

CHAPTER 2

U.S.-CHINA ECONOMIC AND TRADE RELATIONS

SECTION 1: YEAR IN REVIEW: ECONOMICS AND TRADE

Key Findings

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

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

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

Introduction

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

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

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

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

China’s Economy Backslides toward Investment-Led Model

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

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

COVID-19 Shock Causes Contraction Followed by Uneven Recovery

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

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

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

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

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

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

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

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

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

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

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

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

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

Consumer sentiment remained weak, except among wealthy households. Despite the overall rebound in GDP growth, consumption indicators for the second quarter remained weak. Retail sales contracted by 3.9 percent year-on-year in the second quarter of 2020 compared to a 7.6 percent decline the previous quarter.¹⁷ Imports contracted 9.7 percent, though they showed signs of rebounding toward the end of the quarter.¹⁸ Where consumption did rebound, it suggested wealthy households were benefitting far more from the recovery, widening China's already acute wealth gap. Auto sales increased after a two-year decline, with luxury car sales growing more than 25 percent in May and June 2020 over the same period in 2019.¹⁹ The Financial Times reported that more than 12 luxury brands reported double-digit revenue growth in the second quarter.²⁰ At the same time, survey data showed contraction in income and spending among middle- and low-income households.²¹

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

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

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

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

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

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

cultural imports.* Chief among staple foods impacted were pork and corn. In August 2020, the U.S. Department of Agriculture's (USDA) Foreign Agricultural Service forecasted China's pork production would drop to a low of 38 million tons for 2020, a 29 percent decrease from pre-African Swine Fever levels of 53 million tons in 2017.²² China's output of corn, the country's largest crop by weight and cultivated area,† could face a deficit of 30 million tons, or 10 percent of the total 2020 crop during the fall harvest, following floods that submerged nearly 20 percent of China's arable land, an uptick in pests, and pockets of drought in China's fertile northeastern provinces.²³

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

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

China Abandons GDP Target but Not Growth Model

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

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

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

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

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

“Dual Circulation” Economic Strategy Prioritizes Self-Sufficiency

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

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

† The two meetings are normally held at the beginning of March but were postponed in 2020 due to COVID-19. Ken Moritsugu, “China Sets Date for ‘Two Sessions’ in Latest Move toward Post-COVID Normal,” *Diplomat*, April 30, 2020.

‡ The United Front Work Department is a CCP body charged with extending the Party’s influence and control over non-Party organizations both domestically and abroad to advance CCP policy objectives. For more on the United Front Work Department, see Alexander Bowe, “China’s Overseas United Front Work: Background and Implications for the United States,” *U.S.-China Economic and Security Review Commission*, August 24, 2018.

§ For more on the plan, *Opinions on Strengthening the United Front Work of the Private Economy in a New Era*, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, October 7, 2020, 9–10.

¶ In the late 1980s, Chinese researcher Wang Jiang described China’s export-led growth strategy as “great international circulation.” The “dual circulation” plays on this description of China’s economic model by separating the international economy (external circulation) from China’s domestic economy (internal circulation) and proposing to rebalance from prioritizing international economic integration toward domestic economic resilience. “Circulation” (循环) is also translated as “circle” or “cycle.” Yu Yongding, “Decoding China’s ‘Dual Circulation’ Strategy,” *Project Syndicate*, September 29, 2020.

“Dual Circulation” Economic Strategy Prioritizes Self-Sufficiency—Continued

ience by reducing dependence on the global economy.³⁵ Chinese leaders believe the country can no longer rely on external trade and investment to drive growth, given a weakened global economy, hostile international environment, and potential realignment of supply chains. Under the “dual circulation” strategy, China aims to reorient its manufacturing sector toward fulfilling domestic demand, rather than producing for export. It will continue to seek out and draw on international resources, capital, technology, and talent but avoid overreliance on global economic integration. The strategy’s emphasis on manufacturing suggests an even deeper role for industrial policy and less importance placed on strengthening the services sector. This marks a potentially significant change, as China’s government has previously announced its intent to foster the services sector as it transitions to consumption-driven growth.³⁶

As with the COVID-19 response, the “dual circulation” concept encapsulates existing trends rather than a new direction. Chinese economists have long recognized the need for China to reduce dependence on investment as a source of growth, as returns on investment have declined substantially since the mid-2000s, necessitating higher levels of debt to achieve the same level of growth. Self-reliance has also been central to a statist and mercantilist turn in Chinese economic goals since shortly after China joined the WTO (for more information about China’s economic strategy, see Chapter 1, Section 1, “A Global Contest for Power and Influence: China’s View of Strategic Competition with the United States”). The “dual circulation” strategy nonetheless came to dominate policymaking discourse by the beginning of the third quarter, though policy continued to support investment-led growth rather than a turn toward consumption. As the government sets the direction for the 14th Five-Year Plan in a plenary session to be held October 26–29, 2020, the strategy will likely guide China’s major policy objectives through 2025.³⁷

Focus on Employment Stability Elevates State Sector over Private Employers

According to the government work report* introduced by Chinese Premier Li Keqiang, abandoning the GDP growth target would allow the government to focus on economic stability and people’s livelihood. The work report and several preceding State Council meetings encapsulated the government’s priorities in the economic frameworks of “six stabilities” and “six ensures,” which both stress stabilizing employment (see “‘Six Stabilities’ and ‘Six Ensures’ Frameworks Supplant GDP Target” later in the section).³⁸ The emphasis on employment was also reflected in the work report’s structure.

*The government work report is the Chinese government’s highly political annual summary of its reported accomplishments and statement of goals and priorities for the next year, and sometimes beyond. National People’s Congress of the People’s Republic of China, *Government Work Report: The Republic’s Growth Record* (政府工作报告：共和国成长记录), March 4, 2013. Translation.

Where normally report goals begin with growth targets followed by inflation targets,* the first economic goals listed in the 2020 work report were to create nine million new urban jobs and achieve a registered urban unemployment rate of 5.5 percent.³⁹ Nonetheless, policies to stabilize employment have focused far more on forestalling corporate bankruptcies than strengthening social welfare provision, reflecting a deep preference for supporting production over consumption by China's economic planners.⁴⁰

In treating firms as guarantors of employment, Chinese government policy in 2020 harkens to China's earlier "planned economy" model, in which a larger proportion of the economy consisted of SOEs providing their employees "cradle to the grave" benefits. SOEs, however, employ relatively few people. Small, medium, and micro enterprises, which are overwhelmingly private, employed 233 million workers in 2018, accounting for 79.4 percent of enterprise employment in China, and are far more vulnerable to economic shocks than SOEs, which weathered the COVID-19 outbreak with relative ease.⁴¹ State support for firms is also more likely to benefit SOEs than private SMEs. According to reporting from the Chinese financial newspaper *Securities Times*, Chinese banks are still unwilling to lend to SMEs because of internal risk controls and shareholders' oversight, despite extensive pressure from banking regulators to increase lending to private firms.⁴² Other policy support measures, particularly infrastructure construction and similar deficit spending programs, likewise tend to favor SOEs that have more capacity and connections to bid on and fulfill these projects.⁴³

"Six Stabilities" and "Six Ensures" Frameworks Supplant GDP Target

Rather than anchor macroeconomic policy in a GDP growth target, China's 2020 government work report focused on two distinct but related economic frameworks. The "six ensures"† framework, introduced in response to COVID-19 during an April 2020 Politburo meeting, encompasses guaranteeing employment, basic individual livelihoods, survival of market participants (i.e., preventing bankruptcies), food and energy security, supply chain stability, and "local government functions."⁴⁴ The last element includes provision of basic social services, such as public transportation, medical care, and utilities, which is the responsibility of municipal governments in China.⁴⁵ The "six stabilities" framework was initially introduced at a Politburo meeting in 2018 as an expansionary policy to counter the effects of trade tensions with the United States and slowing domestic growth.⁴⁶ It also promotes stable employment, as well as stable financial markets, trade, domestic and foreign investment, and market expectations.⁴⁷

Notably, the two frameworks focus on reducing volatility by maintaining employment and limiting corporate bankruptcies, rather than shoring up the social safety net or providing stimulus

*The 2019 report also broke from this trend, listing employment goals ahead of inflation targets but after the GDP growth target. Li Keqiang, "Full Text of the 2019 Government Work Report (2019年政府工作报告全文)," *State Council of the People's Republic of China*, March 5, 2019. Translation.

†Some sources alternately translate "ensures" (保) as "guarantees."

“Six Stabilities” and “Six Ensures” Frameworks Supplant GDP Target—Continued

to households to increase consumption.⁴⁸ Both aim to integrate separate economic policy levers, such as monetary or fiscal policies, in balancing multiple macroeconomic goals. The emphasis on coordinated policy outcomes is important political signaling to Chinese officials, as distinct government agencies and local governments often operate in bureaucratic silos and overtly compete for resources.⁴⁹

Consequences of a Lopsided Recovery

Though the extent of the government stimulus package marks a step change from fiscal support in previous years, the raft of policies mostly extended existing policy trends, and with them, perpetuated existing structural inequalities in China’s economy. Foremost, the government continued to lean on fiscal policy and shied away from broad monetary stimulus, hoping to avoid exacerbating systemic risks from China’s substantial corporate debt buildup. China’s debt-to-GDP ratio still increased to 283 percent by the end of the second quarter, from 260 percent a year earlier, even as some analysts suggest comparatively modest stimulus by the Chinese government may fall short of what is needed to create enduring recovery.⁵⁰ Whether or not China’s recovery proves sustainable, the net impact of the policy response has delayed a shift toward consumption-driven growth, contributed to further entrenchment of the state sector, and deepened enduring risks China’s unbalanced growth model presents to global economic stability.

Neglecting social welfare widens the wealth gap, impeding transition to a consumption-driven economy. A weak social safety net and lower job security compound income disparities between China’s urban residents and migrant laborers, as the latter are more likely to engage in “precautionary savings” to meet emergency costs.⁵¹ In testimony before the Commission, Dexter Roberts, nonresident senior fellow at the Atlantic Council, argued this pattern is at the root of China’s inability to increase consumption-led growth.⁵²

Investment in real estate further exacerbates China’s urban-rural wealth gap, especially as many buyers already own at least one home.⁵³ Because property is perceived as a safe haven for investors compared to China’s turbulent stock market and other risky alternatives, real estate transactions soared following the reopening of the economy and were spurred by government stimulus.⁵⁴ Of the 70 cities China’s National Bureau of Statistics tracks to gauge the real estate market, 61 reported increasing housing prices in June.⁵⁵ The previous month, resale prices shot up 12 percent year-on-year in Shenzhen, one of China’s most expensive residential markets.⁵⁶ Local regulators intervened to curb purchases in an attempt to cool rising prices in July.*⁵⁷

*These interventions included restricting home purchases to individuals with a Shenzhen residency permit who had paid local taxes or social security contributions (China’s social security fund is heavily dependent on local government revenues) for three years, and closing a loophole

Investment without consumption compounds overcapacity. Spurred by property construction and state-led infrastructure investment, including in digital connectivity, China's stimulus risks generating excess production where supply far exceeds demand. This could compound China's overcapacity problems, creating a glut of primary materials, industrial machinery, and information and communications technology in a manner similar to distortions created in solar and wind energy technologies, high-speed rail, and real estate in the wake of the 2008 global financial crisis. At the time, investment in real estate and high-speed rail kept the economy surging but did not generate genuine market demand, creating excess capacity in construction materials such as glass, cement, and steel that China dumped on world markets.

The current recovery follows a similar pattern, with a sharp increase in production of heavy machinery used in construction, such as excavation equipment, as well as record steel output in May and June of 2020.⁵⁸ For digital infrastructure, China's planned 5G network will expand coverage from 50 cities at the end of 2019 to 300 by the end of 2020* but may create tremendous excess capacity in telecommunications equipment along the way, leading Chinese firms to export telecommunications equipment at artificially low prices (see "Digital Infrastructure Investment Aims to Leapfrog United States" later in the section).⁵⁹ Aside from undermining the commercial competitiveness of U.S. and other countries' firms, dumping excess capacity on global markets reduces input prices, potentially causing a deflationary spiral. As businesses slim down to address lower revenues from decreasing prices, lack of demand in China and abroad would increase unemployment.

Stimulus adds to debt risk and asset bubbles. By focusing on fiscal rather than monetary stimulus, policymakers hoped to avoid repeating the rampant speculation, wasted investment, and ballooning corporate debt that followed China's response to the global financial crisis in 2008.⁶⁰ This approach has been partially successful at containing total debt growth, but still increases systemic financial risk. Tax cuts erode local governments' revenue, which had already deteriorated following tax cuts in 2019 and business shutdowns in the first quarter of 2020, in turn impeding their ability to meet servicing costs on several trillion dollars in debt.† The central government offset this revenue shortfall by nearly doubling the amount of debt local governments can issue to fund projects to \$529.7 billion (RMB 3.75 trillion) and directly transferring \$282.5 billion (RMB 2

where couples were getting divorced so they could legally qualify as two separate households and acquire more speculative properties. Lusha Zhang and Ryan Woo, "China's Shenzhen Tightens Home Purchase Curbs as Prices Spike," *Reuters*, July 15, 2020; Sidney Leng, "China's Social Security Fund Is Being Propped Up by Local Government Subsidies, but for How Long," *South China Morning Post*, August 25, 2020.

*By comparison, 5G was available in parts of 59 U.S. cities at the end of May 2020. Christian de Looper, "Where Is 5G Available? Our 5G Network Map Has the Details," *Digital Trends*, May 22, 2020.

†There is no agreed-upon measure for the total stock of local government debt, a large portion of which is not even officially recognized. The Ministry of Finance tallied official local government debt at 20 percent of GDP at the end of 2018. A Standard and Poor's report from 2018 estimated that when accounting for hidden debt, government debt may have reached 60 percent of GDP in 2017. Fran Wang, "Caixin Explains: How and Why China's Local Government Debt Got So Big," *Caixin*, April 16, 2019; Chi Lo, "Demystifying China's Local Government Debt," *BNP Paribas Asset Management*, December 20, 2019; "China's Hidden Subnational Debts Suggest More LGFV Defaults Are Likely," *S&P Global Ratings*, October 15, 2018, 1.

trillion) to city- and county-level governments.* While China's 3.6 percent central government deficit is not particularly large compared to many developed economies' response to the crisis,† China's central government implicitly or explicitly guarantees the debt of local governments and SOEs.‡ Continually running a deficit will constrain the central government's capacity to address potential crises from high corporate and local government leverage, growing household debt, and a large, mostly unrecognized portfolio of nonperforming loans in the banking sector.⁶¹ (For further discussion on financial risks in China's economy, see Chapter 2, Section 2, "Vulnerabilities in China's Financial System and Risks for the United States.")

