

CHAPTER 7: CHINA'S NEW MEASURES FOR CONTROL, MOBILIZATION, AND RESILIENCE

Abstract

After a long period of “peace and development” during which Chinese Communist Party (CCP) leaders felt the international environment was conducive to China’s economic development, growing power, and international influence, the views of China’s leadership have changed. General Secretary of the CCP Xi Jinping now believes China has entered a period of increased challenges both domestically and internationally and has taken a number of steps to better prepare the Party and country for this period of threat and uncertainty. On the political front, Chinese leaders have broadened conceptions of national security to enhance the Party-state’s power, build out the national security state, and expand tools of societal control at the grassroots level. On the military front, China’s armed forces have improved their mechanisms for mobilizing available manpower, leveraging resources in the civilian economy, and priming the Chinese public to contribute to national defense. On the economic front, China has implemented measures to strengthen food security, energy security, and trade and financial security.

China’s numerous and varied actions are driven by multiple goals, including the desire to suppress domestic challenges, prepare for a more volatile and less open international economic environment, and position itself effectively for long-term strategic competition with the United States. At the same time, many of these actions serve to increase China’s capacity for rapid military mobilization and resilience in the case of hostilities. Recent changes have made China significantly more prepared for war compared to five years ago while potentially obscuring the signals that would normally precede an imminent or near-term mobilization. These changes have already altered the strategic and operational environment in China’s favor. Chinese officials likely believe they have moderated the economic costs the United States and its allies could impose on them through sanctions, blockades, and trade restrictions in the event there is an outbreak of hostilities, potentially reducing the deterrent effect of non-military policy options and external constraints.

Key Findings

- China’s leaders believe they have entered a new historical phase characterized by greater internal and external threats. This heightened threat perception has fueled numerous policy efforts to better prepare the Party, China’s society, and the military for what the Party believes will be a more hostile and uncertain period.

- China's leaders have intensified their rhetoric about risk over the last few years, increasingly invoking a concept called "extreme scenario thinking" that suggests Chinese policymakers are increasingly thinking through the potential ramifications of a wide range of scenarios, including the repercussions of actions they might initiate on the international stage. At the same time, CCP rhetoric toward Taiwan and the United States has not escalated to the degree that preceded China's conflicts in past decades or to what some experts expect to see if China were imminently preparing for war.
- China is continuing longstanding efforts to address concerns over food insecurity. China is largely self-sufficient in four of five key staples, though it is becoming increasingly dependent on corn and wheat imports. China relies on imports for the fifth (soybeans) and is overall a significant net food importer. China is believed to have the world's largest stockpiles of its key staples and has taken measures to diversify its soybean supplies away from the United States and reduce overall soybean consumption.
- China is taking measures to enhance its energy security and to ensure it can address its oil energy needs for long periods of time without imports. China is largely self-sufficient in coal, its primary energy source for power generation, and it has developed a coal surge capacity to deal with temporary disruptions. Perhaps because natural gas is not a major part of China's energy mix, China seems less concerned about its significant reliance on imports and only has a short-term stockpile of natural gas. China is heavily dependent on oil imports for transportation and appears to be building very large stockpiles—with estimates of one to two years' supply.
- China is taking measures to enhance its financial security, challenge global dollar dominance, and protect itself from U.S. financial sanctions by creating alternatives to dollar-based trade and the U.S.-controlled financial payments system. These efforts have accelerated since the imposition of sanctions in the wake of Russia's war of aggression against Ukraine. While the renminbi (RMB) is not on pace to supplant the U.S. dollar as a medium of global exchange, China is developing these tools with the intention to insulate itself from many types of U.S. financial sanctions.
- Party leaders have developed an exceedingly broad conception of national security and expanded their tools for domestic control. These include an increasingly robust internal security apparatus, the revival of some Maoist-era methods of mass mobilization, and efforts to leverage the public for surveillance and control, including by outsourcing public security tasks to government-sanctioned "vigilante groups." This heightened focus on security has been formalized through an expansion of relevant legal infrastructure, with new laws defining national security as touching upon virtually every aspect of society.

- There is currently no evidence that China is preparing for an imminent war, but the various reforms China has made to its defense mobilization system over time undeniably make it more confident and prepared for hostilities than it was five years ago. Many of these measures reduce the time needed for China to mobilize and transition from peacetime or gray zone activities to active hostilities and could be read as efforts to prepare the operational environment for a conflict over Taiwan. Given the decreasing amount of open source data available about China, the United States and international observers will have less visibility of warnings and indicators that may presage Chinese military action, a shorter timeline to react once indicators are discovered, and fewer non-military tools to respond.

Recommendations

The Commission recommends:

- Congress direct the Office of the Director of National Intelligence, within 180 days, to conduct a classified assessment, and brief its findings to Congress, of the intelligence community's (IC) ability to accurately monitor strategic, nonmilitary indicators that would signal that China is preparing for imminent conflict and the extent to which China's increasing lack of transparency affects the IC's ability to monitor this information. The assessment should include, but not be limited to, the following:
 - The IC's ability to monitor:
 - China's energy storage locations and stockpiling rates, particularly for crude oil, coal, and natural gas;
 - Production shifts from civilian to military industries;
 - China's national defense mobilization system; and
 - China's strategic reserves and their compositions and locations;
 - The IC's ability to coordinate with non-Title 10 and -Title 50 federal agencies that have technical expertise in agriculture and trade to monitor China's food and energy stockpiling and any derived indicators that may signal a potential preparation for conflict;
 - Whether the IC's current geospatial intelligence posture is adequate to compensate for the loss of open source information from China; and
 - The desirability and feasibility of establishing an Energy Strategic Warning system involving coordination between relevant entities including the National Geospatial-Intelligence Agency and the U.S. Departments of Energy, Commerce, State, and the Treasury.

Introduction

In 2022, protestors in China chanted "Xi Jinping, step down!" and "Communist Party, step down!" as the most significant public expressions of discontent in decades spread from Shanghai to cities across

China.¹ Though quickly repressed, such daring chants and protests suggest that the CCP, despite its relentless efforts, has not been able to entirely suppress dissent toward the Party-state. Likewise, China has exhausted the patience of major economies and trading partners who are no longer willing to endure its economic predation or ignore its aggression and security threats. Thus, China faces a new era of risks that the Party's own policies have brought about.

This chapter examines some of China's key responses to its perceptions of intensifying domestic and international risks. It will first investigate China's efforts to improve economic resilience in its food, energy, and financial infrastructure. It will then examine recent changes in Chinese leaders' assessment of their environment and survey the Party-state's efforts to enhance political control over China's institutions and society. Finally, it will assess recent efforts to improve the capacity of China's armed forces and society to rapidly mobilize for a conflict, before considering implications for the United States. This chapter is based on the Commission's June 2024 hearing on "China's Stockpiling and Mobilization Measures for Competition and Conflict," consultations with experts, and open source research and analysis.

Chinese Leaders Worry about Interlocked Internal and External Risks

In the past several years, China's leadership has assessed that they have entered a period of greater security challenges and internal and external risks. General Secretary Xi's speech and accompanying report to the 20th Party Congress in October 2022 struck a darker tone than the previous one in 2017, emphasizing rising threats and calling on the nation to "be ready to withstand high winds, choppy waters, and even dangerous storms."² Customary language about China's "period of strategic opportunity" and "peace and development" as "the theme of the times" was dropped from the political report, which instead stated that strategic opportunities were now concurrent with risks and challenges.^{*3} In a speech to the Central National Security Commission in May 2023, Xi continued this intensified rhetoric, describing the national security environment as "complex and severe."⁴

The language in senior leadership's speeches has also become increasingly confrontational. In a speech to representatives from the commercial sector during the annual "two sessions" in March 2023, Xi plainly stated that "Western countries—led by the United States—have implemented all-round containment, encirclement and suppression against us, bringing unprecedentedly severe challenges to our country's development."^{†5} Xi has also increasingly exhorted

^{*}The concept of the period of strategic opportunity was introduced by Jiang Zemin at the 16th Party Congress in 2002, characterizing the first two decades of the 21st century as presenting a peaceful external environment and stable domestic situation that would allow China to concentrate on economic growth and development, building on Deng Xiaoping's statement that "peace and development are the theme of the times." Center for Strategic Translation, "Peace and Development are the Theme of the Times;" Center for Strategic Translation, "Period of Strategic Opportunity."

[†]The speech was given to delegates of the Chinese People's Political Consultative Conference (CPPCC), an advisory body, from the All-China Federation of Industry and Commerce and the China National Democratic Construction Association, during the March 2023 "two sessions," annual plenary sessions of the National People's Congress and of the Chinese People's Political Consultative Conference; Xi also gave two speeches to the NPC and one to representatives of the PLA and People's Armed Police. *Xinhua*, "Full Text of Xi Jinping's Speech at First Session of

Party officials and the public to endure hardship and “dare to struggle.”⁶ Xi uses the Maoist phrase far more frequently than his predecessors, often when exhorting Party members to endure adversity and strive to achieve Party goals; it was inserted additional times into the Party Charter after the 20th Party Congress.⁷

Finally, China’s leaders have begun to insist that Party cadres must be prepared for “extreme” and “worst-case” scenarios. Xi first mentioned “extreme scenario thinking” alongside “worst-case scenario thinking” at the May 2023 meeting of the Central National Security Commission.^{*8} The two terms refer to methodologies Party cadres can supposedly use to “plan for worst-case scenarios, and encourage adopting proactive measures.”⁹ According to the testimony of Manoj Kewalramani, Chair of the Indo-Pacific Research Programme and China Studies Fellow at the Takshashila Institution, “extreme scenario thinking” enables understanding of feasible actions in unpredictable crisis situations by imagining the greatest level of severity that might occur in a given scenario. In contrast, “bottom line thinking” refers to setting minimum standards or red lines that cannot be breached, and making preparation to prevent predictable challenges.¹⁰ Mr. Kewalramani pointed out that extreme scenario thinking could be used by Chinese strategists when considering the repercussions of proactive behavior, which could plausibly include a Chinese decision to attack Taiwan.¹¹

Comprehensive National Security Concept Underpins Stronger National Security State

The “Comprehensive National Security Concept” forms the ideological basis for the subordination of all aspects of governance to national security. First outlined in a 2014 speech by Xi, it expands the concept of national security beyond traditional military threats and territorial integrity to nontraditional threats to regime survival, emphasizing the connection between domestic and foreign threats.¹² The initial concept laid out 11 types of security: political, military, territorial, economic, cultural, social, technological, information, ecological, resource, and nuclear.¹³ Additional types were added over the years, and the concept now encompasses 20 types, including food, finance, overseas interests, space, deep sea, polar regions, biological, artificial intelligence, and data security.¹⁴ Political security, however, is the most important task and is defined as safeguarding the leadership and governing status of the Party.¹⁵ Economic growth and the risks created by excessive debt and other issues are significant aspects of the concept because the economy continues to serve as a key source of the CCP’s legitimacy—and therefore its political security.¹⁶ While economic and financial security are encompassed by the Comprehensive National Security Concept, the CCP is increasingly willing to accept potential economic costs in order to prioritize political security.¹⁷

14th NPC,” March 14, 2023; Wang Cong and Tu Lei, “Xiconomics in Practice: President Xi Puts High-Quality Devt Front and Center at Two Sessions,” *Global Times*, March 14, 2023; *Xinhua*, “Xi Stresses Enhancing Integrated National Strategies, Strategic Capabilities,” March 8 2023; *Xinhua*, “Xi Calls for Guiding Healthy, High-Quality Development of Private Sector,” March 7, 2023.

*“Bottom-line thinking” (底线思维) is sometimes translated as “worst-case scenario thinking.”

Assessing the Party-State's Activity: New Measures for Control, Mobilization, and Resilience

The CCP has undertaken robust measures over the past decade to enhance its control, resilience, and capacity to mobilize resources in the economic, political, and military domains. While Chinese leaders' motivations for undertaking them remain unclear, taken collectively, the measures unquestionably make China better prepared to cope with a variety of domestic and foreign challenges.

Economic Preparedness

Chinese leaders' growing threat perceptions and concerns about the need to prepare for a more hostile international environment are increasingly reflected in their economic policies. This section focuses on China's efforts to enhance food, energy, and financial security through stockpiling and other policies designed to improve resilience, withstand temporary shocks, and weather more prolonged challenges. The inherent dual-use nature of Chinese economic preparations for a crisis make them complicated indicators of China's intentions or future action.* Chinese efforts to improve food and energy self-sufficiency and stockpile resources could be interpreted as a way to build resilience against a U.S. blockade in a Taiwan crisis. However, those same actions could also be a response to the country's widespread famines throughout the 20th century and energy crises that have affected certain provinces as recently as 2021.¹⁸ Similarly, Chinese efforts to internationalize the RMB and develop alternative payments systems began as a response to contractions in global dollar liquidity in the aftermath of the 1997 Asia financial crisis and the 2008 global financial crisis.¹⁹ However, the same systems that can ensure Chinese firms and their trading partners have ample access to credit and exchange during a recession also may allow China to insulate its financial sector and external trade from U.S. financial sanctions.

One thing is clear: the Chinese economy is more prepared today for a crisis scenario—one catalyzed by confrontation with the United States or another unpredictable event—than it was two decades earlier when the country was first constructing its strategic petroleum reserves and exploring RMB internationalization.²⁰ Even if Chinese motivations are entirely domestic, the United States can no longer rely on intertwined food supply chains, China's profound dependence on seaborne oil, and the blocking power of U.S. sanctions to enhance deterrence as strongly as they may have done in the past.

Food Security in China

General Secretary Xi has continued China's historic focus on food security by prioritizing efforts to increase domestic production, diversify supply chains, and build stockpiles. For centuries, Chinese food security has been inseparable from social stability.† China un-

*Dual-use is meant here to reflect that these preparations are both typical efforts that many governments undertake to reduce risks and promote resilience as well as the types of efforts that might be used to prepare for hostilities.

†During the Qing Dynasty (1644–1911), China experienced major famines between 1810 to 1907 that resulted in the deaths of tens of millions. These famines were often the catalysts for major rebellions or upheaval that diminished the government's authority and worsened socioeconomic conditions. These periods of starvation ultimately contributed to the dynasty's collapse.

der the CCP is no different. Well before the emergence of U.S.-China great power competition, CCP leadership has been extremely sensitive about maintaining food security.²¹ The Great Famine in 1959–1961, China’s last calamitous food crisis, is the largest famine in human history and continues to inform Chinese food policy today.*²²

China faces structural challenges to long-term food security. China must feed 21 percent of the world’s population on 8 percent of the world’s arable land and 6 percent of the world’s water resources.²³ Climate change, pollution, and rapid urbanization have magnified the effects of China’s shortage of arable land. Between 2013 and 2019, destructive farming practices, among other contributing factors like the conversion of agricultural land for infrastructure and real estate, caused a more than 5 percent decline in China’s cultivatable land.²⁴ What remains is often contaminated. Researchers estimate that 10.2 percent of arable soil is so polluted that it is no longer safe to grow products for consumption, and about 2.5 percent of China’s farmland cannot be cultivated at all, mainly due to heavy metal contamination.²⁵ The country now has an estimated domestic planting area shortage of 90 million hectares.†²⁶ As a result, production growth for rice, wheat, and corn has slowed down during the last decade as land becomes increasingly unavailable.²⁷

China also has geographic water imbalances. Eighty percent of Chinese water resources are concentrated in southern provinces.‡²⁸ This distribution is particularly damaging for food security. China’s northern provinces account for 65 percent of the country’s cultivated land and 50 percent of the country’s grain production.²⁹ The mismatch between water supply and use means that the north of the country could run dry within 30 years.§³⁰ Climate change is exac-

Kuan-Hui Elaine Lin et al., “Historical Droughts in the Qing Dynasty (1644–1911) of China,” *Climate of the Past* 16:3 (June 2020): 911–931.

*Working from official statistics, scholars have estimated that the famine, which was the result of Chairman Mao’s efforts to accelerate industrialization by shifting resources away from agriculture, led to the death of 30 million people and another 33 million births were lost or postponed, sowing the seed for the deeply tumultuous Cultural Revolution. Shige Song, “Mortality Consequences of the 1959–1961 Great Leap Forward Famine in China: Debilitation, Selection, and Mortality Crossovers,” *Social Science & Medicine* Vol 31:3 (August 2010), 9.

†Beijing is taking a number of actions to try and rectify this. Central Document No. 1 from 2019 set out a “farmland red line” policy with a target of preserving at least 120 million hectares of farmland—an area slightly larger than Sweden. The National High-Standard Farmland Construction Plan (2021–2030) has also implemented a national plan for enhancement of farmland quality through farmland restoration measures, crop rotation practices, and fallow land systems. China has also purchased agricultural land beyond its borders. In 2021, Chinese investors owned 383,935 acres of agricultural land in the United States, though more recently U.S. officials have begun to curtail this practice. The lion’s share of Chinese international land purchases are in Asia and Africa. Between 2011 and 2020, Chinese companies purchased or leased 6.48 million hectares of land for agriculture, forestry, or mining. Gustavo F. C. Ferreira, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China’s Stockpiling and Mobilization Measures for Competition and Conflict*, June 1, 2024; U.S. Department of Agriculture, *Foreign Holdings of U.S. Agricultural Land through December 31, 2021*, December 31, 2021; Daishi Chiba, Shin Watanabe, and Yuichi Nitta, “Chinese Companies Corraling Land around World,” *Nikkei Asia*, July 13, 2021; Zhang Zhilong, “Red Line’ Policy Protects China’s Arable Land,” *CGTN*, February 23, 2019.

‡Mao Zedong acknowledged this 70 years ago when he famously remarked, “The South has plenty of water and the North lacks it, so, if possible, why not borrow some?” Carla Freeman, “Quenching the Thirsty Dragon: The South-North Water Transfer Project—Old Plumbing for New China?” *Wilson Center*.

§To mitigate this, in 2003, China’s government launched the \$60 billion South-to-North Water Transfer Project. The project diverts water from tributaries of the Yangtze River to replenish the dry north. China has also tried to increase rainfall through cloud seeding, moved heavy industry away from water-stressed regions, and is investing in water management infrastructure. In April 2022, Vice Minister of Water Resources Wei Shanzhong estimated that annual investment in water-related projects could reach \$100 billion annually. Gabriel Collins and Gopal Reddy, “China’s Growing Water Crisis,” *Foreign Affairs*, August 23, 2022.

erbing this. Researchers estimate that a combination of climate change-related drought and heightened levels of tropospheric ozone has accounted for yield losses of 10 percent in China.³¹ Between 1981 and 2010, this amounted to annual losses of 55 million tons of crops.³²

Chinese demand for food is increasing. From 1990 to 2019, Chinese per capita food available for consumption increased 34 percent.³³ Rising incomes mean this growth will continue. Between 2020 and 2050, researchers estimate that Chinese demand will grow a further 16 to 30 percent.³⁴ Cheng Guoqiang, a professor of agricultural economics and rural development at Renmin University in Beijing, estimates that rising food demand and challenges from climate change mean national food output will likely continue to decline as a percentage of domestic demand. Professor Cheng estimates that from 2000 to 2020, China's reliance on imports for its overall food supply increased from 6.4 percent to 34.2 percent.³⁵ He projects that by 2030 imports will rise by another 7 percentage points, with domestic production accounting for just 58.8 percent of China's total demand.³⁶

Informed by their past and aware of present challenges, Chinese leaders have persistently prioritized food security as a prerequisite to maintaining power.³⁷ In many ways, these policies have been successful for the time being. Grains are at the heart of China's food security efforts. They are the country's main source of calories, animal feed, and raw materials for processed food products.³⁸ Since 1996, China has aimed to maintain 95 percent self-sufficiency for its key grains.³⁹ Though Chinese production has fallen below the 95 percent target, it is still largely self-sufficient in corn, rice, and wheat.¶⁴⁰

Corn: China is the second-largest corn producer in the world and is mostly self-sufficient in the crop.⁴¹ Corn is China's largest food crop in terms of production. In the 2023 marketing year,‡ China produced 288.8 million metric tons of corn domestically.⁴² China is also the world's largest corn importer, and in 2023 it imported 26.2 million metric tons, primarily from Brazil (11.9 million metric tons), the United States (7.1 million metric tons), Ukraine (5.5 million metric tons), Bulgaria (739 thousand metric tons), and Burma (Myanmar) (381 thousand metric tons).‡⁴³ In 2023, China consumed 307 million metric tons of corn and had a dependency rate of 8.3 percent.§⁴⁴

¶The conclusion that China has fallen below the 95 percent target is based on calculations below. Additionally, China now imports more grains—most notably soybeans, corn, wheat, and rice—than any other country. Gustavo F. C. Ferreira, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 1, 2024; Zongyuan Zoe Liu, "China Increasingly Relies on Imported Food. That's a Problem," *Council on Foreign Relations*, January 24, 2023.

‡Crop production is measured across a marketing year, or the 12-month period starting just after harvest when a crop may be sold. Since all crops have different harvest schedules, marketing seasons are not precisely comparable across crops or between crop production and import and export values (which tend to reflect calendar years). To avoid confusion, all marketing years are referred to by the year in which they started. Additionally, data on imports and exports reflect values from the year in which the marketing year began.

