Hong Kong booksellers incident.

Figure 1: Hong Kong's Global Press Freedom Ranking, 2007–2016



Note: Reporters Without Borders did not publish a report in 2011 and instead published a 2012 report reflecting events between December 1, 2010, and November 30, 2011.

Source: Reporters Without Borders, "Hong Kong," April 2016. <https://rsf.org/en/hong-kong>; Freedom House, "Freedom of the Press 2016," April 2016. <https://freedomhouse.org/report/freedom-press/freedom-press-2016>.

Moreover, Hong Kong citizens are increasingly disappointed with the level of press freedom, according to recent polls. An April 2016 survey conducted by the University of Hong Kong's Public Opinion Programme found that only 46 percent of people are satisfied with

* In this ranking, 180 represents the country or territory with the lowest press freedom. Reporters Without Borders, "Hong Kong," April 2016.

† In this ranking 199 represents the country or territory with the lowest press freedom. Freedom House, "Freedom of the Press," April 2016, 23.

press freedom, while 33 percent are dissatisfied—the highest level of dissatisfaction for press freedom since the handover of Hong Kong to the PRC in 1997.⁶⁶

Violence against Journalists

Violence against journalists in Hong Kong persisted over the past year. The Hong Kong Journalists Association in its 2016 Annual Report reported that at least seven journalists were attacked from July 2015 to June 2016.⁶⁷ Although this is a slight improvement over recent years, it still far exceeded what the Association refers to as “normal” years, in which two to three incidents take place.⁶⁸ Six of the seven attacks occurred during the February 2016 Mong Kok incident, and were perpetrated by both demonstrators and law enforcement.⁶⁹ One reporter for Hong Kong Chinese-language newspaper *Ming Pao* was assaulted by police even after complying with orders to show his press credentials; he required treatment at a local hospital after sustaining head and hand injuries.⁷⁰

Politically Motivated Censorship

Mainland China is able to impart influence on media companies in Hong Kong through Chinese ownership and other means of applying pressure. According to the Hong Kong Journalists Association, the Chinese government or Mainland-based corporations have either direct control or stakes in 8 of 26 mainstream media organizations,* and the owners or news department leadership in 80 percent of these organizations have received appointments or awards from pro-Beijing bodies or individuals.† In recent years, self-censorship has increased as a result of pressure applied by Chinese and foreign companies to induce Hong Kong media to align with the CCP in their portrayal of news, resulting in journalists removing articles and editorials critical of the party. In other cases, editors and staff have been removed from their posts. Over the last year, examples of politically motivated censorship include the following:

- In April 2016, Chong Tien-siong—the principal editor of *Ming Pao* and a prominent businessman in the Mainland—fired a popular senior editor at the paper, Keung Kwok-yuen, shortly after he published a front page story on offshore holdings connected to Hong Kong’s elite that were disclosed in the International Consortium of Investigative Journalists’ “Panama Papers” leaks (for more information on the economic implications of the Panama Papers for Hong Kong, see the textbox later in this section on “Hong Kong and the ‘Panama Papers’ Case”).⁷¹ Mr. Keung’s termination was widely viewed among *Ming Pao* staff and other media as related to his work on politically sensitive reporting. Since assuming his position in May 2014, Mr. Chong has overseen violations in editorial practices and

*These news outlets include: *Ta Kung Pao*, *Wen Wei Po*, *Hong Kong Commercial Daily*, *China Daily* (Hong Kong edition), *Sing Pao Daily News*, Phoenix Satellite Television, TVB, and the *South China Morning Post*. Hong Kong Journalists Association, “One Country, Two Nightmares: Hong Kong Media Caught in Ideological Battleground,” July 2016, 5.

†For example, in July 2016, owner of Phoenix Satellite Television and media tycoon Liu Changle won an award for his distinguished service at the Hong Kong government’s annual awards ceremony. Hong Kong Journalists Association, “One Country, Two Nightmares: Hong Kong Media Caught in Ideological Battleground,” July 2016, 5; Ng Kang-chung, “Hong Kong Award Winners Announced: Carrie Lam Receives Top Civic Medal,” *South China Morning Post* (Hong Kong), July 1, 2016.

quashed articles that were politically sensitive.* In response to the firing of Mr. Keung, some *Ming Pao* columnists refused for days to write their regular columns,⁷² and around 400 journalists, activists, and politicians led a protest outside the *Ming Pao* offices. In addition, the Hong Kong Journalists Association issued a joint letter from eight journalist groups calling for Mr. Keung's reinstatement.⁷³

- In December 2015, China's largest e-commerce firm, Alibaba, announced its \$266 million purchase of the *South China Morning Post*, Hong Kong's most popular English-language newspaper.⁷⁴ Alibaba said the main driver of the deal was to help improve China's image abroad and offer an alternative to what it perceives as bias in Western media.⁷⁵ However, Jack Ma, the company's chief executive officer, said the newspaper would maintain editorial independence and not censor content.⁷⁶ According to David Bandurski, editor of the China Media Project at the University of Hong Kong, such claims would probably be difficult to maintain.⁷⁷ Mr. Bandurski said, "[I think] that a lot of [Hong Kong] newspapers in Chinese, and also the [*South China Morning Post*] even before this purchase, have carefully considered what to report in light of their business interests or [political] pressure."⁷⁸ Others note that although a foreign businessman supportive of China owned the newspaper previously, Alibaba's purchase would more firmly place the paper under Beijing's influence due to its close connection to the Chinese government.⁷⁹

Challenges to Academic Freedom

Universities in Hong Kong have historically enjoyed a high degree of autonomy and academic freedom, as protected under the Basic Law. Nonetheless, in recent years such freedoms have been challenged, as Beijing and the Hong Kong government remain wary of prodemocracy activism—and especially the spread of pro-independence thought more recently—among university students and academics.

In 2015, the governing council at the University of Hong Kong (HKU), Hong Kong's premier academic institution, made a controversial decision to delay and ultimately reject the appointment of a prodemocracy academic for a leadership position at the university. The incident caused many in the university community and at other academic institutions to assert that Beijing and the Hong Kong government blocked the appointment.†

Further controversy at HKU continued into 2016. In January 2016, Arthur Li Kwok-cheung, a member of the HKU governing council‡ that helped block the aforementioned academic's appoint-

* For examples of Mr. Chong's decisions as editor of *Ming Pao*, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 540–541.

† For more information about this case, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 542–543.

‡ The HKU governing council consists of 24 members, including current Chairman Arthur Li Kwok-cheung; six members appointed by HKU Chairman (and Hong Kong Chief Executive) CY Leung; six members appointed by the Council; two members elected by the Court; the university president (and vice chancellor); the university treasurer; four faculty members; one university employee (non-faculty); and two students. University of Hong Kong, "Governance Structure—The Council." http://www.hku.hk/about/governance/governance_structure/the-court/council_membership.html.

ment, was appointed as chairman of the governing council. Mr. Li, who is pro-Beijing, was appointed to the chairmanship by his close friend Chief Executive Leung, and he concurrently serves as a member of the Chinese People's Political Consultative Committee, the Chinese government's chief advisory body. In response to the appointment, 20 student and activist organizations led a march to protest Chief Executive Leung's decision (organizers said over 3,000 people participated, while police said protesters only numbered 830).⁸⁰ Student groups also led a one-week boycott of classes at the start of the semester, voicing their concerns about the university losing its democratic freedoms and facing increasing pressure from Beijing. Professor Timothy O'Leary, head of HKU's School of Humanities and co-organizer of HKU Vigilance, a group of professors examining academic freedom, said, "We are [protesting] to make sure the universities can go on being places in which people are free to think and ask questions . . . that some people do not want them to think about and to discuss."⁸¹ University students are pushing for reforms in the school's governance structure, but the governing council and students have been unable to agree on terms to set up a meeting.⁸² In April 2016, the council formed an independent three-person panel* to review the school's governance mechanisms and discuss potential reforms; the panel's findings are expected by the end of 2016.⁸³

Responding to the rising popularity of pro-independence views among students in Hong Kong,⁸⁴ Beijing and the Hong Kong government have stepped up efforts to restrict discussion of independence and related topics in schools. In August 2016, a mainland official stated that discussions of independence should be banned in primary and secondary schools, as such discussions would "poison" students' minds.⁸⁵ The Hong Kong Education Bureau announced that teachers could lose their jobs if they promote the idea of Hong Kong independence, sparking a debate across Hong Kong civil society.⁸⁶ Hong Kong Secretary of Education Eddie Ng Hak-kim, reportedly after returning from meetings with officials in Beijing, elaborated that "students [could] discuss anything if they are under the guidance of teachers," but the topic "should be discussed from the position of the Basic Law."⁸⁷ Chief Executive Leung reiterated the need to remove discussion of independence from schools, arguing, "it's not an issue of freedom of speech, but being able to tell right from wrong."⁸⁸ Some teachers and prodemocracy advocates have said they fear the new policy would lead to self-censorship in schools and further constraints on academic freedom.⁸⁹ One teacher said, "I am very worried that this will give rise to a chilling effect, and that this warning is very close to [ideological] direction . . . and that it will be on a list of banned topics. Nobody will dare to touch it at all."⁹⁰ The Hong Kong government has yet to clarify the legal basis for this new policy amid calls from teachers' unions and legal scholars and has remained vague as to what actions would constitute a breach of the policy.⁹¹

*Panel members include Chancellor of the University of York Sir Malcom John Grant, who will serve as the panel's chairman, Professor William C. Kirby of Harvard University, and Peter Van Tu Ngyun, a former Hong Kong high court judge. University of Hong Kong, "HKU Council Establishes the Review Panel on University Governance and Appoints Members to the Panel," April 26, 2016.

Chinese Censorship of Prize-Winning Hong Kong Film *Ten Years*

During the past year, some Hong Kong film critics celebrated the release of the low-budget, independent Hong Kong movie *Ten Years* as one of the top Hong Kong films in decades. The movie consists of short stories set ten years from the present day, portraying a dystopian future where Hong Kong has lost much of its culture and freedoms to mainland China. Over the film's short time in theatres, it led box office sales, beating out *Star Wars* in one theatre's box office receipts where both films appeared.⁹² The *Global Times*, a nationalist state-run Chinese newspaper, called the movie "absurd," "pessimistic," and a "thought virus."⁹³ Less than two months after gaining a wide release in Hong Kong, the film was abruptly removed from theatres, leading many to question Beijing's involvement in quashing the movie. Shu Kei, a film critic and professor at the Hong Kong Academy for Performing Arts, said, "I have never heard of anywhere else that a film that sells full houses at every single screening is pulled out from the theatres, but no exhibitor will admit censorship or direct pressure from China."⁹⁴

Moreover, after *Ten Years* received a nomination for best film—which it would later win—at the Hong Kong Film Awards, the city's version of the Oscars, Beijing enacted a ban on the show's broadcast in mainland China for the first time and censored all mentions of the movie in media reporting about the ceremony.⁹⁵ Chinese censorship of the awards show broadcast follows a tightening on media controls in mainland China and a crackdown on any form of independent thoughts or ideas promoting prodemocracy stances.

Hong Kong's Economy and its Economic Ties with Mainland China

Hong Kong remains an important global financial hub. According to a UN report, Hong Kong is the world's second largest recipient of foreign direct investment (FDI) inflows (\$175 billion) after the United States, and third largest in terms of FDI outflows in Asia (\$55 billion) after Japan (\$129 billion) and mainland China (\$128 billion).⁹⁶ In 2015, Hong Kong's gross domestic product (GDP) grew by 2.4 percent, down from 2.7 percent growth the previous year, and is expected to grow by 1–2 percent in 2016.⁹⁷ This downward trend is mostly a result of declines in incoming visitors and retail sales, especially luxury goods, likely related to the Mainland's recent economic slowdown and Beijing's anti-corruption drive.* From January to June 2016, Hong Kong experienced a 7.4 percent year-on-year decline in tourism after a 3.9 percent year-on-year increase in 2015; mainland visitors, who made up over 77 percent of total visitors, declined by 10.6 percent over the same period in 2016

* For example, Hong Kong's Chow Tai Fook, the largest jeweler in the world, has seen sales drop 22 percent from April through June on an annualized basis. Other luxury retailers have reportedly been closing stores over the past year. Ben Bland, "Hong Kong: One Country, Two Economies," *Financial Times*, July 19, 2016.

after increasing 5.6 percent year-on-year in 2015.⁹⁸ Merchandise exports—the largest being jewelry and precious or semi-precious materials⁹⁹—faced sluggish demand, dropping 3.9 percent year-on-year from January to June 2016.¹⁰⁰ Because of Hong Kong's close ties with the Mainland, China's recent economic weakness has exacerbated Hong Kong's economic downturn.¹⁰¹

Beijing continues to rely on Hong Kong as one of its most important economic partners.* Hong Kong is China's top entrepôt, where 61 percent of re-exports † (i.e., goods made in China, shipped to Hong Kong, and then re-exported to the Mainland and other foreign markets) were from mainland China; 54 percent of re-exports were shipped to mainland China in 2015, according to the Hong Kong Trade Development Council.¹⁰² Hong Kong is China's largest source of FDI, totaling 51 percent of all foreign investment in China by the end of 2015.¹⁰³ Likewise, mainland China is a leading investor in Hong Kong, with Chinese investment reaching approximately \$448 billion (30.1 percent of inbound Hong Kong investment) by the end of 2014.¹⁰⁴ These investment data are distorted, however, as “roundtripping” is a common practice. Just as trade between Beijing and Hong Kong involves a significant number of re-exports, analysts estimate 40 percent of all FDI flows into Hong Kong are then reinvested in China.¹⁰⁵

Hong Kong and the “Panama Papers” Case

The so-called Panama Papers—11.5 million financial documents of one of the world's leading firms incorporating offshore companies, Panamanian law firm Mossack Fonseca, leaked to the German newspaper *Süddeutsche Zeitung* and then posted online by whistleblower nonprofit International Consortium of Investigative Journalists (ICIJ)—exposed Hong Kong's central role as one of the world's largest hubs for intermediary companies (including banks, law firms, accountants, and others) to operate. From the documents, the ICIJ found that relatives of three CCP Politburo Standing Committee officials, including relatives of General Secretary Xi, have controlled offshore firms, exposing how Chinese elites move wealth out of mainland China.¹⁰⁶ According to the Panama Papers, of the more than 14,000 intermediaries that served clients of the law firm, over 2,200 operated in Hong Kong. Over the last 40 years, Mossack Fonseca incorporated 37,675 companies in Hong Kong—more than in any other country or territory.¹⁰⁷ Hong Kong's status as an attractive territory for such activity is largely a product of its independent legal system, simple tax regime, and free trade and capital flow. Among other things, the revelations in the Panama Papers illustrate the recent pattern of Chinese capital flight through Hong Kong into

*Although Hong Kong is part of China, it has a separate legal structure and is treated as “overseas” for the purposes of most regulations governing the ability of mainland Chinese to trade, travel, transfer funds, and conduct other transactions.

† Re-exports are exports of imported goods, typically in the same state as previously imported. UN International Trade Statistics, “Distinction between Exports and Re-Exports/Imports and Re-Imports.” <http://unstats.un.org/unsd/tradekb/Knowledgebase/Reexports-and-Reimports>.

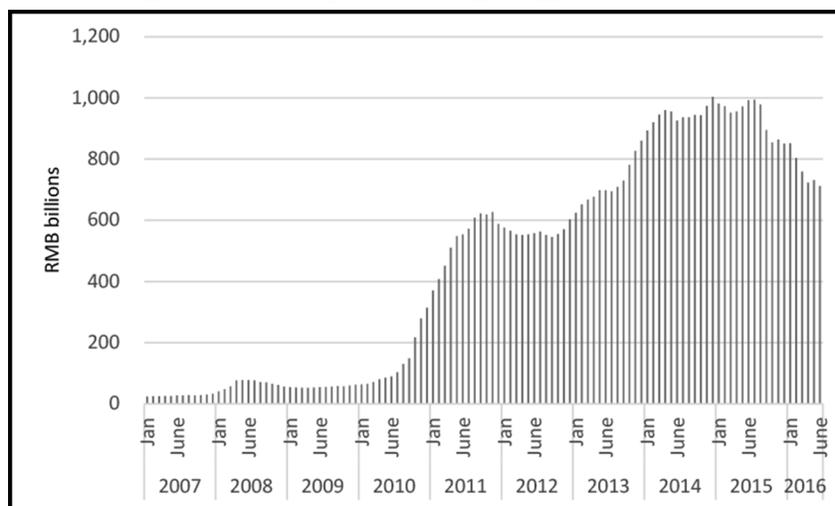
Hong Kong and the “Panama Papers” Case—Continued

foreign tax havens.¹⁰⁸ Although the impact of the disclosures on Hong Kong’s role as a hub for intermediary companies is unclear, it could lead the families of Chinese officials and other wealthy individuals to keep their assets in offshore entities filed outside of Hong Kong to maintain greater protection from whistleblowers.¹⁰⁹

Hong Kong’s Role in Mainland China’s Financial Reforms

Due to Hong Kong’s status as a global financial hub, China uses Hong Kong as its main platform to drive internationalization of the renminbi (RMB). China’s 13th Five-Year Plan (2016–2020), announced in March 2016, emphasizes capital account liberalization and RMB internationalization (for more information on China’s most recent five-year plan, see Chapter 1, Section 3, “China’s 13th Five Year Plan”).¹¹⁰ Beijing seeks to expand the use of the RMB around the world by allowing the currency to be traded in the global marketplace. In November 2015, the International Monetary Fund’s decision to include the RMB in its basket of Special Drawing Rights (effective October 1, 2016) was viewed as an opportunity to increase international demand for the RMB (see Chapter 1, Section 1, “Year in Review: Economics and Trade,” for more on this development).¹¹¹ One of the key challenges facing Beijing is continuing to boost RMB deposits in Hong Kong while more investors convert their money into Hong Kong dollars (HKD) to move capital out of mainland China.¹¹² As of June 2016, RMB customer deposits in Hong Kong have fallen over 28 percent year-on-year compared to 2015, according to Hong Kong Monetary Authority data (see Figure 2).¹¹³

Figure 2: RMB Deposits in Hong Kong, 2007–June 2016

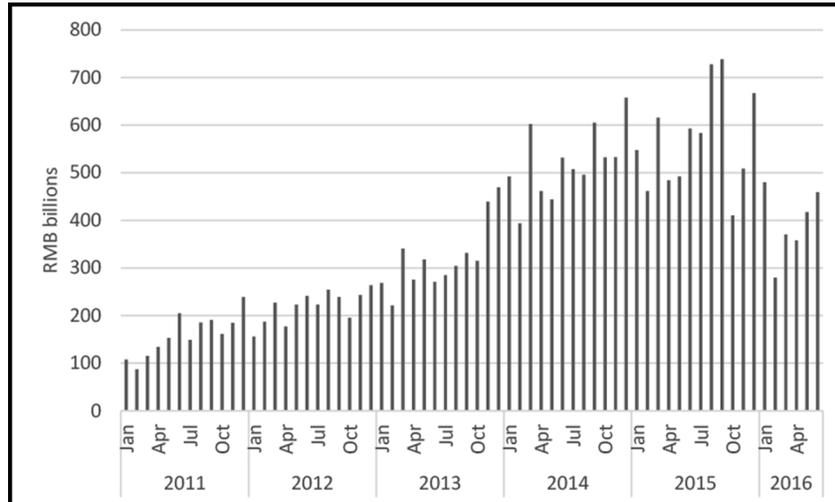


Source: Hong Kong Monetary Authority.

RMB Trade Settlement

Hong Kong banking institutions serve local and foreign banks and companies to conduct RMB trade settlement, payments, financing, and investments—another important component of Beijing’s strategy to internationalize the RMB. Hong Kong continues to be the largest hub for offshore RMB trade settlement, capturing over 90 percent of the world’s total as of the end of 2014.¹¹⁴ In 2015, RMB trade settlement grew over 9 percent year-on-year to RMB 6.8 trillion (\$1.03 trillion).¹¹⁵ However, in the first six months of 2016, trade settlement declined to RMB 2.4 trillion (\$355.5 billion), down 26 percent year-on-year (see Figure 3).¹¹⁶

Figure 3: Monthly Cross-Border RMB Trade Settlement through Hong Kong Banks, 2011–June 2016



Source: Hong Kong Monetary Authority.

Shanghai-Hong Kong Stock Connect

Viewed by many observers as one of the most important developments in recent years to advance Beijing’s efforts to internationalize the RMB, the Shanghai-Hong Kong Stock Connect launched in November 2014, linking the Shanghai and Hong Kong stock exchanges.* Mainland China intended to establish the stock connect as a gateway to bring foreign investment into Chinese shares, but the program has disappointed since its launch. After an initial period of investor excitement, trading volume has declined considerably and, since late 2015, inflows to Hong Kong via the stock connect have been increasing relative to inflows to Shanghai. In January 2016, Chinese investments in Hong Kong stocks outpaced flows

*For more information about the establishment of the Shanghai-Hong Kong Stock Connect and developments over its first year of operations, see U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 548–552.

in the opposite direction for the first time, likely due to Chinese investors seeking to escape market volatility in mainland China.¹¹⁷

Since its launch, the platform has encountered a number of obstacles that continue to hinder its effectiveness in bringing greater foreign investment inflows into Shanghai's market. One of the main challenges is that the two sides have important regulatory differences. Beijing maintains a daily quota on total investments into Hong Kong—with northbound trading capped at around \$1.9 billion and southbound trading capped at \$1.6 billion¹¹⁸—and restricts the ability of Chinese citizens to participate based on minimum account balances. In addition, China restricts short selling and suspends companies that rise or fall by 10 percent for the day, while Hong Kong does not have such limits.¹¹⁹

Financial analysts in Hong Kong believe the Shanghai-Hong Kong Stock Connect may be boosted by the opening of a Shenzhen-Hong Kong Stock Connect, which has faced a months-long delay due to Chinese market volatility* and regulatory obstacles on the Chinese side.¹²⁰ The Shenzhen-Hong Kong Stock Connect, which will remove limits imposed on foreign investors in the Shenzhen stock market, marks a step toward financial liberalization after Chinese trading regulators tightened their control following market volatility.¹²¹ In a statement before the State Council, Chinese Premier Li Keqiang indicated that the link, which will reportedly be implemented by November 2016, seeks to “exert the geographic advantages of Shenzhen and Hong Kong, and enhance the cooperation between the mainland and Hong Kong.”¹²² Because Shenzhen is a center for China's emerging industries, the new link is expected to have greater appeal to global investors, particularly in sectors like technology, pharmaceuticals, and clean energy.¹²³ Shenzhen is already China's most active exchange, handling \$1.2 trillion in trading in July 2016, the second highest in volume globally behind only the New York Stock Exchange.¹²⁴ Mainland authorities will remove aggregate trading caps for both Shenzhen's and Shanghai's stock connects with Hong Kong,¹²⁵ but Shenzhen will inherit the same daily quotas as Shanghai's exchange system.¹²⁶

Hong Kong's Security Ties with Mainland China

Since the handover of Hong Kong to the PRC in 1997, the Chinese government has been responsible for Hong Kong's defense under Article 14 of the Basic Law and in accordance with the “one country, two systems” policy.¹²⁷ The PLA has stationed forces in the Hong Kong Garrison, and its presence has gradually expanded over time but has remained relatively discreet compared to its activities and operations in and around mainland China. Nonetheless, the PLA has worked to expand its outreach efforts to Hong Kong citizens in a number of areas, including the following:

- *Opening the garrison to Hong Kong citizens:* Continuing a legacy program from the British era,¹²⁸ the PLA hosts an annual

* For more on China's recent stock market volatility, see Nargiza Salidjanova, “China's Stock Market Melted Down Shakes the World, Again,” *U.S.-China Economic and Security Review Commission*, January 14, 2016.

“open day” in which it usually opens several bases to Hong Kong citizens for military demonstrations, souvenir giveaways, and other activities.¹²⁹ The PLA reported that as of 2015, a total of 587,000 Hong Kong citizens had attended.¹³⁰

- *PLA outreach to young people:* The PLA hosts military summer camps for Hong Kong teenagers to teach them about PLA military life and mainland China. Around 500 students participated in the 2016 edition, twice as many as the previous year.¹³¹ The PLA also occasionally visits Hong Kong schools and civic groups. In December 2015, PLA personnel visited a kindergarten class to help the students make holiday presents for the elderly as part of the PLA’s “Care for Young Children” campaign.¹³²
- *Participating in Hong Kong community outreach:* PLA soldiers regularly participate in Hong Kong Tree Planting Day and blood donation activities. As of 2015, the PLA reported that garrison soldiers have planted 82,000 trees and over 6,800 troops have given blood.¹³³
- *Delivering messages through its information office:* The garrison issues messages to Hong Kong citizens, usually around the Lunar New Year, to support developmental initiatives key to Beijing. In February 2016, the garrison’s commander and political commissar issued a Lunar New Year’s greeting through the garrison’s information office, emphasizing that Hong Kong take advantage of the Mainland’s “One Belt, One Road” initiative and 13th Five-Year Plan.¹³⁴

The PLA’s Hong Kong Garrison has also conducted increasingly complex military exercises in recent years (see Table 1). Many of these exercises have occurred during particularly sensitive times in Hong Kong, causing prodemocracy advocates and other observers to assert that the CCP is using the PLA as a tool to apply pressure on Hong Kong citizens to fall in line with Beijing’s demands.¹³⁵

Table 1: Select PLA Hong Kong Garrison Exercises, 2011–October 2016

Date	Exercise Type (Name, if applicable)	Platforms and Services Involved (if reported)	Details and Perceived Political Sensitivity (if reported)
August 2016	Special Forces Exercise	Not reported	The exercise, which took place in Hong Kong, involved air, land, and sea drills, and urban combat using live ammunition. Although the dates of the five-day exercise are unclear, Chinese media broadcast video from the exercise the day before Hong Kong’s first pro-independence rally. ¹³⁶

Table 1: Select PLA Hong Kong Garrison Exercises, 2011–October 2016—Continued

Date	Exercise Type (Name, if applicable)	Platforms and Services Involved (if reported)	Details and Perceived Political Sensitivity (if reported)
2015 (various)	“Defenders of Hong Kong” Exercises	PLA Army, Navy, and Air Force	Four live-fire exercises held from May to October 2015 covered maritime defense, air defense, army-air operations, and joint operations. The July exercise was the first exercise ever open to the public, ¹³⁷ and occurred three days after China passed a new national security law that emphasized Hong Kong’s responsibility to defend China’s national security. The October exercise was intended to improve joint operational capabilities, while some Hong Kong media reported that it appeared targeted at pro-independence groups. ¹³⁸
1/24/2014	Sea-Air Joint Patrol	Two frigates and three helicopters	The patrol through Victoria Harbor (between Hong Kong Island and Kowloon) was staged less than one month after anti-PLA protests.* ¹³⁹
7/4/2013	Sea-Air Joint Patrol	Two Type 056 frigates and four armed rescue helicopters	Frigates newly introduced in early 2013 participated in the joint patrol, which was staged several days after the annual July 1 prodemocracy march. ¹⁴⁰
3/24/2013	Live-Fire Helicopter Exercise	Helicopters	The exercise was the first live-fire exercise in Hong Kong since 1997. It reportedly involved simulating the response to an external attack. ¹⁴¹
10/24/2012	Anti-Separatist Exercise	Helicopters, armored vehicles, and surface ships (PLA Army, Navy, and Air Force)	The exercise reportedly simulated armed combat against a “blue force” Cantonese-speaking army in an urban environment and included the seizure of a mountainous area outside the city. ¹⁴²
3/9/2011	Sea-Air Joint Patrol	PLA Army, Navy, and Air Force	The patrol involved surveillance, reconnaissance, and target tracking as well as sea and air emergency response. ¹⁴³

*For more information on the protests surrounding the building of a Chinese military port, see U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 528–529.

China Denies U.S. Navy Flotilla Port Call in Hong Kong

In April 2016, Beijing refused to allow the U.S. aircraft carrier *John C. Stennis* and supporting vessels a routine port call at the Hong Kong Garrison for the first time since August 2014. The decision to reject the U.S. Navy flotilla appeared to be in response to U.S. Navy freedom of navigation operations in the South China Sea challenging China's claims and those of other claimants.¹⁴⁴ Since 2013, an average of 14 U.S. Navy ships per year made port calls in Hong Kong,¹⁴⁵ and China has only refused U.S. port visits four times since the handover of Hong Kong to the PRC in 1997.¹⁴⁶

Implications for Taiwan of Beijing's Control over Hong Kong's Political Development

As Beijing's actions to restrict Hong Kong's autonomy intensify and the Hong Kong prodemocracy movement grows increasingly pessimistic about mainland China's control over Hong Kong—especially given its disregard for rule of law and lack of concessions on electoral reform—Taiwan activists are watching these developments with concern. In the event Taiwan could be brought under the “one country, two systems” framework in the future, which is Beijing's preferred model for Taiwan,¹⁴⁷ it would likely encounter similar encroachment on its democratic values and system of government. Mainland China's recent actions violating its commitments under the 1997 Sino-British Joint Declaration—the handover agreement of Hong Kong from the UK to the PRC—and reflected in the Basic Law to allow “a high degree of autonomy” in Hong Kong¹⁴⁸ do not bode well to achieve its goal of reunifying Taiwan with mainland China. Moreover, Taiwan has already rejected any potential framework similar to Hong Kong. According to Ma Ying-jeou, Taiwan's president from 2008 to 2016 who presided over a period of positive cross-Strait ties, “Taiwan [has] made it very clear that we would not accept [the “one country, two systems” formula]. If between two systems one is better, that system should prevail.”¹⁴⁹ During the Commission's trip to Taipei in June 2016, several Taiwan interlocutors emphasized that Taiwan citizens and the Tsai Ing-wen Administration do not want a relationship with mainland China resembling Hong Kong's “one country, two systems” model.¹⁵⁰ (See Chapter 3, Section 2, “China and Taiwan,” for more information on developments in Taiwan.)

Implications for the United States

U.S. policy toward Hong Kong remains based upon the U.S.-Hong Kong Policy Act of 1992, which outlines U.S. support for Hong Kong's democratization, human rights, and autonomy under the “one country, two systems” framework. Advocating for freedom of expression and democratic ideals serves as an important pillar of U.S. policy in the Asia Pacific. The 2016 LegCo elections serve as a vivid example of Hong Kong's democratic progress, particularly in resisting interference from Beijing. A spokesperson for the U.S. Department of State Bureau of East Asia and Pacific Affairs said, “[The record turnout was an] affirmation of the commitment of [the Hong Kong] people to participate in the democratic process.

[The Obama Administration] looks forward to working with all elected leaders to build strong relations between the United States and Hong Kong and achieve mutually beneficial goals.”¹⁵¹ However, the recent downward trends in Hong Kong with regard to electoral reform, press freedom, and academic freedom run counter to U.S. interests and values.

The case of Hong Kong—particularly as it relates to the booksellers incident and encroachment on press and academic freedoms, and the new loyalty “pledge” required for legislative candidates—reflects a broader pattern of behavior in which Beijing disregards norms, agreements, or laws (either in spirit or in letter) in pursuit of its objectives. It calls into question Beijing’s ability to retain its commitments to its neighbors. This is especially relevant when it comes to China’s commitment not to encroach on Taiwan’s autonomy, which in recent years has been increasingly threatened. The United States and Asia Pacific countries are already concerned about Beijing’s assertive actions in the region more broadly, particularly its island building in the South China Sea and aggressive behavior defending its claims, including by violating the spirit of the UN Convention on the Law of the Sea, to which China is a signatory.