Digital Infrastructure Investment Aims to Leapfrog United States

At the May 2020 annual legislative session (the "two meetings"), Premier Li announced plans for a \$1.4 trillion (RMB 10 trillion) investment in digital or "new" infrastructure through 2025, expected to generate an additional \$2.4 trillion (RMB 17.1 trillion) in related investments.⁶² The scope of the planned construction is broad, with calls to expedite 5G network deployment as well as broad technology fields like artificial intelligence and industrial internet.⁶³ The package subsumes a number of existing initiatives, including \$25 billion in 5G base station construction announced by China's three major telecommunications operators§ and Alibaba's \$28 billion three-year cloud infrastructure road map announced in April 2020.⁶⁴

To Beijing, the digital infrastructure push is important both for economic recovery and for strengthening China's technological foundation, particularly in competition with the United States. By establishing a solid lead over the United States in deployment of foundational technologies such as 5G, Chinese economic planners believe they can foster new downstream applications dependent on the high connection speeds, including autonomous vehicles, many smart cities technologies,¶ and advanced manufacturing capabilities that would also surpass U.S. capabilities.⁶⁵ Even as much of the country was in lockdown due to COVID-19, China's major telecommunications operators accelerated construction of

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

† By comparison, the United States' 12-month budget deficit reached 14 percent in June 2020, following passage of a \$3.5 trillion stimulus package in March that included issuance of the \$2 trillion economic impact payment. Exceeding just 3 percent represents an important threshold for Chinese policymakers. China's central government increased the budget deficit from 2.6 to 2.8 in 2019. Kate Davidson, "Coronavirus Spending Pushes U.S. Budget Deficit to \$3 Trillion for 12 Months through June," *Wall Street Journal*, July 13, 2020; Yawen Chen and Ryan Woo, "China Says Higher 2019 Budget Deficit Will Spur Growth, Won't Open Floodgates," *Reuters*, March 6, 2019.

‡ Creditors to local Chinese governments assume China's central government will back any debt issued by cities and provinces. In this system, a default by a local Chinese government could cause creditors to other local governments to worry about the safety of their loans and potentially spark a financial crisis. By contrast, in the United States the federal government is not liable for debt incurred by municipal governments. Detroit's bankruptcy in 2013 had no impact on perceptions of U.S. sovereign debt capacity or the integrity of the U.S. financial system.

§ These include China Mobile, China Unicom, and China Telecom.

¶ Smart cities systems employ networked technologies like cameras, sensors, and location devices to collect a wide variety of data for urban management, including traffic flow, energy usage, and crime. See Katherine Atha et al., "China's Smart Cities Development," *SOSI's Special Programs Division* (prepared for the U.S.-China Economic and Security Review Commission), April 29, 2020.

Digital Infrastructure Investment Aims to Leapfrog United States—Continued

5G base stations throughout the country.⁶⁶ Similarly, state-owned semiconductor manufacturer Yangtze Memory Technologies continued operation of a large factory in Wuhan, the epicenter of the virus.⁶⁷ Several analysts see the comprehensive technological infrastructure package as aimed at fulfilling objectives in Beijing's 2015 industrial policy Made in China 2025, which seeks to reduce China's dependence on foreign technology and establish Chinese firms at the leading edge of ten critical sectors.⁶⁸ New infrastructure plans from local governments also tie into China's ambitions to dominate artificial intelligence applications by creating data centers and data-sharing platforms for private firms to access urban data. A pilot project in Shanghai offers 34 billion data points to over 60,000 SMEs.⁶⁹

U.S.-China Trade Tensions Continue to Escalate

U.S.-China bilateral tensions continued to escalate in 2020 as both countries took steps to mitigate risks presented by their close economic relationship. Following the Section 301 investigation by the Office of the U.S. Trade Representative (USTR), which documented the Chinese government's pursuit of U.S. advanced technology, the U.S. government took a series of unilateral measures to counter the Chinese government's actions.* As part of this effort, in 2020 U.S. policymakers moved to halt the flow of U.S. advanced technology to Chinese companies that pose a national security threat, including Huawei, as well as to government entities and companies involved in human rights abuses in the Xinjiang Autonomous Region. By September 2020, a total of 108 Chinese entities had been added to the Entity List.† U.S. regulatory actions also focused on restricting U.S. transactions with Chinese firms, including purchases from enti-

*The Section 301 report is the latest in a long series of U.S. government investigations of China's technology development ambitions. U.S. government entities documented Beijing's state-sponsored pursuit of U.S. technologies as early as 1987, when the Office of Technology Assessment published a report documenting technology transfer to China. U.S. Congress Office of Technology Assessment, *Technology Transfer to China*, July 1987.

†The Entity List (Supplement No. 4 to part 744) identifies entities reasonably believed to be involved, or that pose a significant risk of being or becoming involved, in activities contrary to the national security or foreign policy interests of the United States. The 108 total figure includes affiliate entities. Counted entities include 24 entities involved in militarization and island-building in the South China Sea added on August 26, 38 Huawei affiliates added on August 17, 11 entities implicated in human rights abuses and genetic analysis for surveillance on July 20, nine entities implicated in human rights abuses and digital surveillance in Xinjiang added on May 22, 24 entities aiding and procuring items for the Chinese military added on May 22, and two entities that procured goods on behalf of another listed entity added on March 16. U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department Adds 24 Chinese Companies to the Entity List for Helping Build Military Islands in the South China Sea*, August 26, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department Further Restricts Huawei Access to U.S. Technology and Adds Another 38 Affiliates to the Entity List*, August 17, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department Adds Eleven Chinese Entities Implicated in Human Rights Abuses in Xinjiang to the Entity List*, July 20, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department to Add Nine Chinese Entities Related to Human Rights Abuses in the Xinjiang Uighur Autonomous Region to the Entity List*, May 22, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Commerce Department to Add Two Dozen Chinese Companies with Ties to WMD and Military Activities to the Entity List*, May 22, 2020; U.S. Department of Commerce Bureau of Industry and Security, *Addition of Entities to the Entity List, and Revision of Entry on the Entity List*, Federal Register 85:51 (March 16, 2020).

ties allegedly using forced labor. Key developments are summarized below:

- *Executive orders against TikTok and WeChat:* On August 14, the Trump Administration issued an executive order giving TikTok’s parent company, ByteDance, 90 days to divest its U.S. subsidiary.⁷⁰ This order followed two others issued on August 6 that initially required U.S. companies to desist from transactions with ByteDance and TikTok, as well as Chinese social media and messaging application WeChat, on September 20.⁷¹ In its orders, the Trump Administration stated that these mobile applications allow the CCP access to location data and other personal information stored on U.S. citizens’ phones.⁷² The executive orders also noted the apps reportedly censor content and could be used to conduct disinformation campaigns in line with the CCP’s political narrative.⁷³ WeChat obtained a nationwide injunction against implementing the order against it. TikTok similarly earned a preliminary injunction enabling it to avoid the restrictions just before they would have taken effect.⁷⁴ Court filings addressing other restrictions that go into effect on the 90-day TikTok sale deadline, November 12, are pending.⁷⁵
- *Final regulations to implement the Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA), issued in February 2020:* FIRRMA broadened the remit of the U.S. interagency investment screening body, the Committee on Foreign Investment in the United States (CFIUS). Following a year-long pilot program, the final FIRRMA regulations created a mandatory filing requirement for certain transactions and expanded the kinds of technologies and types of transactions subject to review. Among other updates, under new regulations, CFIUS may review noncontrolling investments into U.S. critical technologies and infrastructure, or into companies collecting sensitive data on U.S. citizens.⁷⁶
- *Pentagon lists companies connected with the Chinese government and military:* In June 2020, the Pentagon released a list of 20 companies representing “entities owned by, controlled by, or affiliated with China’s government, military, or defense industry.”* While the list creates no immediate obligation on these companies’ corporate partners, its release is intended to inform the private sector and academia of the risk of engagement with these parties. This list was first requested in the Defense Authorization Act of 1999; however, it was only produced for the first time in 2020.⁷⁷

*These 20 companies include: Aviation Industry Corporation of China (AVIC), China Aerospace Science and Technology Corporation (CASC), China Aerospace Science and Industry Corporation (CASIC), China Electronics Technology Group Corporation (CETC), China South Industries Group Corporation (CSGC), China Shipbuilding Industry Corporation (CSIC), China State Shipbuilding Industry Corporation (CSSC), China North Industries Group Corporation (Norinco Group), Hangzhou Hikvision Digital Technology Co., Ltd., (Hikvision), Huawei, Inspur Group, Aero Engine Corporation of China, China Railway Construction Corporation (CRCC), CRRC Corp., Panda Electronics Group, Dawning Information Industry Co. (Sugon), China Mobile Communications Group, China General Nuclear Power Corp., China National Nuclear Corp., and China Telecommunications Corp. Anthony Capaccio and Jenny Leonard, “Pentagon Names 20 Chinese Firms It Says Are Military-Controlled,” *Bloomberg*, June 24, 2020; Bethany Allen-Ebrahimian and Zach Dorfman, “Defense Department Produces List of Chinese Military-Linked Companies,” *Axios*, June 24, 2020.

- *New U.S. Department of Commerce Bureau of Industry and Security (BIS) rules closing loopholes for Huawei:* In mid-August, BIS issued a new rule closing loopholes that allowed Huawei access to U.S. technologies through sales by non-U.S. companies and manufacturers abroad.⁷⁸ Nikkei Asian Review reported Huawei's smartphone business* could be hard hit by this most recent rule, which covers even more commonly available chips.⁷⁹ In May, a BIS rule tightened restrictions on U.S. semiconductor exports to Huawei and its affiliates by subjecting foreign-manufactured technologies to export controls if produced by controlled software, technology, or equipment and sent to Huawei affiliates on the Entity List.⁸⁰ Entity List export controls previously exempted items manufactured outside of the United States that did not contain enough U.S.-origin content to meet a specified BIS threshold.[†] In late April, two other BIS rules imposed further restrictions on exports of U.S.-controlled technologies to China by expanding the definition of "military end use" to refer to the full product lifecycle and ending an exemption allowing civilian access to controlled technologies without a license.[‡] The rules address concerns that China's program of military-civil fusion § could lead to U.S. technology exports ostensibly for civilian end use, ultimately aiding China's military capabilities.⁸¹
- *BIS Entity List additions of Chinese companies engaging in surveillance, employing forced labor in Xinjiang, and island-building in the South China Sea:* In October 2019, June 2020, and July 2020, BIS added a total of 28 Chinese companies to the Entity List for employing forced labor and developing products, including technologies like facial recognition and genetic analysis, used to monitor and control the primarily Muslim minority population in Xinjiang.[¶] In August 2020, another 24 companies

* Huawei's consumer electronics business accounted for 54.4 percent of its sales revenue in 2019. Huawei, "Huawei Releases its 2019 Annual Report," March 31, 2020.

† This threshold is known as a de minimis rule. If controlled technologies' share of an item's value is beneath a de minimis percentage, a foreign-produced item is not subject to BIS export controls under the Entity List. Michael E. Leiter and Daniel Gerkin, "Commerce Department's New Export-Related Restrictions Inhibit Semiconductor Design by and Manufacturing for Huawei," *Skadden, Arps, Slate, Meagher & Flom L.L.P.*, May 18, 2020.

‡ For more information on new BIS regulations, see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, May 6, 2020, 4–5.

§ China's policy of military-civil fusion aims to facilitate transfers between the defense and civilian sectors to improve the sophistication of China's military technology. It also aims to drive economic innovation and growth and prepare for societal mobilization to support military objectives. For more on the policy background and implications for the United States, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 2, "Emerging Technologies and Military-Civil Fusion: Artificial Intelligence, New Materials, and New Energy," in *2019 Annual Report*, November 2019.

¶ On October 9, 2019, eight companies were added: Dahua Technology, Hikvision, iFlyTek, Megvii Technology, SenseTime, Xiamen Meiya Pico Information Co., Yitu Technologies, and Yixin Science and Technology. On June 5, 2020, nine entities were added: Ministry of Public Security's Institute of Forensic Science, Aksu Huafu Textiles Co., CloudWalk Technology, FiberHome Technologies Group and the subsidiary Nanjing FiberHome Starrysky Communication Development, NetPosa and the subsidiary SenseNets, Intellifusion, and IS'Vision. On July 22, 2020, 11 companies were added: Beijing Liuhe BGI, Changji Esquel Textile Co. Ltd., Hefei Bitland Information Technology Co. Ltd., Hefei Meiling Co. Ltd., Hetian Haolin Hair Accessories Co. Ltd., Hetian Taida Apparel Co., Ltd., KTK Group, Nanchang O-Film Tech, Nanjing Synergy Textiles Co. Ltd., Tanyuan Technology Co. Ltd., and Xinjiang Silk Road BGI. U.S. Department of Commerce Bureau of Industry and Security, "Addition of Certain Entities to the Entity List; Revision of Existing Entries on the Entity List," *Federal Register*, 85:141 (July 22, 2020); U.S. Department of Commerce Bureau of Industry and Security, "Addition of Certain Entities to the Entity List; Revisions of Existing Entries on the Entity List," *Federal Register*, 85:109 (June 5, 2020); U.S. Department

were added for their role in island-building in the South China Sea.⁸²

- *U.S. government procurement restrictions:* The 2019 National Defense Authorization Act (NDAA) Section 889, implemented in August 2020, restricts U.S. government procurement from five Chinese companies,* either directly or indirectly through purchasing equipment relying on those companies' components. It also prohibits federal contractors from using such equipment.⁸³
- *Import blocks on Chinese items made using forced labor:* On September 14, 2020, U.S. Customs and Border Patrol (CBP) announced Withhold Release Orders† against five Chinese entities allegedly using forced labor.⁸⁴ Four of the five entities are based in the Xinjiang Uyghur Autonomous Region: three companies and a so-called “vocational skills education and training center,” a euphemistic term used by the Chinese government to describe internment camps.⁸⁵ Another Withhold Release Order targets computer products made by a firm based in China's eastern Anhui Province.⁸⁶

In light of U.S. policy actions and deepening U.S.-China frictions, Beijing has taken or considered retaliatory action. This retaliation has not precisely matched U.S. measures, in part because Chinese companies may rely heavily on U.S. technology inputs in their supply chains. Retaliatory action has included:

- *Export Control Law:* In late December 2019, the National People's Congress (NPC) Standing Committee published a draft export control law to unify and consolidate existing export control lists. Lester Ross, Kenneth Zhou, and Tingting Liu of the law firm WilmerHale assessed the law was drafted “at least in part to give China statutory authority to counter U.S. export control measures targeting China.”⁸⁷ Similar to the U.S. export control regime, the law would allow Beijing to prohibit exports of sensitive technologies to specific end users and locations.⁸⁸ One key difference: Chinese export lists may also contain strategic resources like rare earth minerals, which would enable the Chinese government to disrupt global supply chains.⁸⁹ U.S. export controls under the Department of Commerce are limited to advanced technologies identified as dual-use for both civilian and military purposes and do not include raw materials. In moving to restrict commodity exports, China's export controls could function as a tool of economic coercion.‡

of Commerce Bureau of Industry and Security, “Addition of Certain Entities to the Entity List,” *Federal Register*, 84:196 (October 9, 2019).