‡Figures for corn imports are determined using the HS code 1005.90 for corn crops excluding seeds. This may include corn meant for human consumption as well as for livestock feed or other uses. To ensure foreign producers are unable to outcompete and undermine domestic producers, China manages its annual volume of corn imports—typically between 25 and 30 million tons. Gustavo F. C. Ferreira, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 1, 2024, 6.

§Dependency rate refers to imports as a percentage of total yearly stock (domestic production + imports). Subtract this figure from 100 to determine the percentage of yearly stock met by

Rice: China is nearly self-sufficient in milled rice. China produced 144.6 million metric tons of milled rice in 2023 and imported an additional 1.8 million metric tons, making it both the world's largest producer and importer.*⁴⁵ China's primary sources of imported rice were countries in South and Southeast Asia, including Vietnam, Thailand, and Burma.†⁴⁶ In 2023, China consumed 148.1 million metric tons of rice and had a dependency rate of 1.2 percent.‡⁴⁷

Wheat: China is mostly self-sufficient in wheat. Wheat is China's third most important crop in terms of metric tons of production. In 2023, China was the largest global producer, yielding 136.6 million metric tons of wheat while importing 11.9 million metric tons.⁴⁸ Most of these imports came from Australia (6.9 million metric tons), Canada (2.5 million metric tons), the United States (925 thousand metric tons), and France (815 thousand metric tons).§⁴⁹ In 2023, China consumed 154 million metric tons of wheat and had a dependency rate of 8 percent.⁵⁰

Pork: In addition to these grains, China has identified pork as important for its food security. China is nearly self-sufficient in pork. Pork is China's primary protein and accounts for about 60 percent of all meat consumed in the country.⁵¹ In 2023, China produced 57.9 million metric tons of pork, making it the largest producer globally.⁵² It imported 1.5 million metric tons, with Brazil (402 thousand metric tons), Spain (378 thousand metric tons), Canada (132 thousand metric tons), and the United States (122 thousand metric tons) as primary suppliers.¶⁵³ In 2023, China consumed 59.7 million metric tons of pork and had a dependency rate of 2.5 percent.⁵⁴

China's Global Agriculture Ambitions: The Smithfield Acquisition

In 2013 the Chinese firm Shuanghui, now called WH Global, acquired Smithfield Foods for \$4.7 billion (\$7.1 billion including debt), the biggest acquisition of a U.S. company by a Chinese firm up to that time.⁵⁵ The Committee on Foreign Investment in the United States (CFIUS) approved the transaction.⁵⁶ Four years after being acquired by WH Group, Smithfield purchased Kansas City Sausage Co. LLC, one of the United States' largest sausage producers and processors.⁵⁷

As China's largest pork producer, Shuanghui's expansion into overseas markets was aligned with China's "going out" strategy to encourage some of its national champions to become multinational leaders.⁵⁸ Ostensibly, China aimed to learn how to scale up its meat production, increase sanitary standards, and secure imports

China's domestic production.

*Milled rice has been processed and had the hull removed, making it suitable for human consumption. Rough rice has not been processed and is generally not intended for human consumption. Import values for milled rice are based the six-digit HS classification for semi- or wholly-milled rice (1006.30).

†Figures for rice imports are determined using the HS code 1006.30 for semi-milled or fully milled rice, whether or not it is polished or glazed.

‡Consumption can sometimes exceed production and imports combined. This likely means China is supplementing consumption with stocks left over from previous years.

§Figures for wheat imports are determined using the HS code 1001 for wheat and meslin.

¶Figures for pork imports are determined using the HS code 0203 for meat of swine, fresh, chilled, or frozen.

China's Global Agriculture Ambitions: The Smithfield Acquisition—*Continued*

to respond to growing domestic demand for pork.⁵⁹ The deal also meant that Shuanghui acquired 146,000 acres of U.S. farmland.⁶⁰

China has an affinity for pork. The character for home or family in Chinese, 家 *jia*, depicts a pig under a roof. This common character is used in the word for country or nation (国家 *guojia*). Indeed, Xi's first trip to the United States was to study hog farming.⁶¹ As China has gotten wealthier, its demand for meat has grown and China's annual pork consumption now exceeds that of the United States by a large margin.⁶²

Since the Smithfield acquisition, Chinese imports of U.S. pork products have increased.* From \$704 million in 2012, Chinese pork imports from the United States peaked at \$2.3 billion in 2020, settling back to \$1.2 billion in 2023, still a 76 percent increase from 2012 levels.†⁶³

A decade on, the Smithfield acquisition remains contentious. Some argue that growing agricultural exports to China is a net positive, as is generally the view for U.S. agricultural exports.⁶⁴ Further, the United States could limit exports to China if necessary, regardless of the ultimate ownership of a U.S. subsidiary. Others have raised concerns that the deal could pose "food safety, food security and intellectual property concerns" or increase domestic U.S. prices if exports to China decreased U.S. supply.⁶⁵ Further, recent years have seen growing concern about purchases of U.S. farmland by Chinese entities.⁶⁶

Smithfield continues to have a large presence in the United States.⁶⁷ It retained the U.S. management team after the acquisition, and its products continue to be available in the United States.⁶⁸ Recently, the Hong Kong-listed parent of Smithfield announced it would separate its North American and European operations, though both will remain WH Group subsidiaries (with a U.S. initial public offering of the spun-off Smithfield contemplated).⁶⁹

Significant Import Reliance for Soybeans: The last product China has identified as a staple is soybeans, which is the most significant challenge to Chinese domestic food self-sufficiency. While soybeans can be directly consumed, China primarily uses the crop as

*After Smithfield's acquisition, exports as a share of its total pork sales increased, although it is unclear what portion of those exports were ultimately consumed in China. Smithfield does not break down export data by specific countries. In the five years leading up to the acquisition, Smithfield's export sales made up, on average, 16.2 percent of its total pork volume. Following the acquisition, in 2014, its export sales rose to 23 percent of total volume and continued to rise to 25 percent in 2015. In 2016, Smithfield stopped publishing its annual investor report. Smithfield Foods, Inc., "Form 10-K FY 2015," January 3, 2016; Smithfield Foods, Inc., "Form 10-K FY 2014," December 28, 2014; Smithfield Foods, Inc., "Form 10-K FY 2013," April 28, 2013; *Smithfield Foods, Inc.*, "Form 10-K FY 2012," April 29, 2012; Smithfield Foods, Inc., "Form 10-K FY 2011," May 1, 2011; Smithfield Foods, Inc., "Form 10-K FY 2010," May 2, 2010; Smithfield Foods, Inc., "Form 10-K FY 2009," May 3, 2009.

†The 2020 peak occurred because Asian Swine Fever outbreaks caused China to cull domestic hogs, severely affecting domestic production. Some in Congress wanted investigations when pork prices increased and exports to China surged in 2020. Shibing You et al., "African Swine Fever Outbreaks in China Led to Gross Domestic Product and Economic Losses," *Nature Food* 2 (2021), 802–808; *Reuters*, "U.S. Senators Question Meatpackers over Exports to China during Pandemic," June 24, 2020.

animal feed or converts it into edible oils.⁷⁰ Unlike its other staples, China is heavily dependent on imported soybeans. In 2023, China produced just 20.8 million metric tons of soybeans but imported 87.4 million metric tons.⁷¹ Of this volume, 59.7 million metric tons were purchased from Brazil and 22.4 million metric tons (25.6 percent) were purchased from the United States.⁷² In 2023, China consumed 121.7 million metric tons of soybeans and had a dependency rate of 81.1 percent.⁷³ China is unlikely to resolve this dependency by increasing domestic production. It costs nearly 30 percent more to grow soybeans in China than in the United States, while the yield is 60 percent less.⁷⁴

Table 1: China's Foreign Dependency for Staple Foods, Million Metric Tons

<i>Staple Food</i>	Domestic Production	Imports	Global Import Dependency Rate
<i>Corn</i>	288.8	26.2	8.3%
<i>Rice</i>	144.6	1.8	1.2%
<i>Wheat</i>	136.6	11.9	8%
<i>Soybeans</i>	20.3	87.4	81.1%
<i>Pork</i>	57.9	1.5	2.5%

Source: Various.⁷⁵

Efforts to Improve Food Security

Chinese leaders are trying to improve food security by expanding agricultural land, investing in productivity enhancing technology, reducing demand, and engaging in stockpiling. These policies, however, have their limits. Environmental degradation, climate change, and growing consumption mean China's domestic food security will worsen in the short term—even if it becomes less reliant on the United States.

Gustavo Ferreira, a senior agricultural economist at the U.S. Department of Agriculture, points out that China has steadily increased state investment in agricultural research and development. Chinese officials hope to strengthen domestic scientific and technological expertise in modern agriculture and improve the country's agricultural equipment. In particular, China has focused resources to boost the development of its seed industry.*⁷⁶

China has also tried to reduce domestic demand, focusing on soybeans. China has urged domestic livestock feed producers to incorporate alternative oilseeds like rapeseed or sunflower seed which could be sourced from countries such as Canada or Ukraine.⁷⁷ In 2023, Chinese officials implemented a three-year action plan to reduce soybean meal ratios in animal feed from 14.5 percent in 2022 to less than 13 percent by 2025. Such a change could reduce imports by as much as four million metric

*The Chinese Academy of Agricultural Sciences (China's national agricultural scientific research organization) laid out a five-year development plan calling for the construction of new laboratories, a grain crop science center, and enhancements in breeding capacity for crops and livestock. Genevieve Donnellon-May and Zhang Hongzhou, "Hungry China's Growing Interest in 'Future Foods' and Alternative Protein," *Diplomat*, May 4, 2022; *Xinhua*, "China Aims High in Agricultural Sci-Tech Innovation," January 13, 2022.

tons a year.⁷⁸ All else equal, this would reduce Chinese consumption by 3.7 percent and leave them with an import dependency rate of 80.4 percent.*

China is also diversifying soybean imports away from the United States. While Brazil had been slowly gaining market share starting about 15 years ago, the erosion of the U.S. position in China's market accelerated dramatically with the 2018 trade war. Chinese purchases of U.S. soybeans collapsed in 2018 following a 25 percent tariff implemented by China. During the 2016–2017 season, immediately prior to the trade war, China sourced 41 percent of its soybeans from the United States and 46 percent from Brazil.⁷⁹ During the 2018–2019 season, this shifted. China sourced some 75 percent of imports from Brazil compared with 19 percent from the United States.⁸⁰ While trade has since stabilized, in 2023 China still sourced 68 percent of its soybeans from Brazil compared with 26 percent from the United States.⁸¹ Expansive South American production capacity means China could theoretically divert all its soybean procurement to the region. However, total reliance on South American imports would expose China to new risks from geographic and growing season concentration.[†]⁸²

China has found other willing partners in its Belt and Road Initiative (BRI) members. Since its introduction in 2013, China has signed over 100 agricultural cooperation agreements with BRI countries.⁸³ Russia has emerged as a key supplier. In 2023, following a meeting between General Secretary Xi and Russian President Vladimir Putin, a Russian company signed a \$26 billion agreement to supply 70 million tons of grain, legumes, and oilseeds to Chinese buyers over the next 12 years.[‡]⁸⁴ This builds on longstanding efforts to increase two-way trade such as the Russia-China Land Grain Corridor, an initiative launched in 2016 to build out infrastructure supporting the export of grain by Russia and other Eurasian countries to China.⁸⁵ Russia's abundant wheat production could serve as additional insurance to safeguard Chinese food security.⁸⁶

China's Significant Food Stockpiling

In addition to other policies to enhance food security, China maintains large emergency food stockpiles of agricultural products and

*Calculation shows the change in the import dependency rate if the entirety of the reduced demand is offset by a decline in imports with no changes to other consumption or domestic production.

†Although the United States' and Brazil's soybean growing seasons are complementary, Brazil has been increasingly able to capture U.S. market share during peak U.S. export season. Typically, more than 60 percent of annual U.S. soybean exports to China occur between October and January, when Brazilian supplies are presumably low. However, in 2024, U.S. soybean exports to China during that four-month period were 2.8 million metric tons more than Brazil. Historically, outside of 2018–2019 and 2019–2020, at the gap would be a minimum 13 million metric tons and possibly up to 25 million metric tons. Karen Braun, "Brazil's Intrusion on US Soy Exports to China Somewhat Mimics Trade-War Era," *Reuters*, March 22, 2024.

‡Since 2022, China has lifted numerous sanitary restrictions that have previously prevented the import of Russian agricultural products. In 2022, China began to allow the import of spring wheat and barley from Russia. In 2023, peas and millet received approval. The two countries are currently negotiating lifting restrictions on the Chinese import of Russian corn and rice. Genevieve Donnellon-May and Zhang Hongzhou, "The Sino-Russian Land Grain Corridor and China's Quest for Food Security," *Asia Society Policy Institute*, May 8, 2024; *World Grain*, "Russia, China Expand Agricultural Trade," November 8, 2023.

pork, significantly out of proportion to global norms.* The composition, volume, and quality of these reserves are a state secret and can only be estimated.⁸⁷ Official communications state that China has built nearly 700 million metric tons of grain storage capacity.⁸⁸ Using data provided by the U.S. Department of Agriculture (USDA), Nikkei estimates that China's share of global grain stocks (corn, rice, wheat, soybeans) increased by at least 15 percent for each crop from 2011 to 2021.⁸⁹ The USDA estimates that as of the first half of 2022, China holds 69 percent of the world's corn reserves, 60 percent of its rice, and 51 percent of its wheat.⁹⁰ With only 18 percent of global population, China holds just over half of global staple grain reserves. China also maintains a strategic pork reserve. In July 2023, the Chinese government indicated it stockpiled 20,000 tons of pork in order to replenish national reserves, suggesting the total reserve volume is higher.⁹¹

Because the true size of its stockpiles is unknown, it is uncertain how long these reserves could sustain China.⁹² While anecdotal evidence suggests China has somewhere between one to two years' worth of stocks of key agricultural commodities, even Chinese officials with complete access to information likely cannot give a precise estimate.⁹³ The scale of China's stocks require a very large grain storage infrastructure and complex management to ensure the viability of the stored commodities.⁹⁴ As a result their true size and usability is likely not fully assessable.†

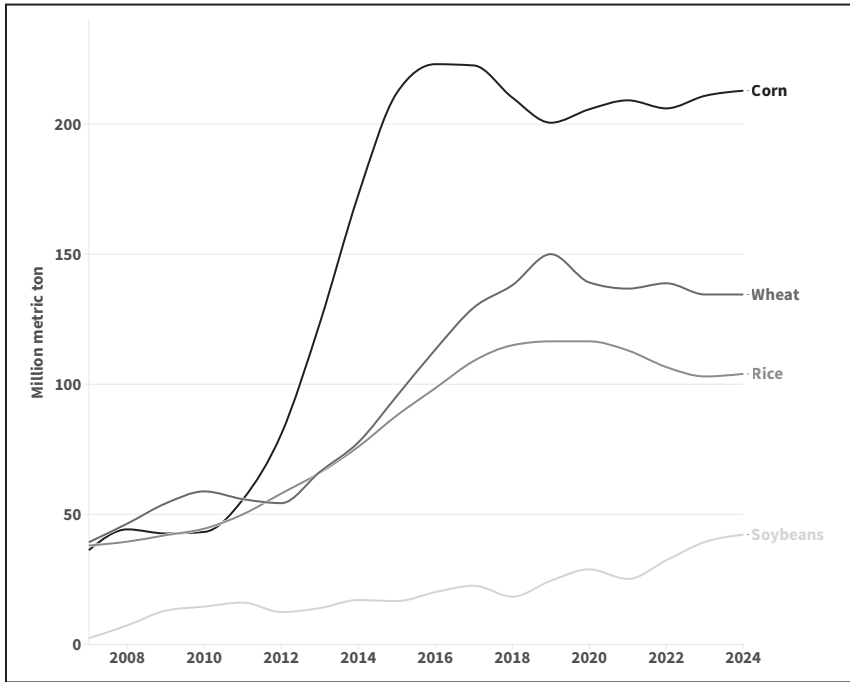
Perspective on Food Security Efforts

In terms of evaluating China's food stockpiling, it is notable that projections of Chinese grain stockpiles have not substantially increased in recent years. The USDA projects that total Chinese ending stocks—the amount of grain left in the country at the end of each year and an imperfect proxy for reserves—peaked for wheat and rice in 2019.⁹⁵ Corn peaked even earlier, in 2016.⁹⁶ Since then ending stocks have fallen, with rice declining 10.7 percent.⁹⁷ In contrast, Chinese soybean ending stocks have continued to rise, though they remain far below Chinese stockpiles of corn, wheat, or rice.⁹⁸

*Note that official data on these stores are not publicly available but can be pieced together using official statements and proxy indicators.

†There are also concerns about the accuracy and reliability of grain reserves data as well as China's broader agriculture production data. A lack of transparency, recent arrests and investigations related to corruption, and quality concerns all obscure China's stockpiling. For example, in 2022, the former top official at the National Food and Strategic Reserves Administration (responsible for centralized control over stockpiled grain), Zhang Wufeng, was sentenced to ten years in prison for taking bribes, and in May 2024, current Agriculture and Rural Affairs Minister Tang Renjian was placed under investigation by the anti-graft agency for "serious violations" of the law. More broadly, some academics have called into question the overall reliability of data in the agriculture sector. They argue that important government subsidies to the major grain-producing counties created incentives for over-reporting production and that the lower administration level that generates the agricultural data has a higher risk of data manipulation and misreporting. Gustavo F. C. Ferreira, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 1, 2024, 15; *Bloomberg*, "China Says Agriculture Minister Tang Renjian Is Under Investigation," May 18, 2024; Yang Zekun, "Former Head of China's Food Reserves Administration Sentenced to 10 Years in Jail," *China Daily*, December 15, 2023; Zhun Xu et al., "China's Grain Production: A Decade of Consecutive Growth or Stagnation?" *Monthly Review* 66:25 (May 2014).

**Figure 1: Ending Stock of Key Chinese Food Staples, 2007–2024,
Million Metric Tons**



Source: U.S. Department of Agriculture Foreign Agricultural Service, “*Corn ending stocks, Wheat ending stocks, Rice ending stocks, Soybean ending stocks [2007–2024]*,” via FAS Production, Supply, and Distribution, September 19, 2024.

Energy Security in China

China’s Energy Composition

China’s massive population and rapid industrialization has meant that demand for energy has outstripped domestic sources of supply. As a result, China has become deeply reliant on external sources of key energy commodities. Foreign oil imports, in particular, are China’s largest strategic energy vulnerability. Xi has continued to push for enhanced energy security saying the country “must hold the energy food bowl in its own hands.”⁹⁹ However, his efforts are influenced by various factors, including concerns about market volatility, making it difficult to discern the relative significance of national security as a driver for his efforts.

Coal

While China may be most concerned with oil imports, coal is the country’s most significant energy resource. In 2022, it contributed 61 percent of the country’s total energy supply.^{*100} Coal is central to Chinese energy security. The country’s abundant domestic resources and enormous coal power generation capacity make it a significant

*In 2022, China relied upon coal, oil, and natural gas for 86.7 percent of its total energy supply. International Energy Agency, “China.”

hedge against energy insecurity and geopolitical uncertainty.¹⁰¹ Chinese reserves also mean coal is the only major energy commodity where the country is typically a net exporter.¹⁰² This has allowed Chinese officials to focus energy contingency plans on production, rather than stockpiling or energy import infrastructure. China's natural supplies have allowed the country to pursue a strategy focused on establishing a system of "dispatchable coal reserves."¹⁰³ Under the strategy, China's National Development and Reform Commission aims to develop the capacity to rapidly increase coal production by 300 million tons per year by 2030.¹⁰⁴ Combined with an abundance of coal power plants, China could surge coal production and allow its coal-fired power capacity to fill energy production gaps.* Because of these factors, China stockpiles a relatively meager 200 million tons of coal at major power plants, approximately a 30-day supply.[†]¹⁰⁵

Natural Gas

Natural gas is less critical to China's energy mix than either coal or oil. In 2021, natural gas made up just 3.1 percent of China's total electricity generation.¹⁰⁶ China primarily uses natural gas to heat homes, to cook food, and as an input in certain industrial processes.¹⁰⁷ Replacements such as coal or electrical heaters can substitute for gas' most important use cases.¹⁰⁸ Still, China is very dependent on foreign natural gas. In 2023, China imported 165.6 billion cubic meters (BCM), or 42.3 percent of its total natural gas consumption.¹⁰⁹ China's import dependence is worsening. In 2023, the country's reliance on foreign natural gas increased 1.1 percent from 2022.¹¹⁰ In recent years, China has focused on rapidly expanding its natural gas storage capacity. CEDIGAZ, a gas analytics firm, estimates that Chinese firms operate 21.3 BCM of working underground gas storage capacity plus an additional 8.1 BCM of tank storage at liquefied natural gas import facilities.¹¹¹ The firm forecasts that the country's gas storage capacity could rise to 80 BCM of working gas storage capacity by 2030.¹¹² In 2023, China consumed 395 BCM of natural gas.¹¹³ By 2030, China National Petroleum Corporation forecasts the country will consume between 550 and 600 BCM of natural gas.¹¹⁴

Chinese policymakers appear to perceive natural gas storage as more of a market management tool than a safeguard ensuring energy security. Gabriel Collins, fellow at Rice University's Baker Institute, notes, for example, that in China's 2023 Energy Work Guiding Opinion, a document produced by China's National Energy Administration and disseminated to all relevant provincial-level agencies to guide and help implement energy policies, policymakers associate natural gas development with "bolstering energy system regulation capacity."¹¹⁵ Because of this, he suggests Chinese energy officials are more concerned with managing natural gas's seasonal price volatility—buying cheap natural gas in the summer and storing it to

*In 2022, China's average coal plants utilization rate was 53 percent, far lower than its historic average of 70 percent. China's low typical utilization rate means it has ample space to surge coal power output if needed. Bing Han and Choon Kiat William Chia, "China's Record Coal Capacity Approvals in 2022: Will Carbon Targets Still Be Met?" *S&P Global*, April 27, 2023.

