

# U.S.-China Economic and Security Review Commission

## Economics and Trade Bulletin



August 10, 2021

### Highlights of This Month’s Edition

- **Bilateral Goods Trade:** Through June 2021, U.S. year-to-date goods trade deficit with China rose by 20.4 percent, reflecting increased U.S. consumption and Chinese production; in Q2 2021, computers and chemicals led U.S. exports to China and U.S. exports of advanced technology products were up 31.2 percent year-on-year.
- **Bilateral Services Trade:** In Q1 2021, the U.S. surplus with China in services continued to decline for the sixth consecutive quarter to \$4.3 billion as global travel restrictions continue to hurt U.S. travel services exports; U.S. exports of personal, cultural, and recreational services grew due to a shift to online services.
- **Regulatory Clampdown:** The Chinese government’s widening crackdown on companies across tech, social media, and education sends stock markets reeling; by one estimate, U.S.-listed Chinese companies lost around \$400 billion in value in July 2021 alone; U.S. SEC issues a warning to U.S. investors.
- **Quarterly Review of China’s Economy:** China’s economy grew 7.9 percent year-on-year in Q2 2021, according to official statistics, but momentum is dissipating as construction of property and infrastructure slows.
- **Monetary Policy:** Chinese policymakers cut the reserve requirement ratio for the first time since April 2020, giving banks more leeway to lend out money and repay loans to the central bank but avoiding broader monetary stimulus.
- **China’s Asset Management Companies:** China’s national asset managers come under regulatory pressure amid renewed concerns about the sustainability of China’s debt levels and nonperforming loan disposal.
- **Emissions Trading Scheme:** China’s nationwide emissions trading scheme, which began trading in July, is limited in its initial scope as policymakers do not want to constrain economic growth.

### Contents

Phase One Deal Boosts U.S.-China Trade in Q2 2021 .....2

    Computers and Chemicals Topped U.S. Goods Exports to China .....3

    Advanced Technology Products .....3

U.S. Services Surplus with China Continues to Fall in Q1 2021 .....4

Beijing’s Regulatory Clampdown Highlights U.S. Investor Risks .....5

Quarterly Review of China’s Economy.....7

    China’s Recovery Plateaus with Property and Infrastructure Slowdown.....7

PBOC Loosens Monetary Policy but Avoids “Flood Irrigation” .....9

China’s National AMCs Under Mounting Regulatory Scrutiny .....10

China’s Emissions Trading Scheme Limited in Initial Scope .....12

*This issue of the Economics and Trade Bulletin was prepared by Nargiza Salidjanova, Charles Horne, Kaj Malden, Leyton Nelson, Emma Rafaelof, and Taylore Roth. For inquiries, please contact us at [contact@uscc.gov](mailto:contact@uscc.gov).*

## Phase One Deal Boosts U.S.-China Trade in Q2 2021

Following record Q1 2021 exports, U.S. Q2 goods exports to China were the highest second quarter value\* on record. The U.S. trade deficit in goods with China in Q2 2021 reached \$79.9 billion, up 2.8 percent year-on-year (see Table 1).<sup>1</sup> Through June 2021, U.S. goods deficit with China reached \$158.5 billion, a 20.4 percent increase from the same period in 2020. Though U.S. exports to China were up 32 percent year-on-year in Q2 2021, China’s imports from the United States fall short of targets under the Phase One agreement. According to Chad P. Bown, senior fellow at the Peterson Institute for International Economics,<sup>†</sup> as of June, China had purchased \$68 billion of goods covered in the agreement, or 69 percent of the \$99 billion it would have had to purchase to be on track, based on U.S. Census Bureau data.<sup>2</sup>

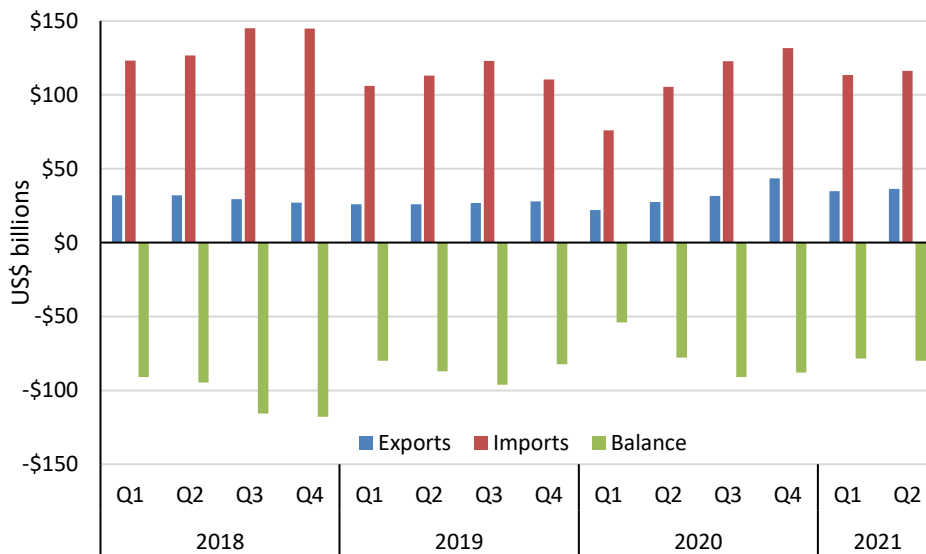
**Table 1: Key Indicators for U.S.-China Trade in Goods, Q2 2021**

	<i>U.S. Exports to China</i>	<i>U.S. Imports to China</i>	<i>U.S. Trade Deficit with China</i>
Value	\$36.2 billion	\$116.2 billion	-\$79.9 billion
Year-on-Year	32.0 percent	10.4 percent	2.8 percent

Source: U.S. Census Bureau, *Trade in Goods with China*, August 5, 2021. <https://www.census.gov/foreign-trade/balance/c5700.html>.

Overall, U.S. trade deficit remained at pre-tariff levels in Q2, lower even than the deficit over the same period in 2018 and 2019. While bilateral tensions remain high, recovery of U.S. consumption and Chinese production continue to fuel economic activity across the Pacific. U.S. goods imports from China in Q2 2021 exceeded the quarterly imports volume reached in Q2 2019, after tariffs from the Trump Administration’s Section 301 investigation went into effect, but fall below Q2 2018 imports, right before tariffs were applied (see Figure 1).<sup>3</sup>

**Figure 1: U.S. Goods Exports, Imports, and Trade Deficit with China, Q1 2018–Q2 2021**



Source: U.S. Census Bureau, *Trade in Goods with China*, August 5, 2021. <https://www.census.gov/foreign-trade/balance/c5700.html>.

\* They did not set an overall quarterly record, as Q3 and Q4 imports generally exceed imports in Q1 and Q2 due to seasonal factors. U.S. Census Bureau, *Trade in Goods with China*, August 5, 2021. <https://www.census.gov/foreign-trade/balance/c5700.html>.

† As part of its Phase One trade deal commitments, China pledged 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.” Research by Dr. Bown tracks China’s purchases of U.S. goods covered by the agreement and compares them to annual targets prorated on a monthly basis. For more on the methodology, see Chad Bown, “U.S.-China Phase One Tracker: China’s Purchases of U.S. Goods,” *Peterson Institute for International Economics*, July 26, 2021. <https://www.piie.com/research/piie-charts/us-china-phase-one-tracker-chinas-purchases-us-goods>.

## Computers and Chemicals Topped U.S. Goods Exports to China

In Q2 2021, computers and electronic products ranked top among U.S. exports to China, followed by chemicals. Agricultural products, historically one of the key U.S. exports to China,\* fell in Q2 2021; nonetheless they were up 151.9 percent from the previous year (see Table 2).<sup>4</sup> The U.S. Department of Agriculture predicts that 2021 will be a record year for U.S. agricultural exports.<sup>5</sup> According to Dr. Bown, in Q2 2021, China's purchases of covered agricultural products reached 87 percent of the year-to-date Phase One target.<sup>6</sup>

At the same time, computer and electronic products were also the top category for U.S. goods imports from China. Similar to Q1 2021, U.S. purchases of both miscellaneous manufactured commodities and electrical equipment and appliances accounted for just over 10 percent each of total imports from China, reflecting strong U.S. consumer spending on household goods.<sup>7</sup> Fabricated metal products, which are rarely a top five U.S. import from China, increased by nearly eleven-fold in Q2.<sup>8</sup>

**Table 2: U.S. Trade with China Top Five Exports and Imports, Q2 2021**

U.S. Top-Five Exports to China				U.S. Top-Five Imports from China			
	Exports (in US\$ millions)	Share of total (%)	Change over Q2'20 (%)		Imports (in US\$ millions)	Share of total (%)	Change over Q2'20 (%)
<i>Quarter 2 (Apr-Jun 2021)</i>				<i>Quarter 2 (Apr-Jun 2021)</i>			
Computer & Electronic Products	\$6,765	18.6%	25.7%	Computer & Electronic Products	\$36,925	31.8%	6.6%
Chemicals	\$4,835	13.3%	10.2%	Electrical Equipment, Appliances & Components	\$12,147	10.4%	20.5%
Agricultural Products	\$4,054	11.2%	151.9%	Miscellaneous Manufactured Commodities	\$12,091	10.4%	60.8%
Transportation Equipment	\$3,740	10.3%	41.0%	Machinery, Except Electrical	\$9,563	8.2%	20.2%
Machinery, Except Electrical	\$3,488	9.6%	18.1%	Fabricated Metal Products, Nesoi	\$6,184	5.3%	28.0%
Other	\$11,732	36.9%		Other	\$39,358	33.9%	

Source: U.S. Census Bureau, *Trade in Goods with China*, August 5, 2021. <https://www.census.gov/foreign-trade/balance/c5700.html>.

## Advanced Technology Products

U.S. information and communications technologies (ICT) product imports accounted for the \$24.5 billion deficit in advanced technology products (ATP) with China in Q2 2021. The U.S. trade deficit in ATP with China shrank by 5 percent, reaching another record low in the quarterly deficit (see Table 3). ICT continued to constitute the vast majority of U.S. ATP imports from China in Q2 2021. This category includes items manufactured by U.S. multinationals in China, such as smartphones.<sup>9</sup> Excluding ICT products, the United States had \$6.9 billion surplus in ATP with China, up 30.9 percent from the previous quarter.<sup>10</sup> Electronics and flexible manufacturing continued to lead in U.S. ATP exports to China, exceeding pre-pandemic and trade tension levels. U.S. aerospace exports rose from Q1 2021, but still remained below pre-pandemic levels reflecting the continued decline in air travel.