*The companies are Huawei, ZTE, Hytera, Hikvision, and Dahua Technology. National Defense Industrial Association, “Section 889.”

†Withhold Release Orders require detaining imports from an entity that is, according to CBP information, reasonably but not conclusively shown to be producing goods using forced labor. If importers can demonstrate (e.g., through a supply chain audit) that the goods were not made with forced labor, then CBP will release the imports; however, if CBP establishes the goods were made with forced labor, it will seize the goods. U.S. Customs and Border Patrol Commercial Enforcement Division, *Fact Sheet: Forced Labor Enforcement, Withhold Release Orders, Findings, and Detention Procedures*.

‡China, which produces more than 80 percent of rare earth elements globally, has previously restricted rare earth exports. In 2010, China blocked rare earth element exports to Japan following Japan's detention of a Chinese fishing trawler. The trawler had collided with a Japanese

- *Unreliable Entity List*: In late 2019, China’s Ministry of Commerce reported it was developing an “Unreliable Entity List” targeting foreign companies, groups, and individuals who harm the interests of Chinese companies.⁹⁰ To that end, Chinese government officials have reportedly studied Chinese companies’ reliance on U.S. suppliers.* Though few details are available, the Chinese government raised the specter of the list several times as 2020 unfolded. In September 2020, the Chinese government finally released the details of how the list will be implemented, allowing the blacklisting of any foreign entity found to be “endangering national sovereignty, security or development interests of China.”⁹¹ Additional details have not yet been released.

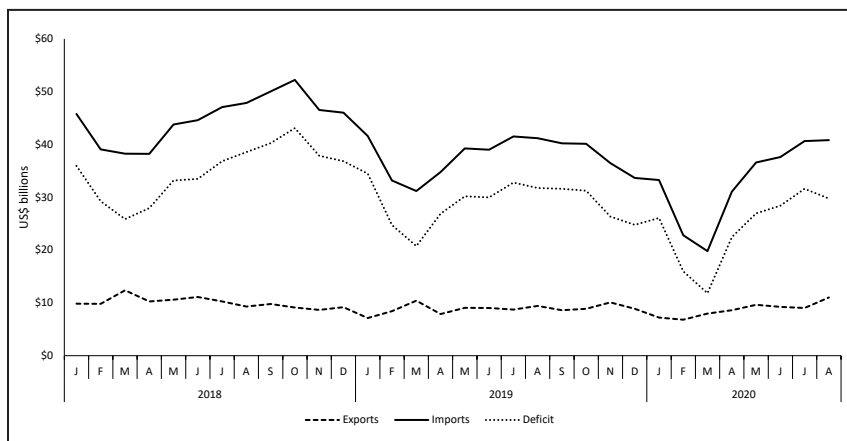
COVID-19 Upeaval Prompts Supply Chain Reassessment

U.S. imports from China had already begun to decline in 2019 due to ongoing trade tensions, the implementation of tariffs, and relocation of production to other countries as Chinese wages increased. By the end of 2019, the drop in U.S. imports from China had caused the U.S. trade deficit in goods to fall for the first time in six years, from a peak of \$419 billion in 2018 to \$345.2 billion, a decline of 17.6 percent (see Figure 1).⁹²

In early 2020, this downward trend sharpened due to the outbreak of COVID-19, though bilateral trade began to recover in mid-2020. U.S. imports from China fell steeply as lockdowns were instituted first in China and then internationally to prevent the spread of COVID-19. In China, the government’s imposition of restrictions on movement and production stoppages caused disarray in global shipping. The sharp decline in export volume led ship operators to dramatically cut capacity. Marine data company Alphaliner estimated that a record 2 million containers of shipping capacity were idled in late February 2020, greater than the 1.5 million estimated to be idled in 2009 at the height of the financial crisis.⁹³ For comparison, in 2019 Chinese ports had processed about 715,000 containers per day, or roughly 30 percent of global container traffic.⁹⁴ Container traffic had returned to pre-COVID-19 levels by fall 2020, with data from eight of China’s major ports showing a 4 percent year-on-year increase in volume in late September.⁹⁵

coast guard patrol boat near the Senkaku Islands. The United States, Japan, Mexico, and the EU brought a successful WTO case to challenge China’s use of export controls as unfairly monopolizing key inputs for electric car batteries, wind turbines, and other clean energy technologies. Jamie Smyth, “Industry Needs a Rare Earths Supply Chain Outside China,” *Financial Times*, July 27, 2020; *Reuters*, “China Loses Appeal of WTO Ruling on Exports of Rare Earths,” August 7, 2014; Tom Miles and Krista Hughes, “China Loses Trade Dispute over Rare Earth Exports,” *Reuters*, March 26, 2014; Keith Bradsher, “Amid Tension, China Blocks Vital Exports to Japan,” *New York Times*, September 22, 2010.

*Ministries reportedly involved in polling companies include the National Development and Reform Commission, the Ministry of Industry and Information Technology, and the Ministry of Commerce. Yoko Kubota, “China Studying Tech Companies’ Exposure to U.S. Suppliers,” *Wall Street Journal*, August 29, 2019.

Figure 1: U.S. Bilateral Trade with China, January 2018–August 2020

Source: U.S. Census Bureau, *Trade in Goods with China*, October 6, 2020.

As precautionary lockdowns lifted in China and product shipments began to pick up, Chinese exporters faced a demand shock as the virus began to spread in the United States, choking off domestic consumption. U.S. consumer spending suffered year-on-year declines of 4.7 percent in March, 16.5 percent in April, 9.6 percent in May, and 4.6 percent in June after slow but steady growth through 2018 and 2019.⁹⁶ This hit to consumer spending ricocheted back to China in the form of a drop in U.S. demand for Chinese exports. As of June, the U.S. bilateral trade deficit in goods with China stood at \$131.7 billion year-to-date, a drop of about 21 percent over 2019.⁹⁷ While in 2019 Chinese exporters were able to mitigate the fall in U.S. demand by selling to Southeast Asian and European markets, in 2020 the international spread of COVID-19 may limit the effectiveness of this strategy. Chinese trade data in early 2020 showed a marked slowdown, though mid-year data began to indicate recovery.*

U.S. Supply Chain Dependence on Chinese Medical Supplies and Pharmaceuticals

The COVID-19 outbreak exposed U.S. dependence on imports from China for a variety of products, most critically personal protective equipment (PPE) and certain pharmaceuticals. Research by the Congressional Research Service illustrated this dependence: in 2019, China accounted for over 15 percent of imports of medical ventilators and over 70 percent of imports of medical protective articles like masks.⁹⁸ Beyond medical equipment, the United States also relies on China for imports of both finished

*The COVID-19 epidemic strained China's international trade in the first quarter of 2020, with exports tumbling 13.3 percent and imports declining a more modest 3 percent as the virus shuttered factories and kept consumers at home. By June, however, exports and imports began to rise, signaling a preliminary recovery in demand both in China and abroad. Exports rose 0.5 percent year-on-year while imports expanded 2.7 percent in the same period. Sharon Chen et al., "China Posts Surprise Trade Gains as Economies Try to Reopen," *Bloomberg*, July 13, 2020; Max J. Zenglein and Maximilian Karnfelt, "MERICS Economic Indicators Q1 2020: China's Economy in the Corona Crisis: A Historic Fall," *Mercator Institute for China Studies*, May 2020, 6.

U.S. Supply Chain Dependence on Chinese Medical Supplies and Pharmaceuticals—*Continued*

medicines and active pharmaceutical ingredients (APIs)—inputs for medicines—though the exact quantity of these direct and indirect imports is unknown.

Because China is a major exporter of PPE, medical devices, pharmaceuticals, and APIs, its COVID-19-related production halt and slowdown in those exports contributed to shortages in the United States.* As global demand for PPE skyrocketed, Chinese factories shut down for an extended break over the Lunar New Year to contain the spread of illness, reducing production. Chad Bown, senior fellow at the Peterson Institute for International Economics, estimated that in 2018 about 43 percent of PPE imports internationally came from China, relative to 18 percent of all goods imports.† According to reports by the South China Morning Post, as the global outbreak widened, the Chinese government directed producers to prioritize supplying local demand over exports.⁹⁹

In its 2019 Annual Report to Congress, the Commission highlighted a number of risks to the United States stemming from its dependence on China for medical imports, including shortages, critical data gaps, and product safety concerns.‡ According to the U.S. Food and Drug Administration (FDA), 230 (or 13 percent) of its approved API manufacturing facilities are located in China.¹⁰⁰ In October 2019 testimony before the House Committee on Energy and Commerce’s Subcommittee on Health, Janet Woodcock, director of the FDA Center for Drug Evaluation and Research, said the center “cannot determine with any precision... the volume of APIs manufactured in China that is entering the U.S. market, either directly or indirectly” through use in medicines manufactured elsewhere.¹⁰¹ The lack of adequate supply chain data has complicated the task of anticipating serious drug shortages.

In light of rising trade tensions and pandemic-related disruptions, many companies around the world are reassessing their dependence on production networks centralized in China. There is limited timely data to track supply chain movements,§ but anecdotal evidence suggests multinational corporations are broadly considering a combination of strategies. Possible options include remaining in China, developing a “China + 1” model to diversify sourcing across multiple

*According to Dr. Bown, Chinese trade data indicated PPE exports fell by about 15 percent in the first two months of 2020. Chad Bown, “COVID-19: China’s Exports of Medical Supplies Provide a Ray of Hope,” *Peterson Institute for International Economics*, March 26, 2020; Karen M. Sutter, Andres B. Schwarzenberg, and Michael D. Sutherland, “COVID-19: China Medical Supply Chains and Broader Trade Issues,” *Congressional Research Service* R46304, April 6, 2020, 1.

†Dr. Bown also showed China was a major supplier both in aggregate and of specific products, including face shields, mouth-nose-protection equipment, protective garments, gloves, and goggles. Chad Bown, “COVID-19: China’s Exports of Medical Supplies Provide a Ray of Hope,” *Peterson Institute for International Economics*, March 26, 2020.

‡For more information on regulatory risks to U.S. pharmaceutical imports from China, see Chapter 3, Section 3, “Growing U.S. Reliance on China’s Biotech and Pharmaceutical Products,” in U.S.-China Economic and Security Review Commission, *2019 Annual Report to Congress*, November 2019, 252–255, 257–261.

§In particular, countries’ publicly available foreign direct investment data is published with a two-year lag by the UN Conference on Trade and Development (UNCTAD).

countries, “nearshoring” or “reshoring” production near consumers in the United States and elsewhere, and allowing greater redundancy and buildup of inventory in case of disruption. In an August 2020 report assessing the challenges companies face in supply chain realignment, McKinsey found that an array of factors shape how companies structure their supply chains. These include “specialization, access to consumer markets around the world, long-standing relationships, and economies of scale.”*

Remaining in China: Recent surveys by the American Chamber of Commerce (AmCham) in China indicate companies already operating in China may choose to keep at least part of their supply chains based there, though they were also hedging their bets.¹⁰² Of those companies surveyed in April 2020, 39 percent described China as a “top three” investment priority (a slight decrease from 42 percent in 2018), and 20 percent ranked it as the first priority (unchanged from 2018).¹⁰³ Notably, 37 percent of respondents reported they did not plan to expand foreign direct investment (FDI) and may in fact decrease it.¹⁰⁴

Though full-year data for 2020 U.S. FDI in China will not be available until 2021, preliminary data show that in the first five months of 2020, total foreign mergers and acquisitions in China reached \$9 billion, relative to \$4.4 billion in 2019 and \$4.7 billion in 2018.† Thilo Hanemann and Dan Rosen of Rhodium Group attributed this rise in mergers and acquisitions to three factors: the Chinese government’s increase in FDI caps leading foreign companies to take control of joint ventures, a growing Chinese middle class, and the improving quality of Chinese technology and industrial assets.¹⁰⁵ In 2019, U.S. FDI in China recovered from lower inflows in 2018. U.S. FDI in China totaled \$13.3 billion in 2019 relative to \$10.9 billion in 2018, the lowest inflow since 2009.¹⁰⁶ This recovery was seen most in automotive and transportation equipment; basic materials, metals, and minerals; electronics and electrical equipment; energy; and health, pharmaceuticals, and biotech (albeit from a lower base in the case of basic materials, metals and minerals; electronics and electrical equipment; and energy).¹⁰⁷

As another risk mitigation strategy, companies that rely on long supply chains may build in more redundancy to prevent disruptions. In the McKinsey survey, nearly half of respondents said they would increase their inventory of critical products.¹⁰⁸

“China + 1” diversification: Even before the COVID-19 outbreak, many companies across a range of industries were already pursuing more geographic diversification as a consequence of mounting U.S.-China trade tensions, rising labor costs in China, and other factors.¹⁰⁹ For example, Apple supplier Foxconn (a Taiwan company) recently moved some iPhone 11 production to a plant in Chennai,

*In total, 60 supply chain executives were interviewed in the McKinsey survey between May 15 and May 22, 2020. Knut Aliche, Richa Gupta, and Vera Trautwein, “Resetting Supply Chains for the Next Normal,” *McKinsey Global Institute*, July 2020, 3; Susan Lund et al., “Risk, Resilience, and Rebalancing in Global Value Chains,” *McKinsey Global Institute*, August 6, 2020.

†For reference, foreign mergers and acquisitions in China have averaged about \$20 billion to \$25 billion annually between 2010 and 2020. In 2019, they rose to \$35 billion, the highest amount in ten years. Thilo Hanemann and Daniel Rosen, “Who’s Buying Whom? COVID-19 and China Cross-Border M&A Trends,” *Rhodium Group*, June 18, 2020; Rhodium Group and the National Committee on U.S.-China Relations, “The U.S.-China Investment Hub.”