†China's stockpile size is variable and fluctuates based on a range of different factors. For example, in January of 2024, Chinese coal stockpiles were as low as 120 million tons before low prices allowed stocks to climb to 162 million tons by May 2024. *Bloomberg News*, "China's Glut of Coal Delivers Early Success in Dodging Summer Shortages," June 25, 2024.

use when prices spike in the winter—than ensuring the country has a robust, contingency supply.¹¹⁶

Oil

China is deeply reliant on foreign oil. However, unlike natural gas, which is nonessential and can be substituted with coal, oil's centrality to both the domestic economy and the military make it China's most significant resource vulnerability in a crisis scenario.¹¹⁷ Chinese officials have noted that electricity supply problems "can be solved by ourselves" but that "oil imports are different.... If our oil imports are cut off, it affects the whole nation, not just certain provinces, and we no longer maintain self-reliance."¹¹⁸ Chinese strategists have long viewed the country's increasing reliance on foreign oil imports as a key vulnerability and a potentially serious constraint on Chinese strategic action.¹¹⁹ This has compelled China to pursue a series of diversification and stockpiling initiatives to mitigate the impact of potential future disruptions.

China became a net oil importer in 1993.¹²⁰ In 2023, the country was only able to produce 27 percent of its oil domestically.¹²¹ China imported an average of 11.3 million barrels a day while producing 4.2 million barrels a day. China has tried to minimize the risks brought about by its overreliance on foreign sources by maintaining a diverse mix of friendly suppliers. In 2023, China sourced 4.4 percent of its oil imports from the G7 (with the United States and Canada being the largest suppliers).¹²² Instead, China has historically sourced around half of its imports from Gulf countries.¹²³ Because of this, China has sought closer ties with the region. (For more on China's engagement with the Middle East, see Chapter 5, "China in the Middle East.") China is also slowly building a naval presence in the area. The U.S. Department of Defense lists the Strait of Hormuz as a "known focus area" for Chinese military planners.¹²⁴ Analysts suggest China is building a robust presence to potentially counter U.S. efforts to block oil transit during a crisis.¹²⁵

In 2023, Russia emerged as China's most important single supplier.¹²⁶ Buoyed by the "no limits" partnership they declared in February 2022, Chinese refiners have rapidly expanded purchases of the Russian crude that had flowed to Europe prior to Russia's invasion of Ukraine.*¹²⁷ However, even among its partners, China is wary of the risks that come from overreliance. Shipping insiders believe China caps oil imports from any country at around two million barrels per day.¹²⁸

Despite China's supply diversification, most of these oil imports reach China via seaborne tankers. Asia's island geography means that 80 percent of China's total oil imports must pass through the Strait of Malacca, separating Indonesia and Singapore, making the waterway a critical vulnerability.¹²⁹ Xi's predecessor, General Secretary Hu Jintao was profoundly concerned by this

*In response to the invasion of Ukraine, the G7 has tried to impose a price cap of \$60 dollar per barrel on Russian crude oil exports. While the G7 has not been able to fully enforce it, their sanctions and pressure has led to a minor discount in Russian crude. As a result, in 2023, China was able to purchase Russian crude at an average price of \$77 per barrel. This was around a \$6 dollar per barrel discount and resulted in a nearly \$5 billion total discount in 2023. *Bloomberg*, "Russia Becomes Top China Oil Supplier for First Time since 2018," January 22, 2024; U.S. Energy Information Administration, *Brent Crude Oil Prices Averaged \$19 Per Barrel Less in 2023 than 2022*, January 2, 2024.

and called China's overreliance on the route the "Malacca Dilemma."¹³⁰ However, under Xi, China's susceptibility to a disruption in the Strait of Malacca has worsened. In 2013, Xi's first full year as General Secretary, China relied on imports for 57 percent of its total crude oil supply. By 2023, its import rate had grown to 76 percent.¹³¹ China's less secure seaborne oil imports have also similarly risen, growing from 91 percent in 2009 to 97 percent in 2023.¹³² China has had some options to slow this growth, such as a new oil pipeline with Russia that has been discussed since 2018.¹³³

Instead, Chinese officials have prioritized constructing large oil storage facilities and developing and encouraging substitutes, such as electric vehicles (EVs), wherever possible.* In 2021, 49 percent of total final consumption of oil products was used for transportation.¹³⁴ As a result, one way China is hoping to decrease its overall demand is through alternatives such as transportation electrification. Starting in 2001, China's Ministry of Science and Technology issued a strategic plan to develop new energy vehicles and conducted research into them under the 863 Program, a high-tech development plan.¹³⁵ Over the next two decades, China continued to focus resources into the program.

With strong state support, China's domestic EV sector was able to develop quickly, and starting in 2020, it began to rapidly gain market share in new consumer car sales. The International Energy Association projects that in 2024, EVs could account for up to 45 percent of new car sales in China, up from 30 percent in 2022.¹³⁶ This would mean that by the end of 2024, around 10 percent of China's total passenger vehicle fleet is likely to be either an EV or a plug-in hybrid.¹³⁷ By 2030, one in three cars on Chinese roads could be EVs.¹³⁸ Chinese EV adoption is meaningfully slowing China's oil consumption growth.† If trends continue, the International Energy Association estimates that by 2030, EVs could reduce the country's daily oil consumption by two million barrels a day and, by 2035, over three million barrels a day.¹³⁹

While such widespread adoption would be an important milestone, it still only represents a fraction of China's overall oil demand. Researchers affiliated with China National Petroleum Corporation project that China's oil demand is expected to peak by 2030 at between 780 million and 800 million metric tons per year, or around 15.6 million to 16 million barrels per day.‡¹⁴⁰ To ensure China can satisfy its consumption needs in a crisis scenario, Chinese leaders have undertaken a massive buildout of its domestic oil storage.

*Chinese firms continue to also engage in domestic drilling efforts, but limited natural reserves constrain their ability to become a meaningful replacement for China's foreign dependence and instead appear to emphasize "running harder to stay in place." Gabriel Collins, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 1, 2024; Reuters, "China's Oil Production Rises to 208 Mln Tons in 2023—CCTV," January 9, 2024.

†While EVs can slow consumption, it is unclear how long and where the bright line sits for EVs to reduce overall gasoline demand. It is dependent on a number of factors, most notably how many new internal combustion engine vehicles also are sold in the coming years. Gabriel Collins, using Norway's substantial EV adoption as a reference point, estimates that China would need around 80 million EVs for this to happen. Gabriel Collins, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 1, 2024.

‡It is unclear how China National Petroleum Corp accounts for EV adoption within its projections. Nonetheless, the numbers show the absolute scale of Chinese oil demand.

From 2016 to 2024, China's aboveground crude oil inventory has ranged from 850 million to just over one billion barrels.¹⁴¹ As of late May 2024, China had about 942 million barrels of crude oil stored in aboveground tanks onshore.*†¹⁴² China's total storage capacity is likely larger. Kayrros, an energy data provider, suggest that China's total crude storage capacity is currently a little over 1.8 billion barrels.¹⁴³

China has grown its storage capacity considerably over the last two decades. From 2005 to 2024 storage has roughly tripled while overall oil consumption has doubled.¹⁴⁴ Chinese capacity tends to cluster around oil ports capable of accepting very large crude carriers.¹⁴⁵ This means they are predominantly located in Shandong, Zhejiang, Liaoning, and Guangdong provinces. Shandong and the Greater Shanghai Area is China's largest oil import and storage zone. The region is home to more than 500 million barrels of storage capacity.¹⁴⁶

China's Strategic Petroleum Reserve (SPR) is a subset of its overall reserve capacity. Discussions of an SPR began in the 1980s, though a drawn-out debate over its potential costs and utility delayed construction until 2004.¹⁴⁷ China's growing foreign dependence justified its creation, and, by 2009, the Phase I SPR sites—located at Zhenhai, Zhoushan, Huangdao, and Dalian—were built and filled with 103 million barrels of oil.¹⁴⁸ Phase 2 was completed in 2019 and can store roughly 200 million additional barrels of oil.¹⁴⁹ A third phase of the project is currently under consideration and would bring the SPR's total capacity to around 500 million barrels.¹⁵⁰

Notably, after Russia's invasion of Ukraine demonstrated the vulnerability of aboveground storage, China has likely accelerated the development of underground oil storage.‡¹⁵¹ In 2023, China National Petroleum Corporation (CNPC) announced the launch of a special "Mined Cavern Underground Oil Storage Laboratory" signifying a long-term commitment to expanding underground oil storage in China.§¹⁵²

Offsetting Potential of China's Oil Stockpiles in a Complete Blockade

China's enormous oil storage capacity provides a considerable lifeline to help the country weather a complete blockade of its seaborne oil supply. In addition to its storage, China has a number of other levers it can pull to reduce and prioritize demand. China

*This specific estimate comes from commercial data provider BreakWave Advisors, though it is broadly in line with similar firms such as Kayrros and Ursa Space Systems. Gabriel Collins, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 1, 2024.

†This number includes strategic petroleum reserve sites with a total storage capacity of approximately 300 million barrels of crude oil. Michal Meidan, "China's SPR Release: A Test of Mechanisms Rather than a Show of Market Might," *OIES*, September 2021.

‡Aboveground oil and refined product storage tanks are vulnerable to even small strikes from drones, cruise missiles, and other munitions. Successful attacks not only disrupt supplies but can also trigger catastrophic fires. Both Russia and Ukraine have targeted oil production and storage facilities with success. Constant Méheut, "Ukraine, Stalled on the Battlefield, Targets Russia's Oil Industry," *New York Times*, May 14, 2024.

§Planning for the Mined Cavern Underground Oil Storage Laboratory began in 2019. China also already had at least 100 million barrels of underground storage capacity before Russia's invasion of Ukraine. Gabriel Collins, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 1, 2024, 21.

Offsetting Potential of China's Oil Stockpiles in a Complete Blockade—*Continued*

can stop the export of refined oil products, implement rationing to reduce non-military demand, continue to receive shipments via land-based pipelines from Burma, Kazakhstan, and Russia, and even work with Russia to rapidly bring online additional pipelines that would replace the existing seaborne supplies China gets from the Russian port of Nakhodka.

Mr. Collins estimates that taken together, a large stockpile, aggressive rationing, and secondary fuel supply measures mean China's total stocks could last between two to four years in a crisis situation. Each incremental 100 million barrels of storage meets approximately two months of consumption needs in the "no additional overland supplies" scenario and closer to six months when augmented with Russian overland pipeline expansions.¹⁵³

Aggressive Chinese Efforts to Ensure Financial Sanctions Resilience

China's reliance on payments networks that are vulnerable to U.S. financial sanctions to process a majority of its external trade and finance is an asymmetric vulnerability that could be leveraged against it. Chinese leaders are acutely aware of this weakness and are building alternative financial networks to help circumvent or evade U.S. financial sanctions. Despite these efforts, China is unlikely to succeed in the short term. As a result, a maximalist U.S. sanctions campaign against China could place at least \$3 trillion in annual trade and financial flows, not including foreign reserve assets, at immediate risk of disruption.*¹⁵⁴

The possibility of U.S. financial sanctions has motivated China to pursue the creation of an alternative payments network. To circumvent U.S. financial sanctions, China must succeed across three areas: (1) promote international adoption of China's currency, the renminbi (RMB), as a viable alternative to the U.S. dollar; (2) develop payments systems capable of facilitating RMB transactions without U.S. oversight or interference; and (3) secure willing partners to conduct RMB transactions using Chinese payments systems.

Sufficiently internationalizing the RMB as a viable alternative to the dollar and identifying partners willing to transact in RMB are likely the most difficult challenges Chinese authorities face. Policies that internationalize the RMB involve explicit tradeoffs that affect Chinese political imperatives to maintain financial and exchange rate stability.¹⁵⁵ Additionally, the threat of U.S. sanctions and secondary sanctions could prove to be an insurmountable obstacle for

*Chinese banks do not fully report the total value of their cross-border transaction settlements so this number is a conservative estimate of the scale of disruption if China's Big Four banks (the Industrial and Commercial Bank of China, the China Construction Bank, the Bank of China, and the Agricultural Bank of China) were sanctioned. The number captures the estimated role of China's Big Four banks in facilitating trade in goods and services, repatriation of income from investments, direct investment, and portfolio investments. Charlie Vest and Agatha Kratz, "Sanctioning China in a Taiwan Crisis: Scenarios and Risks," *Atlantic Council*, June 21, 2023.

many of China's trading partners that are aligned with, or reliant on, the United States and its financial infrastructure.

RMB Internationalization

China is actively promoting the internationalization of the RMB to reduce reliance on the U.S. dollar. Chinese officials are motivated by the economic and security benefits that would accrue to China's economy from controlling an internationally used currency. China is trying to internationalize the RMB through the development of offshore RMB pools and the settlement of bilateral trade in RMB.

The internationalization of the RMB can be understood and measured in two interrelated but distinct ways: its use in transactions and its role as a store of value. The RMB's use in transactions refers to its ability to denominate the value and facilitate the exchange of goods, services, or other currencies.* The RMB's role as a store of value refers to its ability to maintain value over time. For government actors it is the currency in which they choose to hold their reserves. In the private sector it is often the currency in which they choose to issue debt.¹⁵⁶ Encouraging the use of the RMB in transactions is more important than promoting its use as a store of value within the context of sanctions circumvention.¹⁵⁷

RMB internationalization is also best understood as a spectrum. Across this spectrum, China can achieve a high-threshold of internationalization where the RMB surpasses the U.S. dollar's role in transactions and as a store of value. Crossing this threshold would mean the RMB has become a truly international currency,† used not only by China but also by third countries in transactions that do not involve a Chinese party. However, it is unlikely China will be able to reach this level of RMB internationalization. Achieving this would require China to implement structural changes to its economy, including liberalizing its capital account and adopting policies that would easily allow foreign entities to accumulate claims on RMB-denominated assets.‡¹⁵⁸

Nevertheless, China may still be able to achieve a low-threshold of internationalization by using the RMB in bilateral transactions.¹⁵⁹ With sufficient bilateral use of the RMB, China could potentially circumvent some U.S. sanctions because the RMB has become sufficiently internationalized for its trading partners to exclusively rely on it to conduct China's most important business.¹⁶⁰ In this scenario U.S. sanctions would still cause significant disruptions to China's

*This captures what is sometimes referenced as money's unit of account and medium of exchange function. A currency that is the unit of account for a specific transaction is highly likely to also function as the medium of exchange for that transaction. Richard Friberg, "The Currency Denomination of Exports—A Questionnaire Study," *Journal of International Economics*, Vol 75: 1 (May 2008): 54–69.

†A currency that is preferred in international exchanges in which that currency is neither the importer nor the exporter's official currency. Linda S. Goldberg and Cédric Tille, "Vehicle Currency Use in International Trade," *Federal Reserve Bank of New York*, January 2005.

‡For example, a sustained current account deficit would lead to other countries accumulating RMB-denominated claims on Chinese assets. An open capital account would also allow for the accumulation of RMB-denominated claims while building investor confidence that they would be able to easily sell those assets at any time. Michael Pettis, "Will the Chinese Renminbi Replace the US Dollar?" *Review of Keynesian Economics* 10:4 (October 2022); Barry Eichengreen and Masahiro Kawai, "Issues for Renminbi Internationalization: An Overview," *Asia Development Bank Institute*, No. 454 (January 2014): 11.

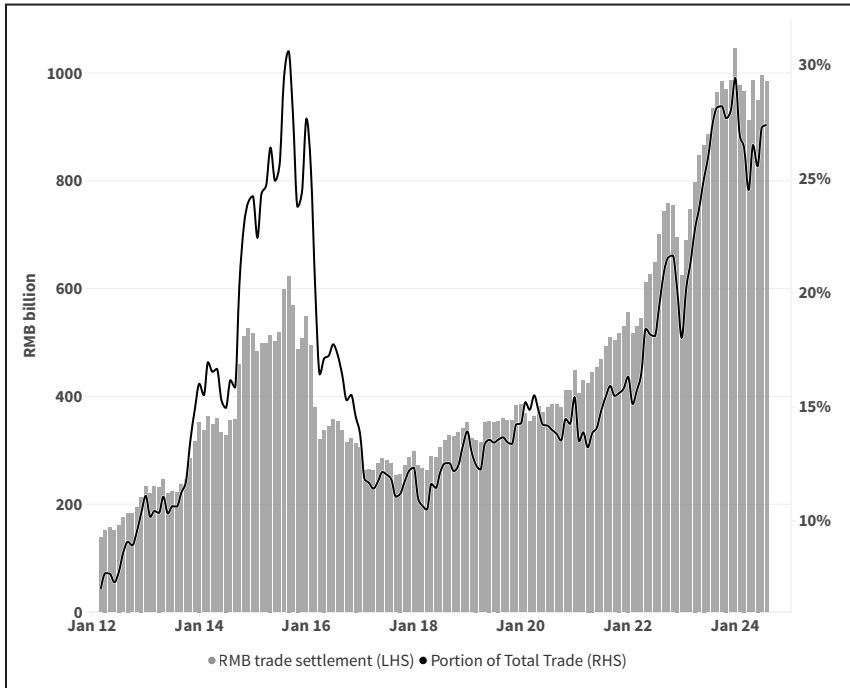
normal trading relationships. However, China would still be able to use the RMB to facilitate its most important trade, including in energy and raw materials.¹⁶¹

History of RMB Internationalization

China's interest in RMB internationalization began as an economic policy response to perceived weaknesses and limitations in the dollar-denominated international financial system. Chinese concerns about the impact of a volatile external financial environment on its economic growth date back to at least the 1997 Asian financial crisis.¹⁶² The 2008 global financial crisis amplified these fears and catalyzed Chinese policymakers to begin pursuing RMB internationalization.¹⁶³ In the aftermath of the global financial crisis, Chinese policymakers lost confidence in the U.S. financial system and observed a reduction in available dollar liquidity.¹⁶⁴ The lack of adequate trade financing constrained China's recovery by limiting China's ability to export.¹⁶⁵ Chinese officials saw RMB internationalization as a way to avoid future disruptions to dollar-denominated trade transactions.¹⁶⁶ Chinese officials also believed an international RMB would improve China's ability to influence global monetary conditions to the benefit of Chinese businesses.¹⁶⁷

Following Xi's rise to power in 2013, Chinese officials became increasingly focused on how RMB internationalization could enhance financial security. Just one year earlier, Chinese experts had observed how the United States utilized financial sanctions to remove Iran from the dollar-denominated financial system.¹⁶⁸ Xi viewed RMB internationalization as a way China's economy could build resilience against similar sanctions that could be imposed on the country in response to a crisis in Taiwan.¹⁶⁹ U.S. financial sanctions on Russia have amplified Chinese concerns.¹⁷⁰ U.S. willingness to use sanctions has led some Chinese scholars to argue that the security benefits of RMB internationalization may be more important than the economic advantages of an international RMB.¹⁷¹

Figure 2: Proportion of Chinese Goods Trade Denominated in RMB, Three-Month Rolling Average, Mar 2012–Aug 2024



Source: People's Bank of China, "Total Cross-Border Merchandise Trade Settled in Yuan, Exports, Imports [2012–2024]," via Haver Analytics, 2024.

Policy Support for RMB Internationalization

Chinese officials have supported RMB internationalization by implementing policies that encourage RMB trade settlement and investments in RMB-denominated assets. The internationalization process began in July 2009 with a set of trial measures enabling cross-border trade settlements between five mainland cities and certain enterprises in Hong Kong, Macau, and ASEAN member countries.*¹⁷² China allowed the establishment of offshore RMB clearing banks in Hong Kong and Macau to carry out and clear RMB in cross-border trade transactions.¹⁷³ In the following years, the program expanded to new offshore RMB centers including Taiwan, Singapore, and London.†¹⁷⁴ To allow for offshore transactions while still maintaining its stringent capital controls, China split the RMB into two currencies. One was used in the onshore market in mainland China (CNY) and the other in the offshore market outside

*Shanghai City, Guangzhou City, Shenzhen City, Zhuhai City and Dongguan City were selected as the test area of mainland China. Sekine Eiichi, "Relationship Between the Renminbi Internationalization Strategy and the Digital Yuan, and the Future Outlook," *Policy Research Institute, Ministry of Finance, Japan, Public Policy Review* 20:2, (March 2024), 5.