Moreover, Hong Kong’s traditional standing as a global financial hub has significant economic implications for the United States, as U.S. trade and investment ties with Hong Kong are substantial. Hong Kong is the ninth-largest importer of U.S. goods, and the United States retains its largest trade surplus with Hong Kong (\$35.1 billion), according to 2014 data.¹⁵² U.S. FDI in Hong Kong ranked sixth in the world as of year-end 2014 (HKD 385 billion, \$49.6 billion).¹⁵³ In addition, Hong Kong is home to more than 1,400 U.S. firms, which depend on Hong Kong’s supportive business environment.¹⁵⁴ At the multilateral level, Hong Kong is a helpful participant alongside the United States in key international economic institutions, including the World Trade Organization, Asia-Pacific Economic Cooperation, the Financial Action Task Force on money laundering, and the Financial Stability Board on monitoring the global financial system.¹⁵⁵

Nonetheless, many in the Hong Kong business community, including U.S.-based and global firms, are beginning to question Hong Kong’s future as a global financial center due to the deterioration of the “one country, two systems” model, particularly as a result of the booksellers incident over the past year.¹⁵⁶ According to an executive at a foreign chamber of commerce in Hong Kong, “For many businesses, the [booksellers] incident has raised many questions about the rule of law, which is one of the absolutely key aspects that makes Hong Kong work and gives people the confidence to do business here.”¹⁵⁷ In February 2016, after months of deliberation, UK bank HSBC ultimately decided not to move its headquarters from London to Hong Kong; the decision was likely influenced in part by the lack of confidence in the maintenance of the “one country, two systems” framework in Hong Kong.¹⁵⁸ The chill felt across the Hong Kong business sector could negatively impact U.S. interests if the present climate persists.

Conclusions

- In the highest voter turnout to date for the 2016 Legislative Council elections, Hong Kong citizens rejected Beijing's heavy-handed efforts to limit support for prodemocracy candidates, resulting in the pan-democrats winning 30 out of 70 total seats (a net gain of three) and maintaining their ability to block pro-Beijing legislation. The election of five candidates from political parties founded in the aftermath of the 2014 Occupy protests demonstrated progress in Hong Kong's democratic development, particularly the increasing involvement and influence of young people in the political process.
- The case of the five Hong Kong sellers of political gossip books banned in mainland China who appeared to have been abducted and detained by Chinese authorities led many, including those not previously concerned, to call into question the state of Hong Kong's ability to maintain its independent legal system; Hong Kong's autonomy under the "one country, two systems" model; and the city's standing as a global financial center. Although long-term impacts are unclear at this time, the incident has already caused a chill throughout the book publishing industry, leading to bookstore closures and increased self-censorship.
- Beijing's refusal in 2014 to allow democratic reforms to the chief executive nomination process along with increased pressure on Hong Kong's political discourse over the past year, have led to greater disillusionment and pessimism among Hong Kong prodemocracy advocates regarding China's commitment to the "one country, two systems" framework.
- Hong Kong continues to face pressure on press and academic freedoms guaranteed under its mini constitution, the Basic Law. Schools in Hong Kong are facing increasing pressure, limiting open debate about democratic ideas and independence. Chinese e-commerce giant Alibaba's acquisition of the Hong Kong-based English-language newspaper *South China Morning Post* demonstrated Beijing's increasing reach into Hong Kong. Hong Kong citizens and international press freedom watchdogs have expressed their concern regarding these developments.
- In 2016, Hong Kong played an increasing role in Beijing's push to internationalize the renminbi. Although the existing Shanghai-Hong Kong Stock Connect has not lived up to expectations thus far due in part to regulatory deficiencies, as it matures over the coming years the platform could help facilitate greater investment into mainland stock markets. In November, Beijing plans to establish a second stock connect between Shenzhen and Hong Kong, which is expected to have greater appeal to global investors as Shenzhen is a base for the Mainland's emerging industries and its most active stock exchange.
- As Hong Kong's sole provider of defense under the Basic Law, the People's Liberation Army (PLA) has retained a relatively low-key presence, but has gradually expanded its outreach efforts to Hong Kong citizens. The PLA has also conducted increasingly sophisticated exercises in recent years, particularly during sen-

sitive periods in Hong Kong, leading some to accuse Beijing of using the exercises to pressure Hong Kong citizens.

- China's efforts to exert influence over Hong Kong in ways that undermine Hong Kong's autonomy under the Basic Law reflect a broader pattern of reliance on tools of pressure and coercion—rather than norms, laws, and agreements—to advance its interests vis-à-vis its neighbors. This pattern is also evident in China's relations with Taiwan and its recent behavior in the South China Sea.
- Hong Kong's standing as a global financial hub has significant economic implications for the United States, as U.S. trade and investment ties with Hong Kong are substantial. Nonetheless, some observers in Hong Kong are beginning to question its future as a global financial center due to the deterioration of the "one country, two systems" framework resulting in large part from the booksellers incident over the past year.

RECOMMENDATIONS

China and Hong Kong

The Commission recommends:

- Congress express that China's apparent abduction and detention of five Hong Kong and foreign national booksellers based in Hong Kong for selling banned books to customers in mainland China violates its commitments to maintaining a "high degree of autonomy" in Hong Kong under the "one country, two systems" framework. In addition, members of Congress in their meetings in China should continue to express support for human rights and rule of law in Hong Kong.
- Congress continue to renew annual reporting requirements of the U.S.-Hong Kong Policy Act of 1992, in an effort to ensure policymakers have the most up-to-date and authoritative information about developments in Hong Kong.
- Congress direct the U.S. Department of State to prepare a report that assesses whether Hong Kong has maintained a "sufficient degree of autonomy" under the "one country, two systems" policy, due to the deterioration of freedom of expression in Hong Kong and Beijing's increasing encroachment.

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SECTION 4: CHINA AND NORTH KOREA

Introduction

On September 9, 2016, North Korea conducted its fifth nuclear test—its second in 2016 and most powerful to date. The test follows a period of increased provocations under Kim Jong-un in defiance of the international community and North Korea's neighbor and closest partner, China. Since 2012, when Chinese President and General Secretary of the Chinese Communist Party (CCP) Xi Jinping assumed leadership and Kim Jong-un emerged as the leader of North Korea, China-North Korea relations have become increasingly strained. This downturn has largely been due to the Kim regime's increased belligerence and rejection of the international community's efforts to coax North Korea to denuclearize. Since then, bilateral relations have been characterized by growing frustration and downgraded diplomatic ties. In response to Pyongyang's fourth nuclear test in January 2016, China in March increased pressure on North Korea by agreeing to the most stringent UN resolution on North Korea to date.¹ As of the publication of this Report, the UN Security Council was negotiating a new resolution, which appears likely to further tighten economic sanctions, presenting Beijing with another opportunity to join the international community in meaningfully punishing Pyongyang's behavior.

It is too soon to fully evaluate China's implementation of the March sanctions, but apparent gaps in enforcement have already emerged. Moreover, the decision by South Korea and the United States to deploy the United States' Terminal High Altitude Area Defense (THAAD) ballistic missile defense system in South Korea by late 2017 has led China to interrupt what had been a period of increasingly friendly China-South Korea relations and obstruct international and regional cooperation on North Korea, though the long-term effects of the THAAD deployment are unclear.² Despite Pyongyang's increasingly aggressive behavior, the overall direction of Beijing's North Korea policy is unlikely to change. China has consistently sought to manage relations with North Korea, prioritizing stability by supplying Pyongyang with critical resources and hard currency, and helping to preserve the Kim regime in order to maintain a strategic buffer between China and U.S.-allied South Korea. This divergence between U.S. and Chinese strategic objectives on the Korean Peninsula is why perpetual U.S. hopes that China will use its supposed leverage to compel change in North Korea have not been fulfilled.

This section discusses the basis of the China-North Korea relationship, drivers of China's North Korea policy, China's evolving policies and perceptions regarding North Korea, China's enforcement of UN sanctions and its economic ties with North Korea, and the implications of the changing relationship for the United

States.* It is based on open source research and analysis and consultations with U.S. and foreign nongovernmental experts.

Overview of Contemporary China-North Korea Relations

Contemporary diplomatic relations between China and North Korea (the Democratic People's Republic of Korea, or DPRK) are founded on the shared experience of fighting against Japan starting in the 1930s, Communist Party ties dating back to the 1920s, shared wartime camaraderie from fighting together during the Korean War (1950–1953), and the 1961 Treaty of Friendship, Co-operation and Mutual Assistance.³ The treaty states that each party should “adopt all measures to prevent aggression against either [country] by any state,” and it includes a mutual defense clause, though some Chinese observers question China's commitment to North Korea's defense in a contingency.⁴ Each country is the other's only formal treaty ally. The relationship is based on party-to-party ties, shared distrust of the West, and proximity, among other factors.⁵

China's economic, diplomatic, and military support for North Korea is driven by its overarching goal of maintaining sufficient stability in North Korea to ensure the Kim regime's survival and preserve a strategic buffer between itself and U.S.-allied South Korea (the Republic of Korea, or ROK).⁶ In terms of economic support, China provides North Korea with most of its critical energy and food resources.⁷ It also funds and operates free trade zones near the border and supports infrastructure projects designed to improve connectivity between the two countries (for more on economic relations, see “North Korea Remains Economically Dependent on China,” later in this section).⁸ As for diplomatic support, China uses its position on the UN Security Council to protect North Korea from international criticism and to reduce the impact of economic sanctions, and often opposes unilateral U.S. sanctions, as well as regional and international condemnations against the North.⁹ In terms of dual-use and defense assistance, Chinese firms have sold components and materials to North Korea that could be used for military applications, including ballistic missiles.[†]¹⁰ (See “Gaps in China's Enforcement of UNSCR 2270” for more information on recent dual-use transfers to North Korea.)

* For the Commission's previous reporting on China-North Korea relations, see Michael Pilger and Caitlin Campbell, “Diminishing China-North Korea Exchanges: An Assessment,” *U.S.-China Economic and Security Review Commission*, March 23, 2015; U.S.-China Economic and Security Review Commission, Chapter 3, Section 2, “Recent Developments in China's Relationship with North Korea,” in *2014 Annual Report to Congress*, November 2014, 446–469; U.S.-China Economic and Security Review Commission, *2013 Annual Report to Congress*, November 2013, 228–229; and U.S.-China Economic and Security Review Commission, *2011 Annual Report to Congress*, November 2011, 241–252.

† For example, in October 2015, North Korea displayed guided artillery rockets mounted on vehicles imported from China. The Chinese government claimed the vehicles were exported with a clause stating the vehicles were only for “forest area operations and timber transportation.” The UN Panel of Experts tasked with investigating sanctions enforcement against North Korea reaffirmed the recommendation it made in its 2013 report—involving a similar case of a Chinese vehicle being sold and converted into a transporter-erector-launcher—that member states should “exercise vigilance” over exporting heavy vehicles. UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874* (2009), February 24, 2016, 39–40; UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874* (2009), June 11, 2013, 26–28.

From North Korea's perspective, while it needs Chinese support—particularly economic assistance—for the survival of the Kim Jong-un regime, Pyongyang resents this near complete dependence and has longstanding frictions with Beijing.¹¹ North Korea distrusts China, which it feels has abandoned Marxist-Leninist principles and become morally corrupted by capitalism and its relations with South Korea and the United States.¹² For its part, China views North Korea as a backward country.¹³ Beijing resents the accumulation of Pyongyang's provocations—particularly nuclear and ballistic missile tests violating UN resolutions—which it fears will lead to further instability on the Korean Peninsula and could heighten the risk of a major conflict in the region.¹⁴ Relatedly, Beijing likely views North Korea's continued belligerence against South Korea as strengthening Seoul's alliance with Washington and bolstering the U.S. military presence in Northeast Asia.¹⁵ While these frictions persist, Beijing's aversion to punishing Pyongyang—even in the face of increasing provocations—conveys China's perception that the preservation of the North Korean state and the Kim dynasty is essential to China's interests.

Recent Developments in China-North Korea Relations

Since President Xi took office in late 2012, persistent North Korean belligerence has contributed to a noticeable downturn in China's relations with North Korea. This trend continued in 2016 when, after North Korea's fourth nuclear test, China supported the most stringent UN Security Council resolution to date on North Korea. Beijing also condemned North Korea's September nuclear test and pledged to work with the United States and other UN Security Council members to further tighten North Korea sanctions. Alongside China's support for increased sanctions, a sustained drop in high-level contacts between China and North Korea has continued, and unlike in years past, public statements disseminated in the media and by government officials on both sides do not appear to convey an impression of particular closeness or cooperation. These developments suggest China has grown increasingly frustrated with North Korea's behavior in recent years. However, the recent decision by South Korea and the United States to deploy a THAAD ballistic missile defense system battalion in South Korea appears to be reinforcing Beijing's long-held suspicion of U.S. intentions on the Korean Peninsula.

North Korea Continues Provocations and Conducts Its Fourth and Fifth Nuclear Tests

The China-North Korea relationship has deteriorated during the Xi Administration, attributable largely to Pyongyang's weapons-testing-related activities: North Korea launched a satellite using ballistic missile technology in December 2012 and conducted its third nuclear test several months later; both activities occurred during China's sensitive leadership transition and despite Beijing's repeated warnings to Pyongyang against such provocations.¹⁶ According to Scott Snyder, senior fellow at the Council on Foreign Relations, China downgraded bilateral ties in 2013 from a "special"

relationship to “normal relations between states.”* Persistent tests of short- and medium-range ballistic missiles and systems using ballistic missile technology followed, violating UN resolutions.¹⁷ Then in January 2016, North Korea conducted its fourth nuclear test, another violation of UN sanctions.[†]¹⁸ Notably, unlike it did with previous nuclear tests, Pyongyang did not give Beijing advance warning about the fourth test.¹⁹

Following a series of missile and weapons systems tests demonstrating alarming progress (discussed in detail later in this section), in September 2016 North Korea conducted its fifth nuclear test, which was the most powerful to date.[‡] Previously, North Korean nuclear tests were conducted once every three to four years.²⁰ Beijing did not confirm or deny that Pyongyang provided it advance notice of the fifth test, but some analysts suspect a high-level North Korean diplomat who traveled to Beijing just prior to the test warned Chinese officials.²¹

Beijing’s initial diplomatic reaction to North Korea’s January 2016 nuclear test was restrained and similar to its reaction to North Korea’s 2013 test: China issued a statement expressing its opposition to the test and summoned the North Korean ambassador.²² Beijing also appeared cautious in applying further pressure on North Korea. Several weeks after the nuclear test, Chinese Foreign Minister Wang Yi agreed with U.S. Secretary of State John Kerry that new sanctions were necessary but that China believed the resolution “should not provoke new tensions.”²³ In February 2016, after Wu Dawei, China’s Special Representative for Korean Peninsula Affairs, traveled to Pyongyang and was reportedly unable to convince Kim Jong-un to stop provocations, President Xi had a phone conversation with South Korean President Park Geun-hye—the first consultation between leaders of the two countries following a North Korean nuclear test—but reportedly disagreed with the South Korean president on how to proceed.²⁴ In contrast to the January nuclear test and other previous tests, China’s initial response to the September 2016 nuclear test was more forceful, though at the time this Report was published China had yet to take concrete steps to punish Pyongyang. Beijing summoned the North Korean ambassador²⁵ and issued a statement expressing its opposition to the test just as it did earlier. However, Beijing’s statement for the first time called on North Korea to “comply with the relevant resolutions adopted by the United Nations Security Council” in addition to stating that China would “work together with the

* After the downgrade in relations with Pyongyang, Kim Jong-un’s purge and execution of his uncle and high-level official Jang Song-taek in December 2013 caused further deterioration in China-North Korea ties. Mr. Jang’s purge was reportedly due to his support for China-like economic reforms in North Korea and his increasing influence in the North Korean leadership. Mr. Jang was particularly close to China and important in facilitating North Korea-China economic ties. Scott A. Snyder, “Will China Change Its North Korea Policy?” *Council on Foreign Relations*, March 31, 2016; U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 449.

† Pyongyang claimed it successfully tested a hydrogen bomb, but nuclear experts denied the claim and confirmed the bomb’s yield was just slightly more powerful than previous tests. Stella Kim, Eric Baculinao, and Jason Cumming, “North Korea Says It Successfully Conducted Hydrogen Bomb Test,” NBC News, January 6, 2016.

‡ North Korea claimed that the test demonstrated its ability to miniaturize warheads to mount atop ballistic missiles, and analysts largely concurred with Pyongyang’s claims. Seyoon Kim, Hooyeon Kim, and Shinhye Kang, “North Korea Says Tested Nuclear Bomb, Can Miniaturize Arms,” Bloomberg, September 9, 2016; Zack Beauchamp, “The Textbook Definition of Unstable: Why North Korea’s Newest Nuclear Test Is Scary,” *Vox*, September 9, 2016.

international community to steadfastly push forward the goal of denuclearization.”²⁶ Several weeks after the nuclear test, Chinese Premier Li Keqiang met with U.S. President Barack Obama, and they agreed to strengthen coordination on achieving denuclearization of the Korean Peninsula by bolstering cooperation on North Korea in the UN Security Council and “in law enforcement channels.”²⁷

UN Security Council Responds to North Korea’s January 2016 Nuclear Test

After weeks of negotiations, China in March 2016 joined the United States and other UN Security Council members to unanimously pass UN Security Council Resolution (UNSCR) 2270—the toughest set of sanctions on North Korea to date.²⁸ Upon signing on to the resolution, a spokesperson from the Ministry of Foreign Affairs stated China’s reasoning for supporting the sanctions: “The Chinese side believes that the DPRK’s recent nuclear test and satellite launch violated [UN Security Council resolutions]. It is necessary for the UN Security Council to pass a new resolution on curbing the DPRK’s capabilities to develop nuclear and missile programs.”²⁹ China’s representative to the UN Liu Jieyi also reiterated that another reason for agreeing to the new set of sanctions was to compel North Korea to resume dialogue and negotiations on its nuclear program.³⁰

Several factors and perceptions may have influenced China’s decision: (1) impatience with Pyongyang’s belligerence—particularly in the face of Chinese requests to halt provocations—and fear that further provocations would invite unwanted enhancements in the U.S., South Korean, or Japanese military position in the region; (2) desire to avoid perceptions that it is shielding North Korea or is out of step with the international community, which unanimously and vociferously condemned the launch; and (3) concern about the impact a viable North Korean nuclear threat would have on stability on the Korean Peninsula. According to Balbina Hwang, a visiting professor at Georgetown University and American University, “The primary driver behind China’s decision to sign on to UN sanctions had little to do with North Korea itself; rather, Beijing saw an opportunity to ameliorate the U.S.-China relationship, which had been experiencing high levels of tension related to developments in the South China Sea and cyber espionage.”³¹ As of the publication of this Report, the UN Security Council was deliberating over a new UN resolution on North Korea, and these same factors and perceptions almost certainly will influence Beijing’s negotiations and decision regarding the probable resolution.

UNSCR 2270 targets North Korea’s diplomatic and commercial activities that are used to fund and help conceal its nuclear and ballistic missile activities, and includes the following key components that expand on previous resolutions:*

- *Requires cargo inspections and enhanced maritime procedures:* All countries are obligated to inspect cargo to and from North

*For a list of each component of UN Security Council Resolution 2270, see United States Mission to the United Nations, *Fact Sheet: DPRK Resolution 2270 (2016)*, March 2, 2016. For the full text of the resolution, see UN Security Council, *Resolution 2270 (2016)*, March 2, 2016.

Korea. The resolution also bans North Korean chartering of ships and planes.

- *Bans trade of key energy and mineral resources:* The resolution bans the export of coal, iron, and iron ore from North Korea, except those for “livelihood purposes” (those determined not to generate revenue for North Korea’s nuclear and ballistic missile development). Although the vague “livelihood purposes” language presents a significant loophole, as it is nearly impossible to prove or disprove whether these export revenues are augmenting prohibited North Korean activities,³² the resolution marks the first time these commodities have been included in UN Security Council sanctions on North Korea.³³ Rare earth element exports from North Korea are also banned, in addition to the transfer of aviation fuel (including rocket fuel) to North Korea.
- *Targets North Korean proliferation networks:* The resolution requires countries to expel North Korean diplomats engaged in activities that violate UN resolutions. It also includes a requirement for countries to expel foreign nationals who aid North Korea in evading sanctions and to close offices of designated North Korean entities and expel their representatives.
- *Imposes financial sanctions targeting North Korean banks and assets:* Countries are prohibited from allowing North Korean banks to open branches (or any related activity) and from allowing their own banks to operate in North Korea. The resolution also restricts a range of public and private financial support for North Korea and requires countries to close any North Korean financial institutions or affiliates that could contribute to its nuclear or ballistic missile programs or violations of UN resolutions.³⁴

Overview of Unilateral U.S. Sanctions on North Korea in 2016 and Implications for China

Alongside UNSCR 2270, the Obama Administration, in accordance with the North Korea Sanctions and Policy Enhancement Act of 2016 (which became law in February 2016),³⁵ announced several sets of unilateral sanctions on North Korea in 2016, targeting the North Korean leadership and the country’s access to the global financial system. In June, the U.S. Treasury Department designated North Korea a “primary money laundering concern” under the Patriot Act, prohibiting non-U.S. banks and entities from processing U.S. dollar-denominated transactions on North Korea’s behalf.³⁶ This will primarily impact Chinese banks that do business with North Korean entities, and serves to tighten restrictions on North Korea’s foreign trade, although the impact of the measure is unclear at this time (the sanctions entered force in August 2016). In response to the sanctions, a spokesperson for the Chinese Embassy in Washington stated China’s opposition to unilateral sanctions, saying the sanctions should avoid aggravating tensions on the Korean Peninsula and

**Overview of Unilateral U.S. Sanctions on North Korea
in 2016 and Implications for China—Continued**

“must not affect and harm the legitimate rights and interests of China.”³⁷

Another set of sanctions, which appear to have a minimal impact on Chinese interests, are the July blacklisting of Kim Jong-un, ten other senior North Korean officials, and five North Korean government entities for overseeing crimes against humanity. The sanctions, resulting from findings in the U.S. State Department’s 2016 North Korea human rights and censorship report, freeze any assets of these officials and entities in the United States and ban any U.S. interaction with them.³⁸ The sanctions will have a minimal impact on North Korea—the targets have few, if any, assets in the United States—but they could lead other countries to impose similar sanctions on North Korea in the future. China previously attempted to block the UN Security Council from even discussing North Korea’s human rights abuses.³⁹

In September 2016, the U.S. Department of the Treasury for the first time sanctioned Chinese entities and individuals with economic ties to North Korea. Treasury designated Dandong Hongxiang Industrial Development Co. and four Chinese nationals who directed and managed the firm for sanctions evasion activities, froze their assets, and prohibited U.S. citizens from conducting business with them.⁴⁰ In addition, the U.S. Department of Justice indicted the individuals and entity for sanctions violations, conspiracy, and money laundering. It also filed a civil forfeiture action for funds in 25 Chinese bank accounts allegedly belonging to the firm and its front companies, effectively confiscating the money. Dandong Hongxiang Industrial Development Co. allegedly used front companies established in offshore jurisdictions and Chinese bank accounts to conduct U.S. dollar financial transactions with sanctioned North Korean entities through the U.S. banking system.⁴¹ (For more details on the case, see “Gaps in China’s Enforcement of UNSCR 2270,” later in this section.) Such actions could compel Beijing to increase regulatory measures on Chinese firms doing business with the Kim regime. However, China is also unlikely to severely cut off economic ties with North Korea, as doing so could lead to instability or regime collapse in the North (see “Differences between China and the United States on North Korea Policy,” later in this section).

Although it is still too early to judge the extent of China’s sanctions enforcement, certain areas of progress and gaps are evident thus far (detailed in “Gaps in China’s Enforcement of UNSCR 2270,” later in this section).

UN Security Council Formulates New Resolution Following North Korea’s September 2016 Nuclear Test

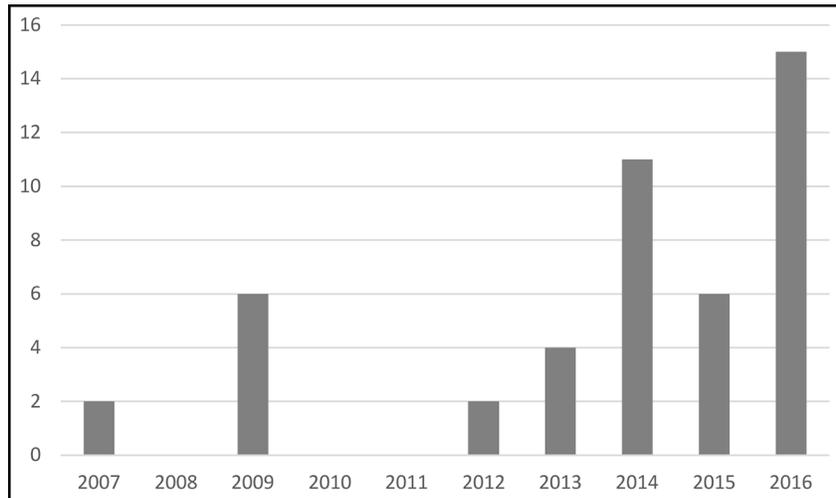
As of the publication of this Report, the UN Security Council was deliberating a new round of sanctions. It is almost certain that the new UN resolution will include measures beyond UNSCR 2270 to

increase pressure on Pyongyang. Some areas the resolution reportedly may target include closing the “livelihood purposes” loophole and preventing North Korea from sending its workers abroad, which are some of the largest sources of hard currency for the Kim regime.⁴²

North Korea Increases Frequency of Missile Tests

Since the January 2016 nuclear test, North Korea has conducted at least 19 missile tests involving 40 projectiles (as of October 20, 2016); among these tests, at least 15 have used ballistic missile technology—the most such tests in a single year in the past decade—and therefore violated UN resolutions (see Figure 1).⁴³

Figure 1: North Korea Missile Tests Violating UN Resolutions, 2007–October 2016



Note: Missile tests in this figure are defined as including all launches using ballistic missile technology in a single day. Tests in 2016 are current as of October 20, 2016.

Source: Ju-min Park and Eric Walsh, “Another North Korea Missile Test Fails after Launch, Says U.S. and South,” Reuters, October 20, 2016; Associated Press, “US, S. Korea Say Latest N. Korea Missile Launch Fails,” October 15, 2016; Victor Cha, “North Korean Provocations & US-ROK Military Exercises Dataset,” *CSIS Beyond Parallel Original Datasets*, September 2016. <http://beyondparallel.csis.org/database/>; and Japan’s Ministry of Defense, *North Korea’s Missile Launches in 2016*, September 9, 2016. Staff translation. http://www.mod.go.jp/j/approach/surround/pdf/dprk_bm_20160909.pdf.

In February 2016, before UNSCR 2270 was passed, North Korea launched a satellite—ostensibly for earth observation purposes—using ballistic missile technology, prompting a UN Security Council statement that condemned the launch for violating UN resolutions.⁴⁴ After North Korea’s submarine-launched ballistic missile test and failed intermediate-range ballistic missile tests in April 2016, Chinese state-run media accused North Korea of “sabre-rattling,”⁴⁵ and Beijing—together with its partners on the UN Security Council—pushed all parties to “strengthen implementation of the measures imposed in [UNSCR 2270].”⁴⁶

Although many of its tests in 2016 appeared to fail, in June North Korea alarmed U.S. observers and allies in Asia when it conducted an apparently successful launch of its Musudan intermediate-range ballistic missile,* which traveled 400 kilometers (250 miles). Following four failed Musudan tests earlier in the year, this launch demonstrated advancing capabilities that could eventually threaten Guam and other U.S. territories.⁴⁷ Meanwhile, China issued a mild rebuke in line with most of its responses to North Korean weapons tests, stressing that “relevant parties should avoid taking actions that may escalate the tension and make joint efforts to safeguard regional peace and stability.”⁴⁸ Demonstrating similarly significant progress in its missile development, North Korea in August conducted a submarine-launched ballistic missile test; the missile traveled over 500 kilometers (310 miles), covering a longer distance than previous tests and landing for the first time within waters inside Japan’s exclusive economic zone.† During the same month, North Korea launched an intermediate-range ballistic missile traveling approximately 1,000 kilometers (621 miles) into waters below Japan’s air defense identification zone.‡ These launches elicited strong concerns in Tokyo.⁴⁹ After reportedly blocking a UN Security Council statement condemning the first test that landed in Japan’s exclusive economic zone,⁵⁰ Beijing eventually conceded to join a statement denouncing both tests and several others from earlier in the year.⁵¹

High-Level Contacts between China and North Korea Remain Limited, but Engagement Efforts Persist

During the Xi Administration, high-level contacts§ between China and North Korea have been significantly less frequent than in previous years. According to open source reporting, only five high-level contacts have occurred between the two countries since the beginning of 2015⁵²—a decline from the seven contacts over the previous two-year period (which was already significantly lower than in years prior).¶⁵³ Meanwhile, President Xi has yet to meet with Kim Jong-un, which is particularly notable given that since taking office President Xi has conducted eight summit meetings with President Park and has expended considerable effort to ex-

*The Musudan has an estimated range of 3,500 km (2,175 mi). According to John Schilling, an expert on North Korea’s missile force at the Aerospace Corporation, a federally funded research and development center, at a minimum, the missile is accurate enough to hit Guam but does not have precise targeting capabilities. John Schilling, “A Partial Success for the Musudan: Addendum,” *38 North* (U.S.-Korea Institute blog), June 28, 2016; John Schilling, “A Partial Success for the Musudan,” *38 North* (U.S.-Korea Institute blog), June 23, 2016.

†An exclusive economic zone is a 200-nautical-mile zone extending from a country’s coastline, within which that country can exercise exclusive sovereign rights to explore for and exploit natural resources, but over which it does not have full sovereignty. UN Convention on the Law of the Sea, “Part 5: Exclusive Economic Zone,” Jun Ji-hye, “N. Korea Missile Lands in Japanese Waters,” *Korea Times* (South Korea), August 3, 2016.

‡An air defense identification zone, or ADIZ, is a publicly declared area, established in international airspace adjacent to a state’s national airspace, in which the state requires that civil aircraft provide aircraft identifiers and location. Its purpose is to allow a state the time and space to identify the nature of approaching aircraft before those aircraft enter national airspace in order to prepare defensive measures if necessary. Kimberly Hsu, “Air Defense Identification Zone Intended to Provide China Greater Flexibility to Enforce East China Sea Claims,” *U.S.-China Economic and Security Review Commission*, January 14, 2014.

§For the purposes of this Report, meetings in which at least one participant holds vice-ministerial rank or higher are considered high-level contacts.