India. Counterpoint Research estimated about 29 percent of Apple's smartphone shipments in India during the first quarter of 2020 came from domestic facilities, decreasing to 17 percent in the second quarter of 2020.¹¹⁰

“Nearshoring” or reshoring: Shortages caused by the outbreak of COVID-19 intensified discussions of reshoring production in the United States or nearshoring production closer to consumer markets. According to the McKinsey survey, about 40 percent of respondents stated they intended to nearshore and increase their supplier base to improve resilience.¹¹¹ In May 2020, the Taiwan Semiconductor Manufacturing Company announced a \$12 billion chip factory in Arizona.¹¹²

Any supply chain changes may not be apparent in export data yet as the COVID-19 outbreak continued to disrupt export patterns as of August 2020. Eddy Bekkers and Sofia Schroeter, researchers at the WTO's Economic Research and Statistics Division, reported that in the first half of 2019, about \$21 billion in U.S. imports diverted from China to Mexico (\$6.8 billion), the EU (\$6 billion), Taiwan (\$4.5 billion), and Vietnam (\$2.8 billion), among other locations.* Mexico appeared to benefit temporarily. As U.S. goods imports from China fell throughout 2019, U.S. imports from Mexico rose to \$28.3 billion in January 2020 from \$25.9 billion in January 2018.¹¹³

Longstanding U.S.-China Trade Challenges Persist despite Phase One Agreement

In January 2020, nearly two years after the Section 301 investigation report into China's trade practices was released, the U.S. and Chinese governments signed a Phase One agreement. As part of this agreement, China committed to halt forced technology transfer, submit an IP action plan to improve protections, provide greater market access for financial services, reduce nontariff barriers to trade for U.S. agricultural goods, and meet purchase targets for U.S. manufacturing, agricultural, and service exports.

Although the deal was welcomed by many stakeholders, it left unaddressed longstanding distortions introduced by China's economic policies brought up by the Section 301 investigation. Notably, the Section 301 report highlighted the role of government subsidies in facilitating the acquisition of foreign technology. This financial support is coupled with local content requirements and other regulatory nontariff barriers to entry, which can prevent foreign firms from participating in the Chinese market even when their production is based in China.¹¹⁴ The Chinese government requires “China-unique” technical standards to prevent foreign companies from selling products manufactured according to internationally accepted specifications.¹¹⁵ In addition, while the Phase One agreement sought to expand market access for financial services and agricultural products, many U.S. industries still face investment barriers in China and are restricted in how they choose to structure their business, forcing them to accept local partners and share IP.¹¹⁶ (The Chinese

*These amounts can be seen relative to U.S. imports of \$218.7 billion from China in the first half of 2019, down from \$249.8 billion in the first half of 2018, as reported by the U.S. Census Bureau. Eddy Bekkers and Sofia Schroeter, “An Economic Analysis of the U.S.-China Trade Conflict,” *World Trade Organization Economics and Statistics Division*, February 26, 2020, 9.

government's Phase One commitments and compliance status are summarized in Addendum II.)

Technology Transfer

Under the terms of the Phase One agreement, the Chinese and U.S. governments committed to ensure foreign technology transfers and IP licensing would be “based on market terms that are voluntary and reflect mutual agreement,” with no “force or pressure” to transfer technology.¹¹⁷ The agreement stipulated that neither country would “require or pressure” technology transfer “in relation to acquisitions, joint ventures, or other investment transactions” or in “administrative and licensing requirements and processes.”¹¹⁸ These commitments reflected longstanding U.S. concerns that Chinese government entities use investment transactions, licensing and review processes, and other market access restrictions on foreign companies as leverage to pressure or force them into transferring valuable technology or disclosing IP.¹¹⁹

Enforcing the Chinese government's Phase One commitment to halt forced technology transfer is challenging, as illustrated by repeated efforts across U.S. administrations to address this issue. Chinese officials first committed not to condition market access on technology transfer in China's Protocol of Accession to the WTO in 2001. In its 2018 Section 301 investigation, the USTR documented ten additional instances between 2010 and 2016 where Chinese officials again pledged to refrain from conditioning U.S. companies' access to the Chinese market on technology transfer.¹²⁰

The Phase One agreement established a dispute resolution mechanism that does not require revealing company-specific or confidential business matters, but companies pressured to transfer technology may fear retaliation and could refuse assistance if their complaint identifies them.¹²¹ In April 2020, the USTR stated it was working with stakeholders to assess any changes in the Chinese government's conduct with regard to forced technology transfer.¹²² When the U.S.-China Business Council surveyed its members in May 2020, however, only about 18 percent of respondents reported their companies were likely or very likely to use the platform in the event of a dispute.¹²³

IP Protections

In addition to stating it would not “require or pressure” technology transfer, the Chinese government committed to “promulgate an [action plan] to strengthen intellectual property protection” 30 working days after the agreement entered into force.¹²⁴ This action plan would outline legal and procedural improvements to “implement its obligations” under the deal on a range of measures: trade secret misappropriation, delayed patent approvals, counterfeit and pirated products, and administrative challenges.¹²⁵ Alleged trade secret misappropriation would merit courts granting a preliminary injunction, and criminal penalties could apply if the means of misappropriation included “theft, fraud, [or unlawful] physical or electronic intrusion.”¹²⁶ In trade secrets cases, the burden of proof would shift to fall to the accused party to argue it did not misappropriate a trade secret.¹²⁷ In pharmaceutical patent disputes, China would

establish a nationwide system to notify patent-holders and early resolution measures when other market entrants sought to patent a possibly infringing product.¹²⁸ Patent terms would be extended to compensate for unreasonable delays, as foreign patent applicants have encountered an average five- to eight-year delay in approvals processes.¹²⁹ Chinese authorities would strengthen counterpiracy and counterfeit enforcement not only against infringing parties, but also against e-commerce platforms with repeated failures to halt the sale of counterfeits.¹³⁰

Chinese authorities also pledged to share information on and take actions to stop the sale of counterfeit medicine, biologics, and other products that pose consumer health and safety risks.¹³¹ IP experts described the IP provisions as the most potentially significant aspect of the agreement, particularly where they concerned enforcement.¹³² Prior revisions to China's IP protection regime had, on paper, satisfied many of China's obligations as required by the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights, though enforcement remained largely ineffectual across a number of areas addressed in the agreement.¹³³

Observers noted that recently drafted or enacted legal changes appeared to address China's Phase One IP commitments, albeit in a piecemeal fashion. In April 2020, the China National Intellectual Property Administration (CNIPA, formerly the State Intellectual Property Office) issued the 2020–2021 Implementation Plan for the “Opinions on Strengthening the Protection of IP,” released in November 2019.¹³⁴ In a joint letter, 41 U.S. trade associations described this plan as the anticipated IP Action Plan China had committed to release, stating the plan made progress toward protecting trade secrets, combating counterfeit products, and enhancing trademark and copyright protections.¹³⁵

Some longtime observers cautioned that the plan's release through CNIPA could weaken its implementation, as CNIPA is a division housed in the State Administration for Market Regulation, “a considerably lower level of government authority” relative to a separate agency.¹³⁶ Other observers noted China's lawmakers introduced or passed many legal revisions to the country's IP regulations before the agreement's conclusion, though Phase One negotiations and other long-running bilateral discussions on IP protection may have given Chinese negotiators a prior understanding of U.S. requests.¹³⁷

Agricultural Nontariff Barriers to Trade

The Chinese and U.S. governments affirmed they would not apply agricultural and food safety measures “in a manner which would constitute a disguised restriction on international trade.”¹³⁸ If implemented, China's commitments could lower nontariff barriers to trade in food and agricultural products, such as “overly burdensome licensing or inspection or registration or multiple layers of scientific review.”¹³⁹ Commitments targeted specific categories of agricultural products, including bioengineered agricultural products, which have faced delays of up to seven years before being approved for import by Chinese regulators.¹⁴⁰

According to the agreement, the Chinese government would accept certain U.S. risk assessments for beef products (e.g., for bovine spon-

giform encephalopathy, or mad cow disease) and allow for regional risk assessments in poultry products (e.g., for avian influenza).¹⁴¹ The USDA estimated that these and other regulatory changes could increase beef exports to China by \$1 billion.¹⁴² Other commitments included recognizing certain standards and classifications of infant formula and dairy products;* accepting U.S. reviews and certifications of seafood;† reducing protocols and inspections on distillers' dried grains; allowing quotas on grains like wheat, rice, and corn to be filled; and reducing delays in biotechnology approvals.‡¹⁴³

As commitments spanned a range of sectors, implementation has likewise been segmented across those sectors. In mid-May, the USDA said China had updated its lists of U.S. facilities eligible to export beef, pork, poultry, seafood, dairy, and infant formula.¹⁴⁴ China and the United States signed a regionalization agreement that would allow U.S. poultry exports to continue from certain regions in the event avian influenza is detected in another part of the United States.¹⁴⁵ Age restrictions on beef were also removed, which the USDA said allowed beef exporters access for nearly all beef products “for the first time since 2003.”¹⁴⁶

Experts cautioned that gains from the removal of nontariff barriers were not irreversible, as China could “come up with some brand new regulatory process or registration or new way of implementing a food safety law” and “put us back at square one.”¹⁴⁷ For agricultural biotechnology products in particular, trade association Biotechnology Innovation Organization noted that while China has promised to expedite the approval process for new products, it is unclear if it will impose preliminary hurdles to accepting new products for review.¹⁴⁸ China's approvals process for biotechnology agricultural products has been asynchronous, with reviews delayed until after new products have been first approved in another market, an outlier among other national regulators. Biotechnology Innovation Organization estimates resultant delays have prevented nearly \$15 billion in sales.¹⁴⁹

Goods and Services Purchase Agreements

As part of the agreement, China pledged ambitious increases in its purchases of particular U.S. “manufactured goods, agricultural goods, energy products, and services,” whereby purchase amounts “exceed the corresponding 2017 baseline amount by no less than \$200 billion.”¹⁵⁰ Specifically, between 2020 and 2021, China committed to purchase an extra \$77.7 billion in manufactured goods, \$52.4 billion in energy, \$32 billion in agricultural goods, and \$37.9 billion in services.¹⁵¹ The agreement identified specific products and services in each category that count toward these targets in a detailed annex.¹⁵² According to Dr. Bown, the purchase commitments require China to increase its purchases of selected goods to \$142.7 billion in 2020, and goods and services combined to an estimated \$210.9

*For instance, China shall “recognize the U.S. dairy-safety system as providing at least the same level of protection as China's dairy-safety system.”

†For instance, China shall allow imports of “aquatic product facilities considered to be in good regulatory standing by the FDA and also registered by the [General Administration of Customs of China].”

‡For instance, “China shall significantly reduce, to no more than 24 months, the average amount of time” between a company's submission and the final regulatory decision on biotechnology approvals.

billion in U.S. exports in 2020 and \$257.5 billion in 2021.*¹⁵³ As of August 2020, however, China had imported \$47.6 billion in covered goods, 50 percent of what China would have had to purchase on a prorated basis to be on track, or just 33 percent of the total target goods purchases from the United States for 2020.¹⁵⁴

When these targets were announced, observers questioned the Chinese government's ability to meet them, a concern exacerbated by the outbreak of COVID-19. U.S. exports to China in 2021 would have to be 92 percent higher than they were in 2017 to meet the terms of the deal.¹⁵⁵ The Phase One agreement text does not require China to increase U.S. purchases by the same amount each month; however, low purchases thus far indicate Chinese purchases will need to accelerate to meet the total end-of-year goal for 2020. The business community has urged the Chinese government to increase purchases to preserve the agreement, with little result. A letter from 41 business associations, led by the U.S. Chamber of Commerce, urged both sides to "redouble efforts" to implement the agreement.¹⁵⁶ In an interview, U.S.-China Business Council President Craig Allen said the council was "somewhat alarmed" that purchases had fallen well below the agreed-upon level.¹⁵⁷

U.S. Trade Representative Robert Lighthizer stated in Senate testimony in mid-June 2020 that "we have made it clear that China needs to find a way to satisfy all of its purchases commitments under the Phase One agreement" and that the USTR discusses "concerns with our Chinese counterparts as they arise."¹⁵⁸ As these are annual commitments, however, the USTR cannot "assess definitively" whether China has met purchase targets until the end of 2020.¹⁵⁹

Chinese Government Subsidies Remain Unaddressed

The Phase One agreement did not address longstanding bilateral economic challenges highlighted by the Section 301 investigation, most notably extensive Chinese government subsidies.¹⁶⁰ According to economist Nicholas Lardy, China dedicates about 3 percent of its GDP to direct and indirect corporate subsidies, financial support that allows companies to price goods below market and still remain in business.¹⁶¹ Consequently, these subsidies generate significant overcapacity, placing downward pressure on prices worldwide and hindering fair competition. Production in China continues to exceed demand in many sectors, from steel (China accounted for 51.8 percent of global crude steel production as of June 2018), to solar photovoltaic cells (China accounted for 73 percent of global cell production and 72 percent of global module production in 2018), to electric vehicles (China had 487 electric vehicle manufacturers as of July 2018).¹⁶²

Chinese government subsidies often target strategic and emerging technologies the Chinese government has flagged as industrial policy priorities. In testimony before the Commission, Barry Naughton, Sokwanlok Chair of Chinese International Affairs at

*These figures are calculated from a 2017 baseline of \$134.2 billion estimated by Dr. Bown. The USTR never lists an aggregated 2017 baseline purchase figure in the text of the agreement. According to Dr. Bown, about \$51.6 billion in U.S. exports to China in 2017 are not covered by this agreement. Chad Bown, "Unappreciated Hazards of the U.S.-China Phase One Deal," *Peterson Institute for International Economics*, January 21, 2020.