†The majority of offshore RMB-denominated transactions still take place in Hong Kong (83.3 percent), followed by the United Kingdom (4.4 percent), Singapore (2.9 percent), and the United States (2 percent). As a result, offshore RMB transactions that are used to avoid sanctions would likely flow via Hong Kong. *SWIFT, "RMB Tracker,"* September 2024.

mainland China (CNH).¹⁷⁵ Policies supporting RMB internationalization focus on the offshore RMB.

Companies began to utilize the offshore RMB in transactions and corporate RMB bank deposits located in foreign financial centers grew rapidly from 2010 to 2015.*¹⁷⁶ Concurrently, China sought to develop a deep and liquid pool of high-quality offshore RMB assets to encourage foreign use of the RMB as a store of value.¹⁷⁷ China began encouraging the issuance of offshore RMB bonds—commonly referred to as “dim sum” bonds.¹⁷⁸ In October 2009, China’s Ministry of Finance (MOF) became the first central government entity to issue a “dim sum” bond.[†]¹⁷⁹ The MOF issuance was soon followed by foreign firms including McDonald’s, Volkswagen, and Caterpillar, and, in 2012, HSBC issued the first “dim sum” bond outside of Hong Kong.¹⁸⁰

In September 2016, with the Obama Administration’s support, China successfully lobbied the International Monetary Fund (IMF) to include the RMB in the Special Drawing Rights (SDR)‡ basket.[§]¹⁸¹ The inclusion of the RMB in the SDR signaled that the IMF believed the RMB should be held as an international reserve asset.¹⁸² Inclusion also meant the IMF considered the RMB—specifically the offshore RMB, as the onshore RMB was still subject to capital controls—as “freely usable” in international financial markets.¹⁸³ This designation helped alleviate foreign investors’ concerns that China might restrict their RMB holdings, and growth in foreign holdings of RMB assets followed.¹⁸⁴

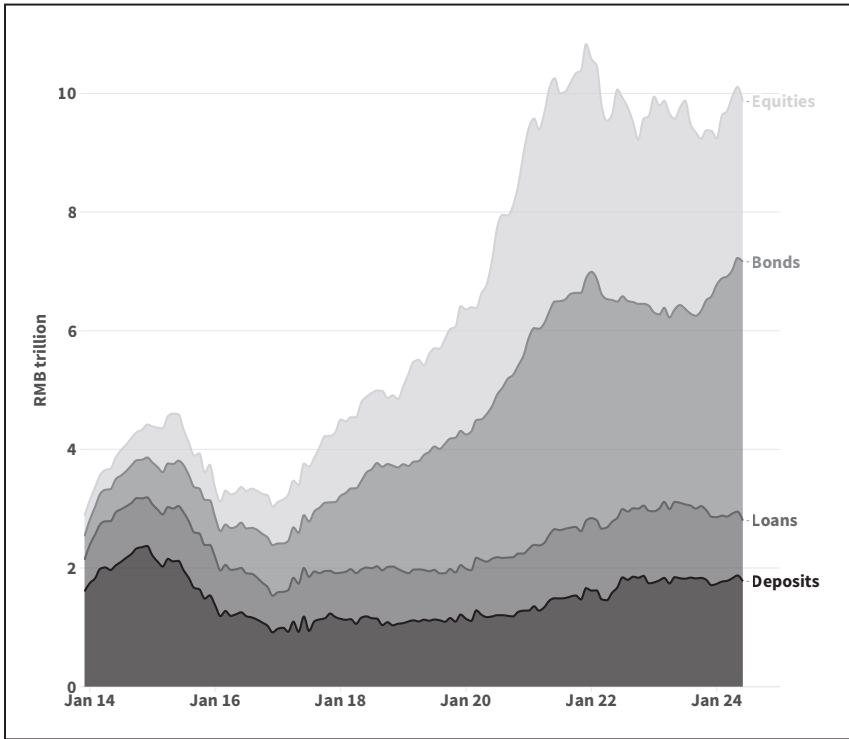
*In 2010 the IMF estimated there was around 100 billion RMB in offshore deposits. From December 2013, the first time the PBOC released complete data, to December 2014, the value of RMB deposits held outside of China rose from RMB 1.6 trillion to RMB 2.4 trillion. Malhar Nabar and Camilo E. Tovar, “Renminbi Internationalization,” *International Monetary Fund*, January 14, 2017; People’s Bank of China, “China: Domestic RMB Finl Assets Held Abroad: Deposits [2013–2015],” via Haver Analytics, 2024.

†While the first “dim sum” bond was issued in 2007 by the China Development Bank, the MOF issuance was particularly notable in the development of the overall market. Repeated MOF issuances helped establish a benchmark yield curve to facilitate pricing of “dim sum” bonds. Kevin Chow and Daniel Law, “Offshore Renminbi Dim Sum Bonds,” *International Monetary Fund*, January 17, 2017.

‡The SDR is an interest-bearing international reserve asset maintained by the IMF that supplements sovereign reserves. Since the creation of the SDR, the IMF has allocated a total of SDR 660.7 billion (\$935.7 billion) to its member countries. IMF members can hold SDRs as part of their foreign exchange reserves, exchange SDRs for freely usable currencies, or use SDRs in transactions with the IMF, such as paying interest or repaying loans. International Monetary Fund, “Special Drawing Rights (SDR),” International Monetary Fund, “Special Drawing Rights (SDRs) Allocations and Holdings for All Members as of September 30, 2024.”

§In 2015, the Commission explicitly warned against inclusion of the RMB in the SDR basket writing, “Despite these limited steps forward, PBOC Governor Zhou Xiaochuan noted in April 2015 that the Chinese government will maintain control over cross-border financial transactions, external debt, short-term capital flows, and temporary capital control measures... The IMF’s decision to include the RMB would legitimize China’s managed convertibility approach.” U.S.-China Economic and Security Review Commission, *2015 Annual Report to Congress*, November 2015, 157.

**Figure 3: Overseas Holdings of RMB-Denominated Assets,
Dec 2013–Jul 2024**



Source: People's Bank of China, "Domestic RMB Finl Assets Held Abroad: Deposits, Loans, Bonds, Equities [2013–2024]," via Haver Analytics, 2024.

China must balance policies that improve access to RMB liquidity and enhance external willingness to use the currency with their impact on domestic economic stability and Party control over the financial system. Central to this tradeoff are China's robust domestic capital controls. The Party's ability to control capital flows has been essential to the country's financial security and RMB exchange rate stability.¹⁸⁵ However, capital controls also strongly deter foreign banks and businesses from holding and conducting transactions in RMB.¹⁸⁶ Capital controls prevent market participants from freely exchanging the currency and from fully participating in Chinese financial markets.* While Chinese capital controls do not completely prevent RMB transactions, they slow down or constrain these flows considerably and create risks for foreign firms that Chinese officials can tighten or halt them, trapping assets in China or altering their value independent of market forces.¹⁸⁷ This is a strong disincentive for foreign entities to transact in RMB.

*Chinese citizens are limited by a \$50,000 per year quota on foreign exchange conversions. Corporations are also similarly limited by a series of restrictions on outbound investments and rules limiting access to foreign exchange. Bank of China, "Individual Foreign Exchange Purchasing," Erin Ennis and Jake Laband, "China's Capital Controls Choke Cross-Border Payments," *U.S.-China Business Council*, February 8, 2017.

The success of Chinese efforts to internationalize the RMB has been mixed at best. Despite China representing 17 percent of global gross domestic product (GDP), the RMB currently accounts for a much smaller share of various measures of currency internationalization.¹⁸⁸ While it is unrealistic for the RMB to surpass the dollar as the dominant international currency, Western sanctions on Russia and continued Chinese efforts to increase the attractiveness of the RMB may help increase international use of the currency over the coming years.¹⁸⁹

Table 2: Measures of Currency Internationalization

<i>Role of Money</i>	Indicators	RMB	USD
<i>Use in Transactions</i>	Share in international payments (2023)	3%	44.4%
	Share in trade finance markets (2023)	4.8%	84%
	Share in global FX transactions (2022)*	7%	88%
<i>Store of Value</i>	Share of global sovereign reserve allocation (2023)	2.5%	58.9%
	Share of international debt markets (2023)	0.7%	46.9%

Source: Various¹⁹⁰

RMB Payment Infrastructure

China is developing an RMB payments network that can execute and conceal RMB-denominated transactions. An indigenous payments network is an essential counterpart to an international RMB. Without a payments infrastructure capable of functioning independent from the dominant, U.S.-led global financial system, Chinese firms will still face difficulties and delays in conducting RMB-denominated transactions in a sanctions scenario.

Banks rely on a clearing settlement institution as well as a electronic financial message system to effectively transfer funds across borders.¹⁹¹ The Society for Worldwide Interbank Financial Telecommunication (SWIFT), headquartered in Belgium, is the dominant global payments messaging platform. SWIFT is not a bank and does not manage accounts or hold funds. SWIFT does not actually transfer money; it is a secure messaging platform banks use to send instructions with standardized codes and formats to banks in other countries.¹⁹² Standardization simplifies translation and the need to confirm the identity of counterparties and customers.¹⁹³ Prior to SWIFT, a cross-border transaction often required the exchange of more than ten messages and labor-intensive authentication procedures.¹⁹⁴ The cost and efficiency gains offered by SWIFT mean it has completely displaced other systems.¹⁹⁵ Although there are no comprehensive estimates of its share of global payment messaging, SWIFT's largest competitors facilitated transactions worth less than half of a percent of SWIFT's volume.¹⁹⁶

*Because FX transactions involve two currencies, the total percent share of all currencies adds to 200 percent.

SWIFT's ubiquitous role in cross-border transactions makes it an integral component of the enforcement of U.S. financial sanctions. SWIFT shares data with the United States to monitor global compliance with U.S. sanctions and secondary sanctions.*¹⁹⁷ The United States has used its leverage to exclude sanctioned entities from using SWIFT.¹⁹⁸ The United States has several ways to pressure SWIFT to comply with U.S. sanctions. A vote by SWIFT shareholders can compel it to take such action.¹⁹⁹ While U.S. banks do not make an outright majority, other banks, fearing secondary sanctions, may side with them. U.S. officials could also pressure the government of Belgium or the EU to enforce U.S. sanctions. Finally, the United States could structure its sanctions such that SWIFT would have to comply with them if they wanted to continue to do business with U.S. institutions.[†]²⁰⁰

Transactions coordinated via SWIFT still must be processed by a separate clearing settlement institution. Clearing settlement institutions act as intermediaries between transacting parties, ensuring that transactions are completed smoothly while minimizing risk.²⁰¹ U.S. and EU institutions also likely account for a majority of cross-border clearing settlement transactions. The Clearing House Interbank Payments System (CHIPS), based in the United States, facilitated \$407 trillion of transactions in 2021.[‡]²⁰² TARGET2, a European Central Bank-run payments system, facilitated about \$520 trillion in transactions in 2020.²⁰³ Both of these platforms are critical to global cross-border payments, though the presence of other clearing and settlement competitors mean they face more competition than SWIFT.²⁰⁴

China is actively building and promoting its own alternatives to SWIFT and Western clearing settlement institutions. Central to these efforts are the Cross-Border Interbank Payments System (CIPS) and its wholesale Central Bank Digital Currency (CBDC), which is still being developed. Both platforms could help the country facilitate and settle some domestic and cross-border RMB transactions, even in the face of a maximalist sanctions scenario.²⁰⁵ Sanctions would still impose some adjustment costs as banks and their willing counterparties onboard onto the new system. The complexity and dominance of U.S. institutions in the global financial system also likely mean parts of China's alternative infrastructure may still rely on the United States for payments—and therefore remain open to disruptions.²⁰⁶ Still, Chinese officials perceive both CIPS and its wholesale CBDC as central tools in their financial sanctions contingency plans and have tried to accelerate their development and adoption.²⁰⁷

*SWIFT initially resisted sharing private transaction data with the United States. However, after the attacks of September 11, 2001, SWIFT allowed the United States access when Congress threatened to sanction the society itself. More recently, including after U.S. and/or EU sanctions on Iran in 2012, North Korea in 2017, and Russia in 2014 and 2022, SWIFT continues to comply with legislation or regulations to share information about transactions involving sanctioned persons or institutions. Marco Cipriani, Linda S. Goldberg, and Gabriele La Spada, "Financial Sanctions, SWIFT, and the Architecture of the International Payment System," *Journal of Economic Perspectives* Vol 32:1 (Winter 2023), 37–38, 46–48.

†In 2012, the United States threatened sanctions against SWIFT itself unless it removed sanctioned Iranian financial institutions from its system. SWIFT complied and removed the sanctioned entities. Liana Wong and Rebecca M. Nelson, "International Financial Messaging Systems," *Congressional Research Service* CRS R46843, July 19, 2021, 2.

‡CHIPS relies on the Fedwire Funds Service, the U.S. Federal Reserve's settlement platform, to facilitate its transactions. The Clearing House, "About CHIPS;" Modern Treasury, "CHIPS."

Cross-Border Interbank Payments System (CIPS)

China developed CIPS as an alternative payment system designed to process RMB for cross-border transactions. Launched by the People's Bank of China (PBOC) in 2015 with the explicit goal of promoting RMB internationalization, CIPS integrates international RMB settlement into the existing global financial architecture, most notably through its interoperability with SWIFT.²⁰⁸

CIPS currently relies on SWIFT messaging capabilities for the vast majority of its transactions.²⁰⁹ However, CIPS maintains its own messaging system for use by its direct participants. While CIPS's own messaging platform is interoperable with SWIFT through the use of the ISO 20022 international payments messaging standard, it is fully separated from any Western institution.²¹⁰ Therefore, if the Chinese banking system were excluded from SWIFT and U.S.-based payments clearing networks, China's financial institutions and their counterparties could rely on CIPS to communicate and settle payments.²¹¹ CIPS's own messaging platform could also help protect Chinese transactions from secondary sanctions.

CIPS adoption has been rapidly growing and likely could manage and onboard China's global trading relationships in the event of U.S. sanctions. In Q4 2023, the system processed 35 trillion RMB (\$4.9 trillion) worth of transactions—on average, \$53.6 billion in transactions per day.²¹² China's total imports and exports over the same period averaged around \$16.2 billion per day.²¹³ CIPS usage continues to grow. Its Q4 2023 transaction total was 56.6 percent higher than in Q1 2022, when the United States imposed sanctions on Russia.²¹⁴ As of August 2024, CIPS reports having 152 direct participants and 1,412 indirect participants covering 117 countries and regions globally.²¹⁵

Wholesale Central Bank Digital Currency (CBDC)

The Chinese government is developing a cross-border CBDC that could also be leveraged to bypass the U.S. payments system, offering additional sanctions resilience. Unlike China's domestic retail CBDC, commonly called the digital yuan, or e-CNY, which is used for person-to-person transactions, a wholesale CBDC is designed to be used exclusively among financial intermediaries to settle interbank transfers and similar wholesale transactions.²¹⁶ China is exploring a wholesale CBDC through a project named Multiple Central Bank Digital Currency (m-CBDC) Bridge, or Project mBridge.* China's wholesale CBDC development has key implications for U.S. national security. Like CIPS, transactions made with it are conducted outside of the current U.S. dollar and global payments infrastructure.²¹⁷ As a result, China's wholesale CBDC could eventually become an alternative cross-border settlement system for countries willing to work with China to evade U.S. sanctions. While China's wholesale CBDC

*The PBOC collaborated with the Bank for International Settlements (BIS) Innovation Hub, the Bank of Thailand, the Central Bank of the United Arab Emirates and the Hong Kong Monetary Authority on Project mBridge. Project mBridge aims to address inefficiencies in cross-border payments, including high costs, slow transaction speeds, the decline of correspondent banking, and operational complexities. In June 2024, Project mBridge reached the minimum viable product stage, enabling participants to conduct real-value transactions. Project mBridge members are now working with private sector firms to further develop the platform. Bank for International Settlements, "Project mBridge Reaches Minimum Viable Product Stage and Invites Further International Participation," June 5, 2024.

should mostly be viewed as an alternative platform to CIPS, it does provide some additional security to the Chinese financial system in a sanctions scenario. This is because China's wholesale CBDC relies on the PBOC to execute payments.²¹⁸ As a result, attempts by the United States to disrupt it would require sanctions or secondary sanctions directly on China's central bank.²¹⁹ This would likely be perceived by China and third countries as a major escalation and increases the risk of instability in the global financial system.²²⁰

RMB Internationalization across China's Trade Partners

China is actively promoting RMB-denominated trade through multilateral institutions and in bilateral partnerships.²²¹ In the first half of 2024, China was able to settle 26.6 percent of its total trade in RMB, up 12.6 percentage points from the first half of 2021.*²²² China has leveraged its influence over global commodity markets in particular to encourage commodity-exporting countries to use the RMB in their trade.²²³ In a sanctions scenario, China hopes to rely on these countries to supply it with critical energy and commodity imports.²²⁴

Bilateral and Multilateral Currency Partnerships

China has proliferated local currency use partnerships among developing economies through multilateral organizations including the Shanghai Cooperation Organization (SCO),† BRICS,‡ and ASEAN+3.§ Chinese support for local currency partnerships accelerated following Western sanctions against Russia.²²⁵ China has sought to capitalize on unease around Western sanctions among some members of these groups.²²⁶ For example, during the September 2022 SCO Summit, Xi proposed accelerating the development and use of local-currency cross-border payments and settlement systems.²²⁷ Iran has joined the SCO explicitly because of the organization's potential to help it circumvent U.S. sanctions.²²⁸ China has also promoted local currency transactions across BRICS economies.²²⁹ Among other efforts, BRICS is also exploring alternative payments systems such as the BRICS Pay system for retail payments and transactions across member countries.²³⁰

ASEAN+3 is particularly important as its members currently settle the largest volumes of RMB-denominated trade with China.²³¹ ASEAN+3 is researching and pursuing deals to streamline local currency settlement.²³² China has capitalized on this and has signed

*As of October 11, 2024, the PBOC has not released data for April and June of 2024. As a result, both the estimate for the first half of 2024 and the growth since 2021 exclude data for April and June. People's Bank of China, "Total Cross-Border Merchandise Trade Settled in Yuan, Exports, Imports [2012–2024]," via Haver Analytics, 2024.

†The SCO is an intergovernmental organization comprising Belarus, China, India, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan and Uzbekistan. It focuses on issues related to politics, economics, international security, and defense. *Astana Times*, "SCO Welcomes Belarus as Its 10th Member State," July 4, 2024; Shanghai Cooperation Organization, "General Information," January 9, 2017; Matthew Souterland, Will Green, and Sierra Janik, "The Shanghai Cooperation Organization: A Testbed for Chinese Power Projection," *U.S.-China Economic and Security Review Commission*, November 12, 2020.

‡BRICS is an intergovernmental organization comprising Brazil, Russia, India, China, and South Africa. Following an invitation in summer of 2023, as of January 2024, Egypt, Ethiopia, Iran, and the UAE have also joined. Saudi Arabia was also invited but they have yet to accept the invitation. *BBC*, "Brics: What is the Group and Which Countries Have Joined?" February 1, 2024.

§ASEAN+3 includes all Association of Southeast Asian Nations (ASEAN) members (Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Burma, Philippines, Singapore, Thailand, and Vietnam) as well as Japan, South Korea, and China.

local currency settlement agreements with Cambodia, Indonesia, Laos, Malaysia, Burma, Thailand, and Vietnam.*²³³ Since 2009, China has also been ASEAN's largest trading partner.†²³⁴ The extensive and longstanding economic connections between China and ASEAN have led to multiple cross-border uses of the RMB, including the recycling of RMB received in exchange for exports to pay for imports from China.²³⁵ In 2021, the most recent year with available data, approximately 70 percent of the 5.8 trillion RMB China settled in trade was with Asian economies.²³⁶

China Targets Commodity Exporters for RMB-Denominated Trade

China is working to increase the influence of the RMB in global commodities markets by encouraging the commodities it trades to be priced in and exchanged using RMB. Efforts to increase the use of the RMB in global commodities markets synergize with Chinese efforts at the SCO and BRICS. Zoe Liu, senior fellow at the Council on Foreign Relations, points out SCO and BRICS members include some of the world's largest hydrocarbon and minerals exporters.²³⁷ Four of the ten largest oil producers and seven of the ten largest iron producers are members of the SCO and/or BRICS.‡§

China has leveraged its position as the world's largest oil importer and a critical node in the supply chains of key minerals to encourage commodity trade in RMB.²³⁸ As a key buyer, China can more easily seek to impose RMB payment requirements on its imports from foreign companies.²³⁹ Countries that are significant exporters to China, primarily in raw materials or commodities, tend to denominate more trade in RMB.²⁴⁰ For example, in 2021, major commodity exporters including Argentina, Algeria, Brazil, Chile, Indonesia, Kazakhstan, and Nigeria used the RMB for a significant portion of their trade with China.²⁴¹ The portion of China's commodity trade denominated in RMB continues to grow. In 2022, cross-border RMB settlement for major commodities amounted to 985.73 billion RMB (\$140 billion). In the first nine months of 2023, it grew to 1.5 trillion RMB (\$210 billion).²⁴²

To enhance the RMB's use and pricing power in global commodities markets, China is developing new trading platforms and financial instruments. In 2018, China launched RMB-denominated oil futures and, in 2020, copper futures on the Shanghai International Energy Exchange.²⁴³ Shanghai crude oil futures are now the world's third-largest crude oil futures after the WTI Crude and Brent Crude futures.²⁴⁴ China also launched the Ganzhou Rare Metal Exchange in 2019, to capitalize on its dominant role in supply chains to quote RMB prices for spot trading of rare earths and critical minerals that are essential to the clean energy transition.²⁴⁵ As of 2023, there

*Vietnam's arrangement only applies to towns on its border with China. *Nikkei Asia*, "Vietnam to let Traders Use Yuan Along China Border," August 29, 2018.