\* Unless otherwise specified, U.S. trade in goods reflects categories under the North America Industry Classification System (NAICS) used at the three-digit level (e.g., "111 Agricultural Products"). NAICS is a standard used by Federal agencies to classify business establishments in gathering and analyzing data on the U.S. economy. It was developed by the U.S. Economic Classification Policy Committee, Statistics Canada, and the Mexican Instituto Nacional de Estadística y Geografía, with support from the U.S. Office of Budget and Management, to create comparable business statistics between the North America Economies. Adopted in 1997, it replaced the Standard Industry Classification System. U.S. Census Bureau, "North American Industry Classification System." <https://www.census.gov/naics/>.

**Table 3: U.S. ATP with China in ATP, Q2 2021**  
(US\$ millions)

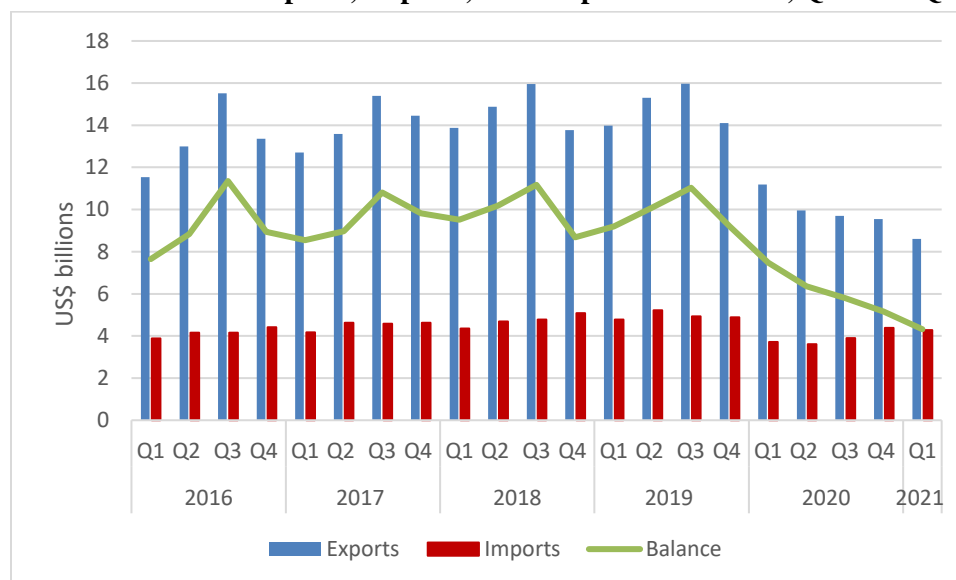
	Exports	Imports	Balance Q2'2021	Balance Q2'2020	Balance YOY
<b>TOTAL</b>	<b>\$9,759.00</b>	<b>\$34,349</b>	<b>-\$24,589</b>	<b>-\$25,887</b>	<b>-5.0%</b>
(01) Biotechnology	\$422	\$137	\$285	\$178	60.1%
(02) Life Science	\$1,240	\$728	\$512	\$0	
(03) Opto-Electronics	\$147	\$514	-\$367	-\$765	-52.0%
(04) Information & Communications	\$938	\$31,528	-\$30,590	-\$29,367	4.2%
(05) Electronics	\$3,922	\$901	\$3,021	\$2,153	40.3%
(06) Flexible Manufacturing	\$1,599	\$229	\$1,370	\$983	39.4%
(07) Advanced Materials	\$76	\$61	\$15	\$9	66.7%
(08) Aerospace	\$1,377	\$190	\$1,187	\$911	30.3%
(09) Weapons	\$1	\$58	-\$57	-\$32	78.1%
(10) Nuclear Technology	\$37	\$2	\$35	\$43	-18.6%

Source: U.S. Census Bureau, ATP Data - Imports and Exports - ATP Group by Country, August 5, 2021. <https://www.census.gov/foreign-trade/statistics/product/atp/2021/04/atpctry/index.html>.

## U.S. Services Surplus with China Continues to Fall in Q1 2021

**The U.S.-China services trade is continuing its pandemic-related decline.** In Q1 2021, the U.S. services trade surplus with China stood at \$4.3 billion, a 16 percent decline from \$5.1 billion in Q4 2020.<sup>11</sup> Year-on-year, the surplus was down 42 percent, hitting a low not seen since Q2 2012.<sup>12</sup> The U.S. services trade surplus with China has been declining for six consecutive quarters since Q3 2019 (see Figure 2).<sup>13</sup>

**Figure 2: U.S. Services Exports, Imports, and Surplus with China , Q1 2016–Q1 2021**

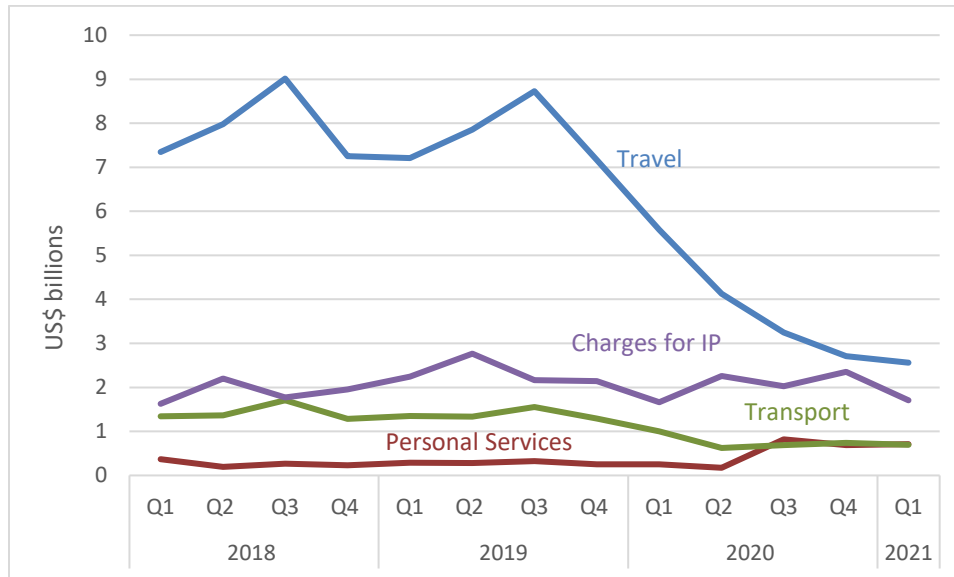


Source: U.S. Department of Commerce Bureau of Economic Analysis, Table 1.3. U.S. International Transactions, Expanded Detail by Area and Country ((A, QNSA) (2003-present)), July 26, 2021. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1>.

**Declining U.S. travel and transport services exports contributed significantly to the narrowing U.S. surplus.** Since 2010, U.S. travel services exports have made up the largest share of U.S. services exports to China. Travel restrictions related to the novel coronavirus (COVID-19) have drastically reduced the number of Chinese tourists

and students traveling to the United States, and the U.S. trade surplus in this category declined 52 percent year-on-year in Q1 2021 (see Figure 3).<sup>14</sup> The U.S. deficit in the transport services category, which includes international shipping and logistics, increased by 2,109 percent year-on-year in Q1 2021 to \$972 million as U.S. transport services exports to China were hard hit by COVID-19 and still have yet to recover to pre-pandemic levels.<sup>15</sup> By contrast, China’s transport services exports to the United States recovered to their pre-pandemic levels by Q3 2020, with U.S. demand for Chinese shipping services increasing in tandem with U.S. consumers’ demand for Chinese equipment and goods.<sup>16</sup>

**Figure 3: Select U.S. Services Exports to China, Q1 2018–Q1 2021**



Note: “Travel” includes travel for all purposes, including education; “Personal Services” includes personal, cultural, and recreational services; “Charges for IP” includes all charges for the use of intellectual property (IP); and “Transport” includes shipping, transportation, and logistics services.

Source: U.S. Department of Commerce Bureau of Economic Analysis, *Table 1.3. U.S. International Transactions, Expanded Detail by Area and Country ((A, QNSA) (2003–present))*, July 26, 2021. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1>.

**U.S. exports of personal, cultural, and recreational services grew amid shift to online and application-driven services.** The personal, cultural, and recreational services category, which encompasses education, health, entertainment, art, cultural, and recreational services, has the greatest year-on-year increase of any services category, increasing by 481 percent to \$535 million between Q1 2020 and Q1 2021.<sup>17</sup> Growth in this category was driven by a boom in U.S. exports to China, likely caused by a large-scale shift to online and application-driven services, including language applications, online tutoring and learning software, and video conferencing tools.<sup>18</sup>

## Beijing’s Regulatory Clampdown Highlights U.S. Investor Risks

**A series of regulatory actions by China’s government into its nonstate tech and education sectors has roiled stock markets, underscoring the political risks Chinese companies pose to U.S. investors.** According to FactSet, a financial data company, U.S.-listed Chinese companies lost around \$400 billion in value in July 2021.<sup>19</sup> The latest selloff was precipitated on July 24 when China’s State Council unveiled new rules that would, among other things, ban tutoring companies from making profits and prohibit them from acquiring foreign capital using a variable interest entity (VIE)\* structure.<sup>20</sup> The move against the private education industry, valued at \$100 billion,<sup>21</sup> follows

\* U.S.-listed Chinese firms most attractive to investors operate in high-growth sectors such as technology, e-commerce, and telecommunications. Because these sectors are deemed sensitive by the Chinese government, direct foreign ownership in them is restricted. Chinese firms thus use VIE structures to circumnavigate these restrictions and raise capital in overseas financial markets. These structures create effective foreign ownership of the company through an abstract mix of legal contracts and equity ownership while still loosely complying with Chinese foreign ownership laws. For more on the risks associated with VIE structures, see U.S.-China Economic and Security Review Commission, Chapter 3, Section 1, “U.S.-China Commercial Relations,” in *2019 Annual Report to Congress*, November 2019, 175–179; Kevin Rosier, “The Risks of China’s Internet Companies on U.S. Stock Exchanges,” *U.S.-China Economic and Security Review Commission*, September 12, 2014.



---

an ongoing crackdown on the country's tech sector. Since suspending the initial public offering (IPO) of fintech giant Ant Group in November 2020,<sup>\*</sup> Chinese regulators have taken on Alibaba (retail and internet conglomerate), Tencent (gaming and social media), Didi Chuxing (ride-hailing), Meituan (food delivery), Kanzhun (recruitment), and Full Truck Alliance (truck-hailing).