¶According to open-source reporting, 30 high-level meetings occurred between 2011 and 2013. U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 451–452.

pand China-South Korea ties.⁵⁴ The steady decline in high-level contacts between China and North Korea in recent years is probably attributable to China's downgrading of relations in 2013 from a special relationship to normal state-to-state ties, as well as distrust between President Xi and Kim Jong-un.⁵⁵

Nevertheless, Beijing appears to have pursued some level of renewed diplomatic engagement since late 2015. Several prominent examples include the following:

- In October 2015, Chinese Politburo member and propaganda chief Liu Yunshan visited North Korean leader Kim Jong-un, the highest-level visit to Pyongyang by a Chinese official since 2013. During the visit at a military parade marking the 70th anniversary of the Workers' Party of Korea, the two held hands. The visit was interpreted as a sign of improved relations.⁵⁶
- In December 2015, North Korea's most famous pop band—whose members were reportedly handpicked by Kim Jong-un—had a series of concerts in Beijing canceled at the last minute, in what would have been the most prominent high-level cultural exchange between China and North Korea in years. According to Chinese observers, Kim Jong-un may have canceled the shows due to a lack of high-level Chinese officials planning to attend following his claim a day earlier that North Korea had developed a hydrogen bomb.⁵⁷
- In June 2016, North Korean envoy and Vice Chairman of the Central Committee of the Workers' Party of Korea Ri Su-yong made a surprise visit to Beijing and met with President Xi—the first such meeting between President Xi and a senior North Korean official since 2013.⁵⁸ The meeting occurred despite a failed North Korean intermediate-range ballistic missile launch a day earlier,⁵⁹ and Mr. Ri's provocative remarks the previous day in a meeting with other CCP officials that North Korea would continue to expand its nuclear arsenal and would not denuclearize.⁶⁰ During the meeting, President Xi said that China "attached great importance to developing a friendly relationship with North Korea" and was pursuing "calm" on the Korean Peninsula.⁶¹

These recent high-level contacts between China and North Korea suggest Beijing is seeking to inject some stability into the bilateral relationship to avoid further deterioration. The June 2016 meeting between President Xi and Mr. Ri was particularly telling of China's motivations, given the events immediately preceding the meeting. With growing international pressure on Pyongyang, Beijing likely will continue to pursue renewed diplomatic efforts to maintain stable bilateral ties in the near term, especially as China attempts to ease increasing tensions on the Korean Peninsula and bring North Korea to the negotiating table on denuclearization and a peace treaty (see "China's Increased Emphasis on Denuclearization," later in this section).

The United States and South Korea Announce Ballistic Missile Defense System Deployment

Hours after North Korea's February 2016 satellite launch test using ballistic missile technology, South Korea announced it would pursue formal talks with the United States to deploy THAAD in South Korea due to the increased security threat posed by North Korea (see textbox later in this subsection for technical details of the system).⁶² In July, the two countries announced the decision to proceed with the deployment of a THAAD battery in South Korea by late 2017, at an estimated cost of \$1.6 billion.⁶³ Under the Status of Forces Agreement between the United States and South Korea, the United States will fund the battery's deployment and maintenance costs and contribute the necessary forces for operations, while South Korea will provide the land and facilities needed.⁶⁴

Beijing, which had been highly critical of the idea ever since media reports first mentioned U.S. officials were considering the deployment in May 2014,⁶⁵ appeared to be caught by surprise. In response to the THAAD announcement, a spokesperson for China's Ministry of Foreign Affairs said,

*China has expressed strong dissatisfaction with and firm opposition to the decision and has summoned the ambassadors of the U.S. and the ROK to lodge our representations. The deployment of the THAAD system by the U.S. and the ROK will in no way help achieve the goal of denuclearization on the Peninsula and maintain peace and stability of the Peninsula. It runs counter to the efforts by all parties to resolve the issue through dialogue and consultation and will gravely sabotage the strategic security interests of regional countries, including China, and [the] regional strategic balance. China strongly urges the U.S. and ROK to halt the process of deploying the system and refrain from complicating the regional situation or undermining China's strategic security interests.*⁶⁶

China views THAAD as a significant security risk, as it would expand U.S. radar coverage well into Chinese territory and could be used by the United States and its allies in a contingency involving China.⁶⁷ Moreover, given THAAD's interoperability with other missile defense systems in Northeast Asia, Beijing is concerned about the expanding U.S.-allied missile defense radar network in the region and closer intelligence sharing and broader strategic cooperation between the United States, South Korea, and Japan.⁶⁸ Beijing has dismissed repeated U.S. reassurances that THAAD would only be used to defend against the North Korean threat and would not be directed in any way at China.⁶⁹ U.S. Army Chief of Staff Mark Milley visited Beijing in August 2016 to provide a technical briefing on the system to People's Liberation Army (PLA) Army General Li Zuocheng, in an effort to reassure Beijing that its planned deployment will not threaten China.⁷⁰

Technical Details of THAAD

The exact configuration of the THAAD battery that will be deployed in South Korea is not known,⁷¹ but a single battery usually consists of six to nine truck-mounted launchers, 48 to 72 interceptors, a fire control and communications unit, and an AN/TPY-2 X-band radar.⁷² It takes an average of 30 troops to operate and is road-mobile, allowing for quick mobilization in a conflict.⁷³ THAAD is designed to intercept short- and medium-range ballistic missiles up to 200 kilometers (125 miles) away and up to 150 kilometers (93 miles) in altitude—far superior to other missile defense systems deployed in South Korea.⁷⁴ According to most estimates, THAAD's X-band radar has a range up to approximately 2,000 kilometers (1,243 miles) in “forward-based mode,” which covers most of the eastern half of China.⁷⁵ However, using this mode would disable THAAD's missile intercept capability. U.S. defense officials have stated that the system will operate in “terminal mode,” limiting the radar's range to 600 kilometers (373 miles), which would cover minimal Chinese territory near the China-North Korea border and part of Shandong Province.⁷⁶

On the day of North Korea's February 2016 satellite launch and the THAAD announcement, China separately summoned both the North Korean and South Korean ambassadors to China,⁷⁷ seeming to suggest that Beijing views THAAD as a security threat at least on par with that of Pyongyang's ballistic missile and nuclear programs, although China views THAAD through a different security lens than it does North Korea. Beijing sees THAAD as a direct threat to its national security, whereas it perceives North Korea as a more manageable and limited threat.⁷⁸

U.S. government officials and analysts argue Beijing's concerns are overblown, particularly those related to THAAD's X-band radar. Troy University professor Daniel Pinkston notes, “The U.S. does not need a radar in South Korea to acquire and track Chinese [intercontinental ballistic missiles] early in flight. There are two X-Band radars deployed in Japan, and sea-based tracking radars on Aegis ships are in the region as well. Furthermore, U.S. space-based early warning systems would detect a Chinese [intercontinental ballistic missile] almost immediately after it was launched.”⁷⁹

It is unclear how the THAAD deployment will impact China's strategy toward the Korean Peninsula in the long term. U.S. and foreign observers suggest a number of potential outcomes: (1) China could align more strongly with Pyongyang in an attempt to counterbalance what it views to be an increasing regional security threat from the U.S.-South Korea alliance; (2) it could decide to expand enforcement of UN sanctions in an effort to reassure the United States and South Korea in hopes of demonstrating that the planned missile defense system in South Korea is unnecessary; or (3) it could seek to maintain the status quo and instead focus on the other flashpoints along its periphery, including the South China Sea, East China Sea, and Taiwan.⁸⁰

Regardless of whether or how China adjusts its policy in response to THAAD, the deployment has already led to an interruption in the recent warming of China-South Korea relations⁸¹ and to greater Chinese obstructions to international and regional cooperation on North Korea. For example, in August, some events and concerts featuring South Korean pop stars and television personalities were canceled, and several joint Chinese-South Korean television projects were postponed. Industry observers in both countries assessed that pressure from Beijing and Chinese firms' anticipation of Beijing's directives quashed these activities.⁸² According to Lee Jong-seok, a senior research fellow at South Korean think tank the Sejong Institute and former unification minister of South Korea in 2006, who visited the China-North Korea border area in August 2016, "Local sources [at the border] have said passage through Chinese customs have become much easier since the [South Korean] government announced its decision to deploy THAAD. ... [The] deployment decision appears to have relieved some of the psychological burden from the UN's sanctions against North Korea among Chinese people involved in economic relations with the North."⁸³ As mentioned earlier, China also reportedly blocked a UN Security Council resolution condemning North Korea's launch of a ballistic missile that landed for the first time in waters within Japan's exclusive economic zone,* insisting that the resolution include language denouncing the THAAD deployment.⁸⁴ Beijing's opposition to and suspicion of the THAAD deployment likely will impede cooperation with the United States and the region on issues related to North Korea. However, some U.S. experts assert the interruption of recent positive ties between China and South Korea probably will only be a short-term development due to robust bilateral economic relations.⁸⁵

Evolution in China's Policies and Perceptions Regarding North Korea

Debate in China on North Korea Policy

Chinese analysts occupy a wide spectrum of views on North Korea, and generally include "traditionalists" who favor Beijing's current policy supporting the Kim regime, "strategists" who support increased Chinese pressure on North Korea, and the "abandonment" school that calls for Beijing to withdraw support for Pyongyang.†⁸⁶ This division among foreign policy experts on North Korea demonstrates the complexity of the China-North Korea rela-

*In response to North Korea's increasing threat, Japan has renewed its pursuit of improved missile defense systems, which includes exploring the possibility of THAAD. As early as 2009, Japan considered THAAD as a possible solution. Julian Ryall, Gabriel Dominguez, and Neil Gibson, "Japan Considers Adding THAAD to its Air Defense Capabilities," *IHS Jane's*, August 12, 2016; Andy Sharp, "Japan Mulls THAAD Missile Defense System amid North Korea Threat," *Bloomberg*, November 24, 2015; and Reuters, "Japan Mulls New Missile Defense System—Media," July 5, 2009.

†During the Xi Administration, the public debate on North Korea among Chinese foreign policy experts has expanded. In addition, President Xi has allowed a diverse public debate among Chinese citizens. One Chinese scholar asserts, "[The] more that nuclear and missile provocations are committed by the DPRK, the more that the Chinese people cannot accept [North Korea's behavior]. ... Talking about North Korea openly and negatively used to be taboo in China, but that is no longer the case." Yu Tiejun, "The Significance of the Korean Peninsula in Xi Jinping's Global Strategy," in *Chinese Perspectives toward the Korean Peninsula: In the Aftermath of North Korea's Fourth Nuclear Test*, Stimson Center, June 2016, 18.

tionship and probably reflects a similar diversity of opinions among the Chinese leadership.⁸⁷

After the January 2016 nuclear test, the public debate among these experts appears to have been less active than after Pyongyang's previous nuclear test in 2013, during which the "abandonment" view gained some traction,⁸⁸ and concentrated among the strategist and traditionalist camps. Some in the strategist camp supported China's full implementation of UN Security Council resolutions.⁸⁹ Others in the traditionalist camp advocated for friendlier ties with North Korea and for the United States to avoid overly critical rhetoric and punitive actions toward North Korea.⁹⁰ Following the September 2016 nuclear test, a more active public debate emerged with the strategist and traditionalist camps again more vocal among Chinese experts. In alignment with the Chinese government's response to U.S. Secretary of Defense Ashton Carter that the United States—and not China—bears responsibility for North Korea's fifth nuclear test, many downplayed the leverage China has on North Korea and blamed the United States and South Korea (and its decision to deploy THAAD) for causing the test.⁹¹ On the other hand, a group of Chinese commentators supported continued pressure on North Korea through a combination of sanctions and dialogue.⁹²

China's Increased Emphasis on Denuclearization

Beijing's North Korea policy has always included advocating for denuclearization, but historically it has been least important among its three longstanding policy priorities of "no war, no instability, no nukes."*⁹³ Beijing has increasingly emphasized denuclearization as North Korean provocations have become more frequent in recent years, possibly signaling that China seeks a larger role in realizing a nuclear-free Korean Peninsula. High-level Chinese officials in meetings with their U.S. counterparts and Chinese Ministry of Foreign Affairs statements increasingly stress denuclearization over stability.⁹⁴ According to one Chinese analyst, China's prioritization of denuclearization was one of the main drivers compelling it to agree to a more stringent UN resolution in the aftermath of the January 2016 nuclear test.⁹⁵ Nonetheless, as Renmin University professor Shi Yinhong asserts, "Beijing ... [believes] that China must prevent the denuclearization process and its own role within it from seriously and lastingly damaging China-North Korea relations by becoming too alienated from the Pyongyang regime."⁹⁶

China's preferred method to accomplish this goal is through restarting the Six-Party Talks.† In the aftermath of North Korea's January 2016 nuclear test, a spokesperson for China's Ministry of Foreign Affairs said, "All relevant parties should return to the

*North Korea has repeatedly stated it will not give up its nuclear weapons program. In April 2016, North Korea's diplomat to the UN said, "Denuclearization should not be an objective of any future talks with us. We will never give up nuclear weapons before the U.S. and the world are denuclearized." Baik Sungwon, "N. Korean Envoy: Nuclear Weapons Not Negotiable," *Voice of America*, April 1, 2016.

†The Six Party Talks involving China, Japan, North Korea, Russia, South Korea, and the United States were established in 2003 to negotiate the termination of North Korea's nuclear program. After six rounds of negotiations, North Korea left the Six-Party Talks in 2009, and the negotiations have not resumed since. Jayshree Bajoria and Beina Xu, "The Six Party Talks on North Korea's Nuclear Program," *Council on Foreign Relations*, September 30, 2013.

right track of resolving the Korean nuclear issue through the Six-Party Talks as soon as possible with the larger picture of regional peace and stability in mind.”⁹⁷ President Xi himself has made numerous calls for resuming the Six-Party Talks, the most recent of which was on the sidelines of the September 2016 G20 summit in Hangzhou, China.⁹⁸ Pursuing this dialogue is beneficial to Beijing for many reasons: (1) it portrays China as a responsible stakeholder in the international community, and, if the talks can actually be revived, China will be able to take credit for it; (2) dialogue is preferable to instability and conflict (even in the event the Six-Party Talks are unsuccessful); and (3) it absorbs U.S. pressure for change in North Korea.⁹⁹

In addition to renewed diplomatic efforts to return to the Six-Party Talks, China has also proposed a dual-track strategy to bring North Korea to the negotiating table by seeking a peace treaty to replace the 1953 armistice agreement that marked a ceasefire in the Korean War*—a treaty North Korea has long sought†—alongside denuclearization.¹⁰⁰ In March 2016, Chinese Foreign Minister Wang Yi said these two goals “can be negotiated in parallel, implemented in steps, and resolved with reference to each other.”¹⁰¹ However, such an agreement appears highly unlikely to be realized anytime soon, given North Korea’s refusal to dismantle its nuclear program.¹⁰² While Beijing would like to see the peace treaty signed as a symbol of good faith to North Korea, Washington and Seoul insist that talks regarding a treaty would only happen if North Korea agrees to abandon its nuclear program first.¹⁰³

In August 2016, weeks before North Korea’s fifth nuclear test, in a trilateral meeting with the Japanese and South Korean foreign ministers, Minister Wang laid out a new formulation for China’s priorities on the Korean Peninsula of “three objections” and “three persistence[s]”: China opposes (1) North Korea’s nuclear weapon development, (2) any actions that cause tension on the Korean Peninsula, and (3) measures in violation of UNSCR 2270, and it continues to pursue (1) denuclearization of the peninsula, (2) dialogue and negotiation, and (3) the maintenance of peace and stability.¹⁰⁴ It is unclear how, if at all, these priorities and their dual approach of pursuing a peace agreement alongside denuclearization will change in the aftermath of the September test, but Beijing’s response thus far does not suggest a change in policy.

Gaps in China’s Enforcement of UNSCR 2270

As stated earlier in this section, it is too early to fully assess China’s enforcement of UNSCR 2270. Skeptics contend that Beijing

*The armistice agreement, which the United States, South Korea, China, and North Korea signed in 1953, was designed to act as a temporary ceasefire until all parties could agree on a peace treaty. It established the Korean Demilitarized Zone between the two Koreas that is still intact today. BBC, “The Korean War Armistice,” March 5, 2015; Council on Foreign Relations, “Korean War Armistice Agreement,” July 27, 1953.

†North Korea has offered to conclude a peace treaty in exchange for an end to U.S.-South Korea military exercises. According to Bruce Bennett, a senior defense analyst at RAND, Pyongyang probably views the peace treaty as a means to unify the Korean Peninsula under the North Korean regime because such a treaty would plausibly remove the necessity of U.S. forces to remain in South Korea. In this scenario, the United States would find it more difficult to redeploy forces to the region in a contingency. Bruce W. Bennett, “Kim Jong-un Is Trolling America Again,” *National Interest*, May 17, 2016; Reuters, “North Korea Says Peace Treaty, Halt to Exercises, Would End Nuclear Tests,” January 16, 2016.

will not completely enforce the sanctions and will take advantage of loopholes in UNSCR 2270, as its track record on previous UN resolutions on North Korea suggests.*¹⁰⁵ China has a history of strictly enforcing sanctions in the months immediately following new rounds of sanctions and then loosening enforcement.¹⁰⁶ Moreover, Beijing has used its seat in the UN Security Council to weaken past UN sanctions on North Korea, particularly in the years prior to North Korea's 2013 nuclear test,¹⁰⁷ although there is no public documentation that China used its position to dilute UNSCR 2270. However, sources assert that Beijing insisted on including language allowing for the vague exception to the sanctions' bans on exports of North Korean coal, iron, and iron ore for "livelihood purposes."†¹⁰⁸ This exception provides China (and other countries) an opportunity to flexibly enforce sanctions.

Still, early signs show that Beijing has made some progress in working to fulfill its commitments under the resolution. These signs include the following:

- *Chinese government agencies issue new regulations:* Just days after UNSCR 2270 passed in March 2016, China's Ministry of Transport ordered maritime agencies to bar from Chinese ports 31 North Korean boats operated by North Korean firm Ocean Maritime Management, which is sanctioned under the resolution. In addition, authorities in Dandong, a northeast Chinese city that borders North Korea, reportedly issued a restriction on the number of vehicles crossing each day via a bridge into North Korea from 300–400 to 100.‡¹⁰⁹ One month later, China's Ministry of Commerce, in compliance with UNSCR 2270, issued an embargo on coal and some other mineral exports to North Korea.¹¹⁰ Shortly thereafter, Chinese authorities reportedly increased customs inspections on all cargo crossing the border.¹¹¹ Following reports of a reopened plutonium processing facility in North Korea in June 2016, China's Ministry of Commerce, the Ministry of Industry and Information Technology, the China Atomic Energy Authority, and the General Administration of Customs issued new bans on dual-use items and technologies being exported to North Korea, in compliance with the sanctions.¹¹²

*For more information on China's enforcement of the UN sanctions enacted following the DPRK's 2013 nuclear test, see U.S.-China Economic and Security Review Commission, *2014 Annual Report to Congress*, November 2014, 456–457.

†Several days after the resolution passed, a spokesperson at China's Ministry of Foreign Affairs was the first to reference the exception. The spokesperson said, "The resolution prohibits the DPRK's export of coal, iron ore and iron, but those that are deemed essential for people's livelihood and have no connection with the funding of the DPRK's nuclear and missile programs will not be affected." In addition, China's Ministry of Commerce disseminated forms for Chinese firms to use when importing resources listed under this provision, allowing traders to continue buying embargoed minerals from North Korea. Russia also appeared to support UNSCR 2270's livelihood exception, among other exceptions. China's Ministry of Commerce, *Ministry of Commerce, General Administration of Customs Announcement No. 11 of 2016 Regarding the Embargoed Mineral Export List to North Korea Announcement*, April 5, 2016. Staff translation. <http://www.mofcom.gov.cn/article/b/c/201604/20160401289770.shtml>; China's Ministry of Foreign Affairs, *Foreign Ministry Spokesperson Hong Lei's Regular Press Conference on March 4, 2016*, March 4, 2016; and Radio Free Europe and Radio Liberty, "Russia Carved out Exceptions to North Korean Sanctions," March 3, 2016.

‡According to an expert on the North Korean economy, about 70 percent of economic activity between China and North Korea runs through Dandong and the surrounding region in northeast China. U.S. expert on North Korea's economy, meeting with Commission, May 26, 2016.

- *China bans North Korean remittances in Dandong*: Just hours before UNSCR 2270 passed, Chinese state-owned banks in Dandong froze all transfers of renminbi currency to North Korean banks in compliance with the sanctions. Since North Korea's 2013 nuclear test, Dandong banks have halted all U.S. dollar transfers.*¹¹³
- *China works with the United States to improve sanctions regime*: Several weeks after UNSCR 2270 passed, Beijing found that four North Korean ships were mistakenly included in the resolution's list of vessels banned from calling at international ports, thinking they were affiliated with sanctioned North Korean entity Ocean Maritime Management. China obtained written commitments that the ships would not use North Korean crews associated with the barred firm, and then worked with the United States to remove the four ships from the resolution's blacklist.¹¹⁴

These encouraging signs notwithstanding, it remains difficult to measure China's enforcement of UNSCR 2270 due to lack of Chinese transparency and detailed reporting mechanisms. For example, some level of cross-border trade (both legal and illicit) is known to persist without being counted in official Chinese trade figures.¹¹⁵ Moreover, coal trade—one of the most significant components of China-North Korea trade and a major source of hard currency for North Korea (the U.S. government estimates North Korean revenue from coal exceeds \$1 billion per year and accounts for about one-third of its total export income)[†]¹¹⁶—is problematic to measure. Regarding Chinese coal imports from North Korea, it is nearly impossible to tell whether the initial decline in shipments in the months after the implementation of UNSCR 2270 was driven by the sanctions or a result of unrelated factors, such as lower Chinese demand.¹¹⁷ According to Andrea Berger, deputy director of the Proliferation and Nuclear Policy Program at the Royal United Services Institute, a London-based think tank, “Financial flows from general commodity sales to prohibited programs are extremely difficult to prove in practice, meaning that China will be able to continue to buy large quantities of North Korean coal and argue that it is adhering to the resolution.”¹¹⁸

As of the publication of this Report, evidence suggests Beijing has not stopped the trade of all banned items and goods with North Korea and has not fully maintained its commitments under UNSCR 2270. As of July 2016, North Korean entities were using e-commerce website Alibaba to sell coal to the Chinese market.¹¹⁹ One month later, several South Korean analysts cited Chinese sources that observed eased cross-border inspections since the July THAAD deployment announcement, and noted increased economic

*Nonetheless, UNSCR 2270 and China's ban on North Korean remittances in Dandong appear to have resulted in the increased use of cash and local banks for transactions, according to an expert on the Korean Peninsula who spoke with the Commission. The expert assesses these smaller banks are less transparent and transactions at these institutions are more difficult to track. U.S. expert on the Korean Peninsula, meeting with Commission, May 26, 2016.

†As the world's largest coal consumer and producer, China is a major importer and exporter of coal. In its trade relationship with North Korea, China's demand for coal has dropped in recent years due to environmental regulations, and China has placed quality restrictions on North Korean coal it imports to meet certain environmental requirements. Laura Dattaro, “Here's How China Is Screwing North Korea's Economy,” *Vice News*, March 10, 2015.

activity at the China-North Korea border, including an increase in North Korean trucks entering China and signs of heightened smuggling operations.¹²⁰ In August, China imported a record amount of coal in a single month, amounting to a 74 percent jump compared to the same month in 2015, according to Chinese customs data.¹²¹ In addition, some barred vessels listed in UNSCR 2270 have been seen entering and leaving Chinese ports, while others have been observed operating close to Chinese ports and then disappearing from radar following the implementation of sanctions, which raises questions about whether these vessels were conducting banned trade with China.¹²² Aside from banned trade, China in 2016 bought approximately \$74.5 million worth of North Korean fishing rights—the largest such deal involving fishing areas between the two countries—providing Pyongyang with much needed hard currency.¹²³ The purchase could violate UN resolutions if Pyongyang uses the funds for its nuclear and ballistic missile programs.¹²⁴

Several recent studies illuminate how Chinese firms and individuals have colluded with North Korean entities to evade sanctions in the past. One report published in August 2016 by John Park and Jim Walsh, researchers at Harvard University and the Massachusetts Institute of Technology, respectively, who conducted interviews with a dozen defectors who worked at North Korean state-run procurement companies from 2010 to 2012, found North Korea's use of Chinese middlemen and shell companies to mask illicit trade has become increasingly efficient. In addition, the report found North Korean financial operations have become more embedded in China, and asserted that Chinese brokers working with North Korean entities may be using onshore bank accounts in China to evade sanctions targeting Pyongyang's access to foreign banks. North Korean firms have also taken advantage of Hong Kong's role as a financial hub in its business dealings with Chinese partners.¹²⁵ Another study published in September, by data analytics firm C4ADS and South Korean think tank the Asan Institute for Policy Studies, uncovered the aforementioned complex network of Chinese entities under a single conglomerate, Dandong Hongxiang Industrial Development Co., in the most significant case to date of a Chinese company found violating UN sanctions on North Korea:

*During the course of our investigation, we identified over \$500 million of imports and exports from the DPRK [over the last five years] associated with one specific Chinese trading conglomerate. Its subsidiaries and affiliated entities have transacted with sanctioned Burmese and North Korean entities, have been associated with North Korean cyber operators, and have traded in various goods and services that could represent serious proliferation concerns.*¹²⁶

Before announcing its charges against the firm and associated individuals, U.S. Department of Justice officials alerted Chinese authorities about the case. In September 2016, Beijing launched an investigation into the firm's alleged "serious economic crimes," and froze certain assets connected to the company.¹²⁷ Although this action showed encouraging progress in U.S.-China cooperation on tar-

getting Chinese firms violating sanctions, some U.S. officials reportedly expressed concern that their Chinese counterparts had not shared documents related to the case and may not be genuine in their announced efforts to investigate the firm.¹²⁸

North Korea Remains Economically Dependent on China

North Korea's economy is among the world's most constrained and least productive. According to Nicholas Eberstadt, a scholar at the American Enterprise Institute, North Korea's per capita trade after adjusting for inflation was lower in 2014 than in the mid-1970s.¹²⁹ Dr. Eberstadt asserts there are many reasons for this prolonged stagnation: "The DPRK has no rule of law; no established property rights; no possibility for private foreign trade; no reliable currency; virtually no official social and economic information; and no internal constraints whatever upon [the Kim regime]." ¹³⁰ Moreover, North Korea's business environment is one of the most restricted globally. This is reflected in the 2016 Index of Economic Freedom published by the Heritage Foundation and *Wall Street Journal*, which gave North Korea the worst score in the world among ranked countries.¹³¹ Such constraints severely limit countries' economic cooperation with North Korea, leaving China to fill the gap.

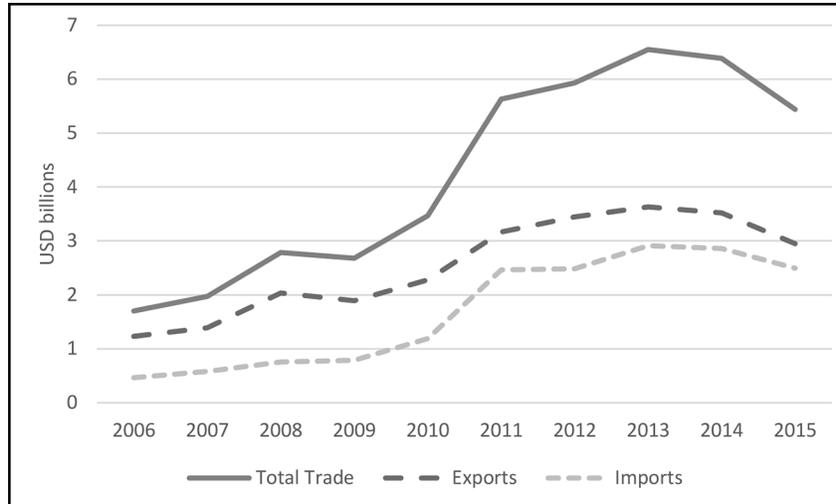
China's close economic ties with North Korea are unlikely to diminish significantly in the near term, despite the UN and international community monitoring Beijing's enforcement of UNSCR 2270. Total trade between the two countries has been falling since 2013 with much of the decline related to reductions in the value of mineral shipments, according to Chinese customs figures.¹³² With UNSCR 2270 covering much of the mineral trade (most importantly coal), total trade would be expected to decline further if China fully enforces the sanctions. According to Chinese trade data through August 2016 (the most recent as of the publication of this Report), total trade increased by 3.4 percent year-on-year since March when sanctions were implemented.¹³³

In 2015, China comprised approximately 91 percent of North Korea's legitimate foreign trade of \$6.25 billion (excluding trade with South Korea).¹³⁴ The February 2016 closure of the inter-Korean Kaesong Industrial Complex, where essentially all trade between North Korea and South Korea was transacted,¹³⁵ sustains China's dominant position. Official Chinese trade figures show China-North Korea trade in 2015 fell 14.7 percent from 2014 to \$5.4 billion, largely resulting from a decline in commodities prices, especially coal and iron ore.¹³⁶ Chinese exports to North Korea in 2015 were approximately \$2.9 billion, a decline of 16.4 percent from the previous year, while Chinese imports from North Korea were \$2.5 billion, a 12.9 percent decline from 2014 (see Figure 2).¹³⁷ North

*According to the South Korean government's trade promotion agency, Chinese exports to North Korea in 2015 were \$3.2 billion, a 20 percent decline from 2014, and Chinese imports from North Korea were \$2.4 billion, down 13 percent from 2014. These data account for an additional 500,000 tons of Chinese oil exports not included in China's customs data since China stopped counting oil in its trade data in 2014. To calculate the amount of extra Chinese exports to North Korea, the South Korean government statistics multiply the estimated 500,000 tons by the international price for oil in 2015. Korea Trade-Investment Promotion Agency, *2015*

Korea runs perpetual merchandise trade deficits primarily with China (and also Russia);¹³⁸ possible financing sources for these deficits include overseas business activities, illicit activities, foreign aid, and remittances.¹³⁹

Figure 2: China-North Korea Trade, 2006–2015



Source: China General Administration of Customs via CEIC database.

To help facilitate bilateral trade and tourism, North Korea has established 11 special economic zones (SEZs) near the North Korea-China border, which have been heavily promoted under Kim Jong-un, though most are not operational due to North Korea's business environment, bureaucratic constraints, and tensions in bilateral relations.¹⁴⁰ According to Curtis Melvin, a researcher at the U.S.-Korea Institute at the Johns Hopkins University School of Advanced International Studies, "North Korea's business environment is not a welcoming destination for Chinese capital even when relations are relatively good because with no credible commitment to policies, there is ultimately nothing preventing the DPRK from shaking down or seizing assets of Chinese investors at some point in the future when the bilateral environment changes."¹⁴¹ Beijing seeks to build improved infrastructure connecting some of these SEZs to China, but these projects have largely stalled in recent years.¹⁴² Lu Chao, director of the North and South Korea Research Center at the Liaoning Academy of Social Sciences in China, notes that cross-border economic development projects between Dandong and North Korea, including a \$338 million bridge linking Dandong (China) and Sinuiju (North Korea), have been delayed indefinitely by Pyongyang since December 2013 when Kim Jong-un purged and executed his uncle and high-level official Jang Song-taek, who was important in facilitating bilateral economic ties.¹⁴³

North Korea Foreign Trade Trends, July 2016, 12; Analyst, Korea Trade-Investment Promotion Agency, interview with Commission staff, September 5, 2016.