†In 2020, ASEAN became China's largest trading partner. Arendse Huld, "China-ASEAN Trade and Investment Relations," *Dezan Shira & Associates*, August 9, 2024.

‡Oil producers include Russia (third largest), Brazil (seventh largest), the UAE (eighth largest), and Iran (ninth largest). BRICS has also invited the world's second-largest oil exporter, Saudi Arabia, to join—although it has not yet joined. U.S. Energy Information Administration, "What countries are the top producers and consumers of oil?" April 11, 2024; *Reuters*, "Saudi Arabia Has Not Yet Joined BRICS - Saudi Official Source," February 1, 2024.

§Iron producers include Brazil (second largest), China (third largest), India (fourth largest), Russia, (fifth largest), Iran (sixth largest), South Africa (eighth largest), and Kazakhstan (ninth largest). U.S. Geological Survey, "Iron Ore Statistics and Information," 2024.

are 23 varieties of international standardized futures and options commodity products listed in China and denominated in RMB.²⁴⁶

Chinese officials are encouraging their foreign partners to utilize RMB trading and settlement systems. In a 2022 address to the China-Gulf Cooperation Council, Xi emphasized the need for increased use of the RMB in oil and natural gas trading and settlement through the Shanghai Petroleum and Natural Gas Exchange over the next three to five years.²⁴⁷

Still, RMB usage remains significantly behind the U.S. dollar in global commodity markets. Volumes traded on the Shanghai and Ganzhou exchanges trail the preeminent commodity pricing centers of New York, Chicago, and London, and the U.S. dollar still denominates around 90 percent of major commodities trade in global markets.²⁴⁸ Substantial adoption of the RMB would not make commodity exporters immune from dollar sanctions. Most countries would still rely on the dollar for transactions not involving China.

Sanctioning China in a Crisis Scenario

The United States and its allies have three broad avenues through which they can impose economic sanctions targeting China's financial system. They can implement full blocking sanctions which would prohibit any transactions between U.S. individuals and companies and Chinese entities.²⁴⁹ Importantly, this approach would include key parts of the global payments infrastructure, including clearing and settlement institutions and correspondent bank networks, which are formal agreements or relationships between banks to provide cross-border payments services for each other. Full blocking sanctions would not only prevent transactions between China and the United States but also disrupt transactions between China and other countries that rely on U.S. payments infrastructure. The United States can also impose sovereign debt restrictions that would block debt issued by the Chinese government, central bank, national wealth fund, and companies from U.S. markets. Finally, the United States could compel SWIFT to impose a ban on Chinese institutions. This would prohibit the provision of the SWIFT financial messaging service to sanctioned Chinese entities. Full blocking sanctions and a SWIFT ban would have the biggest impact on the Chinese economy.*²⁵⁰

The disruptions to global supply chains caused by completely cutting off the world's largest exporter from access to U.S. dollar financing, however, would likely generate political opposition in the United States and globally.† A 2024 analysis from Rhodium

*In addition to these options, the United States could freeze a large share of China's \$3.22 trillion in foreign exchange reserves. However, a 2024 study from Rhodium Group and the Atlantic Council argues this would neither be credible nor desirable for the United States. The primary effect would be to limit China's capacity to defend its currency. Without Chinese support the RMB would experience a sharp depreciation and make China's exports more competitive in global markets. Logan Wright et al., "Retaliation and Resilience Chinese Economic Statecraft in a Taiwan Crisis," *Atlantic Council*, April 1, 2024, 33.

†U.S. and allied sanctions against Russia demonstrate how political resistance in both the sanction imposing countries and other global economies can block certain actions. While sanctions aim to cause the most disruption to the targeted country, they may have unintended side effects. For example, the United States and EU scaled back plans to ban the provision of financial services to companies transporting Russian oil for fear that fully crippling Russian oil exports would cause a surge in the global price of oil and a global recession. Lutz Kilian and David

Sanctioning China in a Crisis Scenario—*Continued*

Group and the Atlantic Council suggests that as a result, China believes complete restrictions on the country's financing channels are implausible.²⁵¹ While the United States would sanction some institutions, China could respond by reallocating critical trade and financial transactions with willing partners through very large or very small financial institutions.²⁵² China can designate a series of small, structurally insignificant financial institutions to conduct its trade, knowing they will be sanctioned. China's use of the Bank of Kunlun to circumvent U.S. sanctions on Iran illustrate this. China designated this small, state-owned bank to continue to finance payments to Iran using the RMB. China's use of the Bank of Kunlun ensured it could continue to trade with the sanctioned country without risking the impact of U.S. sanctions on more important actors in its financial sector.*²⁵³ Alternatively, China could look to its largest financial institutions. Chinese officials may be calculating that the possibility of substantial disruptions in permitted trade and dislocations in global supply chains could be threatening enough to deter the imposition of sanctions and secondary sanctions.²⁵⁴

China could also rely on its alternative payments infrastructure to circumvent financial sanctions or secondary sanctions that are designed to prevent non-U.S. entities from transacting with countries subject to U.S. sanctions.²⁵⁵ China could route energy imports and source critical commodities and components via countries that are unlikely to cooperate with U.S. sanctions. To do so, they would use the RMB as a payment currency.²⁵⁶ Dr. Liu argues this could require minimal adjustment time.²⁵⁷ Many commodity exporters to China already receive some RMB for their current transactions.²⁵⁸ Still, sanctions—including freezing China's official dollar reserves—would make dollars in China scarce, driving down the value of the RMB exchange rate. A weaker exchange rate would make goods imports into China more expensive, distort China's export trade, and generate substantial financial stress for Chinese companies operating in global markets.²⁵⁹ Secondary sanctions would still cause disruptions to Chinese trade, but, because these would be perceived by third countries as a significant escalation by the G7, the United States would face broader constraints on such sanctions.²⁶⁰

In both scenarios, the limiting factor jeopardizing China's ability to evade sanctions will not be its financial infrastructure—China can always admit new institutions into CIPS or, once live, central banks into its wholesale CBDC. The functionality of these networks will be restricted by the willingness of third countries to use them. Authors of the Rhodium Group and Atlantic Council study suggest the imposition of U.S. sanctions would likely intensify fears around the liquidity and attractiveness of RMB financial assets and raise the specter of the tightening of capital

Rapson, "How Global Oil Sanctions Lowered Russian Oil Export Prices," *Dallas Fed Economics*, May 14, 2024.

* For more examples of China's sanctions evasion approach see Chapter 5, "China and the Middle East."

Sanctioning China in a Crisis Scenario—*Continued*

controls.²⁶¹ This risk could likely deter many countries from continuing economic engagement with China.

Access to the dollar still matters far more than the RMB for the vast majority of China's trading partners. For example, Dr. Liu points out that China's global commodity suppliers depend on the dollar-based system to price and trade their commodity exports.²⁶² Their banks, as well as most of China's other trading partners, remain reliant on SWIFT and CHIPS for their domestic banking system as well as their international payments settlements. The few countries that are willing to risk the impact of U.S. sanctions and secondary sanctions on their economy, namely Russia, Iran, and North Korea, cannot fully provide China with the substantive material support needed to mitigate U.S. financial sanctions.²⁶³

Party-State Enhances Political Control over Institutions and Society

Although CCP leaders' language suggests they feel the risks they face are escalating, their actions in the political realm do not yet clearly indicate they are preparing for an imminent war. Official rhetoric aimed at Taiwan and the United States has become considerably more negative and intense, but it has not taken on the escalatory tone that preceded China's conflicts with its neighbors in past decades, and it appears—for now—to be leaving the door open for dialogue and delay. That said, observers of China should not rely wholly on indicators from past conflicts, as China's political environment and culture has evolved and official rhetoric is unlikely to exactly match that seen in the Mao era. What is evident, however, is that the Party-state has accelerated efforts to deepen its control over the political system and daily life.²⁶⁴ These include measures to build out the national security apparatus under CCP control, revive Maoist-era methods of mobilizing the public, coerce industry into heeding government directives, and deter Chinese citizens from engaging with foreign individuals. These efforts undoubtedly assist General Secretary Xi in his ongoing consolidation of power over China but also create a system that is more agile in the face of external threats and useful for sustaining a military conflict.²⁶⁵

CCP Rhetoric Intensifies but Falls Short of What Experts Expect in Wartime

China's rhetoric toward the United States and Taiwan appears to have intensified, although it has not yet taken on the harsh tone and phrasing that preceded China's prior conflicts and does not foreclose the possibility of communication. In their testimony to the Commission, both Mr. Kewalramani and Timothy Heath, senior international defense researcher at the RAND Corporation, stated they would expect to see top Chinese leaders demonize the United States and Taiwan and assert that all peaceful means of resolving the dispute had been exhausted if China were imminently preparing for conflict.²⁶⁶ During the 1950s and 1960s, Mao directly exco-

riated the United States in the harshest terms and called for mass sacrifice amid his country's proxy conflict with the United States in Korea.²⁶⁷ Prior to the Sino-Indian border war in the 1960s and China's attack on Vietnam in 1979, Chinese leaders and state media steadily escalated rhetorical attacks on their enemies, transitioning from threats to declarations that they would punish them or teach them a lesson.²⁶⁸

The CCP's rhetoric today exhibits some of these escalatory aspects but not others. For example, CCP officials have arguably already demonized Taiwan President Lai Ching-te, as when Foreign Minister and Director of the Central Committee's Foreign Affairs Commission Wang Yi called him a traitor to the nation and his ancestors and warned that all "Taiwan independence" separatists" would be "nailed to the pillar of shame in history."²⁶⁹ At the same time, senior Chinese leaders are typically oblique in their condemnations of the United States, with Xi mostly opting to refer indirectly to "certain countries" or "Western countries" when discussing threats of containment.^{*270} There are some Chinese state media-sponsored "documentaries" that paint the United States as a warmonger and a handful of recent films that depict conflict between the United States and China, but as Dr. Heath points out, there is far less media demonizing the United States than was the case in Maoist times.²⁷¹ Most importantly, the CCP continues to signal an openness to dialogue with the opposition party in Taiwan and to emphasize that Taiwan separatists are only a tiny minority of the population.²⁷² In these respects, the CCP's contemporary rhetoric is clearly milder than that it employed in the runup to clashes with India in the 1960s and Vietnam in the 1970s.

Building Out the National Security Apparatus under Party Control

The CCP has taken steps to expand the power and refine the workings of its national security apparatus, framing these measures as elements of a "new security pattern."²⁷³ These include creating a commission to coordinate national security policy, increasing the number of personnel with security experience in high-ranking positions, passing a raft of new laws relating to national security, and tightening the vise on Party cadres perceived as undisciplined or corrupt.

Xi-Led Commission Centralizes National Security Policy

A critical institution in the CCP's national security apparatus is the Central National Security Commission (CNSC), which now plays a prominent role in coordinating national security decision-making.^{†274} The CNSC is a CCP Central Committee body mandated to

*A notable exception was Xi's choice to explicitly name the United States during his comments at the "two sessions" in March 2023. Chun Han Wong, "China's Xi Jinping Takes Rare Direct Aim at U.S. in Speech," *Wall Street Journal*, March 6, 2023.

†Xi presided over the creation of the CNSC in 2014 by elevating the previously ad hoc Central National Security Leading Small Group to the status of a permanent commission, thereby granting it a permanent staff office, a regular membership, and a position of greater influence within the bureaucracy. He officially heads the CNSC. For more on the creation of the CNSC and its role in decision-making, see U.S.-China Economic and Security Review Commission, Chapter 1, "CCP Decision-Making and Xi Jinping's Centralization of Authority," in *2022 Annual Report to Congress*, November 2022, 38, 40–42, 61–62, 80; *Communist Party Members Net*, "Xi Jinping: Persist in the Comprehensive National Security Concept, Walk the Path of National Security with

examine all foreign and domestic issues through the lens of national security, effectively giving it the power to determine who or what constitutes a threat to national security.²⁷⁵ National security commissions have also been established at all levels of the Party-state system, from provincial down to township and district levels, to carry out various research, national security law enforcement, and education functions.²⁷⁶ Although the workings of the CNSC are highly secretive, Sheena Chestnut Greitens, an associate professor at the University of Texas at Austin, observes that the CNSC focuses on both domestic security and foreign policy issues.²⁷⁷ The March 2023 meeting of the CNSC, which was presided over by Xi and attended by top security officials, offered a glimpse of the high-level national security discourse and decisions at such meetings.²⁷⁸ According to Xinhua's readout of the meeting, officials assessed that national security problems facing China had "increased dramatically," stressed that they "must be prepared for worst-case and extreme scenarios," and stated that "more efforts must be made to modernize our national security system and capacity, and get prepared for actual combat and dealing with practical problems."²⁷⁹ The meeting also reportedly approved new guidelines for "nationwide security risk monitoring and early warning system" and public education on national security.²⁸⁰ In an April 2024 article in the Party's main theoretical journal *Qiushi*, Ministry of State Security (MSS) Secretary Chen Yixin credited the CNSC with establishing a "centralized, unified, and highly authoritative national security leadership system."²⁸¹

Personnel Appointments Reflect Growing Importance of Security Experience

Recent trends in leadership appointment suggest that experience with "national security" issues, broadly defined, is increasingly important among China's leadership. Multiple analysts have suggested that the composition of the senior Party-state leadership with experience in national security has recently risen, especially since the most recent 20th Party Congress in October 2022 and 14th National People's Congress in March 2023. For example, Guoguang Wu, senior research scholar at the Stanford Center on China's Economy and Institutions, observed in November 2022 that at least ten of the 15 new leaders who joined the Politburo and Central Secretariat at the 20th Party Congress could be described as having a national security background.*²⁸² According to an analysis from the Brookings Institution in March 2023, the makeup of the newly appointed State Council "reflects the renewed focus on state security and sociopolitical stability," with half of its members possessing a securi-

Chinese Characteristics" (习近平：坚持总体国家安全观 走中国特色国家安全道路), April 15, 2024. Translation; Matthew D. Johnson, "Safeguarding Socialism: the Origins, Evolution and Expansion of China's Total Security Paradigm," *Sinopsis*, November 6, 2020; *People's Daily*, "CCP Central Committee Politburo Holds a Meeting, Studies and Decides on Setting Up the Central National Security Commission, Considers and Reviews the Situation Report on the Implementation of the Eight Regulations" (中共中央政治局召开会议 研究决定中央国家安全委员会设置 审议通过执行中央八项规定情况报告), *Chinese Communist Party News Network*, January 25, 2014. Translation.

*He defined having a national security background as belonging to one of four categories: individuals with past experience and current responsibilities in the security sector of the Party-state; military leaders; individuals with a background in the military industrial sector; and individuals who in their tenure have advanced Xi's agenda for either aggressive "warrior wolf" diplomacy internationally or domestic repression in the name of "stability." Guoguang Wu, "The China Challenge: New Leadership Focuses on the Struggle for Security," *Discourse*, November 15, 2022.

ty or military background.*²⁸³ Dr. Greitens assessed in November 2023 that all other members of the Politburo Standing Committee have at least some experience with nonmilitary security policy, with that experience being quite extensive for some.†²⁸⁴ She also argued that some noteworthy appointments under Xi have “hybrid careers within the internal security apparatus,” with experience spanning policing, intelligence, and Party discipline.‡²⁸⁵ In her testimony for the Commission, Katja Drinhausen, head of the politics and society program at the Mercator Institute for China Studies, also assessed that there is a rise in officials with a security background, “mostly in domestic security, but also focusing on technological security and the economy.”²⁸⁶

Updated Legal Canon Underpins the National Security Apparatus

The CCP has codified its expansive notion of national security through a series of laws over the past decade, constituting what one Chinese official termed a “legal Great Wall to safeguard national security.”²⁸⁷ These include the 2015 National Security Law and its 2020 counterpart for Hong Kong as well as additional laws on counterespionage, counterterrorism, anti-foreign sanctions, access of foreign investments, managing foreign nongovernmental organizations (NGOs), intelligence, and “state secrets.” They also include laws on cybersecurity, data security, transportation security, and biosecurity as well as more political topics such as protecting “heroes and martyrs” from defamation.²⁸⁸ Notably, many of the laws criminalize the disclosure of information the CCP deems sensitive on national security grounds to foreigners, and they obligate Chinese citizens to contribute to the authorities’ national security activities. One 2023 commentary in the *People’s Daily* offers statistics measuring this purported legal progress, claiming that since 2015, 20 pieces of specialized national security legislation and 110 other laws and regulations containing national security clauses had been promulgated, formulated, or revised.²⁸⁹ Ms. Drinhausen assesses that China now has a “very well-established legal canon” and that some of these

*The authors note that most of the members also possesses “extensive provincial-level economic leadership experience,” suggesting that a security background is not likely the only consideration. They also point out that economic issues are firmly intertwined with concerns about social stability, making even economic experience potentially germane to Xi’s broadly defined concept of national security. Cheng Li and Mallie Preytherch, “China’s New State Council: What Analysts Might Have Missed,” *Brookings Institution*, March 7, 2023.

†Zhao Leji is vice chairman of the Central National Security Commission (CNSC) and former chair of the Central Commission on Discipline Inspection (CCDI). Ding Xuexiang previously served as the head of the CNSC office and as a secretary of Shanghai’s Political-Legal Committee. Cai Qi was previous director of the CNSC office, and he may oversee the Central Guards Bureau, which provides security for China’s top leadership. Li Xi is the current chair of the CCDI. Li Qiang previously served as the secretary of Zhejiang’s Political-Legal Committee and oversaw the CCP’s lockdown policies while he was general secretary of Shanghai. Wang Huning reportedly sits on the CNSC and is thought to have previously chaired a leading small group on internet security. Sheena Chestnut Greitens, “New Leaders in ‘National’ Security After China’s 20th Party Congress,” *China Leadership Monitor*, November 30, 2023.

‡An example is Chen Wenqing, a new member on the Politburo who is also secretary of the Central Secretariat, secretary of the Central Political-Legal Affairs Commission, and chief police inspector. His past experience includes leadership or service at the Ministry of State Security, at the office of the Central National Security Commission, for the Central Committee on Discipline Inspection, in the procuratorate, in Party discipline, and as a PLA commissar. Chen Wenqing is also the first former minister of state security to serve on the Politburo. Sheena Chestnut Greitens, “New Leaders in ‘National’ Security After China’s 20th Party Congress,” *China Leadership Monitor*, November 30, 2023; *Xinhua*, “CCP 20th Central Leadership Structure Member Resumes: Resume of Comrade Chen Wenqing” (中共二十届中央领导机构成员简历: 陈文清同志简历), October 23, 2022. Translation; *South China Morning Post*, “China’s Power Players: 20th Politburo.”

laws have shifted what are considered national security-related offenses under Chinese law in ways that affect Chinese citizens and foreigners alike.²⁹⁰

Recent revisions to the Counterespionage Law in 2023 and State Secrets Law in 2024 in particular have elicited international concern due to their expansive scope and the possibility they could be invoked to prosecute foreign companies and personnel carrying out normal business activities in the Mainland.*²⁹¹ Revisions to both laws added Xi's broad definition of national security into the text by invoking the Comprehensive National Security Concept, raising uncertainty in terms of the issues to which their relevant legal authorities will be applied.²⁹² The revision of the Counterespionage Law simultaneously expanded the definition of "espionage" to include certain efforts to obtain "items related to national security" where it had previously mentioned only "state secrets" and "intelligence."²⁹³ Additionally, it added conditions for the imposition of exit bans on individuals of any nationality should they be "suspected of acts of espionage" under the expanded definition.†²⁹⁴ The revised State Secrets Law added a new reference to a category of information known as "work secrets," information that does not qualify as state secrets but would cause an adverse effect if leaked.‡²⁹⁵ Legal observers have noted that what constitutes a "work secret" subject to protection remains unclear under the law and thus vulnerable to expansive, inconsistent, or arbitrary enforcement.²⁹⁶ For example, it could potentially be interpreted to include information obtained through conventional research and due diligence efforts or investigative journalism.²⁹⁷

Crackdowns on Ideological "Laxity," Lack of Political Discipline, and Corruption within the Party

Xi has led a continuing effort to tighten political control and crack down on perceived problems with ideology, discipline, and corruption in an effort to make the Party-state more efficient and responsive to leadership directives.§ The CCP under Xi has sought to increase ideological conformity through a combination of regulatory changes, education campaigns, and grassroots measures. The Party has sought to strengthen the connectivity between the Party center and the grassroots levels through more frequent events and mandatory use of a smartphone app focused on ideological indoctrination.²⁹⁸ It has also emphasized the importance of Party-wide education cam-

*In 2023, China's state security authorities raided the offices of the international advisory firm Capvision, questioned employees of the consulting firm Bain & Company, and detained five employees of the due diligence firm Mintz Group. Ryan McMorrow and Demetri Sevastopulo, "China Raids Multiple Offices of International Consultancy Capvision," *Financial Times*, May 8, 2023.