**Earlier in July, the Cyberspace Administration of China (CAC) launched a probe into Didi's data security practices days after its IPO on the New York Stock Exchange, wiping out billions from its capitalization.** Didi's share price, for example, plunged nearly 20 percent from \$15.53 on July 2 to \$12.49 on July 6, prompting shareholder lawsuits and calls for a U.S. Securities and Exchange Commission (SEC) investigation.<sup>22</sup> By August 2, Didi's stock was trading at \$10.38, down nearly 26 percent from its June 30 IPO price of \$14.<sup>23</sup> All tech companies have been affected by the downturn in sentiment. The Nasdaq Golden Dragon China index, which tracks Chinese tech stocks listed in New York, fell 22 percent in July 2021, the biggest dive since 2008.<sup>24</sup> The investor selloff spread to Hong Kong, Shenzhen, and Shanghai, with capital outflows pushing down the value of the renminbi (RMB) against the dollar.<sup>25</sup>

**The regulatory step-up focuses on data collection and monopolistic behaviors by China's tech sector.** Companies such as Alibaba and Tencent enjoy monopolistic control over large parts of China's digital economy and collect valuable data on China's population in excess of what the Chinese government itself is currently able to collect.<sup>26</sup> CAC's scrutiny of Didi was followed by the joint issuance of the *Opinions on Strictly Cracking Down on Illegal Securities Activity in Accordance with Law* by the General Office of the Chinese Communist Party (CCP) Central Committee and State Council.<sup>27</sup> The opinions pledge to strengthen supervision of Chinese companies issuing securities overseas by, among other things, enhancing the oversight of cross-border data flows.<sup>28</sup> The Chinese government's focus on data security for overseas-listed firms is underlined in separate draft CAC rules requiring mandatory review for any company collecting personal information of more than one million users prior to listing abroad.<sup>29</sup>

**Socioeconomic and demographic policy concerns are also a motivator for Chinese regulators.** China's state media has labeled online gaming "spiritual opium," prompting Tencent to introduce new limits on how long minors can play.<sup>†30</sup> The tutoring industry, dominated by U.S.-listed private education giants TAL Education, New Oriental Education, and Gaotu Techedu, is in the government's crosshairs because of concern the industry's fees may exacerbate socioeconomic inequality and place an undue burden on families, deterring them from having more children.<sup>31</sup> The government is also concerned the privately taught curriculum may not track the CCP's increasing emphasis on ideological education.<sup>32</sup>

**The ban on education companies raising capital offshore ratchets up concerns over VIEs.** The Chinese government has not directly addressed Chinese companies' use of VIE structures to list overseas except in the context of tutoring firms, but any company using the VIE structure may encounter more scrutiny moving forward. For example, legal experts note there may be rules requiring VIE-structured firms to obtain approval from Chinese regulators before issuing additional stock.<sup>33</sup> As Chinese regulatory constraints on U.S.-listed Chinese companies rise, the value of U.S. investor holdings of such companies may continue to decline.<sup>34</sup> According to the *Wall Street Journal*, the China Securities Regulatory Commission (CSRC) sought to reassure investors, convening a virtual meeting on July 27 with global banks such as Goldman Sachs and UBS. Fang Xinghai, CSRC vice chairman, told the assembled that China's regulatory crackdowns were aimed at addressing problems in the target industries and help them grow in a "proper manner."<sup>35</sup> He also reportedly said China had no intention to decouple from the global financial markets.<sup>36</sup>

**The SEC has responded to Beijing's actions by requiring additional disclosures from Chinese companies before they are allowed to sell shares in the United States.** The SEC issued a statement on July 30 announcing additional disclosure requirements for U.S.-listed Chinese companies, calling special attention to VIEs. SEC Chair

---

<sup>\*</sup> For more on Ant Group's cancelled IPO, see U.S.-China Economic and Security Review Commission, "In Halting Ant Group IPO, Beijing Reminds Private Sector Who Is in Charge" in *Economics and Trade Bulletin*, November 2020, 14–15. [https://www.uscc.gov/sites/default/files/2020-11/November\\_2020\\_Trade\\_Bulletin.pdf](https://www.uscc.gov/sites/default/files/2020-11/November_2020_Trade_Bulletin.pdf).

<sup>†</sup> The article in the Economic Information Daily, a Xinhua-affiliated newspaper, was later taken down and restored with the term "spiritual opium" removed. Matthew Walsh and Guan Cong, "State Media Commentary that Sunk Gaming Shares Removed, then Restored with Less Gusto," *Caixin*, August 3, 2021.

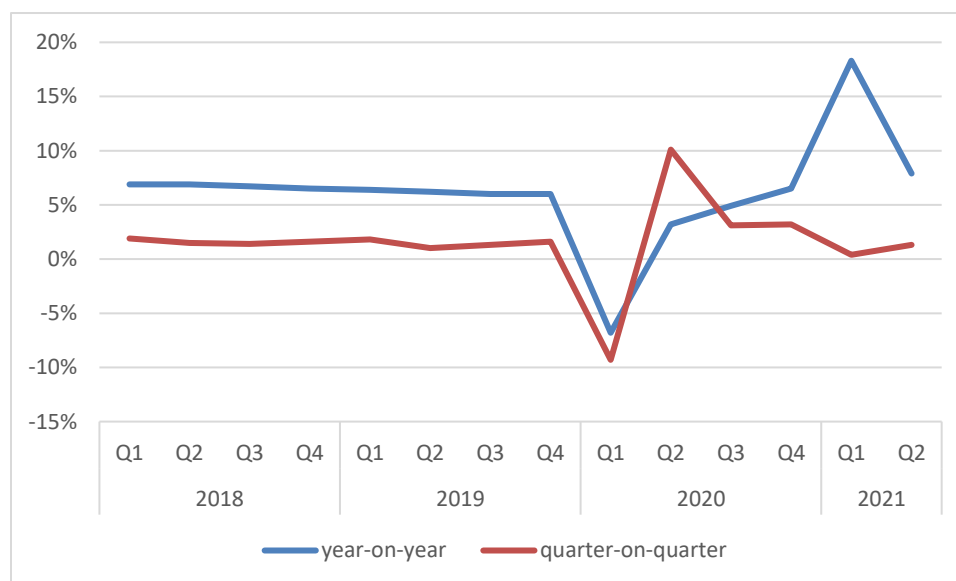
Gary Gensler warned that “average investors may not realize that they hold stock in a shell company rather than a China-based operating company.”<sup>37</sup> According to the statement, SEC staff have been directed to ensure a Chinese VIE discloses a number of factors, including whether it faces “uncertainty about future actions by the government of China that could significantly affect the operating company’s financial performance and the enforceability of the contractual arrangements,” whether the VIE was approved by the Chinese authorities, and detailed information on the financial relationship between the China-based company and its VIE.<sup>38</sup> Responding to the SEC statement, the CSRC called for closer cooperation between U.S. and Chinese securities regulators and said it remains open to Chinese companies having a choice to list overseas.<sup>39</sup> As of May 5, 2021, there were 248 Chinese companies listed on U.S. exchanges, with a total market capitalization of \$2.1 trillion.<sup>40</sup>

## Quarterly Review of China’s Economy

### China’s Recovery Plateaus with Property and Infrastructure Slowdown

**China’s topline economic growth slowed in Q2 2021.** According to official data\* released by China’s National Bureau of Statistics, China’s economy grew 7.9 percent year-on-year in Q2 2021 (see Figure 4), or 1.3 percent from the previous quarter.<sup>41</sup> Gross domestic product (GDP) growth figures overstate the actual performance of China’s economy, however, given the moderate 3.2 percent growth it experienced during Q2 2020.<sup>42</sup> Moreover, China’s quarter-on-quarter economic growth was revised down to 0.4 percent in Q1 2021.<sup>43</sup> Even with the uptick in Q2 2021, the quarterly growth trend demonstrates that the momentum of China’s recovery has largely abated despite high topline figures.<sup>44</sup> The slowdown in traditional drivers of China’s economy—property construction and infrastructure investment—has not been offset by a self-sustaining recovery in household consumption and the services sector.

**Figure 4: China’s Official GDP Growth Rate, 2018–Q1 2021**



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

\* Foreign economists, investors, and analysts remain skeptical about the reliability of China’s official reported economic data. Because it is a key metric in official performance as well as government legitimacy, economic data is highly politicized at all levels of government. For more on the reliability of China’s GDP data, see Jacob Koch-Weser, “The Reliability of China’s Economic Data: An Analysis of National Output,” *U.S.-China Economic and Security Review Commission*, January 28, 2013. <https://www.uscc.gov/sites/default/files/Research/TheReliabilityofChina'sEconomicData.pdf>. For more on the reliability of China’s trade data, see U.S. Congressional Research Service, *What’s the Difference?—Comparing U.S. and Chinese Trade Data*, May 20, 2020. <https://crsreports.congress.gov/product/pdf/RS/RS22640>.

## Among the pillars of China's economy, slowing property construction and infrastructure investment weighed on Q2 2021 growth, while export-oriented manufacturing led industrial production gains.

- **Property:** A strict policy on new debt issuance to property developers\* launched in late 2020, precipitating a slowdown in new land sales and housing construction during 2021. Declining land sales and construction diminish the overall inventory of properties available. This will likely weigh on China's property market and related sectors, such as building material, for quarters to come. Topline home sales figures nonetheless remained strong through the second quarter due to speculative real estate investment in China's wealthier cities, but they showed signs of slowing due to controls introduced by local governments and the impact of decreasing property development.† 45 Aggregate economic activity in the property sector grew by 7.1 percent in Q2 2021, slower than China's overall GDP growth for the first time since the onset of the pandemic.46
- **Infrastructure:** China's government has also slowed the pace of local government debt growth, decreasing issuance of special purpose bonds used to fund infrastructure projects. Fixed asset investment in infrastructure,‡ which typically records double-digit growth, increased only 7.8 percent year-on-year during Q2 2021.47 In the first half of 2021, fiscal spending on transportation and logistics declined 3.3 percent year-on-year to reach \$88.2 billion (RMB 567.3 billion).48
- **Industry:** Industrial value-added, an indicator for the amount manufacturing and extractive industries contribute to aggregate economic output, grew 15.9 percent during the first half of 2021.49 Results again overstate the performance of China's economy due to the weak base in the first half of 2020, particularly during the first quarter.50 China's export-oriented manufacturing remained strong during Q2 2021 after showing signs of slowdown in the beginning of the year, owing in part to COVID-19 outbreaks within Southeast and South Asia.51 Despite the manufacturing sector's resilience, reliance on export-led manufacturing contrasts with the model envisioned by China's "Dual Circulation Strategy," which aims to supplant external demand with domestic consumption.§

## China's production-focused rebound has not produced a self-sustaining recovery in household consumption and the services sector.

- **Services:** China's services sector grew faster year-on-year than other sectors in Q2 2021, at 8.3 percent, compared to 7.5 for the primary sector and 7.6 for the secondary sector.52 The tertiary sector's growth owes to a low base of 1.9 percent during the same period the preceding year, partly due to limited transportation services.53 By contrast, in Q2 2020 the primary and tertiary sectors grew at 3.3 and 4.7 percent year-on-year, respectively.54 In spite of its moderate recovery, China's services sector remains weak. In the first half of 2021, services contributed only 53 percent to China's GDP growth, versus 60.3 percent during H1 2019.55

\* For more on this policy, called the "three red lines," see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, May 18, 2021, 13. [https://www.uscc.gov/sites/default/files/2021-05/May\\_2021\\_Trade\\_Bulletin.pdf](https://www.uscc.gov/sites/default/files/2021-05/May_2021_Trade_Bulletin.pdf).