Total Chinese investment in North Korea is unclear due to the lack of reliable data, but several analysts assess official Chinese investment accounts for approximately 95 percent of foreign direct investment in North Korea.¹⁴⁴ Chinese companies largely view the North Korean investment climate as difficult, opaque, and risky because of inadequate legal protections for foreign investors in North Korea and its poor infrastructure.¹⁴⁵ In addition to North Korea's SEZs, China operates a free trade zone in Dandong and two others are set to operate in the border region,* providing North Korea with another source of hard currency. According to public reports, Chinese citizens can buy a limited amount of North Korean goods duty-free within 20 kilometers of these areas.¹⁴⁶ An expert on the North Korean economy told the Commission that China has ambitious goals for expanding trade and investment through the Korean Peninsula by eventually expanding high-speed rail from China through North Korea and South Korea to further open the Chinese market and access North Korean ports.¹⁴⁷

Chinese firms are able to circumvent barriers to investment in North Korea by importing North Korean labor, which is not prohibited under UNSCR 2270, providing a major source of hard currency for the Kim regime. According to North Korean defectors, Pyongyang has steadily increased the number of workers it sends to China in recent years.¹⁴⁸ There are arrangements in Dandong and in Tumen—another Chinese city that borders North Korea—to allow North Korean laborers to cross the border for work.¹⁴⁹ According to Mr. Lee, at least 70,000–80,000 North Korean workers are employed in China as of August 2016, and “in a few years this [number] is likely to reach a few hundred thousand;” of the total workers in China, he assesses 30,000 North Koreans work in Dandong and 4,000 work in Tumen.¹⁵⁰ These workers are reportedly only allowed to keep one-third of their monthly wages; the rest must be sent to the Kim regime.¹⁵¹ The U.S. Department of State estimates North Korea receives compensation in the low hundreds of millions of dollars from work abroad, mostly in China and Russia.¹⁵²

Another critical area of support for the Kim regime is Chinese energy assistance to Pyongyang (aside from coal, mentioned earlier), and includes fuel, hydropower, solar panels, and power lines from China connecting into North Korea.¹⁵³ Among these, certain types of fuel are now sanctioned under UNSCR 2270, namely aviation fuel, including rocket fuel.¹⁵⁴ A North Korea economy expert told the Commission that electricity access in North Korea is now probably better than at any time since the famine in the 1990s, due in part to Chinese solar panel exports.¹⁵⁵ While the actual amount of Chinese fuel provided to North Korea is unknown (since China stopped reporting crude oil exports in 2014), evidence suggests it is rising, as more cars and trucks appear on the roads in Pyongyang and Chinese exports of automobiles and related components to North Korea over January–August 2016 have increased 29 per-

*The Guomenwan trade zone in Dandong opened in October 2015. The Ji'an Joint Border Economic Zone has been built but is not open, and the Helung Joint Border Economic Zone has yet to be constructed. Xinhua, “Largest City on China-North Korean Border Dandong Opens Border Trade Zone,” October 15, 2016. Staff translation. http://news.xinhuanet.com/world/2015-10/15/c_1116838250.htm; Lee Je-hun, “Report: N. Korea-China Relations Maybe Not So ‘Strained’ after All,” *Hankyoreh* (South Korea), November 13, 2015.

cent year-on-year.¹⁵⁶ An oil pipeline from Dandong to Sinuiju in North Korea has operated since 1976, and China has insisted that these exports support the “livelihood” of North Koreans under UNSCR 2270.¹⁵⁷ According to Yukihiro Hotta, a researcher at the Aichi University in Japan, the pipeline must maintain a minimum flow of 500,000 tons per year in order to avoid clogs that damage the pipeline.¹⁵⁸ China also has provided free oil to North Korea in the form of aid, which historically has not been included in its official exports.¹⁵⁹

China Continues to Prioritize Stability and the Status Quo

Despite Beijing’s frustration with North Korea’s belligerence and the increased threat its nuclear weapons and ballistic missile programs pose for China’s security interests, it still prioritizes stability and the status quo in North Korea to maintain a buffer between itself and U.S.-allied South Korea. According to a North Korea expert who spoke with the Commission, a major concern for China is that the collapse of the North Korean regime could inspire Chinese citizens to seek political reform or regime change in China as well.¹⁶⁰ Beijing is also worried a collapse scenario could cause an influx of North Korean refugees in northeast China.*¹⁶¹ A collapse could give rise to other problems for China, including unsecured nuclear weapons, the movement of U.S. forces closer to the Chinese border, or the outbreak of a major conflict that could drag China into war.¹⁶² As a result, Beijing holds stability in North Korea as a higher priority than denuclearization, though China has made efforts to prioritize denuclearization more recently, as noted earlier in this section.

Differences between China and the United States on North Korea Policy

As the North Korean threat to U.S. security interests grows, U.S. engagement with China on North Korea is of increased importance. However, China’s views of the U.S. role in the region pose obstacles to the productive engagement necessary to achieve the goal of denuclearization of the Korean Peninsula. Such views include the following:

- China perceives U.S. policy on North Korea is designed to strengthen U.S. alliances with South Korea and Japan, which it views are being leveraged to contain China.¹⁶³ Most recently, Beijing sees U.S. efforts to deploy THAAD in South Korea not only as a defensive measure taken to protect against potential North Korean missile strikes, but also as targeted at China. This, in China’s view, limits its own strategic offensive capabilities in a contingency.¹⁶⁴ As mentioned earlier, China sees the THAAD deployment in South Korea as complicating its strategic environment by expanding the U.S.-allied missile defense radar network in the region and facilitating closer intelligence sharing and broader strategic cooperation between the United States, South Korea, and Japan.

* Though instability in North Korea is often cited as a major concern for Beijing, some Chinese observers who met with the Commission in Beijing assert the resilience of the North Korean regime is understated and that no rebellion is on the horizon. Commission meeting with Chinese observers, Beijing, China, June 24, 2016.

- China advances the narrative that the United States incites Pyongyang to engage in provocations. In particular, Chinese officials and commentators refer to unilateral U.S. sanctions, high-profile U.S. military exercises with South Korea, and other actions as damaging to regional stability.*¹⁶⁵ In response to Secretary Carter’s remarks following the September 2016 nuclear test that China take more responsibility for North Korea, China’s Foreign Ministry spokesperson said, “Mr. Carter was being unnecessarily modest. The cause and crux of the Korean nuclear issue rest with the U.S. rather than China. The core of the issue is the conflict between the DPRK and the U.S. It is the U.S. who should reflect upon how the situation has become what it is today, and search for an effective solution. It is better for the doer to undo what he has done. The U.S. should shoulder its due responsibilities.”¹⁶⁶

These views speak to fundamental differences in how China and the United States perceive developments in North Korea, necessarily limiting bilateral cooperation. At the heart of this mismatch in priorities is the debate about China’s “leverage” over North Korea. U.S. officials and experts often refer to the leverage Beijing holds over Pyongyang by virtue of China’s role as North Korea’s primary source of economic and political support. They argue the North Korean “problem” can be solved if China uses its leverage to apply pressure on Pyongyang such that the regime will be forced to change its ways.¹⁶⁷ Though this may be true, to do so would undermine Beijing’s ultimate goal: the maintenance of regime stability and the buffer state it perceives it needs between itself and the U.S.-allied South. Seoul-based scholar and long-time North Korea watcher Andrei Lankov explains China’s perceived quandary:

From decades of experience China has learned that ... when the North Korean economy runs into trouble, it is the common people, not the small hereditary elite, who pay the price. And since commoners have no way to influence the government, the North Korean elite is always willing to pursue those policies most conducive to their interests, even if such policies mean economic hardships and starvation of the population at large. ... Hence, subtle pressures are not efficient in dealing with Pyongyang—and the Chinese know this very well. The only way to make a difference is to strike North Korea really hard, by dramatically reducing or halting nearly all economic exchanges, expelling North Korean workers, and taking other measures which will provoke a grave economic crisis in North Korea. Such a crisis might create a revolutionary situation, thus making the North Korean elite consider serious concessions on the nuclear and missile issues. However, such a hard blow is unlikely to ever be delivered by China. This is because extreme

*The Center for Strategic and International Studies’ Beyond Parallel project studied North Korean provocations and U.S.-South Korea exercises from 2005 to 2016 and found that the exercises had a “null effect” on belligerent DPRK activity. Victor Cha, Na Young Lee, and Andy Lim, “Understanding the Relationship between DPRK Provocations and U.S.-ROK Military Exercises,” *CSIS Beyond Parallel*. <http://beyondparallel.csis.org/dprk-provocations/>.

*pressure is more likely to bring about regime collapse than denuclearization, and regime collapse is not what Chinese leaders want to see.*¹⁶⁸

Implications for the United States

Unwilling to apply the full force of its leverage on Pyongyang, but unable to ignore U.S. and international appeals for cooperation on North Korea, Beijing pursues the status quo, doling out occasional punishments to the Kim regime. This necessarily leaves the United States and the international community hamstrung in encouraging change in North Korea. In addition, China's continued economic assistance to North Korea creates greater instability in Northeast Asia by facilitating the Kim regime's missile and nuclear weapons development. Beijing states that its goal is to realize a nuclear-free Korean Peninsula, but its actions suggest otherwise.

Indeed, Beijing's enabling of the Kim regime as a bulwark against U.S. and allied influence and power on the Korean Peninsula appears to be backfiring, as the United States, South Korea, and Japan pursue greater defense and intelligence cooperation and enhance their military capabilities against North Korea.¹⁶⁹ Following North Korea's September 2016 nuclear test, President Obama reiterated to Seoul and Tokyo "the unshakable U.S. commitment to take necessary steps to defend our allies in the region, including through the deployment of a [THAAD] battery to [South Korea], and the commitment to provide extended deterrence, guaranteed by the full spectrum of U.S. defense capabilities."¹⁷⁰ South Korea and Japan are increasingly concerned with North Korea's escalating threat. Tokyo has been exploring expanded missile defense capabilities for some time now, and North Korea's recent provocations appear to be lending these discussions more urgency.¹⁷¹

China's mistrust of the U.S.-South Korea alliance and its unique security priorities vis-à-vis North Korea restrict its level of engagement with South Korea and the United States in discussions about North Korea collapse scenarios and contingency planning.¹⁷² As a result, the countries most likely to intervene in North Korea in the event of regime collapse—the United States, China, and South Korea—are not fully informed of each other's intentions, which could lead to accidents, miscalculation, and conflict in the event of a contingency.

China's enforcement of UNSCR 2270 and its reaction to the THAAD deployment are still unfolding, while as of the publication of this Report, Beijing has stated that the next UN resolution following the September nuclear test should include tightened sanctions.¹⁷³ If the past is any indication, China can be expected to unevenly enforce UNSCR 2270 and the forthcoming round of sanctions in a way that will not seriously destabilize the Kim regime. The impact of THAAD is less clear, though in the near term it likely will encourage greater cooperation between Beijing and Pyongyang and cause increased tensions between China and the United States and South Korea.

Conclusions

- Following a series of missile and weapons systems tests demonstrating alarming advances in capabilities, in September 2016 North Korea conducted its fifth nuclear test, which was the most powerful to date. Beijing's diplomatic response to the test was its strongest yet, condemning the test and emphasizing that Pyongyang abide by UN resolutions. As of the publication of this Report, Beijing has said it will cooperate in a forthcoming UN resolution tightening sanctions on North Korea, but given its track record China can be expected to unevenly enforce sanctions in a way that will not seriously destabilize the Kim regime.
- Since 2012, when President Xi Jinping took office and Kim Jong-un became leader of North Korea, persistent North Korean belligerence has contributed to a noticeable downturn in China's relations with North Korea. This trend continued in 2016 when, after North Korea's fourth nuclear test, China supported the most stringent UN Security Council resolution to date on North Korea. Beijing appears to be attempting to maintain some stability in the relationship, but notably high-level exchanges (at the vice ministerial-level and above) between China and North Korea have decreased since the beginning of 2015 compared to the previous two-year period, continuing a negative trend from years prior.
- As North Korea increases the frequency of its missile tests, especially those using ballistic missile technology, and the UN Security Council and countries in Northeast Asia call for increased pressure on Pyongyang, Beijing continues to emphasize stability and the status quo above denuclearization as its guiding strategy regarding North Korea policy. Given its fear of instability in North Korea making its way into China and its desire to retain a strategic buffer between itself and U.S.-allied South Korea, Beijing will almost certainly not cut off trade of critical resources with Pyongyang, including coal and oil, or other sources of hard currency for North Korea.
- Although it is still too early to judge the full extent of China's enforcement of UN Security Council Resolution 2270, thus far Beijing has unevenly enforced sanctions and used to its advantage a significant loophole that allows China an exception to continue importing North Korean coal, iron, and iron ore for "livelihood purposes." While certain areas of progress and gaps are evident in Chinese enforcement thus far, China's lack of accountability and transparency in enforcing sanctions increases the difficulty for international observers to determine its level of enforcement.
- In accordance with the North Korea Sanctions and Policy Enhancement Act of 2016 (which became law in February 2016), the U.S. Department of the Treasury in September for the first time sanctioned Chinese entities with economic ties to North Korea, designating Dandong Hongxiang Industrial Development Co. and four Chinese nationals who directed and managed the firm for sanctions evasion activities and froze their assets. In addition, the U.S. Department of Justice indicted the individuals and enti-

ty for sanctions violations, conspiracy, and money laundering. It also confiscated funds in 25 Chinese bank accounts allegedly belonging to the firm and its front companies. These actions could compel Beijing to increase regulatory measures on Chinese firms doing business with North Korea, but such measures will probably be constrained by China's desire to support the Kim regime.

- China claims the decision by South Korea and the United States to deploy the U.S. Terminal High Altitude Area Defense (THAAD) ballistic missile defense system to South Korea to defend against North Korea's increased nuclear and missile capabilities is a direct threat complicating its own security environment. Beijing has used the announced deployment to obstruct international and regional cooperation on North Korea and to reduce certain areas of economic cooperation with South Korea. Over the near term, THAAD is likely to encourage China to move closer to North Korea, while increasing frictions between China, the United States, and South Korea.
- China's close economic ties with North Korea are unlikely to diminish significantly in the near term. In 2015, China accounted for approximately 91 percent of North Korea's legitimate foreign trade of \$6.25 billion (excluding trade with South Korea). One of North Korea's main sources of hard currency (which is not covered by sanctions) is from foreign labor, which generates revenue in the low hundreds of millions of dollars annually, mainly in China and Russia. According to an estimate in August 2016, approximately 70,000–80,000 North Korean workers are employed in China, and around 34,000 North Koreans work in two Chinese border cities, with this number set to rise in the coming years.
- As the North Korean threat increases, placing U.S. alliances and security interests at risk, China's skepticism about the U.S. role in the region poses obstacles to the productive engagement necessary to achieve the goal of denuclearization of the Korean Peninsula. Chief among these obstacles is Beijing's view that U.S. policy on North Korea is designed to strengthen U.S. alliances to contain China, and that U.S. military exercises with South Korea incite Pyongyang to conduct further provocations.

RECOMMENDATIONS

China and North Korea

The Commission recommends:

- Congress require the U.S. Department of State to produce an unclassified report assessing China's compliance with UN resolutions on North Korea.

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CHAPTER 4

CHINA AND THE U.S. REBALANCE TO ASIA

Introduction

President Barack Obama announced a new emphasis for U.S. foreign policy in a landmark speech to Australia's Parliament in 2011, declaring that "in the Asia Pacific in the 21st century, the United States of America is all in."¹ Referencing a "deliberate and strategic decision" that the United States would, as a Pacific nation, "play a larger and long-term role in shaping this region and its future," the president pledged to increase focus on the region as U.S. involvement in wars in Afghanistan and Iraq declined, and as the Asia Pacific rose in importance.² He specifically stated the United States would exercise leadership in promoting regional security, shared economic prosperity, and good governance.³ This strategy of heightened emphasis and leadership came to be termed the "Rebalance to Asia."

Since its inception, the Rebalance strategy has been a defining feature of U.S. international relations and of U.S.-Asia Pacific and U.S.-China relations in particular. It is an indispensable part of the context in which U.S.-China relations must be examined, and is of particular importance as Congress and a new administration prepare to consider the future direction of U.S.-Asia Pacific policy beginning in 2017. This chapter outlines the different regional approaches of the United States and China since the Rebalance began, examining both security and economic aspects. In doing so, it draws on the Commission's March 2016 hearing on China and the U.S. Rebalance to Asia, unclassified briefings with U.S. officials, the Commission's 2015 and 2016 fact-finding trips to China and other countries in the region, consultations with experts on regional politics and U.S. policy, and open source research and analysis.

The U.S. Rebalance to Asia Strategy

Interests and Objectives Driving the Strategy

While the Rebalance strategy marked a fresh emphasis for U.S. foreign policy, it did not fundamentally change the United States' stated interests and objectives in the Asia Pacific region, nor did it promote interests and objectives that substantially differed from those the United States pursues at the global level. Rather, President Obama's statement outlining the interests driving the security component of the strategy reflected longstanding U.S. principles:

*We seek security, which is the foundation of peace and prosperity. We stand for an international order in which the rights and responsibilities of all nations and all people are upheld. Where international law and norms are enforced. Where commerce and freedom of navigation are not impeded. Where emerging powers contribute to regional security, and where disagreements are resolved peacefully. That's the future that we seek.*⁴

Discussing the economic and governance components of U.S. leadership in Asia, President Obama similarly emphasized an “open international economic system, where rules are clear and every nation plays by them” and “good governance—the rule of law, transparent institutions, [and] the equal administration of justice.”⁵ The Rebalance was thus intended to strengthen U.S. regional leadership in order to serve enduring U.S. interests, outlined by the Obama Administration in both the 2010 and 2015 *National Security Strategy* documents:

The security of the United States, its citizens, and U.S. allies and partners; a strong, innovative, and growing U.S. economy in an open international economic system that promotes opportunity and prosperity; respect for universal values at home and around the world; and a rules-based international order advanced by U.S. leadership that promotes peace, security, and opportunity through stronger cooperation to meet global challenges.†*⁶

To this end, the 2011 speech outlined several specific objectives the United States would pursue: a strong and modernized U.S. military presence in the Asia Pacific, untouched by overall reductions in U.S. defense spending, in order to deter threats to peace; strengthened regional alliances and partnerships; deepened engagement with regional multilateral organizations; a more cooperative relationship with China; expanded economic partnerships through new regional trade agreements; and partnerships with

*A concept for which no common definition exists, the “liberal rules-based international order” is defined by Richard Fontaine and Mira Rapp-Hooper, respectively president and senior fellow at the Center for a New American Security, as “the prevailing constellation of institutions, regimes, rules and norms that seek to govern international behavior, many of which have been put in place under U.S. leadership since 1945. It is a *rules-based* order because it elevates standards above a might-makes-right doctrine, though there remain broad domains—such as cyberspace—in which few rules exist. It is *open*, because any nation-state that wishes to follow those standards can join its ranks; there are no exclusionary regional or ideological blocs. And it is *liberal*, because it is weighted toward protection of free-market capitalism and liberal political values.” Norms against altering borders by force and for access to the open global commons (e.g., freedom of the seas) are inherent to this concept. Richard Fontaine and Mira Rapp-Hooper, “How China Sees World Order,” *National Interest*, April 20, 2016. See also Stewart Patrick, “World Order: What, Exactly, Are the Rules?” *Washington Quarterly* 39:1 (Spring 2016): 12, 17.

†The principle of defending the rules-based regional or international order has also been emphasized/referred to in then secretary of State Hillary Clinton’s 2011 *Foreign Policy* magazine article “America’s Pacific Century,” President Obama’s 2011 address to the Australian Parliament, the 2012 *Defense Strategic Guidance*, and the Department of Defense’s 2014 *Quadrennial Defense Review*, 2015 *Asia-Pacific Maritime Security Strategy*, and 2016 *Annual Report to Congress on Military and Security Developments Involving the People’s Republic of China*. Hillary Clinton, “America’s Pacific Century,” *Foreign Policy*, October 11, 2011; White House Office of the Press Secretary, *Remarks by President Obama to the Australian Parliament*, November 17, 2011, 5, 6, 10; U.S. Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, January 3, 2012, 2–3; U.S. Department of Defense, *Quadrennial Defense Review 2014*, March 4, 2014, 11; U.S. Department of Defense, *Asia Pacific Maritime Security Strategy*, August 21, 2015, 2, 32; and U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2016*, April 26, 2016, iii.

emerging democracies to strengthen governance institutions.⁷ The Administration has referenced China's aggressive and coercive behavior, which intensified beginning around 2009 to 2010 and preceded the Rebalance,⁸ only insofar as it undermines the international norms the strategy seeks to uphold.⁹ In statements on the strategy, the U.S. government has affirmed repeatedly that it welcomes "the rise of a peaceful and prosperous China."¹⁰

As Walter Lohman, director of the Asian Studies Center at the Heritage Foundation, testified to the Commission, the Rebalance represents a tactical adjustment rather than a strategic innovation in U.S. policy.¹¹ According to Dan Blumenthal, director of Asian Studies at the American Enterprise Institute, the U.S. presence in the Asia Pacific during the Cold War also sought to promote this international order, and U.S. grand strategy has ultimately helped to tame regional security competitions and create the conditions for remarkable economic growth.¹² While some of the specific Cold War threats the United States sought to deter are no longer present, the United States has strived to maintain its commitment to the region in an era of new challenges and opportunities, viewing its own longstanding strategic interests as being at stake.¹³ U.S. Secretary of Defense Ashton Carter reflected on this history at the Shangri-La Dialogue, an annual intergovernmental security forum, in June 2016:

*U.S. engagement in the Asia-Pacific is in America's interests ... America's commitment to the region—and the Rebalance to the Asia-Pacific in particular—is not transient. It is enduring. And that's because the logic of, and the need for, and the value of American engagement in the Asia-Pacific is irrefutable. And it is proven over decades.*¹⁴

Initial Announcement of the Strategy and Ensuing Changes

While the Rebalance built upon several initiatives launched under the George W. Bush Administration and early in the Obama presidency, it is widely understood to have been publicly introduced in President Obama's 2011 speech in Australia. A month prior to this speech, then secretary of State Hillary Clinton published an article in *Foreign Policy* titled "America's Pacific Century," which is also seen as a foundational document for the strategy. Both the speech and the article communicated U.S. intentions to increase engagement with the region in the security, economic, and governance realms.¹⁵

In the years since, the Rebalance has received further articulation and modification from Administration officials. In early 2012 the Administration shifted from using the word "pivot" to "rebalance" when describing the strategy, after concerns were raised that the term "pivot" implied engagement with Asia would come at the expense of U.S. commitments in other regions.¹⁶ Overall, while varying objectives and lines of effort have been attributed to the Rebalance since 2011, U.S. officials have largely described it in keeping with the overarching elements President Obama initially presented.¹⁷

Implementation of the Rebalance Strategy

Security Component

In the security realm, the United States has undertaken the following steps since the Rebalance began:

Strategy

The United States has delineated its Asia Pacific security strategy in new documents, including the *Defense Strategic Guidance*, *Quadrennial Defense Review*, and *Asia Pacific Maritime Security Strategy*.¹⁸

Deployments

- The United States will have shifted to basing 60 percent of its navy in the Asia Pacific by 2020;*¹⁹ 60 percent of its overseas-based air force assets and two-thirds of its marine corps forces are already assigned to the region.²⁰ Total force numbers, it should be noted, could be impacted by future defense budgets.
- The United States has deployed or plans to deploy its most advanced asset types to the region, to include the Ford-class aircraft carrier, Virginia-class attack submarine, Zumwalt-class stealth destroyer, Aegis missile defense-equipped vessels, littoral combat ship, B-2 bomber, F-22 and F-35 fighters, and P-8 patrol aircraft.²¹
- The United States plans to strengthen its military presence on Guam as an important component of the Rebalance strategy²² and has already taken several steps to do so, deploying a fourth attack submarine,²³ three Global Hawk unmanned aerial vehicles,²⁴ and a Terminal High Altitude Area Defense (THAAD) missile defense system to the island since the Rebalance began.²⁵ It has also ensured a continuous bomber presence through rotations of B-1, B-2, and B-52 bombers,²⁶ while continuing rotations of fighter aircraft.²⁷ The redeployment of 5,000 U.S. Marines to Guam to reduce the U.S. presence on Okinawa, long delayed, is now projected to begin in 2020.²⁸
- U.S. and South Korean officials announced in July 2016 that a THAAD battery would be deployed to South Korea by late 2017 (for more information on the planned deployment, see Chapter 3, Section 4, “China and North Korea”).²⁹
- U.S. officials announced in June 2016 that an Amphibious Ready Group † comprising three ships and 2,500 marines and

* In June 2016 U.S. officials announced a shift within the region as well, stating that the U.S. Navy’s Third Fleet (based in San Diego) will send more ships to East Asia to operate alongside the Seventh Fleet (based in Japan). Overall, the Department of Defense (DOD) seeks to increase the number of ships assigned to the Pacific Fleet outside of U.S. territory by 30 percent by 2020. White House Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2017*, February 2016, 79–80; Idrees Ali and David Brunnstrom, “U.S. Third Fleet Expands East Asia Role as Tensions Rise with China,” Reuters, June 15, 2016; and U.S. Department of Defense, *Asia Pacific Maritime Security Strategy*, July 27, 2015, 22.

† An Amphibious Ready Group is comprised of a group of ships known as an amphibious task force and a landing force of ground troops. These elements and supporting units are trained, organized, and equipped to perform amphibious operations. U.S. Department of Defense, *The Amphibious Ready Group*. <http://www.navy.mil/navydata/news/www/arg.html>.

sailors would be stationed in Japan by 2019, the second such group in the region.³⁰

Access Agreements

- Rotations of U.S. Marines to Darwin, Australia, began in 2012 following an agreement announced during President Obama's 2011 visit; these rotations are projected to grow from 1,250 marines today to 2,500 by 2020 (pushed back from the original target of 2017 due to cost-sharing negotiations, now concluded).³¹
- The United States and Australia formalized plans for enhanced military cooperation in the 2014 U.S.-Australia Force Posture Agreement;³² U.S. officials are specifically discussing B-52 and B-1 bomber rotations³³ and may pursue the use of Australian naval bases for deployments of submarines or surface ships.³⁴ These initiatives would require further agreements on funding for infrastructure expansion at Australian bases.³⁵
- The Enhanced Defense Cooperation Agreement, signed with the Philippines in April 2014³⁶ and approved by the Philippine Supreme Court in January 2016, has secured U.S. access to four airfields and a land base, with additional locations planned.³⁷ How the Philippines' new President Rodrigo Duterte—whose rhetoric has signaled a turn away from U.S.-Philippines defense cooperation—will affect these plans is unclear, as discussed in more detail later in this section.
- Singapore has hosted rotations of P-8 reconnaissance aircraft³⁸ and littoral combat ships; four ships are to be stationed there in the future.³⁹
- U.S. officials have also signaled an interest in discussing rotational access to Cam Ranh Bay in Vietnam,⁴⁰ and announced in March 2016 that the U.S. Army would stockpile military equipment in Vietnam and Cambodia for humanitarian assistance/disaster relief missions.⁴¹

Security Assistance

In 2015 the Pentagon announced the \$425 million Southeast Asia Maritime Security Initiative, which seeks to fund partner capacity building for the Philippines, Vietnam, Indonesia, Malaysia, and Thailand over five years.*⁴² This single initiative exceeds the average annual funding provided to the entire Asia Pacific region under the Foreign Military Financing program from 2009 to 2015—\$56.3 million, or roughly 1 percent of global outlays.†⁴³

*DOD hopes Congress will authorize a total of \$425 million for the program—\$50 million for fiscal year (FY) 2016; \$75 million for FY 2017; and \$100 million in each of FYs 2018, 2019, and 2020. National Defense Authorization Act for Fiscal Year 2016, § 1263, Pub. L. No. 114–92, 129 STAT. 1073 (2015), codified at 10 U.S.C. § 2282 (2015); Aaron Mehta, “Carter Announces \$425M in Pacific Partnership Funding,” *Defense News*, May 30, 2015.

†2015 numbers are estimates. U.S. Department of State, *Congressional Budget Justification: Foreign Assistance*, 2016, 3. <http://www.state.gov/documents/organization/238223.pdf>.

Engagement

- U.S.-China military exchanges have grown since the Rebalance began,⁴⁴ headlined by China's participation in the 2014 and 2016 U.S.-led Rim of the Pacific (RIMPAC) exercises.*
- According to an August 2016 statement by U.S. Army Pacific Commander General Robert Brown, U.S. Army forces now participate in more than 100 bilateral and multinational exercises each year in the region, and the number of multilateral exercises has grown over the past ten years.⁴⁵ The U.S. Army introduced the Pacific Pathways program in 2014, through which units are sent to a series of foreign countries for three to four months to carry out prearranged exercises and engagements; as of 2016 foreign units are brought to the United States as well.†
- The United States and India implemented the Defense Technology and Trade Initiative in 2012, aimed at facilitating co-production and technology exchange; the U.S.-India Joint Strategic Vision in 2015, providing generally agreed-upon principles for security in the Indo Pacific;⁴⁶ and a memorandum of agreement regarding logistics in 2016, which allows for the mutual use of land, air, and naval bases for repair and resupply⁴⁷ (for an additional discussion of U.S.-India defense relations, see Chapter 3, Section 1, "China and South Asia").
- The United States established a "comprehensive partnership" with Vietnam that includes enhanced military-to-military cooperation,⁴⁸ and during a visit to Hanoi in May 2016 President Obama announced that the United States would lift its longstanding ban on lethal weapons exports to Vietnam.⁴⁹
- A U.S. naval vessel is scheduled to visit New Zealand in November 2016, the first such visit since New Zealand passed its 1984 anti-nuclear law and a mark of progressively improving bilateral defense relations over the past several years.‡⁵⁰

Diplomatic Component

U.S. diplomatic engagement under the Rebalance has largely been a continuation of preexisting efforts to expand U.S. participation in Asia's regional governance institutions. The United States assigned an ambassador to the Association of Southeast Asian Nations (ASEAN) in 2008 (the first non-ASEAN country to do so),⁵¹

* RIMPAC is the world's largest international maritime exercise, hosted biennially by the commander of the U.S. Pacific Fleet.

† Thus far, this program has included stops in Indonesia, Japan, Malaysia, Mongolia, the Philippines, South Korea, and Thailand, with stops in Australia and Vietnam under consideration for the future. Units from Canada, Japan, and Singapore have come to the United States. Caroline Houck, "The U.S. Holds More Pacific Exercises Than You Probably Realize," *Defense One*, August 25, 2016; Michelle Tan, "Army Grows Pacific Pathways, Ties with Asian Partners," *Army Times*, August 24, 2016.

‡ The anti-nuclear law bans visits to New Zealand by warships carrying nuclear weapons or operating with nuclear propulsion; the United States does not disclose whether its ships are carrying nuclear weapons. The anti-nuclear legislation remains in place, but New Zealand recently determined it would no longer require U.S. declarations regarding nuclear propulsion or armaments. The United States lifted its reciprocal ban on New Zealand port visits in 2014 and has also relaxed its restrictions on joint military training and high-level visits. Sam LaGrone, "U.S. Plans to Send Destroyer for New Zealand Port Call," USNI News, July 21, 2016.

signed ASEAN's "Treaty of Amity and Cooperation" (the organization's founding document) in 2009,⁵² joined the East Asia Summit in 2011,⁵³ upgraded its ties with ASEAN to a strategic partnership in 2015,⁵⁴ and engaged more heavily in the Asia-Pacific Economic Cooperation (APEC) forum and ASEAN Regional Forum,⁵⁵ completing a shift from the view in the 1980s and early 1990s that multilateralism would undermine the U.S. "hub-and-spoke" approach to Asia Pacific diplomacy.⁵⁶ The Administration also increased the number of diplomatic visits to the region by senior officials.⁵⁷ On the development side, the State Department created the Lower Mekong Initiative in 2009 and the Asia-Pacific Strategic Engagement Initiative in 2012.* The State Department's total spending on diplomatic engagement and foreign assistance† in the East Asia and Pacific region increased from roughly \$743 million to \$780 million in nominal terms from 2011 to 2015, although it did not rise consistently over that period and represented only 2 percent of global spending each year.⁵⁸ A 2014 Congressional report noted that the U.S. Agency for International Development (USAID) staff in East Asia increased, while Department of Commerce and Department of the Treasury staff in the region slightly increased, from 2008 to 2013.‡⁵⁹

The United States has invested extensively in its regional bilateral relationships as well.⁶⁰ Most notable is Burma (Myanmar), with which the United States took successive steps to restore full diplomatic relations beginning in 2009, after imposing sanctions for two decades.§⁶¹ U.S. relations with Vietnam have also continued to improve, as illustrated by the historic first visit to Washington by the Vietnamese Communist Party general secretary in 2015¶ and a visit to Hanoi by President Obama in 2016, the third such visit by a U.S. president.⁶² These engagements culminated in the aforementioned U.S. decision in 2016 to fully remove its ban on lethal weapons exports to Vietnam. President Obama became the first U.S. president to visit Laos when he attended the ASEAN summit

*Through the Lower Mekong Initiative, the United States provides assistance to Burma (Myanmar), Cambodia, Laos, Thailand, and Vietnam in the areas of environment, health, education, and infrastructure development. The Asia-Pacific Strategic Engagement Initiative is a framework for assistance programs to ASEAN. U.S. Department of State, *Lower Mekong Initiative*. <http://www.state.gov/p/eap/mekong/>; Council on Foreign Relations, "Clinton's Remarks at the U.S.-ASEAN Ministerial Meeting, July 2012," July 11, 2012.