Chinese Government Subsidies Remain Unaddressed— *Continued*

the University of California San Diego, highlighted “massive” funds that operate like U.S. venture capital firms, designed to invest in such priority technologies.¹⁶³ Dr. Naughton indicated the planned aggregate scope of all such funds exceeded \$1.5 trillion, with the six largest funds alone accounting for \$249 billion, though not all the funds have been raised or deployed.¹⁶⁴

The Trump Administration has described the Phase One agreement as the first in a sequence, with subsequent negotiations addressing outstanding challenges not covered in the Phase One agreement. It is unclear when those negotiations might begin.¹⁶⁵

Market Access Commitments for U.S. Financial Services

The Chinese and U.S. governments requested that each country “ensure fair, effective, and nondiscriminatory participation in its market for services and services suppliers.”¹⁶⁶ To this end, China made a series of affirmations that could increase market access for U.S. financial service providers, another long-awaited development. These affirmations include loosening particular restrictions on investment, reducing specific regulatory requirement thresholds,* and expediting review processes for license applications in the banking, credits ratings, electronic payments, asset management, insurance, and securities industries.¹⁶⁷ China agreed to allow wholly U.S.-owned credit ratings agencies to rate Chinese domestic bonds and remove foreign ownership caps, licensing requirements, and other barriers from U.S. life, pension, and health insurance companies seeking to enter the market.¹⁶⁸ China also pledged to expedite regulatory determinations on long-pending applications from U.S. electronic payment services, including “any license application of Mastercard, Visa, and American Express.”†

Implementation of these commitments is visible in incremental regulatory approvals of U.S. financial service companies’ expanded operations and investment in China, which began in early 2020. In late January, ratings agency Standard & Poor’s received approval to begin rating local Chinese bonds.¹⁶⁹ The China Securities Regulatory Commission approved Goldman Sachs and Morgan Stanley to hold a majority stake in their mainland securities businesses, allowing the banks to increase stakes in their respective joint ventures from 33 and 49 percent, respectively, to 51 percent in March 2020.¹⁷⁰ The securities regulator also allowed JPMorgan to take full control of its futures business in June.¹⁷¹ The People’s Bank of China approved Mastercard and American Express to process transactions in RMB in February and June, respectively, allowing their Chinese joint ventures to begin operating.¹⁷²

*For instance, to provide securities investment services, a U.S. “parent company’s overseas assets shall be taken into consideration” to meet “applicable asset requirements,” as opposed to meeting asset requirements by solely counting the subsidiary’s assets within China.

†For instance, in electronic payments, “no later than one month after a U.S. service supplier” has completed preparations to provide services, China shall make a “determination with respect to [its] application... within 90 working days.” Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 4–1 to 4–4.

The approval of credit card companies illustrated the degree to which Chinese government's pledges on financial market access simply renewed prior unkept promises.* Despite commitments made upon its WTO accession in 2001,† China's financial markets have remained relatively closed. As of June 2018, foreign-funded banking institutions held just 1.7 percent of assets in China, relative to 3 percent in Asia and 10 percent in the United States and other Organization for Economic Cooperation and Development (OECD) countries.¹⁷³

Looking at the downside, rather than upholding longstanding promises, the Chinese government's commitments on market access for financial services align with the government's plans to encourage more financial flows into China, driven by profound domestic need for foreign capital. As a note by financial data provider Refinitiv said, China's financial opening is a "one-way ticket" that "does nothing to increase flows of capital out of China."¹⁷⁴ This financial opening is carefully calibrated to allow Chinese financial regulators to retain control over capital flows and allocation in China. Greater flows of foreign capital into China mean Phase One agreement commitments may present increased risks to U.S. investors if they lead to increased U.S. investment into opaque or risky assets. (For more information on China's financial opening, see Chapter 2, Section 2, "Vulnerabilities in China's Financial System and Risks for the United States.")

Risks of Greater Financial Integration with China

While they may present substantial commercial opportunities for U.S. firms and investors, China's commitments to open its financial sector to foreign investment and competition are by no means synonymous with liberalizing the sector. Though China's government is finally fulfilling unmet obligations of China's WTO accession protocol years behind schedule, this opening serves the Chinese government's interest, as China's undercapitalized banks are eager to offload distressed assets and bolster their balance sheets with fresh capital. Increased foreign investment may furnish the inefficient and mismanaged financial sector with foreign capital, thus subsidizing the Chinese government's trade-distorting practices. Furthermore, the Chinese government's continued intervention in the financial system and restrictions on cross-border capital flows could expose systemically important U.S. financial institutions to operating risks, political risk, and competition with local rivals on unfair terms. Greater U.S. financial integration also exposes U.S. investors to all of the risks associated with China's domestic business environment and securities markets, including poor governance and accounting standards, weak regulatory oversight, frequent political intervention, and volatile market dynamics.

*Opening to foreign credit card companies had been broadly anticipated as one of China's WTO commitments when it acceded in 2001. This opening never occurred, and the United States filed and won a WTO case against China regarding these market access restrictions. Despite these actions, U.S. credit card companies only received permission to establish a credit card network in late 2018. Jeanne Whalen and Gerry Shih, "Beijing's Blockade of U.S. Credit Card Companies May Finally End — Now that Chinese Companies Dominate," *Washington Post*, January 20, 2019.

†Under its 2001 WTO accession protocol, China promised to remove market access restrictions for foreign financial institutions, committing to a five-year phase-in for banking services and assuring foreign insurers they would be permitted to set up wholly owned life insurance companies by 2006.

Chinese Financial Regulators Are Eager for Foreign Capital and Expertise

Relaxed restrictions on foreign capital inflows come as Chinese policymakers are eager to attract foreign investment to recapitalize the heavily indebted banking sector and offset slowing domestic investment and industrial output growth. A fresh infusion of foreign capital may allow Chinese banks to roll over delinquent loans and keep perennially loss-making enterprises afloat rather than pushing through much-needed reforms to address systemic financial risks.* China's financial regulators are particularly eager to encourage foreign financial institutions to enter China's distressed debt market, as the country continues a multiyear effort to reduce high inventories of nonperforming corporate loans. Among the first concrete moves following the Phase One agreement, Beijing's local financial regulator allowed U.S. private equity firm Oaktree Capital Management to register as the first foreign provincial-level asset management company.†¹⁷⁵

Beyond bailing out the banking sector, Chinese policymakers are eager to bring foreign expertise to improve the sophistication of China's financial services. Allowing foreign fund managers to invest in key areas like Chinese pension funds could foster China's nascent pension management market and reverse a trend of low returns on retirement savings—a critical need as China faces declining labor force participation and likely pension fund shortfalls.¹⁷⁶

U.S. Financial Services Firms and Investors Face Operating and Political Risks

Chinese leaders view their control over the financial system as central to the planned economy, with capital flows channeled toward realizing government objectives. Continued ability to manage tight capital controls is fundamental to China's currency regime, while providing cheap credit for SOEs is critical to China's industrial policy, energy security, foreign engagement, and other CCP priorities. Even where there is genuine intent to reduce credit risk and improve transparency within China's business environment, Chinese regulators are often politically powerless to impose financial discipline on major SOEs, as officials often pressure banks to grant them favorable interest rates and even loan forbearance.¹⁷⁷ Entering China's financial sector, U.S. financial institutions face all the same risk that previous waves of U.S. multinational enterprises faced and more. Furthermore, the systemic importance of these institutions magnifies the United States' exposure to these firms' decisions and setbacks in their Chinese operations. Specific risks to U.S. firms and investors are detailed below.

China's government uses market access as political leverage. Opening China's financial services and markets to foreign investment creates another chokepoint the CCP can use to retaliate

*Foreign investment would increase Chinese banks' total equity, meaning they would have a greater ratio of assets to liabilities and could take on further debt or continue to extend the loan terms of delinquent borrowers, often politically connected SOEs.

†First established in 1999 to clean up major Chinese banks' balance sheets after the East Asian Financial Crisis and prepare them for foreign stock listings, asset management companies buy and dispose of banks' nonperforming loans, recapitalizing the banks and attempting to recoup value from the distressed assets. Barry Naughton, *The Chinese Economy: Transitions and Growth* (MIT Press, 2007), 462–463.

for political stances it does not like. For instance, on January 2, 2020, China temporarily suspended new listings on the Shanghai-London Stock Connect,* allegedly in response to the United Kingdom's stance on the Hong Kong protests.¹⁷⁸ The China Securities Regulatory Commission initially declined to comment, then denied reports of the suspension and claimed the Connect was operating normally, despite a delayed listing by a Chinese company.¹⁷⁹

Allowing foreign investment does not mean quick market entry. Removing legal restrictions to foreign participation in China's financial services market is no guarantee U.S. companies will gain quick access. Financial regulators may impose many additional licensing requirements and license application processing times can stretch for years, incentivizing foreign firms to expedite market entry through costly domestic acquisitions. PayPal first applied for a payments license in China in 2011. It was finally able to obtain approval to conduct online payments in September 2019 by acquiring a 70 percent stake in domestic competitor GoPay.†¹⁸⁰ Moreover, regulation can be highly fragmented for similar financial activities. For instance, foreign firms investing in domestic asset managers face different ownership restrictions and are regulated by different agencies depending on whether they are investing in the asset management business of a securities firm or a bank.¹⁸¹

Foreign financial institutions will not compete on equal footing. In some financial services, new access for foreign participants may come too late, as decades-long restrictions have allowed Chinese companies to completely corner the market.¹⁸² For instance, China's life insurance market,‡ which totaled \$313 billion in insurance premiums during 2018, is an attractive market prospect, but foreign joint ventures do not have the distribution network of local competitors and have not grown as quickly.¹⁸³ Point-of-sale retail payments are an even more extreme case. Foreign credit card companies were denied entry into the Chinese market for years, while local incumbent UnionPay maintained a monopoly on card networks.¹⁸⁴ American Express was finally granted a license in November 2018§ and approved to start operations in June 2020.¹⁸⁵ By then, however, mobile payment applications Alipay and WeChat Pay had grown to displace card network transactions, claiming more than 90 percent of the \$27 trillion mobile payments market in 2018.¹⁸⁶ The apps operate on a wholly different

*The Shanghai-London Stock Connect, launched in June 2019, allows Chinese companies listed in Shanghai to raise capital overseas and allows foreign companies to list in mainland China. London Stock Exchange Group, "Shanghai-London Stock Connect."

†Terms of the deal, which was completed on December 19, 2019, have not been disclosed. The only other foreign online payments license holder, German fintech group Wirecard AG, similarly bought its way into China's market in November 2019 by acquiring an 80 percent stake in Beijing-based AllScore Payment Services for up to \$81 million. Sarah Perez, "PayPal Completes GoPay Acquisition Allowing the Payments Platform to Enter China," *TechCrunch*, December 19, 2019; Huang Dazhi, "Third Party Payments Industry Changes from 2017 to 2019 (从2017到2019第三方支付行业之变)," *Sina Finance*, December 7, 2019. Translation; Jan-Patrick Barnert and Eyk Henning, "Germany's Wirecard Buys Chinese Payments Provider AllScore," *Bloomberg*, November 5, 2019.

‡As a market classification, life insurance is distinct from property and casualty insurance and also includes annuities and health insurance.

§ Chinese regulators officially ended UnionPay's monopoly in 2015. *Bloomberg News*, "AmEx Moves Closer to Entering China's \$27 Trillion Market," January 8, 2020.

business model,* vastly reducing U.S. credit card companies' ability to compete effectively in China.

Turbulent markets, poor transparency, and weak regulation place U.S. investors' assets at risk. Portfolio investment in China's securities market entails substantial risks of which U.S. investors may not be fully aware. Foremost, China's equities markets are highly volatile, driven by short-term speculative investment, and rife with insider trading.¹⁸⁷ China's fixed-income markets likewise do not accurately price risk or reflect underlying fundamentals, as government guarantees to bond issuers have artificially lowered the default rate and Chinese credit rating agencies systematically inflate bond ratings.[†]¹⁸⁸ These distortions are compounded by frequent government intervention to stabilize financial markets, further obfuscating securities' true risks. To reduce volatility, Chinese regulators have imposed a standing 10 percent cap on intraday price swings for individual equities and also dispatched a "national team" of brokerages to buy large tranches of stocks during market downturns.¹⁸⁹

Beyond risky market dynamics, disclosures do not provide sufficient transparency into a company's financial health and operating risks due to weak accounting practices, governance standards, and regulatory enforcement.¹⁹⁰ Moreover, the prevalence of passive investment management products, such as index funds, also obscures potential investments in corporations that may be advancing objectives contrary to U.S. national security interests.¹⁹¹ (For further analysis of risks of investing China's securities markets, see Chapter 2, Section 2, "Vulnerabilities in China's Financial System and Risks for the United States.")

* In the United States, card networks like American Express, Visa, and MasterCard make money from interest payments on credit and interchange fees, a small percentage of each transaction usually paid by merchants. Chinese consumers prefer debit transactions, and Alipay and WeChat Pay offer many payments free of charge or with a fraction of a percent charge to the customer. Aaron Klein, "Is China's New Payment System the Future?" *Brookings*, June 2019, 15–16.

† Credit ratings help investors differentiate between bonds with higher credit risks (those assigned a lower credit rating) and lower credit risk (those assigned a higher credit rating). Investment-grade bonds with the safest credit rating are rated as AAA, while those with the lowest credit rating are rated as C. Fifty-four percent of Chinese corporate bonds were rated AAA at the end of 2018, compared to 6 percent of U.S. corporate bonds. Nina Boyarchenko and Or Shachar, "What's in A(AA) Credit Rating?" *Liberty Street Economics*, January 8, 2020; Marlene Amstad and Zhiguo He, "Chinese Bond Markets and Interbank Market," in *The Handbook of China's Financial System*, 28–29.

Addendum I: Stimulus Measures Announced at the 2020 NPC

Type of Stimulus	Amount	Primary Beneficiary
Budget deficit increase	From 2.8 percent of GDP for 2019, or \$389.8 billion (RMB 2.76 trillion), to 3.6 percent of GDP for 2020, or \$531 billion (RMB 3.76 trillion).	The increase funds a special transfer to local governments.
Special treasury bonds	\$141.2 billion (RMB 1 trillion)	The bonds fund a special transfer to local governments.
Special transfer mechanism	\$282.5 billion (RMB 2 trillion), paid directly to city- and county-level governments rather than to provincial governments for disbursement to subordinate governments.	Local governments
Local government debt issuance quota increase	\$529.7 billion (RMB 3.75 trillion) for “special purpose bonds” tied to revenue from specific projects or funds rather than used to finance general government operation. This is an increase of \$226 billion (RMB 1.6 trillion) from 2019.	Local governments, although ultimately these funds will be used to pay for infrastructure and other projects.
Tax and fee cuts, lower interest rates, utility cost reductions, paying firms’ unemployment insurance	\$565 billion (RMB 4 trillion), which is the same size in nominal terms as the fiscal component of Beijing’s massive stimulus in response to the global financial crisis.	SMEs
Lending quotas, loan forbearance, and other monetary and credit policy	China’s six largest commercial banks must increase lending to SMEs by 40 percent in 2020. Loan forbearance for SMEs extended from June 2020 to March 2021.	SMEs
Digital infrastructure investment	\$423.7 billion (RMB 3 trillion) in 2020 and reportedly \$1.4 trillion over the next five years in infrastructure, as well as \$339 trillion (RMB 2.4 trillion) in related investments.	Large, mostly state-owned firms

Source: Various.¹⁹²

Addendum II: Beijing's Phase One Deal Commitments

Phase One Commitment	Commitment Target	Interim Result	Outstanding Concerns
Purchase Targets	Beijing committed to increase purchases of U.S. goods by at least \$200 billion over 2017 levels over two years: \$76.7 billion in 2020 and \$123.3 billion in 2021.	As of early May, U.S. imports stood at less than half the average monthly purchase target. Trade data provider Panjiva reported China had fallen \$21.2 billion behind schedule in the first quarter of 2020, as Chinese companies imported little during the COVID-19 outbreak. ¹⁹³	Beijing leveraged SOEs for some of the purchases, raising concerns that it is using the agreement to strengthen government actors in the economy.
Address IP Violations	The agreement included changes to address longstanding concerns over China's administration of the IP lifecycle: patenting, licensing, and civil and criminal enforcement. The agreement required China to establish an action plan to deter IP theft and counterfeiting, as well as to enforce court judgments. Other IP provisions aim to create a level playing field for foreign firms and ensure stronger IP protection in valuable markets such as pharmaceuticals.	On April 20, 2020, CNIPA released a 2020–2021 plan to implement guidance on strengthening IP protection.	China legal expert Mark Cohen noted that while the CNIPA guidance appears to reflect the Phase One agreement in its timetables and delegation of responsibility, CNIPA is administratively subordinate to the State Administration of Market Regulation and may lack the authority to implement the plan. ¹⁹⁴
Eliminate Forced Technology Transfer	The agreement prohibits Beijing from conditioning market access on transfer of technology—reiterating a commitment Beijing made in its 2001 WTO accession protocol—and directing overseas investment with the explicit aim of acquiring technology to fulfill industrial policy goals. ¹⁹⁵	The agreement includes no monitoring guidelines, enforcement mechanisms, deadlines, or targets.	The agreement lacks metrics to evaluate Beijing's compliance. Chinese law already prohibits conditioning regulatory approvals on technology transfer, but requests continue. U.S. companies are reluctant to come forward in cases of forced technology transfer for fear of reprisal.