† In Shanghai, for instance, restrictions introduced in January 2021 include levying a tax on houses sold within five years of purchase and limiting additional home purchases by either party in a newly divorced couple for three years after the divorce. To reduce speculation, many major Chinese cities limit the number of properties a household may own, but couples have been divorcing to circumvent these restrictions. *Bloomberg News*, "China Cracks Down on Fake Divorces That Let People Buy More Properties," January 21, 2021. <https://www.bloomberg.com/news/articles/2021-01-22/china-cracks-down-on-fake-divorces-to-stem-real-estate-surge?sref=mxbizfb4>.

‡ China's National Bureau of Statistics includes "transportation, logistics, the postal industry, telecommunication; radio, television, and satellite transmission services; internet and related services; water utilities; and environment and public facility management" in its definition of infrastructure. It counts "production and supply of electricity, heat, gas, and water" within industrial value added. China National Bureau of Statistics, *Statistical Communiqué on the National Economic and Social Development of the People's Republic of China in 2019* (中华人民共和国 2019 年国民经济和社会发展统计公报), February 28, 2020. Translation. [http://webcache.googleusercontent.com/search?q=cache:iQiZvHUv8-sJ:www.stats.gov.cn/tjsj/zxfb/202002/t20200228\\_1728913.html+&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:iQiZvHUv8-sJ:www.stats.gov.cn/tjsj/zxfb/202002/t20200228_1728913.html+&cd=3&hl=en&ct=clnk&gl=us); Dai Mingyu, "Mismatch between Infrastructure Construction Investment (Not Including Electric Power) Data and Related Value-Added" (基础设施建设投资 (不含电力) 数据与相加值不匹配), *China National Bureau of Statistics*, October 18, 2018. [http://webcache.googleusercontent.com/search?q=cache:mZWTbUJACSsJ:www.stats.gov.cn/tjfw/tjzx/tjzxbd/201810/t20181019\\_1628714.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:mZWTbUJACSsJ:www.stats.gov.cn/tjfw/tjzx/tjzxbd/201810/t20181019_1628714.html+&cd=1&hl=en&ct=clnk&gl=us).

§ For further discussion of the "Dual Circulation Strategy," see U.S.-China Economic and Security Review Commission, *Economics and Trade Bulletin*, April 30, 2021, 4. <https://www.uscc.gov/trade-bulletins/april-2021-trade-bulletin>.



- *Household consumption:* Initial recovery in China’s household consumption during March 2021 tapered quickly in the following months. Retail sales, a key metric for consumption, grew only 13.9 percent year-on-year during Q2 2021, a moderate gain given the 3.9 percent contraction in Q2 2020.<sup>56</sup> Consumer confidence is likely muted in part due to limited gains in income. Within Chinese cities, real disposable income grew 10.7 percent per capita during the first half of 2021, two percentage points slower than the pace of GDP growth over the same period.<sup>57</sup> Real disposable income growth has typically increased within a fraction of percentage of GDP over the same period for the last five years.<sup>58</sup>

### **Weak demand holds back consumer inflation, while heightened prices squeeze Chinese producers’ margins.**

- *Consumer prices:* China’s Consumer Price Index (CPI) climbed 1.1 percent in June and only 0.5 percent during the first half of 2021 after being in deflationary territory for the first two months of the year.<sup>59</sup> Moderate consumer inflation was led by gains in transportation costs and held back by decreasing food costs, as the price of pork has plummeted following Chinese hog farms’ tentative recovery from African Swine Fever in 2021.<sup>\* 60</sup>
- *Producer prices:* The producer price index (PPI), a benchmark for the rate at which the costs of inputs such as commodities are increasing, grew 5.5 percent in the first half of 2021 and reached 9 percent year-on-year in May 2021, the highest reported rate since 2008.<sup>61</sup> Slowing property construction will likely cause commodity prices to fall in the second half of the year, a trend already observable in June as the PPI dropped to 8.8 percent.<sup>62</sup> Surging producer prices have nonetheless prompted China’s main economic planning agency and market regulator to introduce stricter requirements for commodity price index reporting, essentially allowing the agencies to censor market information in an attempt to tame price increases.<sup>63</sup>

## **POC Loosens Monetary Policy but Avoids “Flood Irrigation”**

**On July 9, the People’s Bank of China (POC) announced it was cutting the reserve requirement ratio (RRR), the amount of money banks must hold in deposit, by 0.5 percentage points to 8.9 percent, the first such cut since April 2020.**<sup>64</sup> The policy change, which took place on July 15, released approximately \$150 billion (RMB 1 trillion) into China’s banking system.<sup>65</sup> The announcement was viewed as a surprise by many economists, who had expected the POC to continue tightening its monetary policy throughout the year. In April, Bloomberg reported that the POC asked major banks to curb loan growth for the rest of 2021 amid concerns that excessive lending could lead to bubbles in certain sectors, such as property and finance.<sup>66</sup> Tight monetary conditions have increased Chinese banks’ funding costs, while reduced credit growth to the property sectors has impacted banks’ profitability, prompting concerns about stress in the banking sector for the remainder of the year.<sup>67</sup>

**The unexpected RRR cut, which came several days before the release of Q2 economic data, led some economists to speculate that Chinese policymakers were using monetary policy to offset underwhelming GDP growth.**<sup>68</sup> When it announced the RRR cut, however, the POC said the move should not be considered “flood irrigation,” a reference to using credit policy to stimulate overall economic growth.<sup>69</sup> The announcement cited rising commodity prices and higher costs for micro and small firms, but it did not mention the need to lower borrowing costs for all firms.<sup>70</sup>

**Instead of a broad-based stimulus, observers have noted that the RRR cut was announced to ensure that banks had adequate liquidity.**<sup>71</sup> Low levels of liquidity can call into question banks’ ability to meet their obligations, placing stress on the financial system. RRR cuts increase bank liquidity by allowing banks to use more of their reserves for purposes such as repaying loans owed to the central bank or extending loans to customers. China’s banking system typically sees a drain on liquidity during July, when deadlines for tax payments create demand for cash.<sup>72</sup> In an interview with the *Financial News*, a Chinese state-affiliated newspaper, a POC policymaker said the purpose of the cut was to hedge against tax payments and other drains on banking liquidity and emphasized that “the orientation of prudent monetary policy has not changed.”<sup>73</sup> The RRR cut follows other actions taken by the POC to increase liquidity in the banking system. In June, the POC recalculated the way

\* For more on African Swine Fever, 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. <https://www.uscc.gov/sites/default/files/Research/China's%20African%20Swine%20Flu%20Outbreak.pdf>.

banks calculate their deposit rates in a way that lowered funding costs.<sup>74</sup> That month, the PBOC also injected \$4.6 billion (RMB 30 billion) into the financial system, instead of the typical \$1.5 billion (RMB 10 billion) daily injection, to quell concerns over market liquidity at the end of Q2 2021.<sup>75</sup>

**Since the announcement of the RRR cut, the PBOC elected not to lower the medium lending facility (MLF) or the one-year loan prime rate (LPR), two key interest rates in Chinese monetary policy.**<sup>76</sup> These policies appear to confirm the PBOC's intentions to avoid stimulatory policy. Still, many economists believe downward economic pressure will lead to further RRR cuts later in the year. In a July Reuters poll of economists, the majority of respondents expected the PBOC to cut RRR by another 0.5 percentage points in the fourth quarter.<sup>77</sup>

## China's National AMCs Under Mounting Regulatory Scrutiny

**China's national asset management companies (AMCs) \* are shedding non-core assets as regulators tighten scrutiny over their operations.** On August 2, China Huarong Asset Management Company announced plans for a public transfer of its 70 percent equity in subsidiary Huarong Consumer Finance to external parties.<sup>78</sup> The firm also announced plans to negotiate with the institutional creditors of Huarong Trust's outstanding debt to complete a debt-to-equity swap and equity transfer.<sup>79</sup> The moves follow Huarong's failure to publish its 2020 annual report<sup>†</sup> and are intended to meet regulations on exiting non-core businesses, according to a filing with the Hong Kong Stock Exchange.<sup>80</sup> Huarong is not alone in streamlining its business, with other AMCs<sup>‡</sup> moving to shed non-core assets in response to regulators' calls that they return to their original mandate of nonperforming loan (NPL) disposal. For example, China Great Wall Asset Management put up its 70 percent stake in Great Wall Changsheng Life Insurance for sale in April 2021, with Chinese technology giant Tencent reportedly eyeing acquisition.<sup>81</sup> By selling such non-core assets, AMCs can replenish their capital and refocus their business on NPL disposal.

**Scrutiny is heightening as concerns about China's debt sustainability in the wake of the pandemic come into sharper relief.** According to Dinny McMahon, expert on China's banking system, China's policymakers are seeking to preserve the role of AMCs in absorbing and disposing of banks' NPLs to improve the health of China's banking sector,<sup>82</sup> a task made more urgent by consequences of policies undertaken in response to the pandemic. China's policymakers leaned on state-led stimulus and debt-fueled investment to contain the economic fallout of the COVID-19 pandemic, exacerbating the country's debt load. According to the World Bank, at the end of 2020

---

\* There are four national AMCs in China: China Huarong Asset Management Co., China Cinda Asset Management Co., China Orient Asset Management Co. and China Great Wall Asset Management Co. The Chinese government established these four AMCs in 1999 to take nonperforming loans off the balance sheets of China's state-owned banks amid the government's broader bailout of them at the time. In December 2020, the CBIRC approved a fifth national AMC, China Galaxy Asset Management Company, to begin operations. Chinese media reports indicate the new AMC has already received a financial operating license but is otherwise still in the process of standing up its business, including recruitment. Hu Zhiting, "More than a Month After Opening, China Galaxy Asset Management Goes on Hiring Spree: 40 Positions Across 9 Departments" (开业一个多月后中国银河资产招兵买马: 涉九大部门 40 个岗位), *The Paper*, February 25, 2021. Translation. [https://www.thepaper.cn/newsDetail\\_forward\\_11457911](https://www.thepaper.cn/newsDetail_forward_11457911); *China Banking News*, "China Approves Fifth Nationwide Asset Management Company," December 18, 2020. <https://www.chinabankingnews.com/2020/12/18/china-approves-fifth-nationwide-asset-management-company/>; China Banking and Insurance Regulatory Commission, *CBIRC Reply on the Opening of China Galaxy Asset Management Company* (中国银保监会关于中国银河资产管理有限责任公司开业的批复), December 11, 2020. Translation. <https://www.cbirc.gov.cn/cn/view/pages/governmentDetail.html?docId=950149&itemId=876&generaltype=1>.