†For more on China's Counterespionage Law, see U.S.-China Economic and Security Review Commission, Chapter 1, Section 2, "U.S. China Security and Foreign Affairs," in *2023 Annual Report to Congress*, November 2023, 116.

‡Separately, the revised law includes new provisions requiring increased publicity and education, including through mass media, in order to enhance awareness on secrecy issues within society writ large. These are added despite the general public not having access to state secrets or classified information. Jeremy Daum, "Open Thoughts on the Secrets Law," *China Law Translate*, February 27, 2024; *China Law Translate*, "PRC Law on the Protection of State Secrets," February 27, 2024.

§According to a document known as a "historical resolution," whose production Xi directed ahead of the 20th Party Congress, a serious lack of political conviction, rampant corruption, and lax implementation of Party policies have presented serious challenges for both maintaining the image of the Party and adopting the policy approaches China needs to succeed. U.S.-China Economic and Security Review Commission, *2022 Annual Report to Congress*, November 2022, 30–31.

paings as a necessary tool for guiding Party members and cadres.²⁹⁹ For example, in 2023 Xinhua pointed to the CCP's 2012–2013 campaign on the “mass line” and cleaning up “undesirable work styles,” a 2015 campaign on strict self-discipline, a 2016 campaign on studying Party documents and Xi's major policies, a 2019 campaign on the Party's “founding mission,” and a 2021 campaign on Party history as important efforts to educate cadres in light of “complex circumstances facing the Party both at home and abroad.”³⁰⁰ Under Xi's leadership, the CCP has additionally issued three revisions of its “Regulations on Disciplinary Actions of the Chinese Communist Party” in 2015, 2018, and 2023, strengthening the documents' emphasis on ideological conformity, organizational discipline, and implementation of Party policies.³⁰¹ During Xi's tenure, the Party has also released multiple versions of its “National Cadre Education and Training Plan,” the most recent of which in 2023 laid out extensive new requirements for ideological study among CCP officials and aimed to improve cadres' “political judgment.”³⁰² In 2023, Xi warned that Party members and cadres had become complacent after a long period of relatively peaceful conditions, creating a risk that future struggles will cause them to “panic and lose their confidence easily.”³⁰³ Shortly thereafter, the Central Commission on Discipline Inspection (CCDI) launched a major campaign against the phenomenon of officials “lying flat” or doing only the bare minimum in their obligations.³⁰⁴

Throughout his tenure, Xi has made expansive use of his signature politically motivated anticorruption campaign in an attempt to bolster the legitimacy of the Party, curb undesirable behavior, and solidify his personal power.*³⁰⁵ Now in its 12th year, the campaign shows no signs of abating but rather continues to expand. According to numbers released from the CCDI in January of 2024, about 110,000 CCP officials faced disciplinary action as part of the campaign in 2023 alone.³⁰⁶ At an address to the third plenary session of the CCDI in January 2024, Xi reportedly stressed that “in the continued grave and complex situation, there is no possibility of stopping, slackening or compromising the anti-corruption campaign.”³⁰⁷ (For more on Xi's speech at the CCDI plenary session, see Chapter 2, “U.S.-China Security and Foreign Affairs (Year in Review).”) According to one tally, more than 30 Chinese state regulators, bankers, and senior financial executives had been detained for corruption-related charges between the start of 2024 and mid-May.³⁰⁸ Over just two days in mid-July, the CCDI announced new investigations into a former deputy director at China's Ministry of Emergency Management, two leading officials from separate railway state-owned enterprises (SOEs), and a Party committee secretary at a vocational college.³⁰⁹ Senior PLA officers have also been targeted by the wide-ranging campaign.³¹⁰ (For more on the anticorruption campaign and punishment of PLA officers, see Chapter 2, “U.S.-China Security and Foreign Affairs (Year in Review).”)

*While the Party does view the misuse of state resources as a threat to its legitimacy, its anti-corruption campaigns should be understood primarily as tools to ensure loyalty and political control. These objectives are evident in revised regulations on disciplinary actions released in 2024, as well as Xi's increased promotion of the concept of “self-revolution,” a Maoist phrase urging the Party to continuously monitor and control itself. For more on the ongoing anti-corruption campaign, see Chapter 2: “U.S.-China Security and Foreign Affairs (Year in Review).”

Revival of Maoist Tools for Mass Mobilization

The CCP is currently reviving Maoist approaches to mobilizing the public to assist it with detecting and eliminating perceived security threats. This has been partially evident in Chinese officials' public statements; Party leaders have explicitly referred to the Mao-era "mass line" method of bringing the Party closer to the people in security matters, invoked historical events such as the "Fengqiao experience"* and "Chaoyang masses"† to encourage the revival of an informant culture, and called for mobilizing all of society to "wage the people's war" to maintain national security.³¹¹ But more concrete examples include the CCP's cooptation of the public for surveillance and law enforcement activities as well as its renewed emphasis on mass education campaigns designed to boost patriotism and national security awareness.

Coopting the Public for Surveillance and Law Enforcement

The Party is recruiting local community members to help supplement its law enforcement efforts as well as maintain political and social control. In March 2023, China's Ministry of Public Security issued a three-year action plan for strengthening the work of police stations.³¹² The plan calls for cultivating grassroots law enforcement personnel who "love their jobs, perform their duties loyally, and are trusted by the people," as well as creating more "Fengqiao-style police stations," which help the Party maintain social and political stability.‡³¹³ In November 2023, *Radio Free Asia* reported

*Named after the Fengqiao Township in Zhejiang, the "Fengqiao experience" is an approach of social and political governance promoted by Mao Zedong in the 1960s, which involved mobilizing local people to target "reactionaries" and "class enemies." Xi endorsed the system nearly a decade prior to becoming paramount leader, reportedly stating during a 2003 visit to the town as Party Secretary of Zhejiang that the 'Fengqiao experience' was not outdated. As paramount leader, Xi called for the upholding and development of this system as early as 2013. Under Xi, the system has been adapted to co-opt citizens to assist the Party in governing them to help achieve its objectives. One example that can illustrate the contemporary conception of the "Fengqiao experience" is the Cyberspace Administration of China's creation of a hotline in April 2021 that encourages members of the public to report others online who criticize the CCP and its history. Manoj Kewalramani, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 17–18; Vivian Wang, "Xi Jinping's Recipe for Total Control: An Army of Eyes and Ears," *New York Times*, May 25 2024; *Zhejiang Daily*, "Draw a More Beautiful New 'Feng' Scene" (绘出更美好“枫”景), November 29, 2023. Translation; China Media Project, "Fengqiao Experience," April 16, 2021.

†The term "Chaoyang Masses" is a related concept that focuses on using community mobilization to assist the Party in security and governance. It originally referred to a network of volunteers and public informants from the Chaoyang district in Beijing, but over time, the term gradually became synonymous with forms of mass mobilization for political objectives of the CCP. During a 2017 tour in Beijing, for instance, Xi praised groups such as the "Chaoyang Masses" and "Xicheng Aunties," stating that the "cities of the people should be built and managed by the people... where there are more red armbands, there is greater safety and greater peace of mind." The concept's revival can be understood as the citizen-informant culture that has been developed under Xi. Manoj Kewalramani, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 18–19; Stella Chen, "Chaoyang Masses," *China Media Project*, November 1, 2021.

‡Since 2019, there have been three batches of "Fengqiao-style police stations" that have been established across the country. The stations were created to help carry out the "mass line" concept, whereby the Party organizes citizens to help achieve its governance objectives, including public security. Qi Zongzhu, "The List of the Third Batch of 100 'Fengqiao-Style Police Stations' in China Was Announced, and Shengli Road Police Station Was on the List" (全国第三批100个“枫桥式公安派出所”名单公布 胜利路派出所榜上有名), *Xinhai Metropolis Daily*, November 26, 2023. Translation; Wang Lei and Gu Yanwen, "The Second Batch of 100 'Fengqiao-Style Police Stations' in China Was Announced, and Liyang Zhuji Police Station Won the Honor" (全国第二批百个“枫桥式公安派出所”公布 梁阳竹聚派出所获殊荣), *Changzhou Evening News*, May 18, 2022. Translation; *People's Public Security News*, "The Ministry of Public Security Made a Decision to Name the

that as part of this effort, police stations around the country were laying off auxiliary police officers in order to save and consolidate local resources and instead outsourcing the daily work of auxiliary police officers to neighborhood officials and local militias under the “grid management”^{*} system.³¹⁴ Although China has mobilized local residents en masse for law enforcement activities before, the new plan seeks to make this mobilization permanent, granting local officials law enforcement powers to recruit “grid officers.”³¹⁵ For instance, in the city of Heshan, located in Guangdong Province, one recruitment ad posted on the city government’s website said that grid workers primarily serve as “information collectors, policy propagandists, liaison [officers] for social situations and public opinion, conflict and dispute mediators,” and other roles.³¹⁶ These workers are also tasked with reporting social issues, damage to public facilities, and details on other illegal and criminal activities, such as theft or robbery.³¹⁷ According to an analysis examining 88 online job postings from 2019 to 2020 by Jean Christopher Mittelstaedt, a departmental lecturer in modern Chinese studies at the University of Oxford, political requirements are “highly important for aspiring grid members,” as 47 recruitment notices mentioned a political or ideological requirement.³¹⁸

So-called “vigilante groups” are also helping aid neighborhood law enforcement efforts and assist the Party in maintaining control over local communities. According to Jessica Batke, the senior editor for investigations at ChinaFile, Party-organized vigilante groups function “yet another layer—in addition to the police, grid workers, facial-recognition cameras, and online monitoring and censorship—of the PRC’s surveillance regime.”³¹⁹ Vigilantes appear to be distinguished from grid workers as civilian volunteers, although these volunteers do receive some forms of compensation.[†]³²⁰ Grid members are employees that are part of a political and administrative hierarchy, bound to it through a contract system.³²¹ Although grid workers are neither public servants nor attached to a work unit, they are assessed in the same way as civil servants.³²² Vigilante volunteers, in contrast to what their name suggests, are individuals deemed trustworthy by authorities, working under the direction of local police forces and the Party-state.³²³ Students, retirees, middle-aged workers, local cadres, Party members, and veterans, among other demographics, serve as vigilantes.³²⁴ Vigilantes bolster local

First 100 ‘Fengqiao Public Security Police Stations’” (公安部作出决定 命名首批100个“枫桥式公安派出所”), November 29, 2019. Translation.

^{*}According to Minxin Pei, a professor of government at Claremont McKenna College, the CCP embraced grid management in the mid-2000s as a tool of social control. Dr. Pei asserts that grid management entails dividing communities into small units (typically 1,000 residents per unit) and equipping them with information and surveillance technology. Dr. Pei asserts that although on paper China has largely finished setting up more than one million grids in local communities, it will likely take years to complete such a system, with only wealthy cities seeming to have made genuine progress in the development of grid management. He argues that most grids are merely neighborhood committees that have been relabeled. Minxin Pei, “Grid Management: China’s Latest Institutional Tool of Social Control,” *China Leadership Monitor*, March 1, 2021, 1.

[†]Prospective vigilantes have been incentivized to participate by authorities through perks and sometimes cash rewards. For instance, one safety promotion association in Shenzhen’s Bao’an district handed out cash to people who could catch suspects. Furthermore, some volunteers may receive discounts at hotels and stores. Ms. Batke also notes that around the 70th anniversary of the founding of the People’s Republic of China in 2019, one Guangdong-based vigilante group sought to organize 300 people from different villages to assist the police with guard duty, paying each around \$21 to \$25 per day. Jessica Batke, “The Police’s Strength Is Limited, but the People’s Strength Is Boundless,” *ChinaFile*, June 17, 2024.

law enforcement efforts by taking on patrol duties and handling low-level incidents in lieu of the police.³²⁵ Vigilantes are also used for Party-state aims to suppress dissent.³²⁶ For instance, Ms. Batke says that in 2021, the Nancun Safety Promotion Association, a vigilante group based in Guangdong Province, stated that the group should “work to persuade petitioners—individuals seeking redress from higher-level authorities, often for perceived injustices at the hands of local officials—to return to Nancun from Beijing.”³²⁷ Furthermore, the association also said it would keep 24-hour watch over “key persons,” or people the CCP deems politically threatening.³²⁸ In 2022, the association was also directed to carry out “stability maintenance” activities, ranging from monitoring and managing migrant workers to “preventing and properly resolving mass incidents,” such as peaceful protests.³²⁹

COVID-19 Response Hones Methods for Controlling Public Movements

China’s response to the COVID-19 pandemic relied on social and digital methods to control the public.³³⁰ Xi declared a “people’s war on COVID” in February 2020, initiating a nationwide campaign that mobilized all of the Party-state government, non-state sector, and Chinese public to contain the spread of the disease.³³¹ Essential to this mass campaign were the grassroots neighborhood organizations at the lowest level of administration, the grid management system, throughout the country.*³³² During the COVID lockdowns, the grid workers controlled residents’ entry to and exit from buildings, implemented quarantines, and distributed food and medicine supplies.³³³ The CCP also mandated that all Chinese citizens use health code apps, which served as COVID-19 health status certificates, travel passes, vaccination records, contact-tracing devices, and an apparent tool for suppressing protest activity.†³³⁴ Depending on the color of one’s health code app, Chinese citizens were either afforded freedom of movement (green) or required to quarantine (yellow or red); those with yellow and red health codes had to submit a negative PCR test before travel restrictions could be lifted.³³⁵

Although the chaotic end of Zero-COVID policy in December 2022 demonstrated the dysfunction of CCP decision-making and the limits of the Chinese public’s tolerance for extreme controls on their movements, the grid system and digital apps have persisted beyond the pandemic, creating latent capacity that the CCP could use to reimpose controls on public movement during a crisis or conflict if needed.³³⁶ In April 2024, the State Council and Central

*The grid management system divides cities and rural areas into areas of approximately 10,000 square meters or approximately 200–300 households. Each grid has several staff and volunteers tasked with both providing services and maintain stability by collecting data, patrolling and monitoring the community, and mediating disputes. Jean Christopher Mittelstaedt, “The Grid Management System in Contemporary China: Grass-Roots Governance in Social Surveillance and Service Provision,” *China Information* 36:1 (2022): 3–22; Jue Jiang, “A Question of Human Rights or Human Left?—The ‘People’s War Against COVID-19’ under the ‘Gridded Management’ System in China,” *Journal of Contemporary China* 31:136 (2021): 491–504.

†In June 2022, authorities in the Chinese province of Henan were suspected of restricting some residents’ movements using the COVID-related health apps, following protests by customers of rural banks who had attempted unsuccessfully to make cash withdrawals. Tessa Wong, “Henan: China Covid App Restricts Residents after Banking Protests,” *BBC*, June 14, 2022.

COVID-19 Response Hones Methods for Controlling Public Movements—*Continued*

Committee issued rules that sought to expand, professionalize, and enhance the “political quality” of grassroots community workers, a broad category including grid workers, and set a target of 18 community workers for every 10,000 residents.³³⁷ Rules such as these have arguably placed grassroots neighborhood organizations in what scholars Taisu Zhang and Yutian An call a state of “permanent ‘emergency readiness,’” positioning them to “respond quickly whenever higher authorities need to reimpose tighter control, perhaps even pandemic-era kinds of control.”³³⁸

Some cities and provinces are retaining or repurposing their COVID-era apps in an effort to “hold onto the power and discretion granted to them under the COVID-sparked ‘state of emergency,’” according to Patricia M. Thornton, an Associate Professor in the Department of Politics and International Relations at the University of Oxford.³³⁹ For example, the Guangdong Provincial Public Security Department rolled out a new WeChat app, the “Ao Residence Code” to replace its “Ao Health Code” in September 2022.³⁴⁰ The new app, which links personal information such as a resident’s ID number and address in a scannable QR code, is mandatory for Guangdong-based household registration certificate holders, migrants, and foreign residents.³⁴¹ Dr. Thornton observes that the app “allows users to enter libraries, museums, and hospitals, effectively granting access to public spaces and ‘bundled conveniences’ to an officially recognized subset of residents, while providing local officials with an easy means of excluding at will objectionable ‘key populations’ from public places.”³⁴²

Education Campaigns Emphasize National Security and Patriotism

National security education has gained increasing prominence under Xi’s rule, highlighting security as a key priority for the Party-state. As noted previously, in April 2014, Xi proposed the concept of “Comprehensive National Security” at the first meeting of the Central National Security Commission, which was closely followed by the adoption of the National Security Law in July 2015.³⁴³ The law stipulated that the state would incorporate national security education into the country’s education system and the training system for civil servants.³⁴⁴ The law also designated April 15th as National Security Education Day, with the first one being held in 2016.*³⁴⁵ In a recent article published on National Security Education Day in 2024, MSS Secretary Chen Yixin emphasizes the importance of ideological security, saying the Party and people must “guard the ideological position, oppose and resist all kinds of erroneous thoughts, resist and guard against the infiltration of religious extremism, and strictly prevent all kinds of risks from spreading to the political security field.”³⁴⁶

*The first National Security Education Day in Hong Kong was held in 2021. Kenji Kawase, “Hong Kong Embraces Xi’s ‘Holistic’ Security Dogma on Education Day,” *Nikkei Asia*, April 15, 2024.

China has also promoted national security as a cross-disciplinary field of study in recent years, opening new specialized research centers, programs, and funds.³⁴⁷ China's Ministry of Education first announced a plan to set up national security studies departments in universities across the country in 2018.³⁴⁸ In December 2020, the Academic Degrees Committee of the State Council and the Ministry of Education finalized the creation of a new "interdisciplinary" education category, which included "national security studies" as a formal topic.³⁴⁹ In 2021, the China Institutes of Contemporary International Relations (CICIR), a think tank linked to the MSS, opened the Research Center for Comprehensive National Security.³⁵⁰ CICIR has also released publications on national security, and the think tank's president, Yuan Peng, held trainings for cadres at different government levels on the issue.³⁵¹ In December 2023, the *South China Morning Post* also reported that in the previous five years, more than a dozen Chinese universities had established national security studies departments.³⁵² According to Ms. Drinhausen and Helena Legarda, both of the Mercator Institute for China Studies, these efforts are part of a broader attempt by the CCP to "future-proof the party state against domestic resistance, [as] the leadership places a strong focus on inoculating China's next generation against harmful influences."³⁵³

China has also worked on expanding and codifying its patriotic education campaign in recent years to consolidate support around the Party. The patriotic education campaign has been a longstanding feature of Chinese schooling, having been instituted at large scale in the 1990s.³⁵⁴ The main features of patriotic education in China center around incorporating material related to national concepts of patriotism, such as the CCP's vision of history and traditional culture, as well as emphasizing political loyalty to the Party.³⁵⁵ Since 2016, a series of directives and opinions for enhancing patriotic education have been issued by the Ministry of Education, merging patriotic themes into exams and coursework across subjects and adding Xi Jinping Thought to all grade levels' curricula in 2021.³⁵⁶ In a more recent development, the Patriotic Education Law was passed in October 2023, mandating that love of the Party and motherland must take place not only in schools but also across society, including various government departments, enterprises, united front groups, and within families.³⁵⁷ The law also emphasized the CCP's desire to strengthen publicity and education on unifying with Taiwan and opposing Taiwanese independence.³⁵⁸

Party-State Stokes Fears of Foreign Espionage, Foreign Contacts

China's national security propaganda increasingly raises the specter of foreign spies and is creating an atmosphere where citizens are encouraged to be hypervigilant about interactions with foreigners. This trend has manifested in the increasingly active social media presence of China's chief spy agency and a slew of measures that appear intended to hinder contact with foreigners.