†Diplomatic engagement and foreign assistance covers funding for development assistance: the Economic Support Fund; Foreign Military Financing; Global Health Programs through State and USAID; International Disaster Assistance; International Military Education and Training; International Narcotics Control and Law Enforcement; international organizations and programs; nonproliferation, anti-terrorism, demining, and related programs; peacekeeping operations; transition initiatives; and other accounts. U.S. Department of State, *Congressional Budget Justification: Foreign Assistance Summary Tables*, 2017.

‡Overall, USAID increased its total staff dedicated to Asian development issues by 8.5 percent from 2011 to 2016 (an increase from 886 employees to 961). Official, United States Agency for International Development, interview with Commission staff, September 29, 2016.

§In 1988 the United States suspended all aid to Burma after the Burmese army violently suppressed a peaceful democratic protest. In following years, due to Burmese human rights abuses, the United States enacted further sanctions on Burma including a prohibition on Burmese imports, visa bans, restrictions on U.S. investment in Burma, and a freeze on Burmese assets in the United States. Congressional Research Service, *U.S. Sanctions on Burma*, October 19, 2012, 12–14, 29.

¶Unlike in China, the Vietnamese Communist Party general secretary does not also hold the role of president of Vietnam. Vietnam's president visited Washington for the second time in 2013. Ernest Z. Bower and Phuong Nguyen, "Vietnam Party Chief's Historic Visit to Washington: Establishing Strategic Trust," *Center for Strategic and International Studies*, July 3, 2015; Human Rights Watch, *Vietnam: President's Visit to Washington Puts Rights in Spotlight*, July 22, 2013.

hosted there in September 2016; during the visit, he addressed war legacy issues and emphasized the U.S. commitment to the Rebalance strategy.⁶³ With India, the United States has continued to grow its bilateral relations and established joint defense industrial and strategic agreements during this time.⁶⁴

Although U.S.-Philippines diplomatic and defense relations have advanced in several respects in recent years, it remains to be seen how the Philippines' election of Rodrigo Duterte, who took office in June 2016, might affect the further development of bilateral ties. In September, President Duterte seemed to signal a turn away from the Philippines' previously robust defense relations with the United States, calling for the departure of U.S. Special Operations forces from the southern Philippines, where they have served on a rotational basis as military advisors to the Armed Forces of the Philippines' counterterrorism efforts since 2002.⁶⁵ That same week President Duterte said his administration should explore procuring arms from China and Russia, suggesting a departure from the country's longstanding reliance on U.S. arms exports (underscored by his statement that "we don't need F-16 jets; that is of no use to us").⁶⁶ In these and other remarks, he emphasized his personal dislike of the United States, culminating in his declaration of a "separation from the United States" during his state visit to Beijing in October 2016, although he later clarified that this did not mean a severance of ties.⁶⁷ The Philippines defense minister announced the suspension of joint patrols with the United States in the South China Sea earlier in October 2016, and indicated he may request the departure of U.S. military advisers once the Philippines military is able to carry out counterterror operations on its own—perhaps years away.⁶⁸ As this Report went to print, the U.S. Department of Defense had not received any formal request for the withdrawal of U.S. forces or other specific changes in the U.S.-Philippines military relationship.⁶⁹

With China directly, the United States accelerated meetings and visits beginning in 2009 and expanded the role of bilateral fora such as the U.S.-China Strategic and Economic Dialogue and Strategic Security Dialogue (established before the Rebalance but incorporated into the strategy).⁷⁰

Economic Component

In describing the economic goals of the Rebalance, former national security advisor Thomas Donilon stated that the Administration seeks to create an "economic architecture" in the Asia Pacific that builds open, transparent economies with free trade and international investment.⁷¹ The Rebalance economic initiative that comes closest to this goal of creating a region-wide system of trade and investment rules is the Trans-Pacific Partnership (TPP), to which Mr. Donilon referred as the "centerpiece" of the economic rebalance,⁷² and which Assistant Secretary of State for East Asia and Pacific Affairs Daniel Russel called the "economic leg and crown jewel of the Obama Rebalance strategy."⁷³ Administration officials regard TPP as a "high-standard" free trade agreement (FTA) since it goes beyond tariff reductions to include provisions on intellectual property rights protection, labor and environmental standards, for-

eign investment, government procurement of goods and services, and state-owned enterprise (SOE) transparency.⁷⁴ While the United States did not initiate TPP (which was launched in 2006 by Brunei, Chile, New Zealand, and Singapore), it has assumed an active role in TPP's development since joining negotiations in 2008.⁷⁵

TPP currently includes the United States and 11 other countries in Asia, Oceania, and North and South America, although the agreement allows for new countries to join if they can meet its standards.*⁷⁶ China was not party to TPP negotiations, but the Administration has not ruled out China's participation in the agreement—provided it adheres to the necessary standards. National Security Advisor Susan Rice remarked that the United States would “welcome” Chinese membership.⁷⁷ While TPP negotiations concluded in 2015 and President Obama has signed the agreement, he has not introduced implementing legislation to bring the agreement into effect (the legislation must pass both the House and Senate for TPP to become law).⁷⁸

Beyond TPP, the Administration has made other economic efforts under the Rebalance, though none are on a comparable scale. Over the course of the Rebalance, the Export-Import Bank of the United States signed new memoranda of understanding to facilitate financing with the governments of Brunei, India, Indonesia, the Philippines, and Vietnam.⁷⁹ From 2011 to 2015 the bank financed \$32.6 billion worth of exports to Asia, roughly a quarter of its total transactions over that time period.[†]⁸⁰ The Department of Commerce focused on the region under the National Export Initiative—a bid to double U.S. exports through trade promotion—with four of its top ten target markets in Asia.[‡] The Department of Commerce has also opened new Foreign Commercial Service§ offices in Wuhan, China, and Rangoon, Burma.⁸¹ Overall, Department of Commerce staffing in Asia has increased modestly, with most additional commercial officers directed to China. Total foreign commercial staff in Asia increased by 21 percent (from 338 in 2011 to 410 in 2016); however, staff in Asia offices outside China increased only 6 percent (from 193 to 200).⁸² Staff in China grew 70 percent over this timeframe, from 85 to 144.⁸³ The United States has also launched regional initiatives such as the U.S.-ASEAN Expanded Economic Initiative, a series of dialogues and trainings designed to boost U.S.-ASEAN trade and prepare ASEAN countries for entrance into TPP.⁸⁴ Despite these additional efforts, many policy experts regard TPP as the “linchpin” of the economic side of the Rebalance.⁸⁵

While the economic components of the Rebalance have not been fully implemented, as Figure 1 shows, U.S. merchandise trade with Asia has risen, although China accounts for the lion's share of that

* Currently, Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam have signed the agreement as founding members. Colombia, Indonesia, the Philippines, Taiwan, Thailand, and South Korea have expressed interest in joining TPP in the future. Only Malaysia has ratified the agreement.

† While the Export-Import Bank is available to U.S. exporters in foreign markets, it is a demand-driven agency that does not directly guide or initiate projects in target countries.

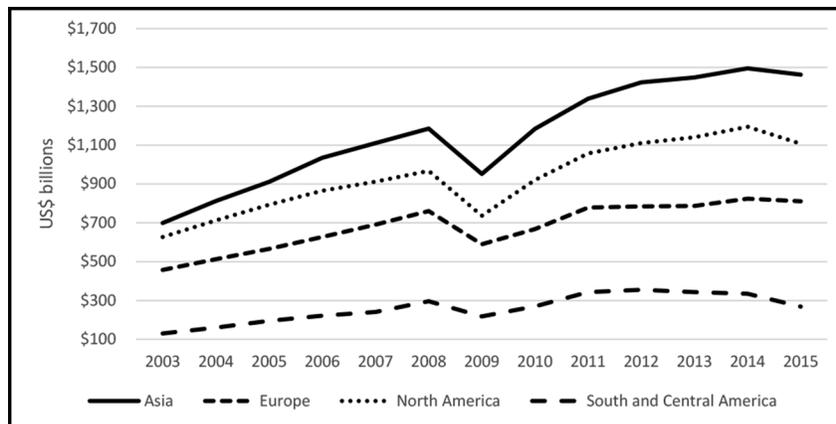
‡ The four countries are China, India, Indonesia, and Vietnam. Robert G. Sutter et al., “Balancing Acts: The U.S. Rebalance and Asia-Pacific Stability,” *George Washington University Elliott School of International Affairs*, August 2013.

§ The U.S. Foreign Commercial Service provides export promotion and matchmaking services for U.S. firms looking to export.

growth. From 2010 to 2015, U.S. trade in goods with Asia increased 23.6 percent from \$1.18 trillion in 2010 to \$1.46 trillion in 2015.⁸⁶ Over the five-year timeframe before the global financial crisis, U.S. goods trade with Asia grew twice as fast—at 53.3 percent—from \$700 billion in 2003 to \$1.18 trillion in 2008.⁸⁷ U.S. merchandise exports to Asia have also grown, going from \$387 billion in 2010 to \$458 billion in 2015—an increase of 18.1 percent.⁸⁸ Growth of U.S. merchandise exports to Asia is also slower under the Rebalance compared to the period before the financial crisis, when U.S. goods exports grew 74.3 percent from 2003 to 2008 (from \$206 billion to \$359 billion).⁸⁹ Nevertheless, over the course of the Rebalance, U.S. goods trade with Asia grew faster than trade with Europe, North America, or South and Central America, and as of 2015 accounts for 39 percent of all U.S. trade in goods.⁹⁰

U.S. trade with China has grown at a faster rate than with other Asian countries. As seen in Table 1, U.S. exports to China increased 150 percent before the global financial crisis (from \$28 billion in 2003 to \$70 billion in 2008) and 26 percent after (from \$92 billion in 2010 to \$116 billion in 2015) compared to a 62.5 percent (from \$178 billion to \$289 billion) and 15.5 percent (from \$295 billion to \$341 billion) increase in exports to other Asian countries over the same time periods.⁹¹ U.S. imports from China have also grown more quickly than those from the rest of Asia, increasing 122 percent from 2003 to 2008 and 32 percent from 2010 to 2015, compared to 44 percent and 21 percent for other Asian countries.⁹² Since 2003, China has been the United States' largest trading partner in Asia, accounting for 41 percent of all U.S. merchandise trade in that region in 2015 (\$600 billion).⁹³

Figure 1: U.S. Goods Trade with Asia, Europe, North America, and South and Central America, 2003–2015



Source: United States Census Bureau, *U.S. Trade in Goods by Country*. <http://www.census.gov/foreign-trade/balance/index.html>.

Table 1: U.S. Goods Trade with Asia and China, 2003–2015
(US\$ billions)

Year	Asia		China		China's Share of U.S.-Asia Trade	
	Exports	Imports	Exports	Imports	Exports	Imports
2003	\$206	\$493	\$28	\$152	14%	31%
2004	\$231	\$581	\$34	\$197	15%	34%
2005	\$252	\$659	\$41	\$243	16%	37%
2006	\$291	\$743	\$54	\$288	19%	39%
2007	\$327	\$783	\$63	\$321	19%	41%
2008	\$359	\$825	\$70	\$338	19%	41%
2009	\$308	\$644	\$69	\$296	22%	46%
2010	\$387	\$796	\$92	\$365	24%	46%
2011	\$439	\$900	\$104	\$399	24%	44%
2012	\$457	\$966	\$111	\$426	24%	44%
2013	\$475	\$973	\$122	\$440	26%	45%
2014	\$481	\$1,018	\$124	\$468	26%	46%
2015	\$458	\$1,007	\$116	\$483	25%	48%

Source: U.S. Census Bureau, *U.S. Trade in Goods by Country*. <http://www.census.gov/foreign-trade/balance/index.html>.

China's Regional Activities since the Rebalance

Numerous factors influence China's foreign policy decisions, and it is difficult to judge how the Rebalance may have prompted or affected China's behavior.⁹⁴ Further, the Rebalance is intended to sustain the U.S. regional presence in the long term and should not be evaluated based solely on short-term changes in China's actions, even if these actions could be attributed to the strategy. However, Beijing's rhetorical response to the strategy and its policy decisions since the Rebalance was announced can provide early indicators of how China's regional approach may unfold in the long term.

China's Public Response to the Rebalance

China at first officially responded to the Rebalance by welcoming it cautiously,⁹⁵ but later negative statements and continued endorsement of alternative international norms indicate underlying tensions with the U.S. regional presence. During his 2012 trip to the United States, then vice president Xi Jinping stated that "China welcomes a constructive role by the United States in promoting peace, stability, and prosperity in the Asia Pacific," while it "hope[s] the United States will respect the interests and concerns of China and other countries in this region."⁹⁶ Beijing has since continued to declare that it welcomes the United States' establishment of close relations with Asian countries.⁹⁷ Official rhetoric since this time, however, has included measured criticism of the strategy, particularly of its military aspects and its support for U.S. allies and partners that have territorial disputes with China.⁹⁸ China's 2013 defense white paper, for example, refers to "some

⁹⁴According to Michael D. Swaine of the Carnegie Endowment for International Peace, references by Chinese officials to the "constructive role" of the United States in Asia predate the Rebalance and imply that China's acceptance of the U.S. presence is conditional, dependent on Beijing's view of the type of regional role Washington plays. Michael D. Swaine, "Chinese Leadership and Elite Responses to the U.S. Pacific Pivot," *China Leadership Monitor* 38 (July 17, 2012): 5.

country” that has made the regional situation tenser,⁹⁹ while the 2015 version references the Rebalance as one of many trends that “have a negative impact on the security and stability along China’s periphery.”¹⁰⁰ China’s ambassador to the United States criticized the military component in 2014, stating:

*The problem with this rebalancing is that it’s not balanced. There has been too much stress on the military and security aspect, stressing traditional alliances without addressing adequately the real needs and concerns of the regional countries for economic prosperity and sustainable development.*¹⁰¹

Other critiques have focused on the South China Sea issue in particular: China’s ambassador to ASEAN argued in May 2016 that the Rebalance strategy’s initiation was “the watershed of the South China Sea issue” and that the United States was “the main driving force” behind tensions there;¹⁰² a Ministry of Foreign Affairs spokesperson made the point several times in 2016 that the region was calm and peaceful before “the Americans came along with the rebalance stuff,” as he termed it on one occasion.¹⁰³ In 2015 a spokesperson stated that the United States was using the territorial disputes as an excuse for pursuing the Rebalance strategy.¹⁰⁴ Chinese officials have nonetheless continued to stress that the “underlying trend” characterizing U.S.-China relations is positive,¹⁰⁵ an assessment made both before and after the Rebalance began.

Official statements aside, many in China appear to hold deeply suspicious and negative views toward the Rebalance. David Lampton, director of China studies at the Johns Hopkins School of Advanced International Studies, testified to the Commission that “China immediately, and indelibly, saw [the Rebalance] as part of a neo-containment strategy,” and that dissuading Beijing from this view has proven difficult, despite deepened U.S. engagement efforts.¹⁰⁶ Reflecting this viewpoint, statements by media and academic sources in China have tended to be harshly critical of the Rebalance,¹⁰⁷ describing the strategy as pursuing “containment,” identifying China as a threat and an enemy, attempting to check China’s rise,¹⁰⁸ and creating tension in the South China Sea.¹⁰⁹ Remarks by Chinese military officials not explicitly “speaking for the regime” have been more directly critical as well.¹¹⁰ A recent opinion poll shows the strategy to be highly unpopular among policy experts in China, in stark contrast to most of the region.¹¹¹

China’s Proposal of Alternative Regional Security and Economic Frameworks

Security Framework

Since the announcement of the Rebalance strategy, one broad course of action taken by China has been to propose a regional security framework different from that upheld by the United States. While this effort was reflected in official Chinese statements dating before the Rebalance,¹¹² Chinese President and General Secretary of the Chinese Communist Party (CCP) Xi Jinping’s keynote address at the Conference on Interaction and Confidence-Building

Measures in Asia (CICA)* summit held in Shanghai in 2014 represented an inflection point. There, he called for the establishment of “a new regional security cooperation architecture,” stating that “in the final analysis, it is for the people of Asia to run the affairs of Asia, solve the problems of Asia, and uphold the security of Asia.”¹¹³ President Xi specifically criticized military alliances targeted at third parties as “outdated thinking from the age of [the] Cold War,” and stated that “no country should attempt to dominate regional security affairs,” clearly referring to the United States.¹¹⁴ China has emphasized that this “New Asian Security Concept” should instead be marked by “dialogue” and “consensus” among all parties.¹¹⁵ An April 2016 commentary in official CCP newspaper *People’s Daily* specifically contrasted this idea with the Rebalance:

*The launch of the Asia-Pacific Rebalance strategy by the U.S. in recent years did not bring Asia peace, but only uncertainty. It proved that a U.S.-led alliance system is not the right option to safeguard the peace and stability of Asia. Instead, a system of security governance with Asian features, as suggested by China, will be best for Asian development.*¹¹⁶

While President Xi advocated that CICA be expanded and made the basis for this new regional security architecture,¹¹⁷ the potential for the development of this vision is unclear. China was able to utilize the CICA foreign ministers’ meeting in Beijing in April 2016 to promote its views on specific issues such as the South China Sea¹¹⁸ (which it did not do at the 2014 summit¹¹⁹), but the broader concept has gained little traction thus far.¹²⁰ CICA remains a forum rather than an official organization;† it is geographically weighted toward Central Asia, South Asia, and the Middle East and emphasizes antiterrorism concerns;¹²¹ and it is missing key Asia Pacific players such as Japan (an observer but not a member), Australia, Taiwan, and seven of ASEAN’s ten members.¹²² Building consensus on a security agenda among such a wide range of countries (several of them U.S. allies) will prove to be a significant challenge.¹²³ In his address at the 2016 meeting, President Xi appeared to recognize these difficulties, reiterating his call for a new architecture—but on the basis of “gradually channel[ing] cooperation” among Asia’s multiple security frameworks toward this goal,¹²⁴ a departure from his previous emphasis on CICA alone. China may view the inaugural ASEAN-China Defense Ministers’ Informal Meeting, which it hosted in Beijing in October 2015 after pushing for it for several years, as an indicator of progress in this regard. China’s Minister of National Defense promoted the new concept at the meeting (to a positive reception, according to Chinese media),¹²⁵ but it remains to be seen whether this will evolve into expanded cooperation on security issues. Ulti-

*CICA was founded in 1993 and currently has 26 members: Afghanistan, Azerbaijan, Bahrain, Bangladesh, Cambodia, China, Egypt, India, Iran, Iraq, Israel, Jordan, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Palestine, Qatar, South Korea, Russia, Tajikistan, Thailand, Turkey, the United Arab Emirates, Uzbekistan, and Vietnam. It also has 11 observers, which include the United States and Japan. Conference on Interaction and Confidence-Building Measures in Asia, “About CICA,” 2014. <http://www.cica-china.org/eng/gyyx/1zyxjij/>.

† For comparison, CICA is similar to the “Shanghai Five Mechanism” that was the precursor to the Shanghai Cooperation Organization. Mu Chunshan, “What Is CICA (and Why Does China Care about It)?” *Diplomat* (Japan), May 17, 2014.

mately, Beijing's proffering of an alternative framework appears thus far to have been largely rhetorical and defined by its opposition to the United States' approach.

Economic Frameworks

China has also worked to create and promote new economic institutions in the Asia Pacific, notably the Asian Infrastructure Investment Bank (AIIB) and the Regional Comprehensive Economic Partnership (RCEP). Largely led by China, the AIIB is a multilateral development bank founded in 2015 with 57 member countries.* It is seen by many as a way for China to exert greater influence in development finance, prompted, in part, by the delay at the International Monetary Fund (IMF) of reforms that would have increased China's IMF voting power.¹²⁶ The bank is based in Beijing, and China enjoys veto power over major decisions such as the selection of a president or the increase of the bank's capital stock.¹²⁷ The AIIB was founded to provide funding for infrastructure projects in Asia on the basis that existing multilateral development banks were not providing sufficient infrastructure financing to the region.¹²⁸ Based on the bank's mission, it appears well placed to work hand-in-glove with China's "One Belt, One Road" (OBOR) program, an initiative to build a network of ports and transportation infrastructure linking China with Europe through Central Asia, South Asia, and the Middle East (for more on China's OBOR initiative, see Chapter 3, Section 1, "China and South Asia"). To date, the AIIB has partnered with the Asia Development Bank and the European Bank for Reconstruction and Development to fund a pair of highway projects in Central and South Asia, and has funded projects for electrification in Bangladesh and upgrading urban infrastructure in Indonesian slums.† The bank is also considering funding road construction in Kazakhstan, a hydropower expansion project in Pakistan, and electrical grid improvements in India.¹²⁹ Both Chinese and U.S. scholars have suggested the AIIB could serve as a mechanism for China to use its excess industrial capacity.¹³⁰

On the trade front, China is a key backer of RCEP, a so-called "mega-FTA" that would include a large share of the world's population and economic activity within its membership: RCEP countries would account for more than three billion people and 40 percent of global trade.¹³¹ Historically, China has pursued FTAs that are regarded as "low quality"—that is, agreements that focus principally on tariff reduction but omit provisions that might be difficult for China to enact, such as firm labor protections or open foreign investment.¹³² While still under negotiation, RCEP is anticipated to be a "low-quality" FTA in comparison to TPP, containing no conditions that would significantly overhaul China's market access policies.¹³³ China's push for what is expected to be a regional FTA sympathetic to China's existing economic structure forms the

* 57 countries have signed AIIB articles of agreement, but nine have still not ratified them. Asian Infrastructure Investment Bank, "Signing and Ratification Status of the AOA of the AIIB." <http://www.aiib.org/html/aboutus/introduction/Membership/?show=0>.

† The two highway projects are a road in Tajikistan and a highway in Pakistan linking Shorkot and Khanewal. Jane Perlez, "China-Led Development Bank Starts with \$509 Million in Loans for 4 Projects," *New York Times*, June 25, 2016.

basis for President Obama's claim that China is seeking to "write the rules" for the regional economy in the absence of TPP.¹³⁴ Many TPP countries are simultaneously participating in RCEP negotiations.*

China's promotion of RCEP may be motivated by the advancement of TPP.¹³⁵ If approved, TPP may slow China's growth as trade is diverted to TPP countries. One estimate put China's losses at 0.3 percent of its gross domestic product (GDP) by 2020 and 1.2 percent of its exports by 2025.¹³⁶ It will likely be difficult for China to join TPP, as TPP provisions on SOEs and government procurement would require significant Chinese reforms.¹³⁷ If RCEP is approved, China will have low-tariff access to regional countries, Japan in particular, which will ameliorate trade diversion from TPP. A study funded by the UK government simulated how TPP and RCEP would each affect China's economy.¹³⁸ As seen in Table 2, the simulation predicted significant losses to China's economy if TPP moved forward, but also predicted that these losses could be prevented and even overcome if RCEP were passed and China consequently gained low-tariff access to many TPP countries.¹³⁹

Table 2: Simulated Effects of TPP and RCEP on Chinese Economy
(US\$ billions)

	TPP Passed	TPP Not Passed
RCEP Passed	\$72 gain	\$88 gain
RCEP Not Passed	\$22 loss	No Change

Source: Ronglin Li and Yang Hu, "The Regional Comprehensive Economic Partnership, the Trans-Pacific Partnership, and China's Free Trade Strategies," in Harsha Vardhana Singh, ed., *TPP and India: Implications of Mega-Regionals and Developing Countries*, Wisdom Tree, 2016, 209–210.

Some experts argue that any negative trade impacts imposed on China by TPP will be undercut by the agreement's rules of origin provisions, which in some cases could allow goods mostly manufactured in China access to TPP countries at low tariff rates. For example, in terms of automotive trade, under TPP rules of origin a vehicle would only need to have 45 percent of its content, by value, to originate in TPP countries to enter TPP markets at low tariffs. This percentage could be reduced by an additional 8 percent through provisions in the TPP Annex.¹⁴⁰ Thus, Chinese auto parts could make up 63 percent of a vehicle's content, by value, and still qualify for the trade preferences in the agreement. This low threshold could provide goods with substantial Chinese content low-tariff access to TPP countries.

Chinese officials have expressed some interest in joining TPP. Initially, Chinese media depicted it as an effort to isolate China economically, but after Japan joined TPP negotiations, China's Vice Finance Minister Zhu Guangyao commented that the agreement is

* TPP countries currently engaged in RCEP negotiations include Australia, Brunei, Burma, Japan, New Zealand, Singapore, South Korea, and Vietnam. Cambodia, China, India, Indonesia, Laos, Malaysia, the Philippines, and Thailand are also participating in RCEP talks. Asia Regional Integration Center, "Trade and Investment, Regional Comprehensive Economic Partnership." <https://aric.adb.org/fta/regional-comprehensive-economic-partnership>.

“incomplete without China.”¹⁴¹ Premier Li Keqiang noted that “China is open to negotiations on the TPP.”¹⁴²

China also urged members of the APEC summit to form a Free Trade Area of the Asia-Pacific (FTAAP) that would join APEC members—including China, Japan, and the United States—in an FTA. Analysts have seen Beijing’s push for FTAAP as a reaction to TPP—largely as a bid to create a trade agreement larger than TPP that would have rules and conditions sympathetic to China’s economic priorities.¹⁴³ In 2014, APEC stated that a strategic study on issues surrounding the realization of FTAAP would be launched, despite reported U.S. resistance to FTAAP progress.¹⁴⁴

Ongoing Military Buildup and A2/AD Focus

China’s rapid military buildup, featuring over two decades in which its reported annual defense budget has grown in most years by double digits in nominal terms,¹⁴⁵ has continued to shift the regional balance of military power away from the United States and its allies and associates and toward China. This trend features most prominently in China’s investments associated with the antiaccess/area denial (A2/AD)* component within the People’s Liberation Army (PLA) missions. China has sought (since before the Rebalance) to expand its ability to strike specific U.S. facilities in the Asia Pacific with conventional missiles.¹⁴⁶ Beijing anticipates these facilities may complicate its freedom of action in a contingency.¹⁴⁷

China’s ability to conduct conventional strikes against U.S. regional facilities reached an inflection point in 2015 with the fielding of new intermediate-range ballistic missiles able to reach Guam, providing a benchmark for evaluating China’s expanding A2/AD buildup.† The United States plans to enhance its military presence on Guam as part of the Rebalance strategy, as described previously, and many PLA academic and military analysts have noted the island’s importance as an “anchor” of the U.S. force posture in the region.¹⁴⁸ In a conflict, conventional attacks could hold key U.S. assets stationed on Guam at risk and also disrupt their region-wide response effort, slowing deployment timetables and reducing the effectiveness of U.S. forces in the theater.¹⁴⁹ Guam is thus growing in importance to U.S. strategic interests, even as China’s ability to strike the island is increasing.

Several new conventional platforms and weapons systems developed by China in recent years have increased its ability to hold U.S. forces stationed on or near Guam at risk in a potential conflict. The current array of Chinese conventional missiles able to

*According to DOD, “antiaccess” actions are intended to slow the deployment of an adversary’s forces into a theater or cause them to operate at distances farther from the conflict than they would prefer. “Area denial” actions affect maneuvers within a theater, and are intended to impede an adversary’s operations within areas where friendly forces cannot or will not prevent access. China, however, uses the term “counterintervention,” reflecting its perception that such operations are reactive. U.S. Department of Defense, *Military and Security Developments Involving the People’s Republic of China 2013*, 2013, 1, 32, 33; U.S. Department of Defense, *Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges*, May 2013, 2.

†For a more detailed examination of the drivers behind China’s regional strike buildup, the importance of Guam in particular as a focal point, and potential U.S. responses, see Jordan Wilson, “China’s Expanding Ability to Conduct Conventional Missile Strikes on Guam,” *U.S.-China Economic and Security Review Commission*, May 10, 2016.

reach Guam and nearby areas includes: (1) the DF-26 intermediate-range ballistic missile unveiled at China's September 2015 military parade, not yet a precision strike weapon but potentially of concern in large numbers; (2) the DF-26 antiship ballistic missile also revealed at the 2015 parade, unproven against a moving target at sea like the shorter-range DF-21D (and likely facing greater targeting challenges), but undergoing further development; (3) air-launched land-attack cruise missiles, launched from bombers with a high probability of being detected and intercepted by U.S. aircraft and anti-aircraft systems; (4) air-launched antiship cruise missiles, with the same aircraft limitation; (5) sea-launched antiship cruise missiles, of concern should the platforms be able to move into range undetected, a challenge for China's relatively noisy submarines; and (6) sea-launched land-attack cruise missiles, which China does not currently field but is likely working to develop.¹⁵⁰ At present, accuracy limitations and platform vulnerabilities render the risk these missiles would pose to U.S. forces on Guam in a conflict relatively low, but China's commitment to continuing to modernize its strike capabilities indicates the risk will likely grow going forward.

Coercive Actions to Advance Maritime Goals

The most significant characteristic of China's security approach in the Asia Pacific since the Rebalance began has been a continued series of coercive actions against neighboring states in the maritime realm (perceived as having begun around 2009 to 2010) that has exceeded many observers' expectations.¹⁵¹ Beijing has maintained its claim to nearly the entire South China Sea (though it refuses to clarify the precise meaning of these claims¹⁵²) and continues to insist that all territorial disputes there be addressed bilaterally.¹⁵³ Far from valuing "consensus" and mutual benefit as proposed under its New Asian Security Concept, Beijing has sought to preemptively divide ASEAN to prevent it from taking a unified stance on the dispute and enlist other countries' support for its own position.¹⁵⁴ (See Chapter 2, Section 1, "Year in Review: Security and Foreign Affairs," for a comprehensive discussion of developments in the South China Sea in 2016.)