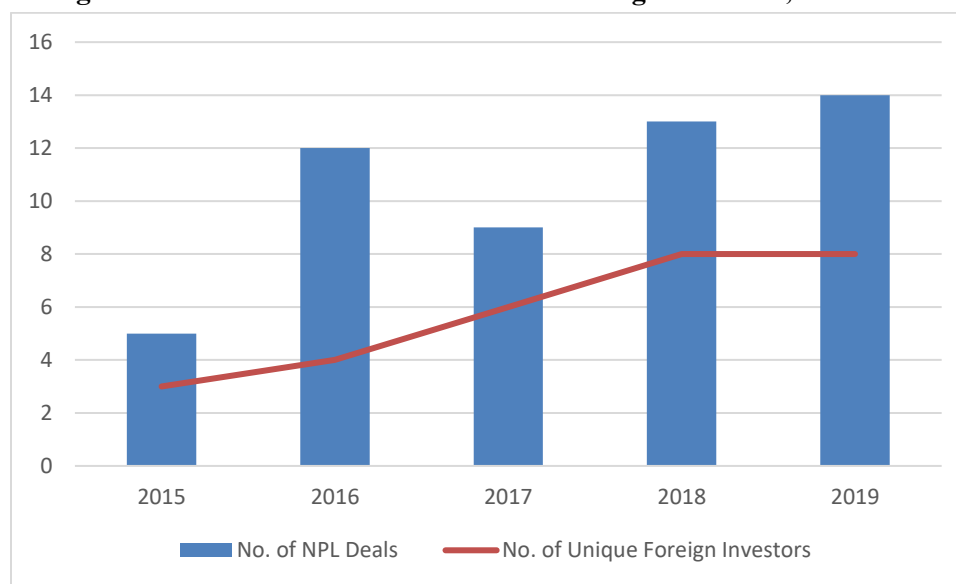
† For more on Huarong, see U.S.-China Economic and Security Review Commission, "Huarong Woes Raise Concerns about China's Debt Sustainability" in *Economics and Trade Bulletin*, May 2021, 13–16. [https://www.uscc.gov/sites/default/files/2021-05/May\\_2021\\_Trade\\_Bulletin.pdf](https://www.uscc.gov/sites/default/files/2021-05/May_2021_Trade_Bulletin.pdf).

‡ Since their establishment, AMCs have diversified their business into other financial services, including banking, securities brokerage, insurance, and fund management, marking a departure from their original business of NPL disposal. In January 2018, the CBIRC instructed the AMCs to focus more on NPLs as their core business. Revelations of Huarong's poor financial health in 2021 are leading policymakers to intensify their scrutiny of China's national AMCs. In June 2021, regulators asked Citic Group to examine the finances of Huarong, while China's Central Commission for Discipline Inspection opened an investigation into Hu Xiaogang, vice president of China Great Wall Asset Management and former executive of China Orient Asset Management, for suspected "severe" violations. Charlie Zhu et al., "China Asks Citic Group to Examine Huarong's Finances," *Bloomberg*, June 27, 2021. <https://www.bloomberg.com/news/articles/2021-06-28/china-is-said-to-ask-citic-group-to-examine-huarong-s-finances?sref=mxhIZFb4>; Edward White, "China Investigates Senior Bad Debt Official for Corruption," *Financial Times*, June 9, 2021. <https://www.ft.com/content/3d33d458-1442-48ef-a652-d2af13a98479>; Dinny McMahon, "The Big Four AMCs: Changing Priorities—and Rankings—in a New Era," *MacroPolo*, September 4, 2018. [https://macropolo.org/cleanup\\_analysis/the-big-four-amcs/](https://macropolo.org/cleanup_analysis/the-big-four-amcs/).

China's debt-to-GDP ratio reached 285 percent, compared to 258 percent in 2019.<sup>83</sup> NPLs have continued to rise, with the China Banking and Insurance Regulatory Commission (CBIRC) estimating the value of outstanding NPLs in the banking sector at \$541.7 billion (RMB 3.5 trillion) at the end of June 2021, up 26.6 percent year-on-year from \$427.6 billion (RMB 2.7 trillion) in June 2020.<sup>84</sup> CBIRC head of statistics and risk monitoring Liu Zhongrui warned on July 14 that NPL volumes may rise in the future as loan forbearance policies ushered in amid the pandemic are phased out, while a survey from China Orient Asset Management indicates the overall NPL ratio for China's commercial banks could rise to 2.34 percent by the end of 2021 from its current 1.86 percent.<sup>85</sup>

**As Chinese regulators come to grips with the scale of debt accumulated in China's financial system, they are opening the market to foreign distressed debt managers.** According to a 2020 PwC survey, foreign funds have been steadily purchasing NPL portfolios in recent years as national AMC's own NPL disposals have become more subdued amid their expansion into other business lines.<sup>86</sup> Eight foreign funds acquired 14 NPL portfolios in 2019 for a combined value of about \$1.1 billion, up from 13 portfolios worth \$900 million in 2018 (see Figure 5).<sup>87</sup> While foreign funds' purchases of NPL portfolios are steadily rising, the role of foreign funds in overall NPL disposal remains marginal, with the \$1.1 billion purchased in 2019 accounting for just 0.4 percent of NPLs disposed of that year (\$280 billion).<sup>88</sup> Mr. McMahon assesses that the marginal role of foreign funds in disposing of NPLs to date is likely due to the complexity of China's underdeveloped NPL marketplace.<sup>89</sup> For example, while NPL portfolios are sold chiefly by China's four AMCs, the marketing of those portfolios is undertaken by dozens of individual business units responsible for distinct geographical jurisdictions.<sup>90</sup> China's policymakers are signaling that they will continue to look to foreign capital and investment as a means of shoring up China's post-pandemic recovery. At a State Council executive meeting on July 21, Premier Li Keqiang stated, "China [should] ... use [foreign capital] to our advantage," with the wider opening of the financial sector "help[ing] to promote the further development of the Chinese economy."<sup>91</sup>

**Figure 5: China's NPL Portfolio Sales to Foreign Investors, 2015–2019**



*Note:* The figure is adapted from a PwC study of foreign funds' participation in China's NPL market. The study estimates the value of NPL sales only for the years 2018 (\$900 million) and 2019 (\$1.1 billion).

*Source:* PwC, "The Chinese NPL Market in 2020: Regulatory Catalyst May Lead to Higher Volumes," 2020, 5. <https://www.pwccn.com/en/deals/publications/the-chinese-npl-market-in-2020.pdf>.

\* Foreign funds investing in China's distressed debt market often initiate enforcement proceedings to generate a return from their NPL acquisition, with a view toward either restructuring the debt or liquidating underlying assets. This is usually done through a negotiated loan workout with the delinquent borrower. Dinny McMahon, "The Challenges—and Opportunities—of Chinese Distressed Debt," *Chartered Alternative Investment Analyst Association*, January 4, 2021. <https://caia.org/blog/2021/01/04/the-challenges-and-opportunities-of-chinese-distressed-debt>; Adalla Kim, "Foreign Investors Are Seeing Increasing Opportunities in China's Credit Crisis," *Private Debt Investor*, June 3, 2019. <https://www.privatedebtinvestor.com/foreign-investors-seeing-increasing-opportunities-chinas-credit-crisis/>.

---

## China's Emissions Trading Scheme Limited in Initial Scope

**China's new emissions trading scheme (ETS) integrates innovative mechanisms within a traditional carbon trading framework.** As the world's largest carbon emitter responsible for over 27 percent of global emissions in 2019, China now manages the world's largest carbon market, which covers 4 billion metric tons of carbon emissions.<sup>92</sup> Though the system appears ambitious in its scope, absent structural changes to China's carbon-intensive industries like construction and coal, China's ETS and broader climate policy are unlikely to curb emissions.<sup>93</sup> Administered by the Ministry of Ecology and Environment (MEE) and traded on the Shanghai Environment and Energy Exchange, China's ETS has a three-part structure:

- *Carbon intensity:* Unlike traditional carbon trading systems that set absolute emissions limits, China's ETS allocates emissions allowances, or "credits," to domestic companies based on carbon intensity, or the amount of carbon emitted per unit of output.<sup>94</sup> While this means participating companies may improve their energy efficiency, their total emissions may stay the same or even increase.
- *Market framework:* Emissions credits can be traded on a formal exchange. Companies emitting below their allowances can sell credits to companies emitting above their allowances, thereby creating a pricing mechanism for carbon emissions based on market principles.
- *Carbon offset credits:* China's ETS integrates carbon emissions offset credits, or China Certified Emissions Reductions (CCERs), for a range of climate-friendly projects, including those that involve renewable energy and carbon sinks, such as forests. Companies can use CCER credits to offset 5 percent of their emissions, which are verified and monitored by provincial MEE authorities.<sup>95</sup> The MEE is in the process of revising rules on how projects will qualify for CCER credits under the nationwide ETS. At present, it refers to domestic projects only, and it is not clear if projects conducted overseas by Chinese companies would qualify for CCER credits.<sup>96</sup>

**In its initial phases, China's ETS will have a limited impact.** China's ETS is still in its experimental phase, and Chinese policymakers have not set out a timeline for formalizing and expanding the system.<sup>97</sup> Policymakers are taking a gradual approach toward its rollout and implementation, building the system from the experience of local pilots beginning in 2011.<sup>98</sup> Currently, the system does not place onerous financial constraints on participants. Companies are only required to purchase up to 20 percent of the emissions that exceed their allowance, and fines for noncompliance are capped at approximately \$4,600, which is unlikely to enforce compliance by companies.<sup>99</sup> According to research consultancy Trivium, China's ETS is likely not intended to immediately drive a large-scale reduction in emissions. Rather, in its early stages the system is intended to encourage companies to build their own emissions data collection and reporting systems, which policymakers will use to further develop the ETS.<sup>100</sup>

**Tensions between economic growth and environmental policy slow ETS implementation.** As China's economic growth slows, Chinese policymakers are sensitive to the inherent tension between restricting industries with environmental regulations and stimulating economic growth. This is reflected in China's unique carbon intensity model, which is intended to encourage efficiency rather than create a direct tradeoff between emissions reduction and output. In its first official year of nationwide trading, the scheme will cover power generation companies emitting above 26,000 metric tons of carbon per year, or about 2,225 companies, accounting for approximately 40 percent of China's total carbon emissions.<sup>101</sup> The ETS will eventually extend to other high-emissions sectors, including petrochemicals, building materials, steel, nonferrous metals, paper, and domestic aviation, though there is no set timeline to do so.<sup>102</sup> To allow maximum flexibility, policymakers have intentionally avoided a strict timeline for implementation, though analysts predict the ETS will be fully implemented across sectors within three to five years.<sup>103</sup> Some of the most polluting sectors, like agriculture and construction, are currently exempt from the ETS because they are important for China's food security and economic growth.<sup>104</sup>

**China's ETS is intended to complement other components of its emerging climate policy.** As the world's largest polluter, China cannot fulfill its commitment to attaining carbon neutrality by 2060 through the ETS alone.<sup>105</sup> Rather, Chinese policymakers view the ETS as a component of a larger system of climate policies and incentives that are being developed over time. China's other major policy tools for achieving carbon neutrality include green finance; green certificates, which are used in a similar manner to carbon offsets; and administrative measures that directly limit the volume or intensity of enterprises' carbon emissions.<sup>106</sup> China's 14th Five-Year Plan also sets



targets for nationwide reductions in carbon intensity; however, it sets emissions targets as a percentage of GDP rather than capping them entirely, which will allow emissions to increase as China's economy grows.\*

**Disclaimer:** The U.S.-China Economic and Security Review Commission was created by Congress to report on the national security implications of the bilateral trade and economic relationship between the United States and the People's Republic of China. For more information, visit [www.uscc.gov](http://www.uscc.gov) or follow the Commission on Twitter @USCC\_GOV.