MSS Goes Online to Raise Alarm about Foreign Espionage

The MSS launched its social media presence on WeChat in July 2023, transforming itself into a highly visible presence imploring Chinese citizens to join its fight against foreign espionage. Its first post emphasized that counterespionage requires the mobilization of all of society, offering citizens rewards and promises of protection for reporting espionage threats through tip lines.³⁵⁹ The MSS account posts frequently, often describing the details of supposed espionage activities or recruitment efforts by the U.S. and British intelligence services.³⁶⁰ It tries to make its propaganda engaging, using short videos and comic strips to convey warnings that China is facing omnipresent espionage threats.³⁶¹

Notably, the MSS is also using its online presence to combat negative narratives about China's economy and emphasize the importance of data protection. Following the December 2023 Economic Work Conference, the MSS account made a post describing foreign assessments of China's slowing economy as an attempt by external forces to contain China's development.³⁶² In January 2024, the MSS's WeChat account published a comic depicting foreign spies attempting to access secrets related to the rare earths industry.³⁶³ In March 2024, the MSS released a propaganda video warning companies not to allow foreign due diligence firms to investigate them.³⁶⁴ In May 2024, the MSS also used its WeChat account to accuse foreign academics, universities, and NGOs of illegally collecting geographic and biological data from nature reserves, claiming in one case that a foreign NGO had helped "a certain Western country" to "steal core, sensitive data."³⁶⁵

Suppressing Foreign Contacts

China's government has taken other measures to control its population's contacts with foreigners. Supplementing national-level laws discussed above, provinces have issued further regulations, as in the case of Chongqing, which issued implementation regulations for the Counterespionage Law requiring strict oversight of government and SOE employees' travel overseas and of institutions engaged in foreign exchange or travel, among other provisions.³⁶⁶ Reporting in mid-July 2024 also suggests that some localities increased travel restrictions on students, teachers, and banking sector staff ahead of the summer vacation.³⁶⁷ Some Chinese nationals have also experienced retaliation for meeting with foreigners. Dong Yuyu, editor of the CCP newspaper *Guangming Daily*, was arrested in April 2023 for meeting a Japanese diplomat at a restaurant.³⁶⁸ In late 2023, the Chinese wife of a U.S. citizen was detained and accused of providing state secrets to overseas parties after briefly doing administrative work for a U.S. logistics firm.³⁶⁹

China also appears to be increasing its restrictions on contact between foreign diplomats and Chinese citizens within the country. China's regulation of foreign diplomatic activity within its borders has always been restrictive, requiring advance notification and often permission in order for diplomats to meet with provincial or local officials and placing strict geographical limits on diplomats'

travel.*³⁷⁰ Yet in 2024, U.S. Ambassador to China Nicholas Burns stated that China's government had also begun disinviting U.S. Embassy staff from university fairs they had previously attended, citing national security reasons.†³⁷¹ There is also new evidence that China is applying pressure on its own population, with Ambassador Burns stating that Chinese nationals are pressured not to attend U.S. Embassy events,‡ and EU Ambassador to China Jorge Toledo stating that China now often withholds permission for academics and students to meet with EU diplomatic staff.³⁷² (For more on the Chinese government's recent efforts to restrict people-to-people ties within China despite an agreement with the United States to deepen them, see Chapter 2, "U.S.-China Security and Foreign Affairs (Year in Review).")

China Refines Capabilities and Processes for Military Mobilization

There is ample evidence that China's armed forces are enhancing their general military preparedness but little evidence they are mobilizing for an imminent conflict at this time.³⁷³ Dr. Heath argued in testimony before the Commission that observers should be careful to distinguish between "normal" activities that all militaries undertake to carry out their assigned missions and the series of abnormal, costly, disruptive activities that would need to occur for the People's Liberation Army (PLA) to transition from peacetime to a war footing.§³⁷⁴ He stated that much of the evidence cited for the claim that China is preparing for imminent conflict—such as new weapons procurement and increased defense spending—is more accurately characterized as evidence of military preparedness, and crucial steps to mobilize Chinese society for war—such as mass call-ups of its conscripts and the large-scale transfer of resources from civilian to military use—have not occurred.³⁷⁵

*For more on China's regulation of U.S. and other foreign diplomatic activity within its borders, see Lauren (Greenwood) Menon and Jonathan Roberts, "China's Foreign Missions in the United States," *U.S.-China Economic and Security Review Commission*, July 17, 2024.

†According to Ambassador Burns, roughly half of participants chosen for U.S.-funded exchange programs have pulled out over the past two years due to pressure from authorities, schools, and employers. Jonathan Cheng, "In Rare Rebuke, U.S. Ambassador Accuses China of Undermining Diplomacy," *Wall Street Journal*, June 25, 2024.

‡Ambassador Burns said China's MSS or other government bodies had pressured Chinese citizens not to go, or attempted to intimidate those who attended, in the case of at least 61 public events since November 2023. Jonathan Cheng, "In Rare Rebuke, U.S. Ambassador Accuses China of Undermining Diplomacy," *Wall Street Journal*, June 25, 2024.

§According to Dr. Heath, normal activities associated with "military preparedness" include investments in and development of new weapons and equipment, recruitment and training of personnel, and planning and preparation for contingencies. He states that "military preparedness is a normal activity undertaken regardless of whether a country's leadership believes a war is likely or not." By contrast, Dr. Heath argues that more reliable indicators that China is preparing for conflict would be activities associated with "national defense mobilization" or "national war preparation," terms similar to the phrases the PLA itself uses to describe two forms of preparation for conflict ("war mobilization" 战争动员 and "war preparation" 战争准备). National defense mobilization consists of "state-directed activity to transition part or all of the country from a peacetime to war footing through such measures as conscription and the large-scale transfer of resources from civilian to military use." He notes that national defense mobilization can greatly improve a state's war-making capacity, but it is also "enormously costly and disruptive and, therefore, rarely undertaken outside a conflict." By contrast, the national war preparation consists of "changes to policy and procedures in nonmilitary domains to facilitate the execution of combat operations" and can occur in peacetime or wartime. "Although national war preparation is less disruptive and costly than mobilization, it still is premised on an expectation of conflict," Dr. Heath observes. "Thus, it is inherently more political and potentially controversial in a way that military preparedness is not." Timothy Heath, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 2–3.

Some of the improvements China has made to its mobilization capabilities and processes over the past ten years do merit concern and greater scrutiny, however, because their cumulative effect has been to improve the speed with which the armed forces can mobilize and the ease with which they can requisition civilian resources. In particular, China has passed new measures to improve the processes for mobilizing available manpower, revitalized its militias, streamlined the bureaucracy responsible for defense mobilization, honed its armed forces' skills through emergency response activities, and enhanced the Chinese public's familiarity with defense matters and air raid shelters. At minimum, these reforms have likely given Chinese leaders "moderate and increasing confidence in the system's ability to perform during a conflict," Devin Thorne, a Principal Threat Intelligence Analyst at Recorded Future, testified before the Commission.³⁷⁶ At maximum, these measures can be read as gradual—and purposely less detectable—steps to position the armed forces for a smooth transition to a war footing, should China's leadership direct them to do so. All in all, it is clear China is more ready now than it was five years ago to launch a war at short notice, and the United States will have less time to identify the warning signs than before.

China Takes Steps to Ensure Manpower Availability

China has refined its system for calling up conscripts and reserves to ensure it can access a sizeable pool of manpower, likely motivated by longstanding military readiness concerns as well as by the CCP's observation of Russia's manpower issues amid its war with Ukraine.³⁷⁷ Like the PLA,* the Russian military has focused its modernization efforts on creating a smaller, higher-quality force, which ran into manpower issues as the high-intensity conflict became protracted.³⁷⁸ PLA observers note that Russia found it required more troops for the campaign than originally anticipated and needed to increase personnel numbers by adjusting its conscription policy and its defense mobilization system.³⁷⁹ Moreover, the announcement of a partial mobilization by the Russian government led to an exodus of young men from the country, prompting the Russian government to de-publicize its conscription efforts and focus on the conscription of rural Russians.³⁸⁰ China's changes to its conscription and reservist policies are intended to preempt some of these problems, which could just as well emerge in the context of a high-intensity war over Taiwan.

Changes to Conscription Policy Aim to Boost Quality of Conscripts, Speed of Wartime Mobilization

Changes to PLA conscription policy are intended to enhance the quality of conscripts and to streamline the process by which they are mobilized in wartime.† In 2023, the PLA updated its 2001 "Regula-

*China's longstanding modernization effort has focused on professionalizing the military and increasing the quality and technical proficiency of troops, resulting in a reduction in numbers of active-duty troops by design and by dint of recruitment and retention struggles. Kenneth W. Allen et al., "Personnel of the People's Liberation Army," *BluePath Labs* (Prepared for the U.S.-China Economic and Security Review Commission), November 3, 2022, 8, 24, 39.

†It is estimated that about 700,000 personnel out of the PLA's two million active-duty personnel are conscripts, who are obliged to perform two years of mandatory service. Conscripts are considered to be the least trained and capable troops in the PLA but are considered necessary for manpower-intensive missions such as ground combat. Over the past two decades, the PLA

tions on Conscription Work,” with official *Xinhua* coverage asserting that the changes would improve the overall quality of conscripts within the PLA, standardize procedures, clearly delegate responsibilities, create a fast and efficient conscription system capable of transitioning between peace and wartime, and provide for military personnel replenishment.³⁸¹ The regulations appear to place greater priority on recruiting more educated personnel, call on colleges to assist in military conscription work, and offer incentives for college-educated recruits.³⁸² In a change from the 2001 version, the new regulations also specifically include wartime provisions that allow the Central Military Commission (CMC) to adjust conscription requirements “according to wartime needs” after issuing a national defense mobilization order.³⁸³ These provisions give the CMC the legal authority to loosen conscription criteria as needed and make more of China’s populace eligible for conscription into the PLA.³⁸⁴ The 2023 regulations also state that former soldiers should be prioritized for recruitment in wartime and offer incentives for retired conscripts who did not initially meet the criteria for promotion the chance to re-enlist at a higher rank during peacetime.*³⁸⁵ Enhancing the PLA’s ability to call up former soldiers and conscripts would be a straightforward way to build up force numbers in an emergency.³⁸⁶

Reservist Changes

China has refined the bureaucratic system for the PLA’s estimated 510,000 reserve personnel and sought to improve the attractiveness of reserve duty through the passage of a Reservists Law in 2022.†³⁸⁷ The law clarifies the division of responsibility for reservist work among various departments of the CMC, naming the National Defense Mobilization Department as responsible for assigning reservists to units and calling them up when needed.³⁸⁸ The law also introduces increased benefits to enhance the attractiveness of reserve duty, including financial aid, subsidies for essentials like food and transportation, and entitlement to medical insurance and compensation during military training and operations.³⁸⁹

China Seeks to Adapt Militias to Demands of Modern Warfare

China has revitalized its militia system over the past decade, targeting skilled professionals in high-tech industries and improving

has sought to recruit better educated and more technically skilled people into the enlisted force, but it will conscript high school and ninth grade-educated personnel where it fails to fill voluntary quotas. Kenneth W. Allen et al., “Personnel of the People’s Liberation Army,” *BluePath Labs* (Prepared for the U.S.-China Economic and Security Review Commission), November 3, 2022, 3, 28–29; Marcus Clay, Dennis J. Blasko, and Roderick Lee, “People Win Wars: A 2022 Reality Check on PLA Enlisted Force and Related Matters,” *War on the Rocks*, August 12, 2022.

*The PLA continues to experience retention issues, particularly with enlisted conscripts. Since 2021, the PLA has offered conscripts incentives to take a “second enlistment” after their two-year initial service period has expired. Kenneth W. Allen et al., “Personnel of the People’s Liberation Army,” *BluePath Labs* (Prepared for the U.S.-China Economic and Security Review Commission), November 3, 2022, 39–40, 60.

†“Reservists” are defined by law as Chinese citizens aged 18 or older who are either “pre-assigned” to active-duty units in the PLA or are assigned to units made entirely of reservists. Reservists include both enlisted personnel and officers. During wartime, PLA reservists serve as an “important source” of supplementary officers and enlisted personnel. Reservists are to be sourced primarily from former PLA active-duty personnel and technicians, with a minimum service requirement of four years for new reservists. Center for Naval Analysis, “PLA Update: March 23, 2023,” March 2023.

the training that militia members receive.*³⁹⁰ In wartime, militia units assist the PLA with military operations and provide support and additional manpower; in peacetime, militia units assist in humanitarian aid and disaster relief, support military training, and contribute to internal security activities.†³⁹¹ Militia personnel retain their civilian jobs during peacetime, and many are employed in nonstate enterprises.‡ Mr. Thorne testified that “militias are an outcome of the [military civil fusion] MCF strategy that seeks to locate and make use of military-relevant resources and skills within the PRC’s civilian economic and social base.”³⁹²

China is increasingly forming specialized “new-type militia” forces to leverage civilian technical talent in specialized technology areas for the needs of modern warfare, although practical problems with their incorporation remain. According to Mr. Thorne, “new-type militias” are “armed forces units established among civilian professionals, including those from the private sector,” but they can also be established in SOEs and universities.§³⁹³ The professionals in “new-type militias” may be drawn from industries such as information technology, communications, cybersecurity, software, electronics, robotics, unmanned systems, and artificial intelligence, among others.³⁹⁴ They may be assigned to units focused on cyber offense and defense, online information control, intelligence support, drone operations, maritime search and rescue, and undersea target detection, among others.³⁹⁵ “New type” militias are not always embraced by the private enterprises in which they are embedded, however. According to Mr. Thorne, militias face practical problems such as a lack of complex and standardized training, insufficient equipment, and the reluctance and noncompliance of enterprises to commit often valuable personnel and equipment to militia responsibilities.³⁹⁶ For

*The People’s Militia (民兵) is one of the three branches of China’s armed forces, along with the PLA and the People’s Armed Police (PAP). At the national level, the Central Military Commission’s National Defense Mobilization Department Militia Reserve Bureau (民兵预备役局) manages militia-related policies, procedures, and requirements. Militias are established under the Provincial Military District system and are managed by the People’s Armed Forces Departments (PAFDs, 人民武装部) at the county level and below. There are county-level PAFDs manned by active-duty PLA personnel and grassroots PAFDs manned by civilian cadres whose salaries are paid by local governments and sometimes work on a part-time basis. Devin Thorne, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China’s Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 15–16; Conor M. Kennedy and Andrew S. Erickson, “China Maritime Report No. 1: China’s Third Sea Force, The People’s Armed Forces Maritime Militia: Tethered to the PLA,” *China Maritime Studies Institute*, March 2017, 4.

†In the case of a conflict, the 2020 edition of the PLA textbook *Science of Military Strategy* emphasizes the importance of rapid mobilization in order to make effective use of militia forces. The *Science of Military Strategy* identifies rear-echelon duties for the militia such as conducting transportation, resupply, rescue, repair, intelligence, and communication support operations. The *Science of Military Strategy* further notes that the militia can be assigned to perform combat duties independently or in support of active-duty PLA personnel. China Aerospace Studies Institute, “In Their Own Words: Science of Military Strategy 2020,” *NDU Press*, January 2022, 441.

‡In 2016, Chinese media claimed that 114 private enterprises had established PAFDs and more than 1,000 private enterprises had established militia units, though Mr. Thorne notes that the total number of militia working in the civilian economy is unknown. Devin Thorne, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China’s Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 16.

§For example, there are reportedly cybersecurity-focused militia in SOEs China Mobile, China Telecom, China Unicom, and China Tower as well as the nonstate enterprise Qihoo 360 Technology. 360 Security Technology Stock Co., Ltd. Chinese Communist Party Committee, “360 Group Network Security Militia Fendui Defends the ‘Fifth Dimension’” (360集团网络安全民兵分队守护“第五维空间”), *China Comment Net*, May 18, 2021. Translation; Government of Yongxiu, *Notice of the Yongxiu County People’s Government and the Yongxiu County People’s Armed Forces Department on Issuing the Implementation Plan for the Rectification of the Militia Organization in Yongxiu County in 2021* (永修县人民政府 永修县人民武装部关于印发永修县2021年民兵组织整顿工作实施方案的通知), April 25, 2021. Translation.

example, some technology companies have reportedly established militia units from non-technical sales staff and members of company Party organizations—instead of from specialized personnel—to ensure the absence of staff for militia training does not undermine productivity.³⁹⁷

China has sought to address these problems with improvements to training and incentives.³⁹⁸ According to Mr. Thorne, some local authorities have instituted consultative mechanisms and reduced the disruptiveness of training to improve the participation of technology enterprises in militia enrollment efforts.³⁹⁹ He noted one report of a district in Shenzhen, Guangdong, that promised to offer housing and economic assistance to non-state enterprises that established militias.⁴⁰⁰ Efforts are underway to improve the content and manner of militia training, and militia units are now training more frequently with the PLA theater commands and the services than they did before.⁴⁰¹

Streamlining the National Defense Mobilization System

China's national defense mobilization system has historically suffered from several flaws, which have prompted a number of reforms under General Secretary Xi over the past decade to improve it.⁴⁰² Critically, local governments were reluctant to share the burden of peacetime administrative work with the PLA and opted to prioritize economic projects that could stimulate GDP growth over defense mobilization projects.⁴⁰³ Another problem was a lack of clarity regarding the roles and responsibilities within the national defense mobilization bureaucracy.⁴⁰⁴ For example, one PLA source from 2018 noted a lack of clear policies for coordinating work and a common problem of organizations failing to even maintain an accurate list of their leadership.⁴⁰⁵ It even recounts an “embarrassing scene” of a critical staff member at the municipal level who was unable to name the units of his own organization or explain his own responsibilities, noting that this situation was “not an isolated case.”⁴⁰⁶ Finally, civilian transportation infrastructure often did not meet military specifications, which could restrict the ability of PLA equipment to be transported via civilian assets in a mobilization scenario.⁴⁰⁷ Such deficiencies helped spur a series of reforms in areas such as the national defense mobilization system's bureaucratic structure, information collection system, and relevant laws.

Improved Coordination through National Defense Mobilization Offices

Structural changes to China's national defense mobilization system, most importantly the establishment of National Defense Mobilization (NDM) Offices, have mitigated longstanding difficulties in division of labor between the PLA and state governments. The national defense mobilization system consists of National Defense Mobilization Commissions (NDMCs) at the national, provincial, municipal, and county levels that are each jointly led by civilian and military authorities under the leadership of the CCP.*⁴⁰⁸ In 2022,

*NDMCs are supported by national defense mobilization “working offices” that perform work related to specific elements of national defense mobilization. An individual office will provide guidance, develop capacity, and align military requirements with available resources in its area of specialization. These offices are staffed by various civilian and military organizations, and

new civilian organizations called National Defense Mobilization Offices were established within local governments at subnational levels to take over administrative matters that had previously been managed by the PLA's provincial military regions.⁴⁰⁹ As Mr. Thorne explains, locating these new offices within the local governments, specifically local Development Reform Commissions, helps “institutionalize the mandate” that civilian authorities focused on economic planning must consider national defense mobilization requirements in their work.⁴¹⁰ In addition, these new NDM offices also contributed to better coordination between government and military branches of the bureaucracy by forming “joint offices” for subnational-level NDMCs to coordinate with the local PLA mobilization bureaus.⁴¹¹

China Deploys Surveys to Identify National Defense Resources across Its Vast Economy

China's “national defense potential surveys” have sought to help authorities identify resources throughout China's economy that can be utilized during a crisis, but they have historically faced shortcomings in their reliability.⁴¹² Efforts to collect, maintain, and verify records of the resources are crucial for the NDM system, making national defense potential surveys an important tool for developing insights into existing resources.⁴¹³ The surveying process involves the PLA defining its requirements and government agencies implementing the surveys through national defense mobilization offices.⁴¹⁴ Further assistance is provided by government statistical offices and NDM working offices at and above the county level.⁴¹⁵ The surveys are conducted on an annual, monthly, and ad hoc basis.⁴¹⁶ Military authorities gain data from local governments, enterprises, working units, and social organizations, which provide insights into the type, quantity, and quality of resources that are available.⁴¹⁷ However, Mr. Thorne asserts that “like other aspects of the NDM system, national defense potential survey work has been impaired by many problems for a long time.”⁴¹⁸ Some of these problems include ill-defined responsibilities among government and military organizations, overreliance on the military and passivity among government officials, unwillingness (in violation of the law) on the part of some organizations to fully disclose relevant information, low-skill workforces that are tasked with data collection and verification, and the treatment of national defense potential data surveys as a formality.⁴¹⁹

In recent years, China has sought to improve the survey process through the adoption of improved information technologies—efforts that have yielded moderately successful results.⁴²⁰ For instance,

their configuration is not uniform across NDMCs. The national-level NDMC, for example, has six working offices. Some PLA sources suggest that many local-level NDMCs have eight working offices. Devin Thorne, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 9, 34; An Yongbing and Liu Qiang, “With the Help of Information, Co-Location of Offices Blazes a New Trail” (信息助力, 合署办公蹚新路), *People's Liberation Army Daily*, posted by China's Ministry of National Defense, March 13, 2020. Translation; An Yongbing and Li Rui, “Co-location of the ‘Eight Offices’ to Improve the Efficiency of Investigations” (“八办”合署提高调查效率), *People's Liberation Army Daily*, posted by China's Ministry of National Defense, May 17, 2019. Translation; Tian Ye, Zhang Kai, and Qiao Zhenyou, “National Defense Mobilization Commission Three Questions Clarify Responsibilities: Who Am I, What Do I Do, How Do I Do It?” (国防动员委员会三问明责:我是谁,干什么,怎么干), *People's Liberation Army Daily*, posted by China's Ministry of National Defense, June 27, 2018. Translation.

in 2018, the CMC National Defense Mobilization Department implemented a new set of annual national defense potential data auditing practices to address issues of data quality, reliability, and specificity.⁴²¹ In 2021, the CMC's National Defense Mobilization Department also rolled out a new indexing system for cataloging over 4,000 military and civilian resources that the Party-state and PLA can bring to bear during wartime mobilization.^{*422} The new survey guidance allegedly improved the quality of the reported national defense potential data based on an annual audit conducted after the implementation of the new survey guidance, but calls to continue improving the indexing system, particularly with regard to resources in emerging domains, continued in 2021.⁴²³ Furthermore, there have been efforts to implement data-driven and networked solutions to improve data collection as well as resource tracking and tasking.⁴²⁴ For instance, a January 2023 Ningxia Military District training event demonstrated use of a “national defense mobilization comprehensive information system,” and a “veterans information management system,” among others.⁴²⁵ Mr. Thorne argues, however, that as of early 2022, “the overall effort to modernize national defense potential data management with information technology was likely impeded by poor integration, with different information systems using different standards and interfaces,” further asserting that the implementation of technology solutions at the county level was also likely incomplete as of mid-2023.⁴²⁶

Chinese Laws Enable the Party-State to Requisition Civilian Assets for National Defense

China has institutionalized its ability to mobilize nonstate resources by enshrining the Party-state's powers into law. Through the Chinese constitution, the 2010 National Defense Mobilization Law, and other regulations such as the 2015 National Security Law, the Party-state may requisition virtually any nonstate resource in the context of “public interest” and “national defense requirements.”⁴²⁷ Furthermore, Chinese scholars have said that the state may be able to requisition moveable, immovable, and intangible property, as well as personal labor, goods, and materials that are yet to be produced.⁴²⁸ Under the 2000 Foreign Enterprise Law, the state may requisition foreign-owned property and, “under special circumstances,” appropriate foreign-invested enterprises.⁴²⁹ The 2019 regulations governing civilian transportation national defense mobilization allows the owners of a requisitioned resource to receive compensation if the resource is damaged or modified during national defense construction or military activities.⁴³⁰ Under the regulations, people or organizations that own or manage civilian transportation tools, including ports, airports, and train stations, will be compensated if they suffer damage or depreciation, and the state will likely cover the salaries of operating and support personnel.^{†431} Foreign enterprises

^{*}The indexing system is divided into nine categories, each with various subclasses of resources. For instance, the “national economy class” includes subclasses of resources including major and supplemental foodstuffs, fuel logistics resources, medicine and healthcare resources, nuclear and chemical disaster emergency response resources, and others. Devin Thorne, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China's Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 26–27.