In June 2012, China established de facto control over Scarborough Reef, a land feature disputed with the Philippines but previously unoccupied, and began preventing access to the area. Philippines officials and experts interviewed by the Commission in 2012 viewed this as an effort by China to "test" the United States' commitment to defending the Philippines.*¹⁵⁵ Since this time, China has pursued land reclamation on other disputed features it controls at an "absolutely breakneck" pace, according to Mira Rapp-Hooper, senior fellow at the Center for a New American Security,¹⁵⁶ reclaiming 3,200 acres of new land over just 18 months beginning in December 2013.¹⁵⁷ Around many of these features, China has declared what it refers to as "exclusion zones," a unique

* China secured control of the reef after a two-month-long standoff between Chinese and Philippine vessels that culminated in the Philippine ships' withdrawal. According to Manila, China backtracked on an agreement to simultaneously withdraw. For an in-depth examination of the Scarborough Reef standoff, see U.S.-China Economic and Security Review Commission, *2012 Annual Report to Congress*, November 2012, 231–233.

status with no explicit basis in international law, and attempted to warn off U.S. aircraft and warships.¹⁵⁸ China has also conducted well-publicized combat drills in the disputed region,¹⁵⁹ notably declaring a prohibition on foreign ships and aircraft entering the area involved during a July 2016 exercise.* Philippine officials reported a larger-than-usual number of ships operating near Scarborough Reef in early September 2016, while China was hosting the G20 summit. These ships reportedly included coast guard vessels and barges, raising concerns that China might plan to begin island reclamation.¹⁶⁰

In the course of its growing assertiveness in the South China Sea, China has also violated several of its international commitments: the 2002 China-ASEAN “Declaration on the Conduct of Parties in the South China Sea,” which requires parties to refrain from “inhabiting” uninhabited features;¹⁶¹ the UN Convention on the Law of the Sea (UNCLOS), specifically its rules defining territorial zones and features, its standards for clarifying claims, its environmental protection obligations, and the July 2016 ruling by the Permanent Court of Arbitration in The Hague that major elements of China’s claim were unlawful, which Beijing declared “null and void;”[†]¹⁶² and President Xi’s public promise not to “militarize” its artificial islands in the South China Sea, made in Washington in September 2015.¹⁶³

China has undertaken these efforts with an apparent disregard for their strategic costs, namely the negative perceptions of other regional countries and their resulting favorability toward the United States. As Dr. Rapp-Hooper testified to the Commission, “Washington’s South China Sea security strategy has focused on diplomatic engagement and changes to its military posture that will bear fruit over time. Beijing, on the other hand, has employed an opportunistic strategy focused on quick, incremental gains.”¹⁶⁴ She noted that China has, however, been able to shift the short-term, tactical military balance through this approach, as “[Beijing] has been building islands faster than the United States can build coalitions.”¹⁶⁵

China’s Bilateral Economic Engagement

Bilaterally, China has forged a series of FTAs with regional countries and committed billions of dollars to regional infrastructure projects through its OBOR initiative. Since 2011, China has concluded bilateral FTAs with key U.S. allies Australia and South Korea.¹⁶⁶ China also began negotiations with Japan and South Korea on a joint FTA in 2012.¹⁶⁷ This push for new FTAs can be seen as a reaction to the Rebalance and a way for China to main-

*Prior to a large-scale July 2016 exercise in the South China Sea near Hainan Island and the Paracel Islands, the Chinese government announced that an area of 100,000 square kilometers (38,610 square miles)—which included waters claimed by Vietnam—would be off limits. State practice under international law has been that countries issue these kinds of notices prior to military exercises for safety reasons, but they cannot prohibit ships and aircraft from entering the area. Steve Mollman, “China Illegally Cordoned off a Huge Part of the South China Sea for Military Drills—And Will Likely Do So Again,” *Quartz*, July 11, 2016.

†The tribunal specifically ruled that China’s nine-dash line, recent land reclamation activities, and other activities in Philippine waters were unlawful. For a summary of the arbitration ruling, see Caitlin Campbell and Nargiza Salidjanova, “South China Sea Arbitration Ruling: What Happened and What’s Next?” *U.S.-China Economic and Security Review Commission*, July 12, 2016.

tain favorable trade access to current and future TPP countries. Both Japan and Australia are TPP members, while South Korea already has FTAs with most TPP countries and has stated its desire to join the agreement.¹⁶⁸ The FTA with Australia had been under negotiation for more than a decade but did not accelerate until after Japan joined TPP negotiations in 2013.¹⁶⁹ The contents of China's FTAs show a desire to create agreements that are generally weaker in their standards than U.S. FTAs (such as TPP) and require little reform to China's economy. For example, U.S. FTAs typically require stronger intellectual property protection such as longer copyright periods and more binding requirements for intellectual property right enforcement.¹⁷⁰ By contrast, with the exception of China's FTAs with Switzerland and South Korea, Chinese FTAs do not typically include intellectual property protections stronger than those commitments China has already made to the World Trade Organization.¹⁷¹

China has also committed several billion dollars to OBOR projects, which have been seen as a response to the Rebalance.¹⁷² OBOR has two components: the 21st Century Maritime Silk Road initiative, which aims to establish an economic corridor through the South China Sea and Indian Ocean to Europe, and the Silk Road Economic Belt, which is a series of transportation infrastructure projects through Central Asia linking China to Europe by land.¹⁷³ While OBOR is in many ways a rebranding of several Chinese projects that were already underway, the Chinese government has pledged significant resources to it. The Silk Road Fund has an endowment of \$40 billion, and the China Development Bank has stated it would provide \$890 billion for OBOR projects.¹⁷⁴ While Chinese development pledges can often overstate their total commitment, even a fraction of this amount would still be a massive allocation of resources—in 2015, World Bank Group lending totaled \$60 billion worldwide.¹⁷⁵ OBOR is seen as a crucial part of a strategy that ensures China will become the economic center of gravity in Asia with all roads leading to Beijing.¹⁷⁶

Potential Factors Contributing to China's Response

Two broad observations help shed light on why Beijing may be taking the regional approach outlined in this section.

Conditional Approach to International Order

As Dr. Rapp-Hooper noted in her testimony to the Commission, there is not "one singular answer to the way that China intends to engage with the liberal international order writ large."¹⁷⁷ China does not reject or accept the system wholesale; rather, its approach varies based, among other factors, on geographic proximity and the presence of perceived core interests such as territorial claims.*¹⁷⁸ Recognizing that China has benefited from the order, China's lead-

*Thomas Woodrow, former senior intelligence analyst for the Pacific Command's Joint Intelligence Operations Center—China Division, notes that Chinese leaders describe "national strategic priorities as 'core interests' ... [which] include 'the political stability of China' and the 'sovereignty and security, territorial integrity, and national unity of China.' These core interests can also be viewed as red lines indicating a Chinese threshold for the potential use of military force." Thomas Woodrow, "The PLA and Cross-Border Contingencies in North Korea and Burma," in Andrew Scobell et al., *The People's Liberation Army and Contingency Planning in China*, National Defense University Press, 2015, 206.

ers primarily seek to operate within the system when it benefits them, while attempting to exert influence and participate in “writing the rules” where possible,¹⁷⁹ and at times in rewriting existing rules. As do many states in the international system, China takes an interest-based approach to this question; on issues such as climate change and Iran’s nuclear program, for example, China has been willing to cooperate with other stakeholders in a context that largely upholds the system.¹⁸⁰ In the Asia Pacific region, however, proximity and the presence of territorial claims have driven China to pursue its interests unilaterally or in opposition to this system. This likely influences its underlying opposition to the Rebalance, endorsement of new security and economic orders, and pursuit of tactical changes to facts on the ground in territorial disputes.

Importantly, China’s willingness to challenge the rules-based international order when convenient indicates a more fundamental point of friction with the U.S. regional and global position—one that cannot be tied to a specific U.S. strategy such as the Rebalance. As Kathleen Hicks, senior vice president and director of the International Security Program at the Center for Strategic and International Studies, testified to the Commission, “China’s apparent willingness to challenge vital elements of the existing rules-based regional and international order should be of concern to U.S. policymakers and to others around the world who believe a rules-based order provides benefits to all.”¹⁸¹ Sheila Smith, senior fellow for Japan studies at the Council on Foreign Relations, identified China’s unwillingness to abide by dispute resolution mechanisms in particular as “the question of the Asia Pacific at the moment.”¹⁸²

General Continuity in Objectives

Expert observers have argued that China’s leaders probably do not have foreign policy goals that are fundamentally different from those in decades past, but more assertive, less constructive forces “have the ascendancy,” as stated by Dr. Lampton, when it comes to making tactical decisions.¹⁸³ China’s leaders have long made clear their claims to Taiwan, the Senkaku Islands (called Diaoyu in China), and the South China Sea, as well as their dislike for the regional U.S. military presence, for example.¹⁸⁴ The departure from former CCP Chairman Deng Xiaoping’s maxim that China should “hide capabilities and bide time” in favor of the larger role in shaping the international system explicitly sought by China’s leaders today¹⁸⁵ would best be understood as an amplification in volume rather than a change in objectives.

China’s more assertive actions in relation to these goals in recent years can perhaps be attributed in part to President Xi himself: experts have referenced his “China Dream” vision and its emphasis on elevating China’s international status as a stated goal for the first time;¹⁸⁶ his centralized approach to policymaking that bypasses the CCP’s traditional foreign policy institutions¹⁸⁷ and is more open to advice from the military;¹⁸⁸ a perceived need for action after a series of crises and the sense of a “lost decade” under his predecessor,¹⁸⁹ perhaps reinforced by his own personal leadership style and aspirations;¹⁹⁰ and the apparent popularity of China’s assertiveness in the international arena among domestic audi-

ences.¹⁹¹ Importantly, some experts have also noted that popular nationalism is not sufficiently powerful to cause the leadership to take actions it does not want to take.¹⁹² Observers have debated whether President Xi has fully “consolidated power” and thus has more leeway to act assertively,¹⁹³ or has not yet done so and sees an assertive foreign policy as potentially advantageous.¹⁹⁴ Some experts note that the Rebalance has sparked a debate in Chinese foreign policy circles regarding the utility of China’s assertive approach, with some elites reportedly preferring less provocative policies.¹⁹⁵ Seen in this light, China’s suspicion of the Rebalance and agitation for alternative systems probably reflect the longstanding interests of the CCP, while the specific coercive tactical actions it has undertaken reflect the interests and characteristics of its current leadership.

Conclusions

- U.S. government statements have tied the Rebalance strategy to the upholding of the “liberal, rules-based international order” in the Asia Pacific, viewing the preservation of this order as broadly aligning with U.S. interests. It represents a tactical adjustment rather than a strategic shift in U.S. policy, seeking to maintain U.S. commitments to the region in an era of new challenges to these interests.
- Although China has voiced measured criticism of the Rebalance in official statements, opposition at other levels indicates a deeply negative perception overall. China has also expressed support for alternative regional security and economic frameworks, pursued coercive actions against neighboring countries in violation of its international commitments, and sought to promote its own free trade agreements since the Rebalance began.
- China alternately supports or challenges the international order based on varying interests, a point of friction in the Asia Pacific, where proximity and core territorial interests factor into Beijing’s views. China’s current leaders probably do not have foreign policy goals that are fundamentally different from those in the past, but are more assertive in making tactical decisions. These observations shed light on why Beijing has undertaken its current regional approach.
- The United States has attempted to emphasize that the Rebalance is focused on upholding principles, not on countering China for its own sake.
- To date, the Trans-Pacific Partnership is the only fully-developed significant economic component under the Rebalance. By its very nature as a free trade agreement, it does not address all U.S. economic interests and objectives in the region.
- Other economic initiatives under the Rebalance have been relatively small. Trade with Asia has increased under the Rebalance, and U.S. trade with China has grown faster than in other Asian countries.

RECOMMENDATIONS

China and the U.S. Rebalance to Asia

The Commission recommends:

- Congress express support for more frequent U.S. freedom of navigation operations in the South China Sea in conjunction with U.S. allies and partners.
- Congress direct the U.S. Department of Defense to include a permanent section in its *Annual Report on Military and Security Developments Involving the People's Republic of China* on the role and activities of China's maritime militia and the implications for U.S. naval operations.

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COMPREHENSIVE LIST OF THE COMMISSION'S RECOMMENDATIONS

Chapter 1: U.S.-China Economic and Trade Relations

Section 2: State-Owned Enterprises, Overcapacity, and China's Market Economy Status

The Commission recommends:

1. Congress amend the statute authorizing the Committee on Foreign Investment in the United States to bar Chinese state-owned enterprises from acquiring or otherwise gaining effective control of U.S. companies.
2. Congress direct the U.S. Government Accountability Office to prepare a report examining the extent to which large-scale outsourcing of manufacturing activities to China is leading to the hollowing out of the U.S. defense industrial base. This report should also detail the national security implications of a diminished domestic industrial base (including assessing any impact on U.S. military readiness), compromised U.S. military supply chains, and reduced capability to manufacture state-of-the-art military systems and equipment.
3. Congress require that under antidumping and countervailing duty laws, Chinese state-owned and state-controlled enterprises are presumed to be operating on behalf of the state and, as a result, do not have standing under U.S. laws against unfair trade to block a case from proceeding.
4. Congress create an office within the International Trade Administration whose sole purpose is to identify and initiate antidumping and countervailing duty cases to ensure a more effective and timely response to China's unfair trade practices.
5. Congress enact legislation requiring its approval before China—either the country as a whole or individual sectors or entities—is granted status as a market economy by the United States.

Section 3: China's 13th Five-Year Plan

The Commission recommends:

6. Congressional committees of jurisdiction hold hearings to:
 - Analyze the impact of China's state-directed plans such as the Made in China 2025 and Internet Plus on U.S. economic competitiveness and national security, and examine the steps Congress can take to strengthen U.S. high-tech and high-value-added industries such as artificial intelligence, autonomous vehicles and systems, and semiconductors.

- Ensure that U.S. government agencies such as the U.S. Department of the Treasury, U.S. Department of Commerce, and the Office of the U.S. Trade Representative have sufficient personnel, funding, and Chinese-language capabilities to examine China's economic and trade policies and China's compliance with its bilateral and multilateral commitments, including the World Trade Organization.
 - Examine U.S. access to China's domestic market, particularly for services and high-tech sectors. This hearing should assess how U.S. government agencies such as the U.S. Department of Commerce and the Office of the U.S. Trade Representative are seeking to increase market access for U.S. firms and explore what additional policy options could be pursued.
7. Congress direct the U.S. Department of the Treasury to prepare a report analyzing U.S. exposure to China's financial sector and the impact of China's financial sector reforms on the U.S. and global financial systems. This report should also identify the policies the U.S. government is or should be adopting to protect U.S. interests in response to this changing environment.

Chapter 2: U.S.-China Security Relations

Section 2: China's Force Projection and Expeditionary Capabilities

The Commission recommends:

8. Congress require the U.S. Department of Defense to conduct a study identifying the risks and gains associated with the United States pursuing a burden sharing strategy that utilizes emerging People's Liberation Army expeditionary capabilities to help stabilize the Asia Pacific region during a crisis or to counter a shared threat such as the spread of terrorism in Southeast Asia.

Section 3: China's Intelligence Services and Espionage Threats to the United States

The Commission recommends:

9. Congress direct the U.S. Department of State to develop educational materials to alert U.S. citizens living and traveling abroad about recruitment efforts by Chinese intelligence agents, and to make these materials available to U.S. universities and other institutions sending U.S. students to China. Congress should also direct the U.S. Department of Defense to develop and implement a program to prepare U.S. students studying in China through Department of Defense National Security Education Programs to recognize and protect themselves against recruitment efforts by Chinese intelligence agents.

10. Congress direct the Federal Bureau of Investigation to provide a classified report to Congress on what risks and concerns have been identified as associated with information systems acquired by the U.S. government, and how those risks are being mitigated. This report should identify information systems or components that were produced, manufactured, or assembled by Chinese-owned or -controlled entities.

Chapter 3: China and the World

Section 2: China and Taiwan

The Commission recommends:

11. Members of Congress and Congressional staff seek opportunities to advance U.S.-Taiwan economic, political, and security relations, support Taiwan's participation in international organizations, and draw attention to Taiwan's democratic achievements and contributions to the international community.
12. Congress urge the executive branch to make available to Taiwan, consistent with the Taiwan Relations Act, defense articles and services required to address the continuing shift in the cross-Strait military balance toward China.
13. Congress direct the U.S. Department of State to reexamine its policy guidelines on reciprocal visits by senior U.S. and Taiwan military officers and civilian officials with the aim of increasing high-level exchanges.
14. Congress request briefings by the Office of the U.S. Trade Representative (USTR) on the status of the Trade and Investment Framework Agreement negotiations with Taiwan and direct the USTR to identify enhanced negotiating procedures to resolve outstanding issues and ensure an accelerated path to conclude such talks.

Section 3: China and Hong Kong

The Commission recommends:

15. Congress express that China's apparent abduction and detention of five Hong Kong and foreign national booksellers based in Hong Kong for selling banned books to customers in mainland China violates its commitments to maintaining a "high degree of autonomy" in Hong Kong under the "one country, two systems" framework. In addition, members of Congress in their meetings in China should continue to express support for human rights and rule of law in Hong Kong.
16. Congress continue to renew annual reporting requirements of the U.S.-Hong Kong Policy Act of 1992, in an effort to ensure policymakers have the most up-to-date and authoritative information about developments in Hong Kong.
17. Congress direct the U.S. Department of State to prepare a report that assesses whether Hong Kong has maintained a "sufficient degree of autonomy" under the "one country, two systems" policy, due to the deterioration of freedom of expression in Hong Kong and Beijing's increasing encroachment.

Section 4: China and North Korea

The Commission recommends:

18. Congress require the U.S. Department of State to produce an unclassified report assessing China's compliance with UN resolutions on North Korea.

Chapter 4: China and the U.S. Rebalance to Asia

The Commission recommends:

19. Congress express support for more frequent U.S. freedom of navigation operations in the South China Sea in conjunction with U.S. allies and partners.
20. Congress direct the U.S. Department of Defense to include a permanent section in its *Annual Report on Military and Security Developments Involving the People's Republic of China* on the role and activities of China's maritime militia and the implications for U.S. naval operations.

DISSENTING VIEWS OF COMMISSIONER ROBIN CLEVELAND

While there is much to commend in the Commission's 2016 reporting on Chinese security policy and programs, my dissent derives from concern about an increasing tendency to confuse objective fact with editorial opinion with regard to economic developments in China. The Commission has a narrow mandate to examine the national security implications of economic and trade issues. Historically, the Commission's credibility and service to the Congress and the public has relied upon a careful and balanced slate of expert witness testimony combined with superb staff research. With few exceptions, report chapters and the related conclusions have reflected a full, balanced presentation of issues which then was followed by Commission recommendations based on interpretation of the data. The chapters informed, the conclusions summarized, and the recommendations offered an important editorial perspective.

Regrettably, much of the content of the economic chapters now reflects the personal judgments and interests of Commissioners unsupported by testimony or fact. The drift away from objective and reliable reporting damages the usefulness and value of the report. As one example, the report missed an important opportunity to describe the unprecedented change this year in virtually all global leaders' views regarding China's stalled economic path and the emerging consensus on the significant consequences of their failing to move forward with reforms. Instead of a serious presentation of the complex economic issues and options, the report places emphasis on broken "promises" and what the CCP leadership "wants". What they want is neither knowable nor as relevant as explaining what most world leaders and scholars believe are the economic consequences—both in China and globally—if the Chinese government fails to do what needs to be done.

Not only does the report fall short in presenting a thoughtful and complete economic picture, there are recommendations which appear to bear no relationship to the content of the report. For example, with no reference to witness testimony, external reports or explanatory data, the Commission recommends Congress use the CFIUS process to bar *all* Chinese state owned enterprises from acquiring US companies. Perhaps it makes sense to enhance the CFIUS process in a meaningful way to protect American national security interests, but this recommendation seems to rely on demonizing the Chinese without any consideration or presentation of the incentives or risks of such a course.

Leaders from around the world and every realm including NGOs, business and politics, have been deeply and increasingly critical of the continued deterioration on every front in China. Free enterprise is as much in peril as free speech. The criticism and concern are well deserved, but to develop solutions, the entire picture must be understood and presented for debate. When China spends nearly \$8 billion to buy 80 U.S. manufactured commercial aircraft as they did in October, American jobs, trade and economic interests demand every effort be made to understand how best to make a key relationship work to mutual benefit. Dismissing that relationship

with unbalanced attacks and ideological critiques fails to inform our readers of the compelling national security stakes of our economic interests and, therefore, fails to fulfill our mandate.

APPENDIX I CHARTER

The Commission was created on October 30, 2000 by the Floyd D. Spence National Defense Authorization Act for 2001 § 1238, P.L. 106–398 (codified at 22 U.S.C. § 7002 (2001)), as amended by:

- The Treasury and General Government Appropriations Act for 2002 § 645 (regarding employment status of staff), P.L. 107–67 (Nov. 12, 2001);
- Division P of the “Consolidated Appropriations Resolution, 2003,” P.L. 108–7 (Feb. 20, 2003) (regarding Commission name change, terms of Commissioners, and responsibilities of Commission);
- P.L. 109–108 (enacted Nov. 22, 2005) (regarding responsibilities of Commission and applicability of FACA);
- Division J of the “Consolidated Appropriations Act, 2008,” P.L. 110–161 (Dec. 26, 2007) (regarding responsibilities of the Commission and changed annual report due date from June to December);
- The Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015, P.L. 113–291 (Dec. 19, 2014) (regarding responsibilities of the Commission).

22 U.S.C. § 7002—United States-China Economic and Security Review Commission

(a) Purposes. The purposes of this section are as follows:

(1) To establish the United States-China Economic and Security Review Commission to review the national security implications of trade and economic ties between the United States and the People’s Republic of China.

(2) To facilitate the assumption by the United States-China Economic and Security Review Commission of its duties regarding the review referred to in paragraph (1) by providing for the transfer to that Commission of staff, materials, and infrastructure (including leased premises) of the Trade Deficit Review Commission that are appropriate for the review upon the submittal of the final report of the Trade Deficit Review Commission.

(b) Establishment of United States-China Economic and Security Review Commission.

(1) In general. There is hereby established a commission to be known as the United States-China Economic and Security Review Commission (in this section referred to as the “Commission”).

(2) Purpose. The purpose of the Commission is to monitor, investigate, and report to Congress on the national security implications of the bilateral trade and economic relationship between the United States and the People’s Republic of China.

(3) Membership. The United States-China Economic and Security Review Commission shall be composed of 12 members, who shall be appointed in the same manner provided for the appointment of members of the Trade Deficit Review Commission under section 127(c)(3) of the Trade Deficit Review Commission Act (19 U.S.C. 2213 note), except that—

(A) Appointment of members by the Speaker of the House of Representatives shall be made after consultation with the chairman of the Committee on Armed Services of the House of Representatives, in addition to consultation with the chairman of the Committee on Ways and Means of the House of Representatives provided for under clause (iii) of subparagraph (A) of that section;

(B) Appointment of members by the President pro tempore of the Senate upon the recommendation of the majority leader of the Senate shall be made after consultation with the chairman of the Committee on Armed Services of the Senate, in addition to consultation with the chairman of the Committee on Finance of the Senate provided for under clause (i) of that subparagraph;

(C) Appointment of members by the President pro tempore of the Senate upon the recommendation of the minority leader of the Senate shall be made after consultation with the ranking minority member of the Committee on Armed Services of the Senate, in addition to consultation with the ranking minority member of the Committee on Finance of the Senate provided for under clause (ii) of that subparagraph;

(D) Appointment of members by the minority leader of the House of Representatives shall be made after consultation with the ranking minority member of the Committee on Armed Services of the House of Representatives, in addition to consultation with the ranking minority member of the Committee on Ways and Means of the House of Representatives provided for under clause (iv) of that subparagraph;

(E) Persons appointed to the Commission shall have expertise in national security matters and United States-China relations, in addition to the expertise provided for under subparagraph (B)(i)(I) of that section;

(F) Each appointing authority referred to under subparagraphs (A) through (D) of this paragraph shall—

(i) appoint 3 members to the Commission;

(ii) make the appointments on a staggered term basis, such that—

(I) 1 appointment shall be for a term expiring on December 31, 2003;

(II) 1 appointment shall be for a term expiring on December 31, 2004; and

(III) 1 appointment shall be for a term expiring on December 31, 2005;

(iii) make all subsequent appointments on an approximate 2-year term basis to expire on December 31 of the applicable year; and

(iv) make appointments not later than 30 days after the date on which each new Congress convenes.

(G) Members of the Commission may be reappointed for additional terms of service as members of the Commission; and

(H) Members of the Trade Deficit Review Commission as of the date of the enactment of this Act [enacted Oct. 30, 2000] shall serve as members of the United States-China Economic and Security Review Commission until such time as members are first appointed to the United States-China Economic and Security Review Commission under this paragraph.

(4) Retention of support. The United States-China Economic and Security Review Commission shall retain and make use of such staff, materials, and infrastructure (including leased premises) of the Trade Deficit Review Commission as the United States-China Economic and Security Review Commission determines, in the judgment of the members of the United States-China Economic and Security Review Commission, are required to facilitate the ready commencement of activities of the United States-China Economic and Security Review Commission under subsection (c) or to carry out such activities after the commencement of such activities.

(5) Chairman and vice chairman. The members of the Commission shall select a Chairman and Vice Chairman of the Commission from among the members of the Commission.

(6) Meetings.

(A) Meetings. The Commission shall meet at the call of the Chairman of the Commission.

(B) Quorum. A majority of the members of the Commission shall constitute a quorum for the transaction of business of the Commission.

(7) Voting. Each member of the Commission shall be entitled to one vote, which shall be equal to the vote of every other member of the Commission.

(c) Duties.

(1) Annual report. Not later than Dec. 1 each year [beginning in 2008], the Commission shall submit to Congress a report, in both unclassified and classified form, regarding the national security implications and impact of the bilateral trade and economic relationship between the United States and the People's Republic of China. The report shall include a full analysis, along with conclusions and recommendations for legislative and administrative actions, if any, of the national security implications for the United States of the trade and current balances with the People's Republic of China in goods and services, financial transactions, and technology transfers. The Commission shall also take into account patterns of trade and transfers through third countries to the extent practicable.

Contents of report. Each report under paragraph (1) shall include, at a minimum, a full discussion of the following:

(A) The portion of trade in goods and services with the United States that the People's Republic of China dedicates to military systems or systems of a dual nature that could be used for military purposes.

(B) The acquisition by the People's Republic of China of advanced military or dual-use technologies from the United States by trade (including procurement) and other technology transfers, especially those transfers, if any, that contribute to the proliferation of weapons of mass destruction or their delivery systems, or that undermine international agreements or United States laws with respect to nonproliferation.

(C) Any transfers, other than those identified under subparagraph (B), to the military systems of the People's Republic of China made by United States firms and United States-based multinational corporations.

(D) An analysis of the statements and writing of the People's Republic of China officials and officially-sanctioned writings that bear on the intentions, if any, of the Government of the People's Republic of China regarding the pursuit of military competition with, and leverage over, or cooperation with, the United States and the Asian allies of the United States.

(E) The military actions taken by the Government of the People's Republic of China during the preceding year that bear on the national security of the United States and the regional stability of the Asian allies of the United States.

(F) The effects, if any, on the national security interests of the United States of the use by the People's Republic of China of financial transactions and capital flow and currency manipulations.

(G) Any action taken by the Government of the People's Republic of China in the context of the World Trade Organization that is adverse or favorable to the United States national security interests.

(H) Patterns of trade and investment between the People's Republic of China and its major trading partners, other than the United States, that appear to be substantively different from trade and investment patterns with the United States and whether the differences have any national security implications for the United States.

(I) The extent to which the trade surplus of the People's Republic of China with the United States enhances the military budget of the People's Republic of China.

(J) An overall assessment of the state of the security challenges presented by the People's Republic of China to the United States and whether the security challenges are increasing or decreasing from previous years.

(3) Recommendations of report. Each report under paragraph (1) shall also include recommendations for action by Congress or the President, or both, including specific recommendations for the United States to invoke Article XXI (relating to security exceptions) of the General Agreement on Tariffs and Trade 1994 with respect to the People's Republic of China, as a result of any adverse impact on the national security interests of the United States.

(d) Hearings.

(1) In general. The Commission or, at its direction, any panel or member of the Commission, may for the purpose of carrying out the provisions of this section, hold hearings, sit and act at times and places, take testimony, receive evidence, and administer oaths to the extent that the Commission or any panel or member considers advisable.

(2) Information. The Commission may secure directly from the Department of Defense, the Central Intelligence Agency, and any other Federal department or agency information that the Commission considers necessary to enable the Commission to carry out its duties under this section, except the provision of intelligence information to the Commission shall be made with due regard for the protection from unauthorized disclosure of classified information

relating to sensitive intelligence sources and methods or other exceptionally sensitive matters, under procedures approved by the Director of Central Intelligence.

(3) Security. The Office of Senate Security shall—

(A) provide classified storage and meeting and hearing spaces, when necessary, for the Commission; and

(B) assist members and staff of the Commission in obtaining security clearances.

(4) Security clearances. All members of the Commission and appropriate staff shall be sworn and hold appropriate security clearances.

(e) Commission personnel matters.

(1) Compensation of members. Members of the United States-China Economic and Security Review Commission shall be compensated in the same manner provided for the compensation of members of the Trade Deficit Review Commission under section 127(g)(1) and section 127(g)(6) of the Trade Deficit Review Commission Act (19 U.S.C. 2213 note).

(2) Travel expenses. Travel expenses of the United States-China Economic and Security Review Commission shall be allowed and conducted under the rules and procedures applying to travel by members of the House of Representatives and its staff. [House Rule 25]

(3) Staff. An executive director and other additional personnel for the United States-China Economic and Security Review Commission shall be appointed, compensated, and terminated in the same manner provided for the appointment, compensation, and termination of the executive director and other personnel of the Trade Deficit Review Commission under section 127(g)(3) and section 127(g)(6) of the Trade Deficit Review Commission Act [19 USCS § 2213 note]. The executive director and any personnel who are employees of the United States-China Economic and Security Review Commission shall be employees under section 2105 of title 5, United States Code, for purposes of chapters 63, 81, 83, 84, 85, 87, 89, and 90 of that title [language of 2001 amendment, Sec. 645]. Compensation for the executive director may not exceed the rate payable for level II of the executive schedule [5 U.S.C. 5314]

(4) Detail of government employees. Federal Government employees may be detailed to the United States-China Economic and Security Review Commission in the same manner provided for the detail of Federal Government employees to the Trade Deficit Review Commission under section 127(g)(4) of the Trade Deficit Review Commission Act [19 USCS § 2213 note].

(5) Foreign travel for official purposes. Foreign travel for official purposes by members and staff of the Commission may be authorized by either the Chairman or the Vice Chairman of the Commission.

(6) Procurement of temporary and intermittent services. The Chairman of the United States-China Economic and Security Review Commission may procure temporary and intermittent services for the United States-China Economic and Security Review Commission in the same manner provided for the procurement of temporary and intermittent services for the Trade Deficit Review Com-

mission under section 127(g)(5) of the Trade Deficit Review Commission Act [19 USCS § 2213 note].

(f) Authorization of appropriations.

(1) In general. There is authorized to be appropriated to the Commission for fiscal year 2001, and for each fiscal year thereafter, such sums as may be necessary to enable the Commission to carry out its functions under this section.

(2) Availability. Amounts appropriated to the Commission shall remain available until expended.

(g) Federal Advisory Committee Act. The provisions of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the Commission.

(h) Effective date. This section shall take effect on the first day of the 107th Congress.

AMENDMENT: Enacted into law by Public Law 107-67:

SEC. 645. (a) Section 1238(e)(3) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (as enacted by Public Law 106-398) is amended by adding at the end the following: “The executive director and any personnel who are employees of the United States-China Economic and Security Review Commission shall be employees under section 2105 of title 5, United States Code, for purposes of chapters 63, 81, 83, 84, 85, 87, 89, and 90 of that title.” (b) The amendment made by this section shall take effect on January 3, 2001.”

AMENDMENT: Enacted into law by Division P of Public Law 108-7:

SECTION 1. SHORT TITLE.—This division may be cited as the “United States-China Economic and Security Review Commission”.