This report is the product of professional research performed by the staff of the U.S.-China Economic and Security Review Commission and was prepared at the request of the Commission to support its deliberations. Posting of the report to the Commission's website is intended to promote greater public understanding of the issues addressed by the Commission in its ongoing assessment of U.S.-China economic relations and their implications for U.S. security, as mandated by Public Law 106-398 and Public Law 113-291. However, it does not necessarily imply an endorsement by the Commission, any individual Commissioner, or the Commission's other professional staff, of the views or conclusions expressed in this staff research report.

- <sup>1</sup> U.S. Census Bureau, *Trade in Goods with China*, August 5, 2021. <https://www.census.gov/foreign-trade/balance/c5700.html>.
- <sup>2</sup> Chad P. Bown, "US-China Phase One Tracker: China's Purchases of US Goods," *Peterson Institute for International Economics*, July 26, 2021. <https://www.piie.com/research/piie-charts/us-china-phase-one-tracker-chinas-purchases-us-goods>.
- <sup>3</sup> U.S. Census Bureau, *Trade in Goods with China*, August 5, 2021. <https://www.census.gov/foreign-trade/balance/c5700.html>.
- <sup>4</sup> *Successful Farming*, "U.S. Ag Exports to Set All-Time Record in 2021, Thanks to China," May 26, 2021. <https://www.agriculture.com/news/us-ag-exports-to-set-all-time-record-in-2021-thanks-to-china>.
- <sup>5</sup> Mike Dorning, "USDA Says 2021 Farm Exports to China Will Touch Record High," *Bloomberg*, February 18, 2021. <https://www.agriculture.com/news/us-ag-exports-to-set-all-time-record-in-2021-thanks-to-china>.
- <sup>6</sup> Chad P. Bown, "US-China Phase One Tracker: China's Purchases Of US Goods," *Peterson Institute for International Economics*, July 26, 2021. <https://www.piie.com/research/piie-charts/us-china-phase-one-tracker-chinas-purchases-us-goods>.
- <sup>7</sup> U.S. Census Bureau, USA Trade Online, August 5, 2021. <https://usatrade.census.gov>; Lucia Mutikani, "U.S. consumer confidence hits one-year high; house prices soar," *Reuters*, March 30, 2021. <https://www.reuters.com/article/us-usa-economy-confidence/u-s-consumer-confidence-hits-one-year-high-house-prices-soar-idUSKBN2BM238>.
- <sup>8</sup> U.S. Census Bureau, *Trade in Goods with China*, August 5, 2021. <https://www.census.gov/foreign-trade/balance/c5700.html>.
- <sup>9</sup> David Dollar, "How a Trump Trade War with China Could Whack the U.S.," *Politico Money Podcast*, Podcast, March 21, 2018. <https://www.politico.com/story/2018/03/21/trump-china-trade-war-431103>.
- <sup>10</sup> U.S. Census Bureau, U.S. Trade in Advanced Technology Products by Country (YTD MARCH 2021), May 4, 2021. <https://www.census.gov/foreign-trade/statistics/product/atp/select-atpctry.html>.
- <sup>11</sup> U.S. Department of Commerce Bureau of Economic Analysis, *Table 1.3. U.S. International Transactions, Expanded Detail by Area and Country ((A, QNSA) (2003-present))*, July 26, 2021. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1>.
- <sup>12</sup> U.S. Department of Commerce Bureau of Economic Analysis, *Table 1.3. U.S. International Transactions, Expanded Detail by Area and Country ((A, QNSA) (2003-present))*, July 26, 2021. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1>.
- <sup>13</sup> U.S. Department of Commerce Bureau of Economic Analysis, *Table 1.3. U.S. International Transactions, Expanded Detail by Area and Country ((A, QNSA) (2003-present))*, July 26, 2021. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1>.
- <sup>14</sup> U.S. Department of Commerce Bureau of Economic Analysis, *Table 1.3. U.S. International Transactions, Expanded Detail by Area and Country ((A, QNSA) (2003-present))*, July 26, 2021. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1>.
- <sup>15</sup> U.S. Department of Commerce Bureau of Economic Analysis, *Table 1.3. U.S. International Transactions, Expanded Detail by Area and Country ((A, QNSA) (2003-present))*, July 26, 2021. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1>.
- <sup>16</sup> U.S. Department of Commerce Bureau of Economic Analysis, *Table 1.3. U.S. International Transactions, Expanded Detail by Area and Country ((A, QNSA) (2003-present))*, July 26, 2021. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1>; Liyan Qi, "Chinese Exports to the U.S. Get a Lifeline from Coronavirus-Related Demand," *Wall Street Journal*, October 9, 2020. <https://www.wsj.com/articles/chinese-exports-to-the-u-s-get-a-lifeline-from-coronavirus-related-demand-11602235800>.
- <sup>17</sup> U.S. Department of Commerce Bureau of Economic Analysis, *U.S. International Economic Accounts: Concepts and Methods*, July 2021, 113. <https://www.bea.gov/system/files/methodologies/ONE%20PDF%20-%20IEA%20Concepts%20Methods.pdf>.
- <sup>18</sup> Patricia Buckley and Monali Samaddar, "Recalculating the Benefits of Trade Post-COVID-19," *Deloitte*, October 27, 2020. <https://www2.deloitte.com/us/en/insights/economy/spotlight/economics-insights-analysis-10-2020.html>.
- <sup>19</sup> Juliet Chung, Justin Bear, and Dawn Lim, "Investors Lost Hundreds of Billions on China in July," *Wall Street Journal*, July 30, 2021. <https://www.wsj.com/articles/investors-rethink-china-bets-after-beijing-crackdown-triggers-stock-market-rout-11627669954>.
- <sup>20</sup> *Bloomberg*, "Why China Is Cracking Down Now on After-School Tutors," July 26, 2021. [https://www.washingtonpost.com/business/why-china-is-cracking-down-now-on-after-school-tutors/2021/07/25/5e3b95b6-edb7-11eb-81b2-9b7061a582d8\\_story.html](https://www.washingtonpost.com/business/why-china-is-cracking-down-now-on-after-school-tutors/2021/07/25/5e3b95b6-edb7-11eb-81b2-9b7061a582d8_story.html).

\* For more on the climate and energy goals outlined in China's 14th Five-Year Plan, see U.S.-China Economic and Security Review Commission, "Climate Targets Inadequate to Meet China's Climate Pledges" in *Economics and Trade Bulletin*, April 2021, 8–10. [https://www.uscc.gov/sites/default/files/2021-04/April\\_2021\\_Trade\\_Bulletin.pdf](https://www.uscc.gov/sites/default/files/2021-04/April_2021_Trade_Bulletin.pdf).