Addendum II: Beijing's Phase One Deal Commitments—Continued

Phase One Commitment	Commitment Target	Interim Result	Outstanding Concerns
Liberalize Financial Services	Beijing agreed to remove investment restrictions, reduce regulation, and review pending license applications of U.S. companies in its domestic banking, credit rating, electronic payments, asset management, insurance, and securities industries.	Beijing committed to allow U.S. credit ratings agencies to acquire majority ownership in existing joint ventures and review U.S. companies' applications for credit rating services for onshore securities. This step repeated a promise Beijing made as part of the U.S.-China 100-day action plan in April 2017.	Many of Beijing's financial services commitments are restatements or minor improvements on pledges in progress.
Increase Agricultural Market Access	Beijing agreed to permit the import of beef, pork, and processed meat that passes inspection by the U.S. FDA Food Safety and Inspection Service. Beijing also committed to reduce the review and approval period for genetically modified products to "no more than 24 months," down from the prior approval period of five to seven years.	According to former trade negotiator Darci Vetter, provisions on U.S. meat, poultry, and specialty dairy products appeared promising in terms of increasing market access. The deal text also pledged to reduce burdensome registration, licensing, and bureaucratic processes for U.S. agricultural exporters. ¹⁹⁶	Trade association BIO expressed continuing concerns regarding U.S. biotech developers' lengthy wait for product approvals, as Chinese regulators will not begin the approvals process until U.S. regulators have completed their review. ¹⁹⁷

Source: Compiled by Commission staff.

ENDNOTES FOR SECTION 1

1. CK Tan, "China's Q2 GDP Growth Beats Forecasts and Recovers 3.2%," *Nikkei Asian Review*, July 16, 2020.
2. China National Bureau of Statistics via CEIC.
3. China National Bureau of Statistics via CEIC.
4. China National Bureau of Statistics, "Preliminary Accounting Results of GDP for the Second Quarter and First Half of 2020 (2020年二季度和上半年国内生产总值(GDP)初步核算结果)," July 17, 2020. Translation; CK Tan, "China's Q2 GDP Growth Beats Forecasts and Recovers 3.2%," *Nikkei Asian Review*, July 16, 2020. <https://asia.nikkei.com/Economy/China-s-Q2-GDP-growth-beats-forecasts-and-recovers-to-3.2>.
5. Luan Zhao et al., "Leaning Forward: COVID-19 and China's Reform Agenda," *World Bank Group*, July 2020, 16.
6. Luan Zhao et al., "Leaning Forward: COVID-19 and China's Reform Agenda," *World Bank Group*, July 2020, 17.
7. Tianlei Huang and Nicholas Lardy, "Bias against Private Sector Slows China's Recovery from COVID-19," *Peterson Institute for International Economics*, April 28, 2020.
8. Martin Hart-Landsberg, "China Has an Unemployment Problem," *Monthly Review Online*, March 14, 2019; Laurent Belsie, "Official Statistics Understate Chinese Unemployment Rate," *National Bureau of Economics Research Digest* (October 2015).
9. China National Bureau of Statistics, "Urban Surveyed Unemployment Rate (%)," September 30, 2020.
10. *Bloomberg News*, "China Brokerage Retracts Estimate That Real Jobless Level Is 20%," April 27, 2020.
11. Tianlei Huang, "China's Migrant Workers Need Help in the Economic Downturn," *Peterson Institute for International Economics*, May 14, 2020; Yan Liang, "How China Can Avert an Employment Crisis," *Diplomat*, June 16, 2020.
12. *China Labour Bulletin*, "Migrant Workers and Their Children," May 11, 2020.
13. Emily Feng and Amy Cheng, "With China's Economy Battered by Pandemic, Millions Return to the Land for Work," *NPR*, June 8, 2020.
14. Sun Yu and Christian Shepherd, "China Struggles with Sharp Rise in Unemployment," *Financial Times*, April 22, 2020.
15. Luan Zhao et al., "Leaning Forward: COVID-19 and China's Reform Agenda," *World Bank Group*, July 2020, 17–18.
16. Luan Zhao et al., "Leaning Forward: COVID-19 and China's Reform Agenda," *World Bank Group*, July 2020, 17–18; World Bank Group and State Council Development Research Center, *Innovative China*, 2019, 6, 12.
17. CK Tan, "China's Q2 GDP Growth Beats Forecasts and Recovers 3.2%," *Nikkei Asian Review*, July 16, 2020; China National Bureau of Statistics, "The Overall Plan for Epidemic Prevention and Development Achieves Remarkable Results: National Economy Gradually Recovers in the First Half of the Year (统筹防疫和发展成效显著上半年国民经济逐步复苏)," July 16, 2020. Translation.
18. CK Tan, "China's Q2 GDP Growth Beats Forecasts and Recovers 3.2%," *Nikkei Asian Review*, July 16, 2020.
19. Sun Yu and Yuan Yang, "Why China's Economic Recovery from Coronavirus Is Widening the Wealth Gap," August 18, 2020.
20. Sun Yu and Yuan Yang, "Why China's Economic Recovery from Coronavirus Is Widening the Wealth Gap," August 18, 2020.
21. Sun Yu and Yuan Yang, "Why China's Economic Recovery from Coronavirus Is Widening the Wealth Gap," August 18, 2020.
22. Abraham Inouye, "Livestock and Products Annual—China," *United States Department of Agriculture Foreign Agricultural Service* CH2019-0205, August 7, 2020, 11; Dominique Patton, "China Pork Output Edges Up in 2017 from Year Before," *Reuters*, January 18, 2018.
23. Hallie Gu and Dominique, "China's Looming Corn Shortage Fans Food Security Unease," *Reuters*, September 1, 2020; Shaobing Peng et al., "China Cereals," *Global Yield Gap Atlas*.
24. Eva Dou, "China's Mealtime Appeal Amid Food Supply Worries: Don't Take More than You Can Eat," *Washington Post*, October 5, 2020.
25. Wenlang Zhang and Daniel Law, "What Drives China's Food-Price Inflation and How Does It Affect the Aggregate Inflation?" *Hong Kong Monetary Authority*, July 29, 2010, 4.
26. Eva Dou, "China's Mealtime Appeal amid Food Supply Worries: Don't Take More than You Can Eat," *Washington Post*, October 5, 2020.
27. Eva Dou, "China's Mealtime Appeal amid Food Supply Worries: Don't Take More than You Can Eat," *Washington Post*, October 5, 2020.

28. Eva Dou, "China's Mealtime Appeal amid Food Supply Worries: Don't Take More than You Can Eat," *Washington Post*, October 5, 2020; *Xinhua*, "Xi Jinping Made Important Instructions, Emphasizing Resolutely to Stop Food Waste, Earnestly Cultivate the Habit of Saving, and Create an Atmosphere of Shameful Waste and Pride In Saving the Whole Society (习近平作出重要指示强调 坚决制止餐饮浪费行为切实培养节约习惯 在全社会营造浪费可耻节约为荣的氛围)," August 11, 2020. Translation.

29. Wang Qi, "China Launches Clean Plate Campaign 2.0 as Xi Calls for End to Food Wastage," *Global Times*, August 13, 2020. Abraham Inouye, "Livestock and Products Annual—China," *United States Department of Agriculture Foreign Agricultural Service* CH2019-0205, August 7, 2020, 13; Orange Wang, "China Corn Video Stokes Food Security Fears amid Coronavirus Pandemic, Flooding and Drought," *South China Morning Post*, August 3, 2020.

30. *Bloomberg News*, "China Pushes Factories to Reopen, Risking Renewed Virus Spread," February 24, 2020.

31. João Marques Lima, "China Is About to Go on a \$3.8tr Digital Infrastructure Investment Spree," *Data Economy*, May 28, 2020.

32. Charlene Barshesky et al., "China's National People's Congress," *WilmerHale*, June 1, 2020; Li Keqiang, "Full Text of the 2020 Government Work Report (2020年政府工作报告全文)," *State Council of the People's Republic of China*, May 22, 2020. Translation.

33. Christine Wong, "The Fiscal Stimulus Programme and Public Governance Issues in China," *OECD Journal on Budgeting* 11:3 (2011): 6–8.

34. State Council of the People's Republic of China, *The General Office of the CCP Central Committee Issues the "Opinions on Strengthening the United Front Work of the Private Economy in a New Era"* (中共中央办公厅印发《关于加强新时代民营经济统战工作的意见》), September 15, 2020. Translation.

35. Guang Tao, "Guang Tao: What Is the Background of the 'Dual Circulation' Strategy (管涛: "双循环" 战略的背后深意是什么?)," *Sina Finance*, August 6, 2020. Translation.

36. Jude Blanchette and Andrew Polk, "Dual Circulation and China's New Hedged Integration Strategy," *Center for Strategic and International Studies*, August 24, 2020.

37. Boxun, "19th Fifth Plenum to be Held from October 26 to 29 (十九届五中全会将于10月26日至29日举行)," September 28, 2020. Translation; *BBC*, "Xi Jinping Frequently Mentions 'Dual Circulation' Economy, Perhaps to Pave the Way for the 14th Five-Year Plan (习近平频频提及经济 "双循环" 或为 "十四五" 规划铺路)," August 25, 2020. Translation.

38. Han Shengjiang, "State Council Executive Meeting Once Again Stresses 'Six Guarantees': Keeping the Bottom Line of 'Guarantee' and Stabilizing the Economic Fundamentals" (国务院常务会议再强调 "六保": 守住 "保" 这一底线, 稳住经济基本盘), *The Paper*, May 15, 2020. Translation; *Xinhua*, "Politburo of CCP Central Committee Convenes Meeting Chaired by Xi Jinping" (中共中央政治局召开会议 习近平主持), April 17, 2020. Translation; Qiu Haifeng, "Six Stabilities: Precise Policy Protects Development" (六个稳: 精准施策保发展), *People's Daily*, August 4, 2018. Translation.

39. Li Keqiang, "Full Text of the 2020 Government Work Report (2020年政府工作报告全文)," *State Council of the People's Republic of China*, May 22, 2020. Translation; Li Keqiang, "Report on the Work of the Government," *Wall Street Journal*, March 5, 2018, 20; Li Keqiang, "Full Text: Report on the Work of the Government," March 16, 2017, *Xinhua*; Li Keqiang, "Report on the Work of the Government," *Wall Street Journal*, March 5, 2016, 15. http://online.wsj.com/public/resources/documents/NPC2016_WorkReport_English.pdf.

40. Jia Kang, "Why Isn't China's Government Directly Sending Cash to All of the Common People? (中国政府为什么不向全体老百姓直接发现金)," *Jia Kang Study Platform*, April 11, 2020. Translation, qtd. in Andrew Batson, "Why China Isn't Sending Money to Everyone," *Andrew Batson's Blog*, May 3, 2020.

41. *People's Daily*, "Support Medium, Small, and Micro Enterprises to Overcome the Pandemic (支持中小微企业克服疫情影响)," June 8, 2020. Translation; Yawen Chen and Se Young Lee, "Loan Defaults, NPLs Rise as Virus Hits Chinese Economy," *Reuters*, April 21, 2020; Tianlei Huang and Nicholas Lardy, "Bias against Private Sector Slows China's Recovery from COVID-19," *Peterson Institute for International Economics*, April 28, 2020; Lingling Wei, "China's Coronavirus Response Toughens State Control and Weakens the Private Market," *Wall Street Journal*, March 23, 2020; China National Bureau of Statistics, "Small, Medium, and Micro Enterprises Become an Important Driving Force of Economic Development: Twelfth Report from the Fourth National Economic Census Series (中小微企业成为推动经济发展的重要力量——第四次全国经济普查系列报告之十二)," December 18, 2019. Translation.

42. *Securities Times*, “There’s a Lot of Money in the Mark, So Why Are Small and Medium-Sized Enterprises Still Struggling to Obtain Financing? (市场钱不少, 中小企业融资为何还这么难?),” April 16, 2020. Translation.

43. Will Wo-Lap Lam, “State Companies Advance and Private Firms Retreat’ in China’s Bid to Resuscitate the Economy,” *Jamestown Foundation*, May 1, 2020; Lingling Wei, “China’s Coronavirus Response Toughens State Control and Weakens the Private Market (中国抗疫策略强化 ‘国进民退’),” *Wall Street Journal*, March 23, 2020. Translation.

44. An Bei et al., “Make Progress while Ensuring Stability Encouragement to Move Forward—Signals from ‘Six Stabilities’ to ‘Six Ensures’ (稳中求进 砥砺前行——从 ‘六稳’ 到 ‘六保’ 发出的信号),” *XinhuaNet*, April 20, 2020. Translation.

45. Li Jie, “Six ‘Guarantees’ to Stabilize Economic Fundamentals (六个 ‘保’, 稳住经济基本盘),” *People’s Daily*, April 20, 2020. Translation.

46. An Bei et al., “Make Progress while Ensuring Stability Encouragement to Move Forward—Signals from ‘Six Stabilities’ to ‘Six Ensures’ (稳中求进 砥砺前行——从 ‘六稳’ 到 ‘六保’ 发出的信号),” *XinhuaNet*, April 20, 2020. Translation.