[†]The requisition of civilian resources has remained a point of contention among PLA experts along with other aspects of the NDM system. For instance, in 2021, a professor and graduate

may also be entitled to compensation in the context of expropriation under special circumstances.⁴³²

In recent years, China has sought to ensure that its transportation infrastructure is compatible with national defense requirements through the National Defense Transportation Law (NDTL). According to Mr. Thorne, “The NDTL has likely eased some of the difficulties that military authorities previously faced in adding national defense requirements to transportation infrastructure construction plans.”⁴³³ The Party-state implemented the National Defense Transportation Law in 2017,^{*} which sought to strengthen the legal basis for ensuring the military has access to and can make use of China’s transportation infrastructure.⁴³⁴ The law requires the State Council to consult with the PLA regarding national defense transportation planning and technical standards, and it established consultation mechanisms between civilian government and PLA units at the provincial level and above to coordinate plans for transportation projects.⁴³⁵ The law seeks to ensure that the planning, construction, and use of railroads, roads, waterways, airways, pipelines, and postal services, among other forms of infrastructure,[†] are compatible with national defense transportation requirements, and provide priority access to China’s armed forces.⁴³⁶ Various Chinese cities and provinces have reported increased compliance with the law. For instance, in April 2020, a state-owned railway operator agreed not to demolish an out-of-service track connecting Anhui and Guangxi Provinces due to its military value, and it also added new military-use stations, ration supply stations, and other military-use improvements to its lines.⁴³⁷ In December 2020, a Qingdao port reported building a military-civilian dual-use terminal for naval vessels and large civilian roll-on/roll-off ships, a large assembly area, and water and power supply facilities.⁴³⁸

Although the National Defense Transportation Law has likely improved adherence to these requirements, problems and limitations still remain.⁴³⁹ In March 2024, participants at a forum on NDM hosted by the National Defense University Joint Operations College expressed dissatisfaction with the ambiguous responsibilities of different parties in implementing national defense requirements for

student at the Army Command College argued that the specifics of the process are not defined by law and suggested improving incentives for supporting requisitions as well as issuing punishments for obstructing them. PLA experts have also discussed issues of ambiguity and diverging interests in how compensation could be implemented, while others have argued that the military should have the latitude to approve decisions about the requisition of civilian resources independent of the government. Devin Thorne, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China’s Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 13.

^{*}The National Defense Transportation Law stipulates that governments at or above the county level may “requisition civilian transportation vehicles, transportation facilities, transportation materials and other civilian transportation resources based on the needs of national defense.” The National Defense Law includes a clause allowing the state to “expropriate or requisition the equipment, facilities, means of transportation, premises, and other properties of organizations and individuals in accordance with the law for the purpose of national defense mobilization.” Law of the People’s Republic of China on National Defense (China), 2020; National Defense Transportation Law of the People’s Republic of China (China), 2017.

[†]The law asserts that the state and military develop a catalog of projects required to implement national defense requirements. The 2016 version of this catalog includes railways, roadways, airports, ports, and refined oil pipelines as well as fixed, mobile, satellite, and broadcast communications systems; data centers and data exchange platforms of government departments; geopolitical, meteorological, and hydrological information systems; radio frequencies; and civil air defense infrastructure. Devin Thorne, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on China’s Stockpiling and Mobilization Measures for Competition and Conflict*, June 13, 2024, 18–19.

building infrastructure such as roads, bridges, and ports.⁴⁴⁰ Other issues that have impacted the transportation sector's ability to meet national defense requirements include cost and bureaucracy issues impeding efforts to retro fit existing civilian ships and airport facilities.⁴⁴¹ Furthermore, underfunding and poor-quality training programs have beset railway national defense transportation teams.⁴⁴² Mr. Thorne asserts that "a more wholistic assessment of how the NDTL has been implemented in the context of preparing transportation networks for NDM requires more research," as implementation efforts have been inconsistently present in national and subnational transportation-focused five-year plans.⁴⁴³

China's Transportation System Would Reveal Wartime Mobilization

Civilian transportation networks will be essential to PLA operations in wartime, and changes in patterns of activity on China's transportation networks could provide advanced warning of military action against Taiwan. According to estimates from the PLA Logistics Academic Research Center, a large-scale PLA joint operation would require approximately "3,000 train trips, 1 million vehicle trips, 2,100 aircraft sorties, 15 oil pipeline battalions... and more than 8,000 ship voyages."⁴⁴⁴ According to Mr. Thorne, the military's use of the transportation sector would likely result in "large disruptions in civilian passenger and cargo flights as the military amasses required materiel and abnormal patterns of behavior by civilian vessels, especially roll-on/roll-off ships but also deck cargo ships and others."⁴⁴⁵ There are approximately 33 military and civilian airports likely to be used by the PLA as points of embarkation for a campaign against Taiwan, which foreign observers could monitor for atypical activity.⁴⁴⁶ Mr. Thorne notes that the PLA would attempt to conceal its mobilization through measures such as covering military equipment being loaded onto civilian ships with tarps, but such measures could be detected through satellite imagery and potentially exposed by Chinese social media users documenting military mobilization activities in their localities.⁴⁴⁷ Citing other analysts' estimates that the CCP is likely to order a general mobilization "at least three or four months" before an invasion of Taiwan, Mr. Thorne suggests that changes in the civilian transportation sector would be noticeable just a few months before the onset of a large-scale military operation, providing a shorter amount of warning time than other indicators.⁴⁴⁸

Enhancing First Responder Capabilities amid Disasters

China's armed forces—namely the PLA and the People's Armed Police (PAP)—are the first responders to major disasters and emergencies in China and are a key part of China's emergency management system.⁴⁴⁹ By responding to internal emergencies, China's armed forces are able to practice skills applicable to military operations in wartimes, such as rapid mobilization, logistics, airlift, transportation, and emergency engineering.⁴⁵⁰ The PLA and PAP's responses to the COVID-19 pandemic and recent flooding afforded

the forces with some relevant operational practice but also exposed gaps in communication with civilian counterparts that could undermine mobilization during wartime.⁴⁵¹

COVID-19 Response Strengthens PLA Logistics Capability

The COVID-19 pandemic offered a real-world test of the PLA's logistics and mobilization capabilities, yielding insights the force will likely keep in mind if it is ordered to engage in a conflict. The PLA undertook large-scale deployments of military personnel and launched the first significant mobilization of the PLA Joint Logistics Support Force (JLSF) in order to combat the pandemic.⁴⁵² The JLSF played a significant role in the initial response to the pandemic, coordinating transportation and sustainment to over 4,000 PLA medical personnel over a six-week period.⁴⁵³ The PLA made extensive use of information technology to track and rapidly deliver supplies throughout the country, demonstrating the "informatizing" of its logistics system.⁴⁵⁴ The PLA was able to directly test its airlift capabilities during the early response to the pandemic, debuting its Y-20 large transport aircraft as part of an airlift that brought nearly 1,000 personnel and 47 tons of cargo from cities across the country.⁴⁵⁵ The pandemic also allowed the PLA opportunities to test new command and control relationships between the JLSF, theater commands, and the CMC; to balance frontline and rear echelon requirements; to identify and mobilize finite resources; to maintain reliable communications; and to transport personnel and sustain them at their destination.⁴⁵⁶

At the same, the PLA's response to the COVID-19 pandemic also highlighted some weaknesses in civil-military communication and did not feature conditions that would rival the difficulty of a wartime environment. Lack of communication between local officials and the central government, as well as the Party's initial delay in making information about the pandemic public, slowed the PLA's initial deployment to Wuhan.⁴⁵⁷ In addition, while the pandemic provided an opportunity to practice logistics, the PLA did not have to manage the transportation of weapons and ammunition or account for doing so under fire, which would necessitate defensive and concealment measures.⁴⁵⁸

Flood Response by PLA and PAP Hones Rescue Capabilities

Throughout 2024, PLA, PAP, and militia troops have been mobilized to respond to major flooding events in China, offering the opportunity to practice rapid deployment, logistics, and rescue operations.*⁴⁵⁹ The practical utility of flood response has even been recognized by China's top leadership; following emergency response deployments of over a million PLA, PAP, and militia troops across 17 provinces in 2020, Xi reportedly told the military that the "flood battle is a practical test of the leadership and command system of our army, and the army's combat readiness and ability to perform

*While China has experienced severe floods throughout its history, record-breaking floods and severe typhoons have become a yearly occurrence, requiring evacuations of hundreds of thousands and sometimes upward of a million people and causing billions of dollars' worth of damage and numerous deaths. *Al Jazeera*, "China's Heaviest Rains in 140 Years Kill At Least 20, Leave 27 Missing," August 2, 2023; Global Facility for Disaster Reduction and Recovery at the World Bank, "Natural Disaster Challenges in China: Key Trends and Insights," August 2020.

the tasks.”⁴⁶⁰ During heavy flooding in Guangdong during April 2024, for example, the JLSF deployed to set up relief stations, the Rocket Force engaged in landslide recovery, and PAP troops cleared roads and delivered supplies.⁴⁶¹ Like the COVID-19 response, flood response has sometimes illustrated difficulties in civil-military coordination that could undermine the efficacy of future mobilization efforts. In 2023, flooding in Hebei demonstrated the political nature of emergency response; some analysts believe that CCP General Office Director Cai Qi was empowered to make decisions regarding flood response rather than the local Party secretaries, including the decision to cut embankments to protect Beijing and the Xiong'an New Area, and that this decision led to deaths of civilians and military responders in Hebei.⁴⁶²

Enhancing Civil Defense Capabilities

China's leadership is building upon previously existing programs designed to impress the importance of national defense upon China's citizenry. It has done so by expanding national defense education in schools and building out civil air defense shelters.

China Enhances National Defense Education for the Youth

Chinese leaders see national defense education as an important method for improving the Chinese public's appreciation of the military and positioning it to contribute to the Party-state's military and political goals.⁴⁶³ The 2001 National Defense Education Law requires defense education to be provided across society, enabling citizens to “enhance their awareness of the importance of national defense, master the basic knowledge of national defense, learn the necessary military skills, develop patriotic enthusiasm and conscientiously perform their obligations to defend the country.”⁴⁶⁴ Defense education activities typically include lectures and visits to bases, as well as programs targeting students from the primary school to university levels, aimed at improving public perceptions of the armed forces and encouraging recruitment.⁴⁶⁵ Some universities are now providing much more intensive training than the traditional marching and drills, including involving students in simulated battlefield situations and using weapons systems such as drones and rocket launchers.⁴⁶⁶

China has taken a number of steps to enhance national defense education in the past five years. In 2023, the Ministry of Education and the Political Work Department of the CMC issued a notice declaring that some primary and secondary schools would be recognized as “national defense education demonstration schools,” creating a way to recognize institutions that excelled in national defense education.^{*467} In 2022, the central leadership issued an opinion framing national defense education as a means of grappling with increased risks China faces in the world and proposing a number of enhancements, including the recommendations that university students and high school students be required to undertake three

*The first batch of 2,687 schools was announced in February 2023, and in January 2024, an additional 2,431 new primary and secondary schools were identified as “national defense education demonstration schools.” *Xinhua*, “An Additional 2,431 New Primary and Secondary National Defense Education Demonstration Schools” (中小学国防教育示范学校新增2431所), January 16, 2024. Translation.

weeks and two weeks of military training, respectively, with certain middle schools encouraged to provide one week of training.⁴⁶⁸ A revised National Defense Education Law was passed by the National People's Congress in September, 2024, strengthening national defense education requirements for students at each level of the educational system from primary through university.⁴⁶⁹ For example, revisions require primary schools to provide lessons to create a basic level of "national defense awareness" in students and require junior high school students to "master preliminary national defense knowledge and skills."⁴⁷⁰ The revisions also improve the level of military training for university and high school students.⁴⁷¹

China Expands Civil Air Defense Shelters in Coastal Cities

Although China's civil air defense policy spans decades, Xi has made it a national goal to improve existing facilities and build out new ones.* In a meeting held during the Seventh National Civil Air Defense Conference in 2016, Xi signaled to provincial and local leaders that the civil air defense system still needed advancement, urging the country to improve its ability to fight against air raids and carry out "functions and missions of wartime air defense."⁴⁷² China's national emergency management plan for the 14th Five-Year Plan period states that it intends to update the standards for shelter construction and improve the planning and layout of emergency shelters as national goals for 2020–2025.⁴⁷³ In recent years, large-scale efforts to restore and construct new civil air defense infrastructure have picked up, while localities have launched education campaigns that attempt to increase citizens' awareness about how to use civil air defense facilities.⁴⁷⁴ According to the written testimony of Lauri Paltemaa, a professor at the University of Turku, the China Civil Air Defense Office is responsible for the maintenance and construction of shelters.⁴⁷⁵

Cities located in provinces close to Taiwan have been the key locations of recent efforts to renovate, enhance, and expand local civil air defense facilities.⁴⁷⁶ According to Mr. Thorne, Fujian provincial authorities, as well as authorities in cities such as Fuzhou, Xiamen, and Quanzhou, have inspected, maintained, upgraded, and approved the building of new civil air defense facilities.⁴⁷⁷ Examples include the following:

- In March 2024, the Xiamen National Defense Mobilization Office inspected over 30 "early-stage civil air defense projects," which were originally built in the 1960s and 1970s.⁴⁷⁸ The projects were inspected for their safety, potential for development, and other factors, indicating they are being checked for continued use in civil air defense and for commercial purposes.⁴⁷⁹

*China's civil air defense policy dates back to the founding of the People's Republic of China, and the government later increased air raid shelter construction significantly in the 1960s before allowing them to fall into disrepair due to constraints on local budgets. After the Taiwan Strait missile crisis, the Party-state codified its civil air defense policies into law in the 1997 Civil Air Defense Law, mandating that all civilian buildings could serve as air raid shelters if they fit appropriate size specifications. Katsuya Yamamoto, "The Revitalization of Renmin Fangkong (Civil Air Defense), China's Civil Protection: A Barometer of Xi Jinping's Resolve in Preparation for Armed Conflict with the United States," *Sasakawa Peace Foundation*, July 3, 2023; Civil Air Defense Law of the People's Republic of China (China), 1997.

- In March 2023, a Quanzhou district issued a list of 18 construction projects with potential civil air defense components, including middle schools, health service areas, residential communities, industry parks, and other facilities.⁴⁸⁰
- In December 2022, Xiamen took measures to improve its civil air defense, including a new “Civil Air Defense Navigation” platform that could aid citizens’ discovery of evacuation routes, upgrades to emergency broadcast systems, renovations for “early-stage civil air defense projects,” and related educational programs.⁴⁸¹

The renewal and modernization of China’s civil air defense posture in proximity to Taiwan, combined with increased public education, may indicate that the Party anticipates a need for them in the near future.⁴⁸² However, Mr. Thorne argues that civil air defense projects likely represent ongoing, long-term efforts to strengthen civil air defense infrastructure and improve national defense mobilization readiness broadly, rather than an urgent effort to brace for near-term conflict.⁴⁸³ Chinese law mandates that civilian-use construction projects in urban areas include underground facilities that can be used as air raid shelters, making it difficult to tell if the shelters are a signpost of an imminent threat.⁴⁸⁴ Nonetheless, Mr. Thorne also notes that since Chinese authorities are still focused on improving civil air defense readiness, “this aligns with the national leadership’s very likely assessment that the possibility of an armed conflict in coming years is increasing.”⁴⁸⁵

Implications for the United States

China’s political, military, and economic activities covered in this chapter are likely intended to serve multiple purposes. In addition to preparing for war, many of these actions evidently reflect Chinese leaders’ concerns about regime stability, offering them tools of political control to tamp down dissent, better manage the economy, and respond more effectively to external shocks. For example, China’s defense mobilization system can be used to respond to natural disasters or to call up troops. Aside from enhancing readiness for armed conflict, activities discussed in this chapter can also help to prepare China for a long-term strategic competition with the United States and allies and to insulate itself from “de-globalization” and “de-risking” efforts and shocks to the global economy.

Some have argued that the actions identified in this chapter indicate China’s leadership has concluded that a conflict is inevitable and is preparing for a war or major hostilities against Taiwan or the United States to commence in the near future.⁴⁸⁶ Many of the activities described above could accelerate China’s ability to mobilize its military, civilian resources, and the public should its leaders choose hostile action. U.S. military and intelligence officials have stated that Xi has instructed the PLA to be capable of taking Taiwan by 2027, although they have also said there is no evidence China’s leadership has made a decision to attack Taiwan.⁴⁸⁷ Other observers argue that this target date is intended to give energy and focus to reforms and modernization efforts rather than on setting a timeline for war.⁴⁸⁸ Nevertheless, Xi has made clear that a central

aspect of his policy of “national rejuvenation” is China’s complete “reunification” with Taiwan.⁴⁸⁹ The PLA’s practice of strategic deception and its increased activity around Taiwan further complicate attempts to discern whether or not China is actively preparing for an imminent war.

If the political, economic, and military activities covered in this chapter were part of an imminent march to war, some experts argue that one would expect to see additional, unambiguous indicators and activities. For example, Chinese military training patterns would shift, with a noticeable uptick in defense mobilization training efforts such as amphibious exercises involving civilian shipping.⁴⁹⁰ China’s emergency management system may launch education campaigns and hold trainings on how to evacuate, take shelter, and administer first aid, particularly in Chinese provinces closest to the anticipated conflict area.⁴⁹¹ There would probably be a significant upward departure from the trailing three-year and five-year average aboveground crude oil storage utilization rates. Aboveground tank storage capacity utilization beyond 65 percent should therefore be treated as a “yellow flag” justifying deeper scrutiny.⁴⁹² China might shift some of its currency reserves into alternative currencies or assets such as gold as well as the currency of key trading partners such as Brazil, South Africa, Turkey, Malaysia, and Indonesia.⁴⁹³

Various explanations for China’s activities are not mutually exclusive, and many of the activities being undertaken are “dual-use”—capable of serving multiple policy goals, some consistent with preparations for conflict and others likely less directly aggressive. Any judgment about the significance of the activities described in this chapter should be tempered by the fact that motives are not always—or even often—singular, particularly as here when the observed activities are so varied that numerous disparate policy rationales are likely involved. Policies often can and do have multiple motivations and advance multiple goals. Oversimplification, and premature conclusions about intentions, however appealing or apparently compelling, can lead to flawed policy responses.

Ultimately, U.S. policymakers have powerful reasons to be concerned about China’s actions and intent. China’s aggressive control, resilience, and mobilization activities have made it more prepared to engage in a conflict over Taiwan or elsewhere in Asia and more capable of conducting hostilities today than it was even a few years ago. Furthermore, many of China’s recent policies, combined with tightened controls on access to information, could reduce the visibility of actions that might be signals of preparations for imminent war. Finally, these activities have reduced the deterrent effect of various nonmilitary policies and external constraints on China. Thanks to their recent actions, China’s leaders are now likely less constrained by domestic political concerns, food security concerns, energy shortage challenges, or threats of U.S. financial sanctions. Accordingly, greater emphasis may need to be placed on the deterrent effect of credible preparations for coordinated military and international political action.

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