- <sup>21</sup> Ryan McMorrow et al., “China’s Education Sector Crackdown Hits Foreign Investors,” *Financial Times*, July 26, 2021. <https://www.ft.com/content/dfae3282-e14e-4fea-aa5f-c2e914444fb8>.
- <sup>22</sup> Kiran Stacey and James Politi, “Senators Call on U.S. Securities Regulator to Investigate Didi IPO,” *Wall Street Journal*, July 8, 2021. <https://www.ft.com/content/40c179f1-6450-43fd-9baf-f42425712016>; Xie Yu, Elaine Yu, and Jing Yang, “Didi Shares Plunge as China’s Probes of U.S.-Listed Firms Jolt Investors,” *Wall Street Journal*, July 6, 2021. <https://www.wsj.com/articles/beijings-probes-into-u-s-listed-tech-companies-jolt-investors-11625563471>; Tracy Qu and Zhou Xin, “China Takes Didi off App Stores Two Days after Beijing Announces Cybersecurity Review,” *South China Morning Post*, July 4, 2021. <https://www.scmp.com/tech/big-tech/article/3139786/china-takes-didi-app-stores-two-days-after-beijingannounces>.
- <sup>23</sup> Yahoo Finance, “DiDi Global Inc. (DIDI),” August 3, 2021. <https://finance.yahoo.com/quote/DIDI/>; Corrie Driebusch, “Didi Global Prices IPO at \$14 a Share,” *Wall Street Journal*, June 30, 2021. <https://www.wsj.com/articles/didi-ipo-pricing-imminent-after-lightning-round-roadshow-11624987451>.
- <sup>24</sup> Hudson Lockett and Tabby Kinder, “China Tech Stocks Set for Worst Month since Global Financial Crisis,” *Financial Times*, July 30, 2021. <https://www.ft.com/content/e7c10981-bf06-4255-82cd-01cd1abea7ed>.
- <sup>25</sup> Hudson Lockett and Tabby Kinder, “China Tech Stocks Set for Worst Month since Global Financial Crisis,” *Financial Times*, July 30, 2021. <https://www.ft.com/content/e7c10981-bf06-4255-82cd-01cd1abea7ed>; Keith Zhai and Quentin Webb, “China Moves to Reassure Global Banks and Investors after Market Rout,” *Wall Street Journal*, July 29, 2021. <https://www.wsj.com/articles/china-moves-to-reassure-global-banks-and-investors-after-market-rout-11627528509>.
- <sup>26</sup> *Xinhua*, “Xi Jinping: Promote the Standardized, Healthy, and Sustainable Development of the Platform Economy, Incorporate Carbon Peaks and Carbon Neutrality into the Overall Layout of Ecological Civilization Construction” (习近平：推动平台经济规范健康持续发展把碳达峰碳中和纳入生态文明建设整体布局), March 16, 2021. [http://www.xinhuanet.com/mrdx/2021-03/16/c\\_139813420.htm](http://www.xinhuanet.com/mrdx/2021-03/16/c_139813420.htm).
- <sup>27</sup> State Council of the People’s Republic of China, *The General Office of the Central Committee of the Chinese Communist Party and the General Office of the State Council of the People’s Republic of China Jointly Issued the “Opinions on Strictly Cracking Down on Illegal Securities Activity in Accordance with Law”* (中共中央办公厅 国务院办公厅印发《关于依法从严打击证券违法活动的意见》), July 6, 2021. Translation. [http://www.gov.cn/zhengce/2021-07/06/content\\_5622763.htm](http://www.gov.cn/zhengce/2021-07/06/content_5622763.htm).
- <sup>28</sup> State Council of the People’s Republic of China, *The General Office of the Central Committee of the Chinese Communist Party and the General Office of the State Council of the People’s Republic of China Jointly Issued the “Opinions on Strictly Cracking Down on Illegal Securities Activity in Accordance with Law”* (中共中央办公厅 国务院办公厅印发《关于依法从严打击证券违法活动的意见》), July 6, 2021. Translation. [http://www.gov.cn/zhengce/2021-07/06/content\\_5622763.htm](http://www.gov.cn/zhengce/2021-07/06/content_5622763.htm).
- <sup>29</sup> Cyberspace Administration of China, *Cyberspace Administration of China’s “Cybersecurity Review Measures” (Revised Draft for Solicitation of Comments)*, July 10, 2021. [http://webcache.googleusercontent.com/search?q=cache:wGT16waRR8AJ:www.cac.gov.cn/2021-07/10/c\\_1627503724456684.htm+&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:wGT16waRR8AJ:www.cac.gov.cn/2021-07/10/c_1627503724456684.htm+&cd=3&hl=en&ct=clnk&gl=us).
- <sup>30</sup> Hudson Lockett, Ryan McMorrow, and Sun Yu, “China’s Tencent Imposes Controls to Tackle Gaming Addiction among Children,” *Financial Times*, August 3, 2021. <https://www.ft.com/content/1ee4f40b-cad8-45f7-b8dd-de25b89736d3>.
- <sup>31</sup> Shen Lu, “China’s Edtech Crackdown Isn’t What You Think. Here’s Why,” *Protocol*, July 31, 2021. <https://www.protocol.com/china/china-edtech-crackdown-education-inequality>.
- <sup>32</sup> James Palmer, “Why China Is Cracking Down on Private Tutoring,” *Foreign Policy*, July 28, 2021. <https://foreignpolicy.com/2021/07/28/china-private-tutoring-education-regulation-crackdown/>.
- <sup>33</sup> Lester Ross, Kenneth Zhou, and Tingting Liu, “China Tightens Control over Overseas Securities Listings in Name of Data Security,” *Wilmer Hale*, July 12, 2021. <https://www.wilmerhale.com/en/insights/client-alerts/20210712-china-tightens-control-over-overseas-securities-listings-in-name-of-data-security>.
- <sup>34</sup> Lester Ross, Kenneth Zhou, and Tingting Liu, “China Tightens Control over Overseas Securities Listings in Name of Data Security,” *Wilmer Hale*, July 12, 2021. <https://www.wilmerhale.com/en/insights/client-alerts/20210712-china-tightens-control-over-overseas-securities-listings-in-name-of-data-security>.
- <sup>35</sup> Keith Zhai and Quentin Webb, “China Moves to Reassure Global Banks and Investors after Market Rout,” *Wall Street Journal*, July 29, 2021. <https://www.wsj.com/articles/china-moves-to-reassure-global-banks-and-investors-after-market-rout-11627528509>.
- <sup>36</sup> Keith Zhai and Quentin Webb, “China Moves to Reassure Global Banks and Investors after Market Rout,” *Wall Street Journal*, July 29, 2021. <https://www.wsj.com/articles/china-moves-to-reassure-global-banks-and-investors-after-market-rout-11627528509>.
- <sup>37</sup> Gary Gensler, “Statement on Investor Protection Related to Recent Developments in China,” *U.S. Securities and Exchange Commission*, July 30, 2021. <https://www.sec.gov/news/public-statement/gensler-2021-07-30>.
- <sup>38</sup> Gary Gensler, “Statement on Investor Protection Related to Recent Developments in China,” *U.S. Securities and Exchange Commission*, July 30, 2021. <https://www.sec.gov/news/public-statement/gensler-2021-07-30>.
- <sup>39</sup> Linda Lew, “China’s Securities Watchdog Reaches Out to U.S. in Didi Crackdown Aftermath,” *South China Morning Post*, August 1, 2021. <https://www.scmp.com/news/china/diplomacy/article/3143401/chinas-securities-watchdog-reaches-out-us-didi-crackdown>.
- <sup>40</sup> U.S.-China Economic and Security Review Commission, *Chinese Companies Listed on Major U.S. Stock Exchanges*, May 5, 2021. [https://www.uscc.gov/sites/default/files/2021-05/Chinese\\_Companies\\_on\\_US\\_Stock\\_Exchanges\\_5-2021.pdf](https://www.uscc.gov/sites/default/files/2021-05/Chinese_Companies_on_US_Stock_Exchanges_5-2021.pdf).
- <sup>41</sup> China’s National Bureau of Statistics via CEIC database.
- <sup>42</sup> China’s National Bureau of Statistics via CEIC database.
- <sup>43</sup> China’s National Bureau of Statistics, *National Economy in the First Half Year Witnessed the Steady and Sound Growth Momentum Consolidated*, July 15, 2021.

- [http://webcache.googleusercontent.com/search?q=cache:bjqJPP6BU64J:www.stats.gov.cn/english/PressRelease/202107/t20210715\\_1819447.html+%&cd=4&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:bjqJPP6BU64J:www.stats.gov.cn/english/PressRelease/202107/t20210715_1819447.html+%&cd=4&hl=en&ct=clnk&gl=us).
- <sup>44</sup> Logan Wright and Allen Feng, “June/Q2 2021 Macro Data Recap,” *Rhodium Group*, July 15, 2021, 1–3; Logan Wright and Allen Feng, “March/Q1 2021 Macro Data Recap” *Rhodium Group*, April 16, 2021, 2.
- <sup>45</sup> China National Bureau of Statistics, *2021 Jan-Jun National Real Estate Development Investment and Sales Situation*, (2021年1—6月份全国房地产开发投资和销售情况), July 15, 2021. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:7WAeYnZ7u98J:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819446.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:7WAeYnZ7u98J:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819446.html+%&cd=1&hl=en&ct=clnk&gl=us); Allen Feng and Logan Wright, “Property Market Chartbook,” *Rhodium Group*, May 27, 2021, 6; *Bloomberg News*, “China’s Home Market ‘Out of Control’ as Prices Climb Further,” May 16, 2021.  
<https://www.bloomberg.com/news/articles/2021-05-17/china-s-home-market-out-of-control-as-prices-climb-further?sref=mxvIZFb4>.
- <sup>46</sup> China National Bureau of Statistics, *2021 Q2 and H1 Initial GDP Accounting Results*, (2021年二季度和上半年国内生产总值 (GDP) 初步核算结果), July 16, 2021. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:eTRJqMXQU4J:www.stats.gov.cn/tjsj/zxfb/202107/t20210716\\_1819540.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:eTRJqMXQU4J:www.stats.gov.cn/tjsj/zxfb/202107/t20210716_1819540.html+%&cd=1&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2021 Q1 GDP Initial Accounting Results*, (2021年一季度国内生产总值初步核算结果), April 17, 2021. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:vDI5748PqoAJ:www.stats.gov.cn/tjsj/zxfb/202104/t20210416\\_1816518.html+%&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:vDI5748PqoAJ:www.stats.gov.cn/tjsj/zxfb/202104/t20210416_1816518.html+%&cd=3&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2020 Q4 and Annual Initial GDP Accounting Results*, (2020年四季度和全年国内生产总值 (GDP) 初步核算结果), January 19, 2020. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:aHV4vFmazZsJ:www.stats.gov.cn/tjsj/zxfb/202101/t20210119\\_1812514.html+%&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:aHV4vFmazZsJ:www.stats.gov.cn/tjsj/zxfb/202101/t20210119_1812514.html+%&cd=3&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2020 Q3 Initial GDP Accounting Results*, (2020年三季度国内生产总值 (GDP) 初步核算结果), October 20, 2020. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:ivb3TS2ImjQJ:www.stats.gov.cn/tjsj/zxfb/202101/t20210120\\_1794939.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:ivb3TS2ImjQJ:www.stats.gov.cn/tjsj/zxfb/202101/t20210120_1794939.html+%&cd=1&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2020 Q2 and H1 Initial GDP Accounting Results*, (2020年二季度和上半年国内生产总值 (GDP) 初步核算结果), July 12, 2020. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:yN17VeC6dOgJ:www.stats.gov.cn/tjsj/zxfb/202007/t20200717\\_1776516.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:yN17VeC6dOgJ:www.stats.gov.cn/tjsj/zxfb/202007/t20200717_1776516.html+%&cd=1&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2020 Q1 Initial GDP Accounting Results*, (2020年一季度国内生产总值 (GDP) 初步核算结果), April 18, 2020. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:vwEU4pHDRfoJ:www.stats.gov.cn/tjsj/zxfb/202004/t20200417\\_1739602.html+%&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:vwEU4pHDRfoJ:www.stats.gov.cn/tjsj/zxfb/202004/t20200417_1739602.html+%&cd=3&hl=en&ct=clnk&gl=us).
- <sup>47</sup> China National Bureau of Statistics, *Jan-Jun 2021 Fixed Asset Investment (Not Including Rural Areas) Increased 12.6 Percent, 9.1% Compared to Jan-June 2019*, (2021年1—6月份全国固定资产投资 (不含农户) 增长12.6%, 比2019年1—6月份增长9.1%), July 15, 2021. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:s5m1pxpRQ3cJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819443.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:s5m1pxpRQ3cJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819443.html+%&cd=1&hl=en&ct=clnk&gl=us); China’s National Bureau of Statistics via CEIC database.
- <sup>48</sup> China’s Ministry of Finance, *2021 H1 Fiscal Revenue and Expenditure Situation* (2021年上半年财政收支情况), July 21, 2021. Translation. [http://webcache.googleusercontent.com/search?q=cache:D5jCanm-aVQJ:www.gov.cn/shuju/2021-07/21/content\\_5626323.htm+%&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:D5jCanm-aVQJ:www.gov.cn/shuju/2021-07/21/content_5626323.htm+%&cd=3&hl=en&ct=clnk&gl=us).
- <sup>49</sup> China National Bureau of Statistics, *In H1 the National Economy Reinforced Stability in a Good Direction*, (上半年国民经济稳中加固稳中向好), July 15, 2021. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:Ec\\_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819440.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:Ec_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819440.html+%&cd=1&hl=en&ct=clnk&gl=us).
- <sup>50</sup> China’s National Bureau of Statistics via CEIC database.
- <sup>51</sup> China National Bureau of Statistics, *In H1 the National Economy Reinforced Stability in a Good Direction*, (上半年国民经济稳中加固稳中向好), July 15, 2021. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:Ec\\_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819440.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:Ec_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819440.html+%&cd=1&hl=en&ct=clnk&gl=us); Logan Wright and Allen Feng, “June/Q2 2021 Macro Data Recap,” *Rhodium Group*, July 15, 2021, 3.
- <sup>52</sup> China National Bureau of Statistics, *2021 Q2 and H1 Initial GDP Accounting Results*, (2021年二季度和上半年国内生产总值 (GDP) 初步核算结果), July 16, 2021. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:eTRJqMXQU4J:www.stats.gov.cn/tjsj/zxfb/202107/t20210716\\_1819540.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:eTRJqMXQU4J:www.stats.gov.cn/tjsj/zxfb/202107/t20210716_1819540.html+%&cd=1&hl=en&ct=clnk&gl=us).
- <sup>53</sup> China National Bureau of Statistics, *In H1 the National Economy Reinforced Stability in a Good Direction*, (上半年国民经济稳中加固稳中向好), July 15, 2021. Translation.  
[http://webcache.googleusercontent.com/search?q=cache:Ec\\_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819440.html+%&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:Ec_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819440.html+%&cd=1&hl=en&ct=clnk&gl=us); Logan Wright and Allen Feng, “June/Q2 2021 Macro Data Recap,” *Rhodium Group*, July 15, 2021, 3.
- <sup>54</sup> China’s National Bureau of Statistics via CEIC database.
- <sup>55</sup> China’s National Bureau of Statistics, *Du Xishuang: The Service Sector Economy Continues to Stabilize and Recover toward a Good Trend* (杜希双: 服务业经济延续稳定恢复向好态势), July 16, 2021. Translation.