47. Qiu Haifeng, “Six Stabilities: Precise Policy Protects Development (六个稳: 精准施策保发展),” *People’s Daily*, August 4, 2018. Translation.

48. Jia Kang, “Why Isn’t China’s Government Directly Sending Cash to All of the Common People? (中国政府为什么不宜向全体老百姓直接发现金),” *Jia Kang Study Platform*, April 11, 2020. Translation, qtd. in Andrew Batson, “Why China Isn’t Sending Money to Everyone,” *Andrew Batson’s Blog*, May 3, 2020; An Bei et al., “Make Progress while Ensuring Stability Encouragement to Move Forward—Signals from ‘Six Stabilities’ to ‘Six Ensures’ (稳中求进 砥砺前行——从 ‘六稳’ 到 ‘六保’ 发出的信号),” *XinhuaNet*, April 20, 2020. Translation.

49. Hongyi Lai and Su-Jeong Kang, “Domestic Bureaucratic Politics and Chinese Foreign Policy,” *Journal of Contemporary China* 23:86 (2014).

50. Luan Zhao et al., “Leaning Forward: COVID-19 and China’s Reform Agenda,” *World Bank Group*, July 2020, 31–32.

51. Dexter Roberts, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on U.S.-China Relations in 2020: Enduring Problems and Emerging Challenges*, September 9, 2020, 2.

52. Dexter Roberts, written testimony for U.S.-China Economic and Security Review Commission, *Hearing on U.S.-China Relations in 2020: Enduring Problems and Emerging Challenges*, September 9, 2020, 2.

53. Stella Yifan Xie and Mike Bird, “The \$52 Trillion Bubble: China Grapples with Epic Property Boom,” *Wall Street Journal*, July 16, 2020.

54. Stella Yifan Xie and Mike Bird, “The \$52 Trillion Bubble: China Grapples with Epic Property Boom,” *Wall Street Journal*, July 16, 2020.

55. Weizhen Tan, “China’s Property Market Is Rebounding from the Coronavirus Crisis, but Some Warn It May Overheat,” *CNBC*, July 19, 2020.

56. Weizhen Tan, “China’s Property Market Is Rebounding from the Coronavirus Crisis, but Some Warn It May Overheat,” *CNBC*, July 19, 2020.

57. Lusha Zhang and Ryan Woo, “China’s Shenzhen Tightens Home Purchase Curbs as Prices Spike,” *Reuters*, July 15, 2020.

58. *Reuters*, “China Daily Crude Steel Output Hits New Record in June on Robust Demand,” July 15, 2020; CK Tan, “China’s Q2 GDP Growth Beats Forecasts and Recovers 3.2%,” *Nikkei Asian Review*, July 16, 2020; Anindya Barnman, “World Steel May Production Slumps despite Record China Output,” *Zacks*, June 24, 2020.

59. Myriram Baksh, “China Is Dumping Fiber Optic Cables in the Global Market, Commerce Official Says,” *NextGov*, July 9, 2020; Dan Wang, “New Infrastructure, Old Problems,” *Gavekal Dragonomics*, April 29, 2020.

60. Houze Song, “Macro Outlook 2Q2020: No Swift Recovery as Demand Remains Weak,” *MacroPolo*, April 22, 2020; Logan Wright and Daniel Rosen, “Chinese Credit Stimulus: Yesterday’s Solution, Not Today’s,” *Rhodium Group*, March 23, 2020.

61. Shang-jin Wei, “Making China’s Tax Cuts Fiscally Sustainable,” *Project Syndicate*, April 1, 2018; Douglas Elliot and Yu Qiao, “Reforming Shadow Banking in China,” *Brookings*, May 2015, 4–5; Yukon Huang and Canyon Bosler, “China’s Debt Dilemma: Deleveraging While Generating Growth,” *Carnegie Endowment for International Peace*, September 2014, 11–12.

62. João Marques Lima, “China Is About to Go on a \$3.8tr Digital Infrastructure Investment Spree,” *Data Economy*, May 28, 2020.

63. João Marques Lima, “Alibaba Plans COLOSSAL \$28bn Cloud Infrastructure Expansion over the Next 36 MONTHS,” *Capacity*, May 29, 2020.

64. João Marques Lima, “Alibaba Plans COLOSSAL \$28bn Cloud Infrastructure Expansion over the Next 36 MONTHS,” *Data Economy*, April 20, 2020; Isabelle Li

and Liu Yuanfei, “China’s Mobile Carriers Double Down on 5G,” *Caixin*, March 24, 2020.

65. Anjani Trivedi, “Beijing May Score Its Biggest 5G Win at Home,” *Bloomberg*, August 9, 2020; Nina Xiang, “China’s Digital Plan Will Help It Leapfrog the U.S. as Tech Leader,” *Nikkei Asia*, June 11, 2020.

66. Ministry of Industry and Information Technology of the People’s Republic of China, *MIIT Notice on Pushing Forward Accelerated 5G Development* (工业和信息化部关于推动 5G 加快发展的通知), March 24, 2020. Translation.

67. Cheng Ting-fan and Lauly Li, “How China’s Chip Industry Defied the Coronavirus Lockdown,” *Nikkei Asian Review*, March 18, 2020.

68. *Bloomberg News*, “China Has a New \$1.4 Trillion Plan to Overtake U.S. in Tech,” May 20, 2020.

69. Nina Xiang, “China’s Digital Plan Will Help It Leapfrog the U.S. as Tech Leader,” *Nikkei Asia*, June 11, 2020; State Council of the People’s Republic of China, *State Council Notice on the Issuance of the Next Generation Artificial Intelligence Development Plan*. Translation; Graham Webster et al., *New America*, August 1, 2017.

70. Dave Lee, “TikTok Had ‘No Choice’ but to Sue Trump Administration,” *Financial Times*, August 24, 2020; White House, *Order Regarding the Acquisition of Musically by ByteDance Ltd*, August 14, 2020.

71. White House, *Executive Order on Addressing the Threat Posed by TikTok*, August 6, 2020; White House, *Executive Order on Addressing the Threat Posed by WeChat*, August 6, 2020.

72. Dave Lee, “TikTok Had ‘No Choice’ but to Sue Trump Administration,” *Financial Times*, August 24, 2020.

73. White House, *Executive Order on Addressing the Threat Posed by TikTok*, August 6, 2020; White House, *Executive Order on Addressing the Threat Posed by WeChat*, August 6, 2020.

74. Arjun Kharpal, “Judge Blocks Trump Administration’s Ban on New TikTok Downloads from U.S. App Stores,” *CNBC*, September 28, 2020; U.S. District Court for the District of Columbia, “Complaint for Injunctive and Declaratory Relief,” Case 1:20-cv-02658-CJN Document 27, September 27, 2020; Greg Piarowski and Ryan Lee, “Commerce Department Issues, Then Withdraws WeChat Ban,” *Pillar Legal*, September 21, 2020; U.S. District Court for the District of Columbia, “Complaint for Injunctive and Declaratory Relief,” Case 1:20-cv-02658-CJN Document 1, September 18, 2020.

75. U.S. District Court for the District of Columbia, “Complaint for Injunctive and Declaratory Relief,” Case 1:20-cv-02658-CJN Document 1, September 18, 2020; Arjun Kharpal, “Judge Blocks Trump Administration’s Ban on New TikTok Downloads from U.S. App Stores,” *CNBC*, September 28, 2020.

76. James K. Jackson, “The Committee on Foreign Investment in the United States,” *Congressional Research Service RL33388*, February 14, 2020, 13.

77. Demetri Sevastopulo and Katrina Manson, “Pentagon Lists 20 Companies Aiding Chinese Military,” *Financial Times*, June 24, 2020.

78. Dan Strumpf and Katy Stech Ferek, “U.S. Tightens Restrictions on Huawei’s Access to Chips,” *Wall Street Journal*, August 17, 2020; U.S. Department of Commerce, “Commerce Department Further Restricts Huawei Access to U.S. Technology and Adds Another 38 Affiliates to the Entity List,” August 17, 2020.

79. Cheng Ting-Fang and Lauly Li, “Huawei in ‘Survival Mode’ as Suppliers Race to Beat U.S. Deadline,” *Nikkei Asian Review*, August 25, 2020; Dan Strumpf and Katy Stech Ferek, “U.S. Tightens Restrictions on Huawei’s Access to Chips,” *Wall Street Journal*, August 17, 2020.

80. U.S. Department of Commerce Bureau of Industry and Security, “Commerce Addresses Huawei’s Efforts to Undermine Entity List, Restricts Products Designed and Produced with U.S. Technologies,” May 15, 2020; Akin Gump Strauss Hauer and Feld L.L.P., “Commerce Department Extends Export Controls over Foreign-Made Items in Huawei’s Contract Manufacturing Supply Chain,” May 19, 2020; Michael E. Leiter and Daniel Gerkin, “Commerce Department’s New Export-Related Restrictions Inhibit Semiconductor Design by and Manufacturing for Huawei,” *Skadden, Arps, Slate, Meagher & Flom L.L.P.*, May 18, 2020.

81. U.S. Department of Commerce, Bureau of Industry and Security, “Modification of License Exception Additional Permissive Reexports (APR),” *Federal Register* 85:82 (April 28, 2020); U.S. Department of Commerce, Bureau of Industry and Security, “Elimination of License Exception Civil End Users (CIV),” *Federal Register* 85:82 (April 28, 2020); U.S. Department of Commerce, Bureau of Industry and Security, “Expansion of Export, Reexport, and Transfer (in-Country) Controls for Military End Use or Military End Users in the People’s Republic of China, Russia, or Venezuela,” *Federal Register* 85:82 (April 28, 2020).

82. U.S. Department of Commerce Bureau of Industry and Security, "Commerce Department Adds 24 Chinese Companies to the Entity List for Helping Build Military Islands in the South China Sea," August 26, 2020.
83. National Defense Industrial Association, "Section 889."
84. U.S. Department of Homeland Security, "DHS Cracks Down on Goods Produced by China's State-Sponsored Forced Labor," September 14, 2020.
85. U.S. Department of Homeland Security, "DHS Cracks Down on Goods Produced by China's State-Sponsored Forced Labor," September 14, 2020.
86. U.S. Department of Homeland Security, "DHS Cracks Down on Goods Produced by China's State-Sponsored Forced Labor," September 14, 2020.
87. Lester Ross, Kenneth Zhou, and Tingting Liu, "China Publishes Draft Export Control Law," *WilmerHale*, January 15, 2020.
88. Lester Ross, Kenneth Zhou, and Tingting Liu, "China Publishes Draft Export Control Law," *WilmerHale*, January 15, 2020.
89. Lester Ross, Kenneth Zhou, and Tingting Liu, "China Publishes Draft Export Control Law," *WilmerHale*, January 15, 2020.
90. *Reuters*, "China Publication of 'Unreliable Entities List' Depends on Sino-U.S. Trade Talks: Sources," October 11, 2019.
91. China's Ministry of Commerce, "MOFCOM Order No. 4 of 2020 on Provisions on the Unreliable Entity List," September 19, 2020.
92. U.S. Census Bureau, *Trade in Goods with China*, May 5, 2020; Lucia Mutikani, "U.S. Trade Deficit Narrows in 2019 for the First Time in Six Years," *Reuters*, February 5, 2020.
93. Jesse Newman and Jennifer Smith, "Coronavirus Snarls Trans-Pacific Shipping and Ripples through U.S. Business," *Wall Street Journal*, March 5, 2020.
94. Muyu Xu and Shivani Singh, "China's Top Container Ports Unclog Backlog as Virus Curbs Ease," *Reuters*, February 27, 2020.
95. Katherine Si, "Container Volume at Eight Major Chinese Ports Increased 4% in Late Sept," *Seatrade Maritime News*, October 14, 2020.
96. U.S. Department of Commerce Bureau of Economic Analysis, "Real Personal Consumption Expenditure by Major Type of Product, Monthly, Chained Dollars," July 21, 2020; Lucia Mutikani, "Millions of Americans Continue to Seek Jobless Benefits; Consumer Spending Slumps," *Reuters*, April 30, 2020.
97. U.S. Census Bureau, *Trade in Goods with China*, May 5, 2020.
98. Karen M. Sutter, Andres B. Schwarzenberg, and Michael D. Sutherland, "COVID-19: China Medical Supply Chains and Broader Trade Issues," *Congressional Research Service R46304*, April 6, 2020, 39.
99. Finbarr Bermingham and Su-Lin Tan, "Coronavirus: China's Mask-Making Juggernaut Cranks into Gear, Sparking Fears of Over-Reliance on World's Workshop," *South China Morning Post*, March 12, 2020.
100. Janet Woodcock, written testimony for the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Health, *Hearing on Safeguarding Pharmaceutical Supply Chains in a Global Economy*, October 30, 2019, 4.
101. Janet Woodcock, written testimony for the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Health, *Hearing on Safeguarding Pharmaceutical Supply Chains in a Global Economy*, October 30, 2019, 4.
102. Trefor Moss, "Neither Coronavirus nor Trade Tensions Can Stop U.S. Companies' Push into China," *Wall Street Journal*, May 19, 2020.
103. American Chamber of Commerce in China, "2020 American Business in China," April 2020, 8.
104. American Chamber of Commerce in China, "2020 American Business in China," April 2020, 8.
105. Thilo Hanemann and Daniel Rosen, "Who's Buying Whom? COVID-19 and China Cross-Border M&A Trends," *Rhodium Group*, June 18, 2020.
106. Rhodium Group and the National Committee on U.S.-China Relations, "The U.S.-China Investment Hub."
107. Thilo Hanemann et al., "Two-Way Street: 2020 Update, U.S. China Investment Trends," *Rhodium Group*, May 2020, 14; Rhodium Group and the National Committee on U.S.-China Relations, "The U.S.-China Investment Hub."
108. Knut Aliche, Richa Gupta, and Vera Trautwein, "Resetting Supply Chains for the Next Normal," *McKinsey Global Institute*, July 2020, 3.
109. Chad Bown and Soumaya Keynes, "126. COVID-19 and Trade: Stories from the Data," *Trade Talks*, March 27, 2020.
110. Rosemary Marandi, "Made in India' iPhone 11 Goes into Production in Chennai," *Nikkei Asian Review*, July 28, 2020.
111. Knut Aliche, Richa Gupta, and Vera Trautwein, "Resetting Supply Chains for the Next Normal," *McKinsey Global Institute*, July 2020, 3.

112. Bob Davis, Kate O’Keeffe, and Asa Fitch, “Taiwan Firm to Build Chip Factory in U.S.,” *Wall Street Journal*, May 14, 2020.