SEC. 2. (a) APPROPRIATIONS.—There are appropriated, out of any funds in the Treasury not otherwise appropriated, \$1,800,000, to remain available until expended, to the United States-China Economic and Security Review Commission.

(b) NAME CHANGE.—

(1) IN GENERAL.—Section 1238 of the Floyd D. Spence National Defense Authorization Act of 2001 (22 U.S.C. 7002) is amended—

(A) in the section heading by inserting “ECONOMIC AND” before “SECURITY”;

(B) in subsection (a)—

(i) in paragraph (1), by inserting “Economic and” before “Security”; and

(ii) in paragraph (2), by inserting “Economic and” before “Security”;

(C) in subsection (b)—

(i) in the subsection heading, by inserting “ECONOMIC AND” before “SECURITY”;

(ii) in paragraph (1), by inserting “Economic and” before “Security”;

(iii) in paragraph (3)—

(I) in the matter preceding subparagraph (A), by inserting “Economic and” before “Security”; and

(II) in subparagraph (H), by inserting “Economic and” before “Security”; and

(iv) in paragraph (4), by inserting “Economic and” before “Security” each place it appears; and

(D) in subsection (e)—

(i) in paragraph (1), by inserting “Economic and” before “Security”;

(ii) in paragraph (2), by inserting “Economic and” before “Security”;

(iii) in paragraph (3)—

(I) in the first sentence, by inserting “Economic and” before “Security”; and

(II) in the second sentence, by inserting “Economic and” before “Security”;

(iv) in paragraph (4), by inserting “Economic and” before “Security”; and

(v) in paragraph (6), by inserting “Economic and” before “Security” each place it appears.

(2) REFERENCES.—Any reference in any Federal law, Executive order, rule, regulation, or delegation of authority, or any document of or relating to the United States-China Security Review Commission shall be deemed to refer to the United States-China Economic and Security Review Commission.

(c) MEMBERSHIP, RESPONSIBILITIES, AND TERMS.—

(1) IN GENERAL.—Section 1238(b)(3) of the Floyd D. Spence National Defense Authorization Act of 2001 (22 U.S.C. 7002) is amended by striking subparagraph (F) and inserting the following:

“(F) each appointing authority referred to under subparagraphs (A) through (D) of this paragraph shall—

“(i) appoint 3 members to the Commission;

“(ii) make the appointments on a staggered term basis, such that—

“(I) 1 appointment shall be for a term expiring on December 31, 2003;

“(II) 1 appointment shall be for a term expiring on December 31, 2004; and

“(III) 1 appointment shall be for a term expiring on December 31, 2005;

“(iii) make all subsequent appointments on an approximate 2-year term basis to expire on December 31 of the applicable year; and

“(iv) make appointments not later than 30 days after the date on which each new Congress convenes;”.

(2) RESPONSIBILITIES OF THE COMMISSION.—The United States-China Commission shall focus, in lieu of any other areas of work or study, on the following:

(A) PROLIFERATION PRACTICES.—The Commission shall analyze and assess the Chinese role in the proliferation of weapons of mass destruction and other weapons (including dual use technologies) to terrorist-sponsoring states, and suggest possible steps which the United States might take, including economic sanctions, to encourage the Chinese to stop such practices.

(B) ECONOMIC REFORMS AND UNITED STATES ECONOMIC TRANSFERS.—The Commission shall analyze and assess the qualitative and quantitative nature of the shift of United States production activities to China, including the relocation of

high-technology, manufacturing, and R&D facilities; the impact of these transfers on United States national security, including political influence by the Chinese Government over American firms, dependence of the United States national security industrial base on Chinese imports, the adequacy of United States export control laws, and the effect of these transfers on United States economic security, employment, and the standard of living of the American people; analyze China's national budget and assess China's fiscal strength to address internal instability problems and assess the likelihood of externalization of such problems.

(C) ENERGY.—The Commission shall evaluate and assess how China's large and growing economy will impact upon world energy supplies and the role the United States can play, including joint R&D efforts and technological assistance, in influencing China's energy policy.

(D) UNITED STATES CAPITAL MARKETS.—The Commission shall evaluate the extent of Chinese access to, and use of United States capital markets, and whether the existing disclosure and transparency rules are adequate to identify Chinese companies which are active in United States markets and are also engaged in proliferation activities or other activities harmful to United States security interests.

(E) CORPORATE REPORTING.—The Commission shall assess United States trade and investment relationship with China, including the need for corporate reporting on United States investments in China and incentives that China may be offering to United States corporations to relocate production and R&D to China.

(F) REGIONAL ECONOMIC AND SECURITY IMPACTS.—The Commission shall assess the extent of China's "hollowing out" of Asian manufacturing economies, and the impact on United States economic and security interests in the region; review the triangular economic and security relationship among the United States, Taipei and Beijing, including Beijing's military modernization and force deployments aimed at Taipei, and the adequacy of United States executive branch coordination and consultation with Congress on United States arms sales and defense relationship with Taipei.

(G) UNITED STATES-CHINA BILATERAL PROGRAMS.—The Commission shall assess science and technology programs to evaluate if the United States is developing an adequate coordinating mechanism with appropriate review by the intelligence community with Congress; assess the degree of non-compliance by China and United States-China agreements on prison labor imports and intellectual property rights; evaluate United States enforcement policies; and recommend what new measures the United States Government might take to strengthen our laws and enforcement activities and to encourage compliance by the Chinese.

(H) WORLD TRADE ORGANIZATION COMPLIANCE.—The Commission shall review China's record of compliance to date with its accession agreement to the WTO, and explore what incentives and policy initiatives should be pursued to promote further compliance by China.

(I) MEDIA CONTROL.—The Commission shall evaluate Chinese government efforts to influence and control perceptions of the United States and its policies through the internet, the Chinese print and electronic media, and Chinese internal propaganda.

(3) EFFECTIVE DATE.—This section shall take effect on the date of enactment of this Act.

AMENDMENT: Enacted into law by SEC. 635 of Public Law 109–108

SEC. 635. (a) MODIFICATION OF RESPONSIBILITIES.—Notwithstanding any provision of section 1238 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (22 U.S.C. 7002), or any other provision of law, the United States-China Economic and Security Review Commission established by subsection (b) of that section shall investigate and report exclusively on each of the following areas:

(1) PROLIFERATION PRACTICES.—The role of the People’s Republic of China in the proliferation of weapons of mass destruction and other weapons (including dual use technologies), including actions the United States might take to encourage the People’s Republic of China to cease such practices.

(2) ECONOMIC TRANSFERS.—The qualitative and quantitative nature of the transfer of United States production activities to the People’s Republic of China, including the relocation of high technology, manufacturing, and research and development facilities, the impact of such transfers on United States national security, the adequacy of United States export control laws, and the effect of such transfers on United States economic security and employment.

(3) ENERGY.—The effect of the large and growing economy of the People’s Republic of China on world energy supplies and the role the United States can play (including through joint research and development efforts and technological assistance) in influencing the energy policy of the People’s Republic of China.

(4) ACCESS TO UNITED STATES CAPITAL MARKETS.—The extent of access to and use of United States capital markets by the People’s Republic of China, including whether or not existing disclosure and transparency rules are adequate to identify People’s Republic of China companies engaged in harmful activities.

(5) REGIONAL ECONOMIC AND SECURITY IMPACTS.—The triangular economic and security relationship among the United States, Taipei, and the People’s Republic of China (including the military modernization and force deployments of the People’s Republic of China aimed at Taipei), the national budget of the People’s Republic of China, and the fiscal strength of the People’s Republic of China in relation to internal instability in the People’s Republic of China and the likelihood of the externalization of problems arising from such internal instability.

(6) UNITED STATES–CHINA BILATERAL PROGRAMS.—Science and technology programs, the degree of non-compliance by the People’s Republic of China with agreements between the United States and the People’s Republic of China on prison labor imports and intellectual property rights, and United States enforcement policies with respect to such agreements.

(7) WORLD TRADE ORGANIZATION COMPLIANCE.—The compliance of the People’s Republic of China with its accession agreement to the World Trade Organization (WTO).

(8) FREEDOM OF EXPRESSION.—The implications of restrictions on speech and access to information in the People’s Republic of China for its relations with the United States in the areas of economic and security policy.

(b) APPLICABILITY OF FEDERAL ADVISORY COMMITTEE ACT.—Subsection (g) of section 1238 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 is amended to read as follows:

“(g) APPLICABILITY OF FACA.—The provisions of the Federal Advisory Committee Act (5 U.S.C. App.) shall apply to the activities of the Commission.”.

SEC. 636. Section 635 of division B of Public Law 108–447 is amended by striking “balance” and inserting “and unexpended balances”.

SEC. 637. None of the funds made available in this Act may be used to pay expenses for any United States delegation to any specialized agency, body, or commission of the United Nations if such commission is chaired or presided over by a country, the government of which the Secretary of State has determined, for purposes of section 6(j)(1) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(1)), has provided support for acts of international terrorism.

AMENDMENT: Enacted into law by Title I of Public Law 110–161

For necessary expenses of the United States-China Economic and Security Review Commission, \$4,000,000, including not more than \$4,000 for the purpose of official representation, to remain available until September 30, 2009: *Provided*, That the Commission shall submit a spending plan to the Committees on Appropriations no later than March 1, 2008, which effectively addresses the recommendations of the Government Accountability Office’s audit of the Commission (GAO–07–1128): *Provided further*, That the Commission shall provide to the Committees on Appropriations a quarterly accounting of the cumulative balances of any unobligated funds that were received by the Commission during any previous fiscal year: *Provided further*, That for purposes of costs relating to printing and binding, the Commission shall be deemed, effective on the date of its establishment, to be a committee of Congress: *Provided further*, That compensation for the executive director of the Commission may not exceed the rate payable for level II of the Executive Schedule under section 5314 of title 5, United States Code: *Provided further*, That section 1238(c)(1) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, is amended by striking “June” and inserting “December”: *Provided further*, That travel by members of the Commission and its staff shall be arranged and conducted under the rules and procedures applying to travel by members of the House of Representatives and its staff.

AMENDMENT: Enacted into law by Public Law 113–291

Sec. 1259B—Modification of matters for discussion in annual reports of the United States-China Economic and Security Review Commission.

(a) MATTERS FOR DISCUSSION.—Section 1238(c)(2) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (as enacted into law by Public Law 106–398; 22 U.S.C. 7002(c)(2)) is amended by striking subparagraphs (A) through (J) and inserting the following new subparagraphs:

(A) The role of the People’s Republic of China in the proliferation of weapons of mass destruction and other weapon systems (including systems and technologies of a dual use nature), including actions the United States might take to encourage the People’s Republic of China to cease such practices.

(B) The qualitative and quantitative nature of the transfer of United States production activities to the People’s Republic of China, including the relocation of manufacturing, advanced technology and intellectual property, and research and development facilities, the impact of such transfers on the national security of the United States (including the dependence of the national security industrial base of the United States on imports from China), the economic security of the United States, and employment in the United States, and the adequacy of United States export control laws in relation to the People’s Republic of China.

(C) The effects of the need for energy and natural resources in the People’s Republic of China on the foreign and military policies of the People’s Republic of China, the impact of the large and growing economy of the People’s Republic of China on world energy and natural resource supplies, prices, and the environment, and the role the United States can play (including through joint research and development efforts and technological assistance) in influencing the energy and natural resource policies of the People’s Republic of China.

(D) Foreign investment by the United States in the People’s Republic of China and by the People’s Republic of China in the United States, including an assessment of its economic and security implications, the challenges to market access confronting potential United States investment in the People’s Republic of China, and foreign activities by financial institutions in the People’s Republic of China.

(E) The military plans, strategy and doctrine of the People’s Republic of China, the structure and organization of the People’s Republic of China military, the decision-making process of the People’s Republic of China military, the interaction between the civilian and military leadership in the People’s Republic of China, the development and promotion process for leaders in the People’s Republic of China military, deployments of the People’s Republic of China military, resources available to the People’s Republic of China military (including the development and execution of budgets and the allocation of funds), force modernization objectives and trends for the People’s Republic of China military, and the implications of such objectives and trends for the national security of the United States.

(F) The strategic economic and security implications of the cyber capabilities and operations of the People's Republic of China.

(G) The national budget, fiscal policy, monetary policy, capital controls, and currency management practices of the People's Republic of China, their impact on internal stability in the People's Republic of China, and their implications for the United States.

(H) The drivers, nature, and implications of the growing economic, technological, political, cultural, people-to-people, and security relations of the People's Republic of China's with other countries, regions, and international and regional entities (including multilateral organizations), including the relationship among the United States, Taiwan, and the People's Republic of China.

(I) The compliance of the People's Republic of China with its commitments to the World Trade Organization, other multilateral commitments, bilateral agreements signed with the United States, commitments made to bilateral science and technology programs, and any other commitments and agreements strategic to the United States (including agreements on intellectual property rights and prison labor imports), and United States enforcement policies with respect to such agreements.

(J) The implications of restrictions on speech and access to information in the People's Republic of China for its relations with the United States in economic and security policy, as well as any potential impact of media control by the People's Republic of China on United States economic interests.

(K) The safety of food, drug, and other products imported from China, the measures used by the People's Republic of China Government and the United States Government to monitor and enforce product safety, and the role the United States can play (including through technical assistance) to improve product safety in the People's Republic of China.

(b) EFFECTIVE DATE.—The amendments made by subsection (a) shall take effect on the date of the enactment of this Act, and shall apply with respect to annual reports submitted under section 1238(c) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 after such date of enactment.

APPENDIX II

BACKGROUND OF COMMISSIONERS

The Honorable Dennis C. Shea, Chairman

Chairman Dennis Shea was reappointed by Senate Republican Leader Mitch McConnell for a term expiring December 31, 2016. An attorney with more than 25 years of experience in government and public policy, he is the founder of Shea Public Strategies LLC, a public affairs firm based in Alexandria, Virginia. Before starting the firm, he served as Vice President for Government Affairs—Americas for Pitney Bowes Inc., a Fortune 500 company.

Chairman Shea's government service began in 1988 when he joined the Office of Senate Republican Leader Bob Dole as counsel, subsequently becoming the Senator's deputy chief of staff in the Office of the Senate Majority Leader. In these capacities, he advised Senator Dole and other Republican Senators on a broad range of domestic policy issues, was involved in the drafting of numerous pieces of legislation, and was recognized as one of the most influential staffers on Capitol Hill. In 1992, Chairman Shea's service with Senator Dole was interrupted when he ran for Congress in the Seventh District of New York.

During the 1996 elections, Chairman Shea continued to help shape the national public policy debate as the director of policy for the Dole for President Campaign. Following the elections, he entered the private sector, providing legislative and public affairs counsel to a wide range of clients while employed at BKSH & Associates and Verner, Liipfert, Bernhard, McPherson, and Hand.

In 2003, Chairman Shea was named the Executive Director of the President's Commission on the United States Postal Service. Many of the Commission's recommendations were subsequently adopted in the landmark 2006 postal reform legislation.

In 2004, Chairman Shea was confirmed as Assistant Secretary for Policy Development and Research at the U.S. Department of Housing and Urban Development. As Assistant Secretary, Chairman Shea led a team responsible for conducting much of the critical analysis necessary to support the Department's mission. In 2005, Chairman Shea left to serve as Senior Advisor to Senator Elizabeth Dole in her capacity as chairman of the National Republican Senatorial Committee.

Chairman Shea received a J.D., an M.A. in History, and a B.A. in Government, from Harvard University. He is admitted to the bar in New York and the District of Columbia. The Chairman currently resides in Alexandria, Virginia with his wife Elizabeth and daughter Juliette.

Carolyn Bartholomew, Vice Chairman

Vice Chairman Carolyn Bartholomew was reappointed to the Commission by House Democratic Leader Nancy Pelosi for a two-year term expiring on December 31, 2017. She previously served as the Commission's chairman for the 2007 and 2009 Report cycles and served as vice chairman for the 2010, 2008, and 2006 Report cycles.

Vice Chairman Bartholomew has worked at senior levels in the U.S. Congress, serving as counsel, legislative director, and chief of staff to now House Democratic Leader Nancy Pelosi. She was a professional staff member on the House Permanent Select Committee on Intelligence and also served as a legislative assistant to then U.S. Representative Bill Richardson.

In these positions, Vice Chairman Bartholomew was integrally involved in developing U.S. policies on international affairs and security matters. She has particular expertise in U.S.-China relations, including issues related to trade, human rights, and the proliferation of weapons of mass destruction. Vice Chairman Bartholomew led efforts in the establishment and funding of global AIDS programs and the promotion of human rights and democratization in countries around the world. She was a member of the first Presidential Delegation to Africa to Investigate the Impact of HIV/AIDS on Children and a member of the Council on Foreign Relations' Congressional Staff Roundtable on Asian Political and Security Issues.

In addition to U.S.-China relations, her areas of expertise include terrorism, trade, proliferation of weapons of mass destruction, human rights, U.S. foreign assistance programs, and international environmental issues. She is a consultant to non-profit organizations and also serves on the board of directors of the Kaiser Aluminum Corporation and the nonprofit organization Asia Catalyst.

Vice Chairman Bartholomew received a Bachelor of Arts degree from the University of Minnesota, a Master of Arts in Anthropology from Duke University, and a Juris Doctorate from Georgetown University Law Center. She is a member of the State Bar of California.

Peter Brookes

Commissioner Brookes was reappointed to the Commission by then Speaker of the House John Boehner for a two-year term expiring December 31, 2016. Commissioner Brookes served in the George W. Bush Administration as the Deputy Assistant Secretary of Defense for Asian and Pacific Affairs. Prior to joining the Bush Administration, Commissioner Brookes was a Professional Staff Member with the Committee on International Relations in the U.S. House of Representatives. Before his service in the Congress, Commissioner Brookes worked in the Central Intelligence Agency, for the State Department at the United Nations, and in the private sector.

Now, Commissioner Brookes is a Senior Fellow at The Heritage Foundation and works to develop and communicate the Foundation's stance on foreign policy and national security affairs through media appearances, research, published articles, congressional testimony, and speaking engagements.

Commissioner Brookes is a decorated military veteran, having served on active duty with the U.S. Navy in Latin America, Asia, and the Middle East. He retired as a commander. Dr. Brookes is a graduate of Georgetown University, the Johns Hopkins University, the Defense Language Institute, the Naval War College, and U.S. Naval Academy.

Robin Cleveland

Commissioner Cleveland was reappointed by Senate Republican Leader Mitch McConnell for a two-year term expiring December 31, 2016. After three decades of government service, Commissioner Cleveland is now serving as the Executive Director of the Office of Student Life at the Graduate School of Education and Human Development at The George Washington University. Commissioner Cleveland worked for U.S. Senator Mitch McConnell in a number of positions in his personal office, on the Senate Select Committee on Intelligence, the Foreign Relations Committee, and the Senate Appropriations Committee. In addition, Commissioner Cleveland served as the Counselor to the President of the World Bank, and as the Associate Director of the Office of Management and Budget in the Executive Office of the President. During her tenure serving President Bush, Commissioner Cleveland co-lead the interagency effort to develop and implement two Presidential initiatives: the Millennium Challenge Corporation and the President's Emergency Plan for AIDS Relief. These efforts reflect her commitment to link policy, performance, and resource management.

Commissioner Cleveland graduated from Wesleyan University with honors and received her M.A. in Education and Human Development from The George Washington University.

The Honorable Byron L. Dorgan

Senator Byron Dorgan was appointed by Senate Democratic Leader Harry Reid for a two-year term expiring December 31, 2017. Senator Dorgan served six terms in the U.S. House and three terms in the U.S. Senate. In 2010 he announced that he would not seek re-election to the U.S. Senate and he retired after serving thirty years in Congress.

U.S. Senate

Senator Dorgan served in the U.S. Senate for eighteen years from 1992 to 2011. He served in the Democratic Leadership from 1994 to 2011, first as Assistant Democratic Floor Leader and then as Chairman of the Democratic Policy Committee.

He was a member of the Appropriations Committee, the Energy and Natural Resources Committee, the Commerce Science and Technology Committee, and the Indian Affairs Committee.

He was Chairman of the Indian Affairs Committee. During his tenure, he also served as Chairman of numerous subcommittees including the Commerce Subcommittee on Aviation; the Energy Subcommittee on Energy & Power, and the Subcommittee on National Parks; the Appropriations Subcommittee on Energy & Water, and the Subcommittee on Treasury, Postal & General Government. He

was a Ranking Member on a number of other subcommittees as well.

He served on the Joint Economic Committee and was Co-Chairman of the Congressional-Executive Commission on China.

U.S. House

While in the U.S. House, Congressman Dorgan was a member of the Ways and Means Committee from 1982 to 1992. He also served as a member of the House Agriculture Committee and the Select Committee on Hunger.

Private Sector Career

In 2011, after retiring from the Senate, he joined the Arent Fox law firm as a Senior Policy Advisor and is Co-Chair of the Government Relations Practice.

In 2011 he also became a Senior Fellow at the Bipartisan Policy Center, a Washington DC think tank. He serves as the Co-Chair of the BPC Energy Project.

From 2011 to present he has been an Adjunct Visiting Professor at Georgetown University where he guest lectures on government policy to graduate level students at the McCourt School of Public Policy.

In 2016 he was appointed to serve as a Commissioner on the U.S.-China Economic and Security Review Commission.

Dorgan is a New York Times Bestselling Author. His books include the NYT bestseller *“Take This Job and Ship It!”*, *“Reckless ... How Debt, Deregulation and Dark Money Nearly Bankrupted America (And How We Can Fix It)”*. He also co-authored two novels, *“Blowout”* and *“Gridlock”* which were classified as eco-thrillers dealing with energy challenges.

He created and founded a non-profit organization called the Center for Native American Youth (CNAY) dedicated to improving the lives of Native American young people. The Center focuses its work on educational opportunities, teen suicide prevention and community building. Among a variety of outreach efforts, the Center conducts youth summits on Indian Reservations across the country and works to bring national awareness to challenges and successes of Native youth.

He serves on a number of Boards and Commissions including the Board of Governors of the Argonne National Laboratory in Illinois as well as several corporate boards.

Commissioner Dorgan has a Bachelors of Science degree from the University of North Dakota and a Masters of Business Administration from the University of Denver. He is married to Kim Dorgan and has four children: Scott (wife Denise, children Madison and Mason), Shelly (deceased), Brendon and Haley.

Jeffrey L. Fielder

Commissioner Fiedler was reappointed to the Commission by House Democratic Leader Nancy Pelosi for a term expiring December 31, 2017. He is the Retail Director, United Food and Commercial Workers International Union. Before that he was Assistant to the General President, and Director, Special Projects and Initia-

tives, for the International Union of Operating Engineers. Previously, he was President of Research Associates of America (RAA) and the elected president of the Food and Allied Service Trades Department, AFL-CIO ("FAST"). This constitutional department of the AFL-CIO represented ten unions with a membership of 3.5 million in the United States and Canada. The focus of RAA, like FAST before it, was organizing and bargaining research for workers and their unions.

He served as a member of the AFL-CIO Executive Council committees on International Affairs, Immigration, Organizing, and Strategic Approaches. He also served on the board of directors of the Consumer Federation of America and is a member of the Council on Foreign Relations. In 1992, Mr. Fiedler co-founded the Laogai Research Foundation (LRF), an organization devoted to studying the forced labor camp system in China. When the foundation's Executive Director, Harry Wu, was detained in China in 1995, Mr. Fiedler coordinated the campaign to win his release. He no longer serves as director of the LRF.

Mr. Fiedler has testified on behalf of the AFL-CIO before the Senate Foreign Relations Committee and the House International Affairs Committee and its various subcommittees, as well as the Trade Subcommittee of the House Ways and Means Committee concerning China policy. He attended three of the American Assembly conferences on China sponsored by Columbia University and has participated in a Council on Foreign Relations task force and study group on China. He has been interviewed on CBS, NBC, ABC, CNN, and CNBC on China policy, international trade issues, human rights, and child labor.

A Vietnam veteran, he served with the U.S. Army in Hue in 1967-68. He received his B.A. in Political Science from Southern Illinois University. He is married with two adult children and resides in California.

The Honorable Carte P. Goodwin

Senator Carte P. Goodwin was appointed to the Commission by Senate Democratic Leader Harry Reid for a two-year term expiring on December 31, 2017.

He is an attorney with the Charleston, West Virginia, law firm of Goodwin & Goodwin, LLP. His practice includes commercial litigation, appellate advocacy, and intellectual property.

In July of 2010, West Virginia Governor Joe Manchin III appointed Senator Goodwin to the United States Senate to fill the vacancy caused by the passing of Senator Robert C. Byrd, where he served until a special election was held to fill the remainder of Senator Byrd's unexpired term.

From 2005 to 2009, Senator Goodwin served four years as General Counsel to Governor Manchin, during which time he also chaired the Governor's Advisory Committee on Judicial Nominations. In addition, Senator Goodwin chaired the West Virginia School Building Authority and served as a member of the State Consolidated Public Retirement Board. Following his return to private practice in 2009, Senator Goodwin was appointed to chair the Independent Commission on Judicial Reform, along with former Supreme Court Justice Sandra Day O'Connor, which was tasked

with evaluating the need for broad systemic reform to West Virginia's judicial system.

Senator Goodwin also previously worked as a law clerk for the Honorable Robert B. King of the United States Court of Appeals for the Fourth Circuit. A native of Mt. Alto, West Virginia, Senator Goodwin received his Bachelor of Arts degree in Philosophy from Marietta College in Marietta, Ohio, in 1996 and received his Doctor of Law degree from the Emory University School of Law, graduating Order of the Coif in 1999.

Senator Goodwin currently resides in Charleston, West Virginia, with his wife, Rochelle; son, Wesley Patrick; and daughter, Anna Vail.

Daniel M. Slane

Daniel Slane was reappointed to the Commission by Speaker of the House Paul Ryan for a two-year term expiring on December 31, 2017. Commissioner Slane served as the Commission's Chairman for the 2010 Report cycle and as Vice Chairman for the 2011 Report cycle.

Commissioner Slane served for two years on active duty as a U.S. Army Captain in Military Intelligence; in addition he served for a number of years as a Case Officer with the U.S. Central Intelligence Agency. Commissioner Slane worked in The White House during the Ford Administration.

In 1996, Commissioner Slane became a member of the board of trustees of The Ohio State University and was chairman from 2005 to 2006. The Ohio State University is the nation's largest university, with an annual budget of over \$4 billion. He is also the former chairman of University Hospital, a 1,000-bed regional hospital in Columbus, and the former chairman of the James Cancer Hospital, a National Cancer Institute Comprehensive Cancer Center. Commissioner Slane serves on the board of two financial institutions and a number of nonprofit organizations.

Commissioner Slane is the founder and co-owner of the Slane Company, whose principal business includes real estate development, lumber, and furniture. He has extensive international business experience, including operating a business in China. Prior to becoming a member of the Commission, Commissioner Slane manufactured plywood and related wood products at factories in Harbin, Dalian, and Balu (Pizhou), China. In 2007, he sold his interest in that company.

Commissioner Slane received a Bachelor of Science in Business Administration and a Juris Doctorate from The Ohio State University. He holds a Master's Degree in International Law from the Europa Institute at the University of Amsterdam in The Netherlands. Commissioner Slane is a member of the Ohio Bar and was formerly a partner in the law firm of Grieser, Schafer, Blumenstiel, and Slane.

The Honorable James M. Talent

Senator Jim Talent was appointed by Senate Republican Leader Mitch McConnell for a two-year term expiring December 31, 2017. Senator Jim Talent is a national security leader who specializes in

issues related to the Department of Defense. He has been active in Missouri and national public policy for over 25 years.

Senator Talent's public service began in 1984, when at the age of 28 he was elected to the Missouri House of Representatives where he served eight years, the last four as the Republican leader in the Missouri House.

In 1992, he was elected to the first of four terms in the U.S. House of Representatives where he represented Missouri's Second Congressional District. During his eight years in the U.S. House of Representatives, Talent co-authored the historic welfare reform bill, championed national security issues on the House Armed Services Committee, and enacted legislation to help revitalize distressed neighborhoods, both urban and rural. He was the Chairman of the House Small Business Committee from 1997–2001, where he worked on regulatory reform issues and on legislation to lower health care costs for small business people and their employees. Under Senator Talent's leadership, the Small Business Committee became one of the most prolific and bi-partisan in the House of Representatives, passing numerous bills without a single dissenting vote.

In 2002, Missourians elected Talent to serve in the United States Senate where he worked with Republicans and Democrats to enact critical legislation for Missouri. He served on the Senate Armed Services, Energy and Natural Resources, and Agriculture Committees. Working with Oregon Democrat Ron Wyden, Senator Talent was successful in securing critical funding through construction bonding in the highway bill. He and Senator Dianne Feinstein (D-CA) succeeded in passing the most comprehensive anti-methamphetamine bill ever enacted into law. Senator Talent was a leader on energy issues and was instrumental in the passage of the renewable fuel standard.

After leaving the Senate in 2007, Senator Talent joined The Heritage Foundation as a Distinguished Fellow specializing in military affairs and conservative solutions to poverty. In 2008, he served as Vice Chairman of the Commission on Prevention of Weapons of Mass Destruction Proliferation and Terrorism. In 2010, he served on the independent panel that reviewed the Quadrennial Defense Review of the Department of Defense. He also served on the independent panel that reviewed the Quadrennial Defense Review of 2014. He also has been a member of the executive panel advising the Chief of Naval Operations. Senator Talent was the first national figure outside Massachusetts to endorse Governor Mitt Romney for president in 2007 and was Governor Romney's senior policy advisor in both the 2008 and 2012 campaigns for president.

Senator Talent is an attorney and currently a Senior Fellow and Director, National Security 2020 Project, Marilyn Ware Center for Security Studies at the America Enterprise Institute. He earned his B.A. from Washington University in St. Louis and his J.D. from the University of Chicago Law School.

The Honorable Katherine C. Tobin, Ph.D.

Dr. Katherine Tobin was appointed to the U.S.-China Economic and Security Review Commission by Senate Democratic Leader Harry Reid in December 2014 for a second two-year term expiring

December 31, 2016. Dr. Tobin has fifteen years of experience as a business manager, market researcher and consultant in corporate America at institutions including Hewlett-Packard Corporation, IBM and Catalyst. She also has worked for fifteen years as a university faculty member and administrator.

In 2009, Dr. Tobin was appointed by President Obama as Deputy Assistant Secretary for Performance Improvement at the U.S. Department of Education. She focused on strengthening the Department's capacity to work more effectively with its political and educational partners at the national, state and local levels.

In 2006, Dr. Tobin was appointed by President George W. Bush and served as a member of the Board of Governors of the U.S. Postal Service. Dr. Tobin provided strategic vision to the executive team, helped direct and control expenditures, reviewed business practices, conducted long-range planning and set policies on all postal matters. She also chaired the Board's Audit and Finance Committee at a critical time, when, due to Congress's 2006 legislation, the U.S. Postal Service needed to strengthen its organizational and financial controls to become compliant by 2010 with the Sarbanes-Oxley Act.

During her years at Hewlett-Packard, Dr. Tobin worked in the Corporation's Computer Systems Division and the Systems Technology Division which were responsible for developing mini-computer systems purchased around the world for business, medical and scientific usage. Dr. Tobin worked closely with R&D and marketing teams early in the product development life cycle to insure that customer needs were clearly understood and translated into engineering and market specifications.

Working as a consultant with IBM's senior leaders, Dr. Tobin conducted research on the corporation's values across all its global operations, institutional brand awareness and preference, distribution channels management, and the creation of a new business plan for IBM's Global Financing business.