113. U.S. Census Bureau, *Trade in Goods with China*, May 5, 2020; U.S. Census Bureau, *Trade in Goods with Mexico*, May 5, 2020.

114. Office of the U.S. Trade Representative, “2019 Report to Congress on China’s WTO Compliance,” March 2020, 34, 37.

115. Naomi Wilson, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on A ‘China Model?’ Beijing’s Promotion of Alternative Global Norms and Standards*, March 13, 2020, 1–2.

116. Office of the U.S. Trade Representative, “2019 Report to Congress on China’s WTO Compliance,” March 2020, 34.

117. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 2-1.

118. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 2-1.

119. Office of the U.S. Trade Representative, “Findings of the Investigation into China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation under Section 301 of the Trade Act of 1974,” March 22, 2018, 5.

120. Office of the U.S. Trade Representative, “Findings of the Investigation into China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation under Section 301 of the Trade Act of 1974,” March 22, 2018, 8.

121. Office of the U.S. Trade Representative, “USTR Announces Formation of Bilateral Evaluation and Dispute Resolution Office Pursuant to U.S.-China Phase One Agreement,” February 14, 2020; Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 7-2.

122. Office of the U.S. Trade Representative, “2020 Special 301 Report,” April 2020, 40.

123. U.S.-China Business Council, “Phase One Trade Agreement USCBC Member Survey Round 2,” May 2020, 5.

124. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 1-18.

125. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 1-1 to 1-18.

126. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 1-4.

127. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 1-3.

128. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 1-6.

129. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 1-7; David Xie, Xiaofeng Li, and An Li, “The Rewards of Regulatory Change,” *Deloitte*, April 18, 2019.

130. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 1-8 to 1-9.

131. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 1-11.

132. Saheli Roy Choudhury, “Beijing Cracking Down on IP Theft Could Boost Investment in China, Former U.S. Negotiator Says,” *CNBC*, January 16, 2020.

133. Office of the U.S. Trade Representative, *2016 Report to Congress on China’s WTO Compliance*, January 2017, 8–11.

134. Mark Cohen, “Is It in There—CNIPA’s ‘Phase One’ IP Action Plan?” *ChinaIPR*, April 22, 2020.

135. U.S.-China Business Council, “Organization Letter in Support of Phase One Trade Agreement,” July 6, 2020.

136. Mark Cohen, "Is It in There—CNIPA's 'Phase One' IP Action Plan?" *ChinaIPR*, April 22, 2020.
137. Courtney Macintosh, "China's Commitment to IP Protection Is Upfront in Its Economic and Trade Agreement with the U.S.," *Simone Intellectual Property Services Asia*, April 3, 2020.
138. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, 3-1.
139. Darci Vetter, "Trade Talks Episode 118: Ins and Outs of the U.S.-China Phase-One Trade Deal," *Peterson Institute for International Economics*, Podcast, January 21, 2020.
140. Karl Plume and Tom Polansek, "China's 'Market Condition' Caveat on U.S. Ag Purchases Adds to Trade Deal Doubts," *Reuters*, January 15, 2020.
141. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, 3-8 to 3-11.
142. National Association of State Departments of Agriculture, "NASDA Update on China Phase One Economic and Trade Agreement," April 1, 2020.
143. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, 3-1 to 3-22.
144. U.S. Department of Agriculture, "USDA and USTR Announce Continued Progress on Implementation of U.S.-China Phase One Agreement," May 21, 2020.
145. U.S. Department of Agriculture, "USDA and USTR Announce Continued Progress on Implementation of U.S.-China Phase One Agreement," March 24, 2020.
146. U.S. Department of Agriculture, "USDA and USTR Announce Continued Progress on Implementation of U.S.-China Phase One Agreement," March 24, 2020.
147. Darci Vetter, "Trade Talks Episode 118: Ins and Outs of the U.S.-China Phase-One Trade Deal," *Peterson Institute for International Economics*, Podcast, January 21, 2020.
148. Connor McKay, "China and Biotech: What's the Deal?" *BIO*, January 23, 2020.
149. Connor McKay, "China and Biotech: What's the Deal?" *BIO*, January 23, 2020.
150. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, 6-1.
151. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, 6-1.
152. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, Annex 6.
153. Chad Bown, "U.S.-China Phase One Tracker: China's Purchases of U.S. Goods," *Peterson Institute for International Economics*, October 6, 2020.
154. Chad Bown, "U.S.-China Phase One Tracker: China's Purchases of U.S. Goods," *Peterson Institute for International Economics*, October 6, 2020.
155. Chad Bown, "Trump's Phase One Deal with China Relies on Overblown Estimates of What the U.S. Can Sell," *Peterson Institute for International Economics*, January 21, 2020; Tom Mitchell and Tom Hancock, "China Views Trade Deal as Welcome Respite in U.S. Battle," *Financial Times*, January 21, 2020.
156. Lingling Wei and Bob Davis, "U.S. Business Groups Urge China to 'Redouble Efforts' to Implement Trade Deal," *Wall Street Journal*, July 6, 2020.
157. *Inside U.S. Trade*, "Six Months In, Businesses Take a Mixed View of U.S.-China Phase One Deal," August 11, 2020.
158. Robert Lighthizer, U.S. Senate Committee on Finance, *Hearing on the President's 2020 Trade Policy Agenda*, questions for the record, June 17, 2020, 64.
159. Robert Lighthizer, U.S. Senate Committee on Finance, *Hearing on the President's 2020 Trade Policy Agenda*, questions for the record, June 17, 2020, 64.
160. David Lynch, "Initial U.S.-China Trade Deal Has Major Hole: Beijing's Massive Business Subsidies," *Washington Post*, December 30, 2019; Organization for Economic Co-operation and Development, "Steel Market Developments: Q2 2019," July 18, 2019, 21; U.S. International Trade Commission, "Crystalline Silicon Photovoltaic Cells, Whether or Not Partially or Fully Assembled into Other Products: Monitoring Developments in the Domestic Industry," February 2020, Appendix F; Trefor Moss, "China Has 487 Electric-Car Makers, and Local Governments Are Clamoring for More," *Wall Street Journal*, July 19, 2018.
161. David Lynch, "Initial U.S.-China Trade Deal Has Major Hole: Beijing's Massive Business Subsidies," *Washington Post*, December 30, 2019.

162. Organization for Economic Co-operation and Development, “Steel Market Developments: Q2 2019,” July 18, 2019, 21; U.S. International Trade Commission, “Crystalline Silicon Photovoltaic Cells, Whether or Not Partially or Fully Assembled into Other Products: Monitoring Developments in the Domestic Industry,” February 2020, Appendix F; Trefor Moss, “China Has 487 Electric-Car Makers, and Local Governments Are Clamoring for More,” *Wall Street Journal*, July 19, 2018.

163. Barry Naughton, written testimony before the U.S.-China Economic and Security Review Commission, *Hearing on the Chinese View of Strategic Competition with the United States*, June 24, 2020, 7.

164. Barry Naughton, written testimony before the U.S.-China Economic and Security Review Commission, *Hearing on the Chinese View of Strategic Competition with the United States*, June 24, 2020, 7.

165. Josh Zumbrun and Catherine Lucey, “Trump Dims Hopes for New China Trade Deal,” *Wall Street Journal*, July 10, 2020.

166. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 4-1.

167. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 4-1 to 4-4.

168. Office of the U.S. Trade Representative, *Economic and Trade Agreement between the Government of the United States of America and the Government of the People’s Republic of China*, January 15, 2020, 4-1 to 4-4.

169. Don Weinland and Emma Dunkley, “S&P Global Gets Green Light to Rate Domestic Bonds in China,” *Financial Times*, January 28, 2020.

170. Jing Yang, “China Grants Approval for Goldman Sachs, Morgan Stanley to Control Securities Units,” *Wall Street Journal*, March 27, 2020.

171. *Reuters*, “JPMorgan Gets China’s Nod for First Fully Foreign-Owned Futures Business,” June 18, 2020.

172. Stella Yifan Xie, “American Express Gets Nod to Start Operating Card Network in China,” *Wall Street Journal*, June 13, 2020; *Reuters*, “China Central Bank Gives Green Light to Mastercard’s China JV for Clearing Business,” February 11, 2020.

173. Martin Chorzempa, “Did the U.S.-China Phase One Deal Deliver a Win for U.S. Financial Services?” *Peterson Institute for International Economics*, January 27, 2020.

174. Sherry Madera, “Despite COVID-19, China’s Financial Markets Are Quietly Opening Up,” *Refinitiv*, April 9, 2020.

175. Beijing Local Financial Supervision and Administration, “Oaktree Capital’s Subsidiary Established in Beijing (橡树资本子公司落户北京),” February 18, 2020. Translation. http://jrj.beijing.gov.cn/jrgzdt/202002/t20200218_1654159.html.

176. Norton Rose Fulbright, “China Issued 11 New Opening-Up Measures in the Financial Services Industry,” July 2019; Frank Tang, “China’s State Pension Fund to Run Dry by 2035 as Workforce Shrinks Due to Effects of One-Child Policy, Says Study,” *South China Morning Post*, April 12, 2019; U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, January 11, 2019, 4.

177. Anthony Saich, written testimony for the U.S.-China Economic and Security Review Commission, *Hearing on U.S.-China Relations in 2020: Enduring Problems and Emerging Challenges*, September 9, 2020, 7–8; April A. Herlevi, “Disposing of ‘Zombies’: Why the Reform of Non-Performing State-Owned Enterprises Has Gotten Even Harder,” *China Brief* 20:5 (March 16, 2020): 6–10; Qiuying Qu, “Zombie Firms and Political Influence on Bank Lending in China,” *Columbia University Economics Department*, January 2019, 1–2.

178. Julie Zhu et al., “China Halts British Stock Link over Political Tensions—Sources,” *Reuters*, January 2, 2020.

179. *Reuters*, “China Regulator Denies Report of Halt to Shanghai-London Stock Connect Listings,” January 3, 2020; Julie Zhu et al., “China Halts British Stock Link over Political Tensions—Sources,” *Reuters*, January 2, 2020.

180. Chen Ting, “Foreign Investors Seek China Payment License, Third Party Payments Welcome Competition” (外资寻求中国支付牌照, 第三方支付迎接竞争), *First Financial*, November 28, 2019. Translation; U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, October 9, 2019, 8.

181. Norton Rose Fulbright, “China Foreign Investment: Expert Q&A Series—Asset Management Sector,” October 11, 2019; Norton Rose Fulbright, “China Issued 11 New Opening-Up Measures in the Financial Services Industry,” July 2019.

182. *Bloomberg*, “China’s \$45 Trillion Market Is Opening Up. Here’s What to Watch in 2020,” December 29, 2019; Evelyn Cheng, “Amid Trade War, China Moves to Re-

move Limits on Foreign Ownership in the Financial Industry,” *CNBC*, October 14, 2019; *Knowledge@Wharton*, “High Hopes, Low Profits: Foreign Life Insurers Rethink Their China Strategies,” February 15, 2019.

183. *Bloomberg*, “China’s \$45 Trillion Market Is Opening Up. Here’s What to Watch in 2020,” December 29, 2019; Swiss Re Institute, “World Insurance: The Great Pivot East Continues,” *Sigma* 3 (July 4, 2019): 27.

184. *Bloomberg News*, “AmEx Moves Closer to Entering China’s \$27 Trillion Market,” January 8, 2020.

185. Winnie Zhou and Andrew Galbraith, “American Express JV Gets Final Approval to Launch Operations in China,” *Reuters*, June 13, 2020.

186. *Bloomberg News*, “AmEx Moves Closer to Entering China’s \$27 Trillion Market,” January 8, 2020; Aaron Klein, “Is China’s New Payment System the Future?” *Brookings*, June 2019, 8.

187. U.S. Securities and Exchange Commission Division of Economic Risk and Analysis, *U.S. Investors’ Exposure to Domestic Chinese Issuers*, July 6, 2020, 5.

188. Yi Ding, Wei Xiong, and Jinfan Zhang, “Overpricing in China’s Corporate Bond Market,” *Social Science Research Network*, November 11, 2019, 1, 16. <http://dx.doi.org/10.2139/ssrn.3525005>; Kate Jacquet, “The Evolution of China’s Bond Market,” *Seafarer Funds*, March 2019, 14; Marlene Amstad and Zhiguo He, “Chinese Bond Markets and Interbank Market,” in *The Handbook of China’s Financial System*, 2019, 28–29.

189. Gregor Stuart Hunter, “Corners of China’s Market without 10% Limits Are Going Nuts,” *Bloomberg*, February 26, 2019; Franklin Allen et al., “The Development of the Chinese Stock Market” (draft) in Marlene Amstad, Guofeng Sun, and Wei Xiong, *The Handbook of China’s Financial System*, forthcoming Princeton University Press, 2019, 30–31.

190. U.S. Securities and Exchange Commission Division of Economic Risk and Analysis, *U.S. Investors’ Exposure to Domestic Chinese Issuers*, July 6, 2020, 1, 5–6.

191. Nazak Nikakhtar, oral testimony for the U.S.-China Economic and Security Review Commission, *Hearing on China’s Quest for Capital: Motivations, Methods, and Implications*, January 23, 2020, 22.

192. Charlene Barshefsky et al., “China’s National People’s Congress,” *WilmerHale*, June 1, 2020; João Marques Lima, “China Is About to Go on a \$3.8tr Digital Infrastructure Investment Spree,” *Data Economy*, May 28, 2020; Li Keqiang, “Full Text of the 2020 Government Work Report (2020年政府工作报告全文),” *State Council of the People’s Republic of China*, May 22, 2020. Translation; Li Keqiang, “Full Text of the 2019 Government Work Report (2019年政府工作报告全文),” *State Council of the People’s Republic of China*, March 5, 2019. Translation; Christine Wong, “The Fiscal Stimulus Programme and Public Governance Issues in China,” *OECD Journal on Budgeting* 11:3 (2011): 6–8.

193. *Panjiva*, “Beyond COVID-19, Trade War Worries Resume—May 2020 in 10 Reports,” June 3, 2020.

194. Mark Cohen, “Is It in There—CNIPA’s ‘Phase 1’ IP Action Plan?” *ChinaIPR*, April 22, 2020.

195. World Trade Organization, “Protocol of Accession of the People’s Republic of China,” November 10, 2001.

196. Darci Vetter, in “Trade Talks Episode 118: Ins and Outs of the U.S.-China Phase-One Trade Deal,” *Peterson Institute for International Economics*, January 21, 2020.

197. Connor McKoy, “China and Biotech: What’s the Deal?” *BIO*, January 23, 2020.