Dr. Tobin earned a Ph.D. and Master of Arts degree from Stanford University. She earned a Master of Arts degree in Teaching from the University of Massachusetts and a Bachelor of Arts in English from Skidmore College. Currently, she also serves as a member of the U.S. Postal Service's Citizens' Stamp Advisory Committee which recommends to the Postmaster General subjects reflecting America's values and achievements for portrayal on commemorative stamps.

Michael R. Wessel

Commissioner Michael R. Wessel, an original member of the U.S.-China Economic and Security Review Commission, was re-appointed by House Democratic Leader Nancy Pelosi for a eighth two-year term expiring on December 31, 2016.

Commissioner Wessel served on the staff of former House Democratic Leader Richard Gephardt for more than two decades, leaving his position as general counsel in March 1998. In addition, Commissioner Wessel was Congressman Gephardt's chief policy advisor, strategist, and negotiator. He was responsible for the development, coordination, management, and implementation of the Democratic leader's overall policy and political objectives, with specific respon-

sibility for international trade, finance, economics, labor, and taxation.

During his more than 20 years on Capitol Hill, Commissioner Wessel served in a number of positions. As Congressman Gephardt's principal Ways and Means aide, he developed and implemented numerous tax and trade policy initiatives. He participated in the enactment of every major trade policy initiative from 1978 until his departure in 1998. In the late 1980s, he was the executive director of the House Trade and Competitiveness Task Force, where he was responsible for the Democrats' trade and competitiveness agenda as well as overall coordination of the Omnibus Trade and Competitiveness Act of 1988. He currently serves as staff liaison to the Administration's Advisory Committee on Trade Policy and Negotiations as well as the Labor Advisory Committee to the USTR and Secretary of Labor.

Commissioner Wessel was intimately involved in the development of comprehensive tax reform legislation in the early 1980s and every major tax bill during his tenure. Beginning in 1989, he became the principal advisor to the Democratic leadership on economic policy matters and served as tax policy coordinator to the 1990 budget summit.

In 1988, he served as national issues director for Congressman Gephardt's presidential campaign. During the 1992 presidential campaign, he assisted the Clinton presidential campaign on a broad range of issues and served as a senior policy advisor to the Clinton Transition Office. In 2004, he was a senior policy advisor to the Gephardt for President Campaign and later co-chaired the Trade Policy Group for the Kerry presidential campaign. In 2008, he was publicly identified as a trade and economic policy advisor to the Obama presidential campaign.

He has coauthored a number of articles with Congressman Gephardt and a book, *An Even Better Place: America in the 21st Century*. Commissioner Wessel served as a member of the U.S. Trade Deficit Review Commission in 1999–2000, a congressionally created commission charged with studying the nature, causes, and consequences of the U.S. merchandise trade and current account deficits.

Today, Commissioner Wessel is President of The Wessel Group Incorporated, a public affairs consulting firm offering expertise in government, politics, and international affairs. Commissioner Wessel holds a Bachelor of Arts and a Juris Doctorate from The George Washington University. He is a member of the Bars of the District of Columbia and of Pennsylvania and is a member of the Council on Foreign Relations. He and his wife Andrea have four children.

Larry M. Wortzel, Ph.D.

Larry Wortzel was reappointed by then Speaker of the House John Boehner for a term expiring on December 31, 2016. A leading authority on China, Asia, and national security, Commissioner Wortzel had a distinguished thirty-two-year career in the U.S. Armed Forces. After three years as an infantryman in the U.S. Marine Corps, Commissioner Wortzel enlisted in the U.S. Army in 1970. His first assignment with the Army Security Agency took

him to Thailand, where as a signals intelligence collector he focused on Chinese military communications in Vietnam and Laos. Within three years, he had graduated from the Infantry Officer Candidate School and the Airborne and Ranger schools.

After four years as an infantry officer, Commissioner Wortzel shifted back to military intelligence. Commissioner Wortzel traveled regularly throughout Asia while serving in the U.S. Pacific Command's intelligence center from 1978 to 1982. The following year, he attended the National University of Singapore, where he studied advanced Chinese and traveled in China and Southeast Asia. He next worked for the Under Secretary of Defense for Policy, developing counterintelligence programs to protect emerging defense technologies from foreign espionage. Also, the Commissioner was active in programs to gather foreign intelligence for the Army Intelligence and Security Command.

From 1988 to 1990, Commissioner Wortzel was the Assistant Army Attaché at the U.S. Embassy in Beijing, China. After assignments on the Department of the Army staff, he returned to China in 1995 as the army attaché. In these assignments he represented U.S. defense interests in China and traveled around the country observing and reporting on military and political events for the U.S. government.

In December 1997, Commissioner Wortzel joined the faculty of the U.S. Army War College as Director of the Strategic Studies Institute. Concurrently he was professor of Asian studies. He retired from the U.S. Army as a colonel at the end of 1999. After his military retirement, Commissioner Wortzel was director of the Asian Studies Center at The Heritage Foundation and also vice president for foreign policy and defense studies at Heritage.

Commissioner Wortzel has written or edited ten books on China, including *Class in China: Stratification in a Classless Society*; *China's Military Modernization: International Implications*; *Dictionary of Contemporary Chinese Military History*; and *The Dragon Extends its Reach: Chinese Military Power Goes Global*.

A graduate of the U.S. Army War College, Commissioner Wortzel earned his Doctor of Philosophy degree from the University of Hawaii-Manoa. He and his wife live in Williamsburg, Virginia.

Michael R. Danis, Executive Director

Formerly served as a senior intelligence officer with the Defense Intelligence Agency. Mr. Danis managed the agency's technology transfer division; the U.S. government's sole analytical entity tasked with producing intelligence assessments regarding all aspects of foreign acquisition of U.S. controlled technology and high-tech corporations. He also established and led a unique team of China technology specialists producing assessments on China's military-industrial complex, and the impact of U.S. export-controlled and other foreign technology on Chinese weapons development programs. While serving in the U.S. Air Force, Mr. Danis was twice temporarily assigned to the office of the defense attaché in Beijing.

APPENDIX III

PUBLIC HEARINGS OF THE COMMISSION

Full transcripts and written testimonies are available online at the Commission's website: www.uscc.gov.

**January 21, 2016: Public Hearing on “Developments in
China’s Military Force Projection and
Expeditionary Capabilities”
Washington, DC**

Commissioners present: Hon. Dennis C. Shea, Chairman; Carolyn Bartholomew, Vice Chairman; Hon. Byron L. Dorgan; Jeffrey L. Fielder (Hearing Co-Chair); Hon. Carte P. Goodwin; Hon. James M. Talent; Hon. Katherine C. Tobin; Larry M. Wortzel (Hearing Co-Chair).

Witnesses: Oriana Skylar Mastro, Georgetown University; Timothy Heath, RAND Corporation; David Finkelstein, CNA; Mark Cozad, RAND Corporation; Christopher Yung, Marine Corps University; Kristen Gunness, Vantage Point Asia LLC, and RAND Corporation; Thomas Bickford, CNA; Michael McDevitt, CNA.

**February 24, 2016: Public Hearing on “China’s Shifting
Economic Realities and Implications for the United States”
Washington, DC**

Commissioners present: Hon. Dennis C. Shea, Chairman; Carolyn Bartholomew, Vice Chairman; Peter Brookes; Robin Cleveland (Hearing Co-Chair); Hon. Byron L. Dorgan; Hon. Carte P. Goodwin; Hon. James M. Talent; Hon. Katherine C. Tobin; Michael R. Wessel (Hearing Co-Chair).

Witnesses: Michael Turner, Mars & Co; Jason M. Thomas, Carlyle Group; Paul Hubbard, Australian National University; Wentong Zheng, University of Florida; Roselyn Hsueh, Temple University; Terrence Stewart, Stewart & Stewart; Jeremy Haft, Caracal Strategies, and Safe Source Trading; John Ferriola, Nucor Corporation; Alan H. Price, Wiley Rein LLP; Adam Hersh, Columbia University; Gary Clyde Hufbauer, Peterson Institute for International Economics; Bernard O'Connor, Nctm.

**March 10, 2016: Public Hearing on
“China–South Asia Relations”
Washington, DC**

Commissioners present: Hon. Dennis C. Shea, Chairman (Hearing Co-Chair); Carolyn Bartholomew, Vice Chairman; Peter Brookes; Hon. Byron L. Dorgan; Jeffrey L. Fielder; Hon. Carte P. Goodwin; Hon. James M. Talent; Hon. Katherine C. Tobin (Hearing Co-Chair); Michael R. Wessel; Larry M. Wortzel.

Witnesses: Lisa Curtis, Heritage Foundation; James F. Moriarty, BowerGroupAsia; David Brewster, Australian National University; Jeff M. Smith, American Foreign Policy Council; Tanvi Madan, Brookings Institution; Deepa M. Ollapally, George Washington University; Andrew Small, German Marshall Fund of the United States; Daniel S. Markey, Johns Hopkins University School of Advanced International Studies, and Council on Foreign Relations; Shamila Chaudhary, New America, and Johns Hopkins University School of Advanced International Studies.

**March 31, 2016: Public Hearing on
“China and the U.S. Rebalance to Asia”
Washington, DC**

Commissioners present: Hon. Dennis C. Shea, Chairman; Carolyn Bartholomew, Vice Chairman (Hearing Co-Chair); Peter Brookes; Robin Cleveland; Jeffrey L. Fiedler; Hon. Carte P. Goodwin; Hon. James M. Talent (Hearing Co-Chair); Hon. Katherine C. Tobin; Michael R. Wessel; Larry M. Wortzel.

Witnesses: Dan Blumenthal, American Enterprise Institute; Kathleen H. Hicks, Center for Strategic and International Studies; Mira Rapp-Hooper, Center for a New American Security; Matthew Goodman, Center for Strategic and International Studies; Elizabeth Economy, Council on Foreign Relations; Dean Baker, Center for Economic and Policy Research; David Lampton, Johns Hopkins University School of Advanced International Studies; Walter Lohman, Heritage Foundation; Sheila Smith, Council on Foreign Relations.

**April 27, 2016: Public Hearing on
“China’s 13th Five-Year Plan”
Washington, DC**

Commissioners present: Hon. Dennis C. Shea, Chairman (Hearing Co-Chair); Carolyn Bartholomew, Vice Chairman; Peter Brookes; Robin Cleveland; Hon. Byron L. Dorgan; Hon. Carte P. Goodwin (Hearing Co-Chair); Hon. Katherine C. Tobin; Michael R. Wessel; Larry M. Wortzel.

Witnesses: Yilin Hou, Syracuse University; Weiping Wu, Tufts University; Eswar S. Prasad, Cornell University; Crystal Chang, University of California, Berkeley; Chad J.R. Ohlandt, RAND Corporation; Jimmy Goodrich, Semiconductor Industry Association; Deborah Seligsohn, University of California, San Diego; Damien Ma, Paulson Institute; Yanzhong Huang, Council on Foreign Relations, and Seton Hall University.

**June 9, 2016: Public Hearing on
“Chinese Intelligence Services and Espionage Operations”
Washington, DC**

Commissioners present: Hon. Dennis C. Shea, Chairman; Carolyn Bartholomew, Vice Chairman; Peter Brookes (Hearing Co-Chair); Robin Cleveland; Hon. Byron L. Dorgan (Hearing Co-Chair); Jeffrey L. Fielder; Daniel M. Slane; Hon. James M. Talent; Hon. Katherine C. Tobin; Michael R. Wessel.

Witnesses: Peter Mattis, Jamestown Foundation; John Costello, New America; Mark Stokes, Project 2049 Institute; Michelle Van Cleave, former national counterintelligence executive; David Major, CI Centre.

APPENDIX IIIA

**LIST OF WITNESSES TESTIFYING BEFORE
THE COMMISSION**

2016 Hearings

Full transcripts and written testimonies are available online at the Commission's website: www.uscc.gov .

**Alphabetical Listing of Panelists Testifying before the
Commission**

Panelist Name	Panelist Affiliation	Commission Hearing
Baker, Dean	Center for Economic and Policy Research	March 31, 2016
Bickford, Thomas	CNA	January 21, 2016
Blumenthal, Dan	American Enterprise Institute	March 31, 2016
Brewster, David	Australian National University	March 10, 2016
Chang, Crystal	University of California, Berkeley	April 27, 2016
Chaudhary, Shamila	New America, and Johns Hopkins University School of Advanced International Studies	March 10, 2016
Costello, John	New America	June 9, 2016
Cozad, Mark	RAND Corporation	January 21, 2016
Curtis, Lisa	Heritage Foundation	March 10, 2016
Economy, Elizabeth	Council on Foreign Relations	March 31, 2016
Ferriola, John	Nucor Corporation	February 24, 2016
Finkelstein, David	CNA	January 21, 2016
Goodman, Matthew	Center for Strategic and International Studies	March 31, 2016
Goodrich, Jimmy	Semiconductor Industry Association	April 27, 2016
Gunness, Kristen	Vantage Point Asia LLC, and RAND Corporation	January 21, 2016

**Alphabetical Listing of Panelists Testifying before the
Commission—Continued**

Panelist Name	Panelist Affiliation	Commission Hearing
Haft, Jeremy	Caracal Strategies, and Safe Source Trading	February 24, 2016
Heath, Timothy	RAND Corporation	January 21, 2016
Hersh, Adam	Columbia University	February 24, 2016
Hicks, Kathleen H.	Center for Strategic and International Studies	March 31, 2016
Hou, Yilin	Syracuse University	April 27, 2016
Hsueh, Roselyn	Temple University	February 24, 2016
Huang, Yanzhong	Council on Foreign Relations, and Seton Hall University	April 27, 2016
Hubbard, Paul	Australian National University	February 24, 2016
Hufbauer, Gary Clyde	Peterson Institute for International Economics	February 24, 2016
Lampton, David	Johns Hopkins University School of Advanced International Studies	March 31, 2016
Lohman, Walter	Heritage Foundation	March 31, 2016
Ma, Damien	Paulson Institute	April 27, 2016
Madan, Tanvi	Brookings Institution	March 10, 2016
Major, David	CI Centre	June 9, 2016
Markey, Daniel S.	Johns Hopkins University School of Advanced International Studies, and Council on Foreign Relations	March 10, 2016
Mastro, Oriana Skylar	Georgetown University	January 21, 2016
Mattis, Peter	Jamestown Foundation	June 9, 2016
McDevitt, Michael	CNA	January 21, 2016
Moriarty, James F.	BowerGroupAsia	March 10, 2016
O'Connor, Bernard	Nctm	February 24, 2016
Ohlandt, Chad J.R.	RAND Corporation	April 27, 2016
Ollapally, Deepa M.	George Washington University	March 10, 2016
Prasad, Eswar S.	Cornell University	April 27, 2016
Price, Alan H.	Wiley Rein LLP	February 24, 2016
Rapp-Hooper, Mira	Center for a New American Security	March 31, 2016

**Alphabetical Listing of Panelists Testifying before the
Commission—Continued**

Panelist Name	Panelist Affiliation	Commission Hearing
Seligsohn, Deborah	University of California, San Diego	April 27, 2016
Small, Andrew	German Marshall Fund of the United States	March 10, 2016
Smith, Jeff M.	American Foreign Policy Council	March 10, 2016
Smith, Sheila	Council on Foreign Relations	March 31, 2016
Stewart, Terrence	Stewart & Stewart	February 24, 2016
Stokes, Mark	Project 2049 Institute	June 9, 2016
Thomas, Jason M.	Carlyle Group	February 24, 2016
Turner, Michael	Mars & Co	February 24, 2016
Van Cleave, Michelle	former national counter- intelligence executive	June 9, 2016
Wu, Weiping	Tufts University	April 27, 2016
Yung, Christopher	Marine Corps University	January 21, 2016
Zheng, Wentong	University of Florida	February 24, 2016

APPENDIX IV
LIST OF RESEARCH MATERIAL
Contracted and Staff Research Reports
Released in Support of the 2016 Annual Report

Disclaimer

The reports in this section were prepared at the request of the Commission to support its deliberations. They have been posted to the Commission's website in order to promote greater public understanding of the issues addressed by the Commission in its ongoing assessment of U.S.-China economic relations and their implications for U.S. security, as mandated by P.L. 106-398, P.L. 108-7, P.L. 109-108, P.L. 110-161, and P.L. 113-291. The posting of these reports to the Commission's website does not imply an endorsement by the Commission or any individual Commissioner of the views or conclusions expressed therein.

Contracted Reports

Planning for Innovation: Understanding China's Plans for Technological, Energy, Industrial, and Defense Development

Prepared for the Commission by Tai Ming Cheung, Thomas Mahnken, Deborah Seligsohn, Kevin Pollpeter, Eric Anderson, and Fan Yang
University of California, Institute on Global Conflict and Cooperation
July 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Planning%20for%20Innovation-Understanding%20China%27s%20Plans%20for%20Tech%20Energy%20Industrial%20and%20Defense%20Development072816.pdf>

China's Response to Terrorism

Prepared for the Commission by Murray Scot Tanner with
James Bellacqua
CNA

June 2016

http://origin.www.uscc.gov/sites/default/files/Research/Chinas%20Response%20to%20Terrorism_CNA061616.pdf

China's Efforts to Expand the International Use of the Renminbi

Prepared for the Commission by Eswar S. Prasad
February 2016

<http://origin.www.uscc.gov/sites/default/files/Research/China%27s%20Efforts%20to%20Expand%20the%20Internationalization%20of%20the%20RMB.pdf>

Staff Research Reports, Issue Briefs, and Backgrounders

October Economics and Trade Bulletin

Written by Economic and Trade Staff

October 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Oct%202016%20Trade%20Bulletin.pdf>

September Economics and Trade Bulletin

Written by Economic and Trade Staff

September 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Sept%202016%20Trade%20Bulletin.pdf>

August Economics and Trade Bulletin

Written by Economic and Trade Staff

August 2016

<http://origin.www.uscc.gov/sites/default/files/Research/August%202016%20Trade%20Bulletin.pdf>

Policy Considerations for Negotiating a U.S.-China Bilateral Investment Treaty

Prepared by Former Policy Analyst Lauren Gloudeman and

Senior Policy Analyst Nargiza Salidjanova

August 2016

http://origin.www.uscc.gov/sites/default/files/Research/Staff%20Report_Policy%20Considerations%20for%20Negotiating%20a%20U.S.-China%20Bilateral%20Investment%20Treaty080116.pdf

Chinese Tourism and Hospitality Investment in the United States

Written by Policy Analyst Matthew Snyder and

Former Research Intern Nicole Stroner

July 2016

http://origin.www.uscc.gov/sites/default/files/Research/Staff%20Report_Chinese%20Tourism%20and%20Hospitality%20Investment072516.pdf

Meth Precursor Chemicals from China: Implications for the United States

Written by Policy Analyst Sean O'Connor

July 2016

http://origin.www.uscc.gov/sites/default/files/Research/Staff%20Report_PrecursorChemicalReport%20071816_0.pdf

South China Sea Arbitration Ruling: What Happened and What's Next?

Written by Senior Policy Analysts Caitlin Campbell and

Nargiza Salidjanova

July 2016

http://origin.www.uscc.gov/sites/default/files/Research/Issue%20Brief_South%20China%20Sea%20Arbitration%20Ruling%20What%20Happened%20and%20What%27s%20Next.pdf

July Economics and Trade Bulletin

Written by Economics and Trade Staff

July 2016

<http://origin.www.uscc.gov/sites/default/files/Research/July%202016%20Trade%20Bulletin.pdf>***June Economics and Trade Bulletin***

Written by Economics and Trade Staff

June 2016

<http://origin.www.uscc.gov/sites/default/files/Research/June%202016%20Trade%20Bulletin.pdf>***China's Expanding Ability to Conduct Conventional Missile Strikes on Guam***

Written by Policy Analyst Jordan Wilson

May 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Staff%20Report%20China%27s%20Expanding%20Ability%20to%20Conduct%20Conventional%20Missile%20Strikes%20on%20Guam.pdf>***May Economics and Trade Bulletin***

Written by Economics and Trade Staff

May 2016

<http://origin.www.uscc.gov/sites/default/files/Research/May%202016%20Trade%20Bulletin.pdf>***China's Island Building in the South China Sea: Damage to the Marine Environment, Implications, and International Law***

Written by Policy Analyst Matthew Southerland

April 2016

http://origin.www.uscc.gov/sites/default/files/Research/China%27s%20Island%20Building%20in%20the%20South%20China%20Sea_0.pdf***April Economics and Trade Bulletin***

Written by Economics and Trade Staff

April 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Apr%202016%20Bulletin.pdf>***China's Efforts to Counter U.S. Forward Presence in the Asia Pacific***

Written by Senior Policy Analyst Kristien Bergerson

March 2016

<http://origin.www.uscc.gov/sites/default/files/Research/USCC%20Staff%20Report%20on%20China%20Countering%20US%20Military%20Presence%20in%20Asia.pdf>***March Economics and Trade Bulletin***

Written by Economics and Trade Staff

March 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Mar%202016%20Bulletin.pdf>

***ADIZ Update: Enforcement in the East China Sea,
Prospects for the South China Sea, and Implications
for the United States***

Written by Policy Analyst Michael Pilger

March 2016

http://origin.www.uscc.gov/sites/default/files/Research/ADIZ%20Update_0.pdf

February Economics and Trade Bulletin

Written by Economics and Trade Staff

February 2016

<http://origin.www.uscc.gov/sites/default/files/Research/February%202016%20Trade%20Bulletin.pdf>

***Taiwan Opposition Party Wins Presidency and Legislative
Majority in Historic Elections***

Written by Research Fellow Sean O'Connor and

Policy Analyst Ethan Meick

January 2016

http://origin.www.uscc.gov/sites/default/files/Research/Taiwan%27s%20Elections%20Issue%20Brief_0.pdf

China's Stock Market Meltdown Shakes the World, Again

Written by Senior Policy Analyst Nargiza Salidjanova

January 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Issue%20brief%20-%20China%27s%20Stocks%20Fall%20Again.pdf>

January Economics and Trade Bulletin

Written by Economics and Trade Staff

January 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Jan%202016%20Trade%20Bulletin.pdf>

Taiwan's Economy amid Political Transition

Written by Former Senior Policy Analyst Kevin Rosier,

Research Fellow Sean O'Connor, and

Former Research Intern Rolando Cuevas

January 2016

<http://origin.www.uscc.gov/sites/default/files/Research/Taiwan%27s%20Economy%20amid%20Political%20Transition.pdf>

***China's Development Finance: Outbound, Inbound, and
Future Trends in Financial Statecraft***

Written by Research Fellow Sabrina Snell

December 2015

<http://origin.www.uscc.gov/sites/default/files/Research/China%E2%80%99s%20Development%20Finance.pdf>

December Monthly Trade Bulletin

Written by Economics and Trade Staff

December 2015

<http://origin.www.uscc.gov/sites/default/files/Research/December%202015%20Trade%20Bulletin.pdf>

China's Military Agreements with Argentina: A Potential New Phase in China-Latin America Defense Relations

Written by Research Fellow Jordan Wilson

November 2015

<http://origin.www.uscc.gov/sites/default/files/Research/China%27s%20Military%20Agreements%20with%20Argentina.pdf>

U.S. Freedom of Navigation Patrol in the South China Sea: What Happened, What it Means, and What's Next

Written by Policy Analyst Matthew Southerland

November 2015

<http://origin.www.uscc.gov/sites/default/files/Research/US%20Freedom%20of%20Navigation%20Patrol%20in%20the%20South%20China%20Sea.pdf>

November Monthly Trade Bulletin

Written by Economics and Trade Staff

November 2015

http://origin.www.uscc.gov/sites/default/files/Research/November%20Trade%20Bulletin%202015_0.pdf

APPENDIX V

ACRONYMS AND ABBREVIATIONS

2PLA	Second Department of the People's Liberation Army
3PLA	Third Department of the People's Liberation Army
4PLA	Fourth Department of the People's Liberation Army
A2/AD	antiaccess/area denial
AD	antidumping
ADIZ	air defense identification zone
AiIB	Asian Infrastructure Investment Bank
AmCham	American Chamber of Commerce
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
ATP	advanced technology product
AVIC	Aviation Industry Corporation of China
BCIM	Bangladesh-China-India-Myanmar (economic corridor)
BEA	U.S. Bureau of Economic Analysis
BIT	bilateral investment treaty
BRICS	Brazil, Russia, India, China, and South Africa
CCP	Chinese Communist Party
CFIUS	Committee on Foreign Investment in the United States
CICA	Conference on Interaction and Confidence-Building Measures in Asia
CIWS	close-in weapons systems
CMC	Central Military Commission (China)
CNO	U.S. Chief of Naval Operations
COMAC	Commercial Aircraft Corporation of China, Ltd.
COSCO	China Ocean Shipping (Group) Company
CPEC	China-Pakistan Economic Corridor
CSSTA	Cross-Strait Services Trade in Services Agreement
CVD	countervailing duty
DOD	U.S. Department of Defense
DOJ	U.S. Department of Justice
DPP	Democratic Progressive Party (Taiwan)
DPRK	Democratic People's Republic of Korea
DSB	Dispute Settlement Body
ETIM	East Turkestan Islamic Movement
FAI	fixed asset investment
FBI	U.S. Federal Bureau of Investigation
FDI	foreign direct investment
FIE	foreign-invested enterprise
FTA	free trade agreement
FTAAP	Free Trade Area of the Asia-Pacific
FY	fiscal year

FYP	five-year plan
G20	The Group of Twenty
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GSD	General Staff Department (of the People's Liberation Army)
GPS	Global Positioning System
HA/DR	humanitarian assistance/disaster relief
HEU	highly enriched uranium
HKD	Hong Kong Dollar
HKU	University of Hong Kong
HUMINT	human intelligence
IC	integrated circuit
ICAO	UN International Civil Aviation Organization
ICIJ	International Consortium of Investigative Journalists
ICT	information and communication technology
IMF	International Monetary Fund
INTERPOL	International Criminal Police Organization
ISI	Inter-Services Intelligence (Pakistan)
ISIL	Islamic State of Iraq and the Levant
ISP	Internet service provider
ISR	intelligence, surveillance, and reconnaissance
IT	information technology
ITA	International Trade Administration
ITC	U.S. International Trade Commission
JTIDS	Joint Tactical Information Distribution System
KMT	Kuomintang (Taiwan)
LegCo	Legislative Council (Hong Kong)
LEU	low-enriched uranium
LGFV	local government financing vehicle
M&A	mergers and acquisitions
MAC	Mainland Affairs Council (Taiwan)
MES	market economy status
MIDS/LVT	Multifunctional Information Distribution System Low Volume Terminals
MOFCOM	Ministry of Commerce (China)
MOU	memorandum of understanding
MSS	Ministry of State Security (China)
MW	megawatt
NAFTA	North American Free Trade Agreement
NASA	U.S. National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NDRC	National Development and Reform Commission
NEO	noncombatant evacuation operation
NGO	nongovernmental organization
nm	nautical mile
NME	nonmarket economy
NPL	nonperforming loan
NPT	Treaty on Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers Group
OBOR	One Belt, One Road
ODNI	U.S. Office of the Director of National Intelligence
OECD	Organisation for Economic Co-Operation and Development

OPM	U.S. Office of Personnel Management
PBOC	People's Bank of China
PLA	People's Liberation Army
PMI	Purchasing Managers' Index
PPI	Producer Price Index
PPP	public-private partnership
PRC	People's Republic of China
QDII	Qualified Domestic Institutional Investment
QFII	Qualified Foreign Institutional Investor
R&D	research and development
RCEP	Regional Comprehensive Economic Partnership
RIMPAC	Rim of the Pacific
RMB	renminbi
ROK	Republic of Korea
RQFII	RMB Qualified Foreign Institutional Investor
S&ED	Strategic and Economic Dialogue
SAM	surface-to-air missile
SAPPRFT	State Administration of Press, Publication, Radio, Film and Television (China)
SASAC	State-Owned Assets Supervision and Administration Commission (China)
SCO	Shanghai Cooperation Organization
SDR	Special Drawing Rights
SEZ	special economic zone
SIPRI	Stockholm International Peace Research Institute
SLBM	submarine-launched ballistic missile
SOE	state-owned enterprise
SSBN	nuclear-powered ballistic missile submarine
TAO	Taiwan Affairs Office (China)
TATDLS	Taiwan Advanced Tactical Data Link System
THAAD	Terminal High Altitude Area Defense
TIFA	Trade and Investment Framework Agreement
TOW	tube-launched, optically-tracked, wireless-guided
TPP	Trans-Pacific Partnership
UAV	unmanned aerial vehicle
UK	United Kingdom
UN	United Nations
UNCLOS	UN Convention on the Law of the Sea
UNSCR	UN Security Council Resolution
USAID	U.S. Agency for International Development
USCBC	US-China Business Council
USD	U.S. dollar
USTR	Office of the U.S. Trade Representative
VAT	value-added tax
VHF	very high frequency communications
WTO	World Trade Organization

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ACKNOWLEDGEMENTS

The Commission would like to express its deep appreciation to those who testified before the Commission as expert witnesses, the researchers and analysts who prepared research papers under contract to the Commission, and others who assisted with the Commission's work by briefing the Commissioners on a wide array of economic and security issues. The Commissioners are also grateful to the agencies of the executive branch and Intelligence Community that briefed Commissioners on key issues of importance to the U.S.-China relationship. All these efforts helped inform the Commission's and the public's debates on issues vital to ongoing U.S.-China relations.

The Commission offers its special thanks to Assistant Secretary of State Daniel R. Russel, Bureau of East Asian and Pacific Affairs, and Assistant Secretary of State Nisha Desai Biswal, Bureau of South and Central Asian Affairs, and their staff for their outstanding support of the Commission's fact-finding trip to Taiwan, China, and India in June 2016. The Commission owes a deep debt of gratitude and thanks to the following officials of the U.S. Department of State for their outstanding assistance and support provided during the Commission's travel to Asia, and for their assistance in arranging the Commission's meetings with government officials, business representatives, academics, journalists, and other experts, which was instrumental in the success of the Commission's trip: Ambassador Max S. Baucus, U.S. Embassy in Beijing, and staff, including P. Daniel O'Hara; Consul General Raymond Greene, U.S. Consulate in Chengdu, and staff, including Kelly Busby; Ambassador Richard R. Verma, U.S. Embassy in New Delhi, and staff, including Thomas Edwardsen; and then Acting Consul General Deanna Abdeen, U.S. Consulate in Mumbai, and staff, including Rishi Kapoor, Rajeev Wadhvani, and Samuel Chernawsky. The Commission would also like to thank Director Kin W. Moy, American Institute in Taiwan, and staff, including Andy Vo, Scott Urbom, Michael Pignatello, and Andrew Lebkuecher, for their outstanding assistance provided during the Commission's delegation visit to Taiwan.

The Commissioners are especially grateful to Margaret Beresik and Erin Muligan, who served as copyeditors of the Report, and to Victoria McLaughlin, who served as transcriber for the Commission's 2016 public hearings. The Commissioners also express their special thanks to former staff members Anthony DeMarino, Lauren Gloudeman, and Kevin Rosier. A special thanks also to current and former interns and fellows, who assisted the Commissioners and staff during this Report cycle by preparing research material and background information and providing support for the 2016 briefings and public hearings. They include Alexander Bowe, Bartly Carfagno, and Dahlia Peterson. Finally, the Commission expresses its thanks to the policy analyst staff for their exemplary assistance in framing the debate and assisting in writing and editing the final Report, and to the administrative staff for ensuring the smooth operation of the Commission.