- [http://webcache.googleusercontent.com/search?q=cache:MH2P7139rJsJ:www.stats.gov.cn/tjsj/sjjd/202107/t20210716\\_1819553.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:MH2P7139rJsJ:www.stats.gov.cn/tjsj/sjjd/202107/t20210716_1819553.html+&cd=1&hl=en&ct=clnk&gl=us); China's National Bureau of Statistics, *Du Xishuang: China's Services Sector Was Stable for the First Half of the Year: Statistics Bureau Chief Explains Half Year Report* (杜希双: 上半年我国服务业运行平稳——国家统计局局长解读“半年报”), July 16, 2021. Translation. [http://www.xinhuanet.com/fortune/2019-07/17/c\\_1210200588.htm](http://www.xinhuanet.com/fortune/2019-07/17/c_1210200588.htm).
- <sup>56</sup> China National Bureau of Statistics, *In H1 the National Economy Reinforced Stability in a Good Direction*, (上半年国民经济稳中加固稳中向好), July 15, 2021. Translation. [http://webcache.googleusercontent.com/search?q=cache:Ec\\_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819440.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:Ec_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819440.html+&cd=1&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *Outstanding Overall Epidemic and Development Results: In H1 the National Economy Gradually Recovered*, (统筹防疫和发展成效显著 上半年国民经济逐步复苏), July 16, 2021. Translation. [http://webcache.googleusercontent.com/search?q=cache:20tB5QHVGmWJ:www.stats.gov.cn/tjsj/zxfb/202007/t20200716\\_1776194.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:20tB5QHVGmWJ:www.stats.gov.cn/tjsj/zxfb/202007/t20200716_1776194.html+&cd=1&hl=en&ct=clnk&gl=us).
- <sup>57</sup> China National Bureau of Statistics, *In H1 the National Economy Reinforced Stability in a Good Direction*, (上半年国民经济稳中加固稳中向好), July 15, 2021. Translation. [http://webcache.googleusercontent.com/search?q=cache:Ec\\_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819440.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:Ec_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819440.html+&cd=1&hl=en&ct=clnk&gl=us).
- <sup>58</sup> China National Bureau of Statistics, *2020 First Half of the Year Residents' Income and Expenditure Situation* (2020年上半年居民收入和消费支出情况), July 16, 2020. Translation. [http://webcache.googleusercontent.com/search?q=cache:hbbA6Rc8YuAJ:www.stats.gov.cn/tjsj/zxfb/202007/t20200716\\_1776201.html+&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:hbbA6Rc8YuAJ:www.stats.gov.cn/tjsj/zxfb/202007/t20200716_1776201.html+&cd=3&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2020 Q2 and H1 Initial GDP Accounting Results*, (2020年二季度和上半年国内生产总值(GDP)初步核算结果), July 12, 2020. Translation. [http://webcache.googleusercontent.com/search?q=cache:yN17VeC6dOgJ:www.stats.gov.cn/tjsj/zxfb/202007/t20200717\\_1776516.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:yN17VeC6dOgJ:www.stats.gov.cn/tjsj/zxfb/202007/t20200717_1776516.html+&cd=1&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2019 Q2 and H1 Initial GDP Accounting Results*, (2019年二季度和上半年国内生产总值(GDP)初步核算结果), July 16, 2019. Translation. [http://webcache.googleusercontent.com/search?q=cache:8T\\_UyHqJDMJ:www.stats.gov.cn/tjsj/zxfb/201907/t20190716\\_1676299.html+&cd=4&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:8T_UyHqJDMJ:www.stats.gov.cn/tjsj/zxfb/201907/t20190716_1676299.html+&cd=4&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2019 First Half of the Year Residents' Income and Expenditure Situation* (2019年上半年居民收入和消费支出情况), July 15, 2019. Translation. [http://webcache.googleusercontent.com/search?q=cache:8MTwf3s\\_fmJ:www.stats.gov.cn/tjsj/zxfb/201907/t20190715\\_1676028.html+&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:8MTwf3s_fmJ:www.stats.gov.cn/tjsj/zxfb/201907/t20190715_1676028.html+&cd=3&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2018 Q2 and H1 Initial GDP Accounting Results*, (2018年二季度和上半年国内生产总值(GDP)初步核算结果), July 17, 2018. Translation. [http://webcache.googleusercontent.com/search?q=cache:oSE8fiM82rEJ:www.stats.gov.cn/tjsj/zxfb/201807/t20180717\\_1610160.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:oSE8fiM82rEJ:www.stats.gov.cn/tjsj/zxfb/201807/t20180717_1610160.html+&cd=1&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2018 First Half of the Year Residents' Income and Expenditure Situation* (2018年上半年居民收入和消费支出情况), July 16, 2018. Translation. [http://webcache.googleusercontent.com/search?q=cache:NtezVISp0-wJ:www.stats.gov.cn/tjsj/zxfb/201807/t20180716\\_1609880.html+&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:NtezVISp0-wJ:www.stats.gov.cn/tjsj/zxfb/201807/t20180716_1609880.html+&cd=3&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2017 Q2 and H1 Initial GDP Accounting Results*, (2017年二季度和上半年国内生产总值(GDP)初步核算结果), July 18, 2017. Translation. [http://webcache.googleusercontent.com/search?q=cache:ezC4ISZzkI8J:www.stats.gov.cn/tjsj/zxfb/201707/t20170718\\_1513926.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:ezC4ISZzkI8J:www.stats.gov.cn/tjsj/zxfb/201707/t20170718_1513926.html+&cd=1&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2017 First Half of the Year Residents' Income and Expenditure Situation* (2017年上半年居民收入和消费支出情况), July 16, 2017. Translation. [http://webcache.googleusercontent.com/search?q=cache:zTLtGk870GkJ:www.stats.gov.cn/tjsj/zxfb/201707/t20170717\\_1513537.html+&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:zTLtGk870GkJ:www.stats.gov.cn/tjsj/zxfb/201707/t20170717_1513537.html+&cd=3&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2016 First Half National Income and Economic Growth Basically Kept Pace* (统计局: 上半年全国居民收入与经济增长基本同步), July 17, 2016. Translation. [http://webcache.googleusercontent.com/search?q=cache:T6DLn0Kk9WMJ:www.gov.cn/xinwen/2016-07/17/content\\_5092229.htm+&cd=3&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:T6DLn0Kk9WMJ:www.gov.cn/xinwen/2016-07/17/content_5092229.htm+&cd=3&hl=en&ct=clnk&gl=us); China National Bureau of Statistics, *2016 Q2 and H1 Initial GDP Accounting Results*, (2016年二季度和上半年国内生产总值(GDP)初步核算结果), July 16, 2016. Translation. [http://webcache.googleusercontent.com/search?q=cache:ryDf\\_d5NqFAJ:www.stats.gov.cn/tjsj/zxfb/201607/t20160716\\_1378184.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:ryDf_d5NqFAJ:www.stats.gov.cn/tjsj/zxfb/201607/t20160716_1378184.html+&cd=1&hl=en&ct=clnk&gl=us).
- <sup>59</sup> China National Bureau of Statistics, *In H1 the National Economy Reinforced Stability in a Good Direction*, (上半年国民经济稳中加固稳中向好), July 15, 2021. Translation. [http://webcache.googleusercontent.com/search?q=cache:Ec\\_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819440.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:Ec_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819440.html+&cd=1&hl=en&ct=clnk&gl=us).
- <sup>60</sup> Grady McGregor, “China Is Getting Its Pig Epidemic under Control, but It’s Not Out of the Woods Yet,” *Fortune*, July 3, 2021. <https://webcache.googleusercontent.com/search?q=cache:AidwsNbiwIJ:https://fortune.com/2021/07/03/african-swine-fever-epidemic-china-pig-recovery/+&cd=2&hl=en&ct=clnk&gl=us>.
- <sup>61</sup> Logan Wright and Allen Feng, “May 2021 Macro Data Recap,” *Rhodium Group*, June 16, 2021, 1.
- <sup>62</sup> China National Bureau of Statistics, *In H1 the National Economy Reinforced Stability in a Good Direction*, (上半年国民经济稳中加固稳中向好), July 15, 2021. Translation. [http://webcache.googleusercontent.com/search?q=cache:Ec\\_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715\\_1819440.html+&cd=1&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache:Ec_CHYHJoSAJ:www.stats.gov.cn/tjsj/zxfb/202107/t20210715_1819440.html+&cd=1&hl=en&ct=clnk&gl=us); Allen Feng and Logan Wright, “Property Market Chartbook,” *Rhodium Group*, May 27, 2021, 10.



- <sup>63</sup> Michael Lelyveld, “China Blocks Reporting on Commodity Prices,” *Radio Free Asia*, July 2, 2021. [https://www.rfa.org/english/commentaries/energy\\_watch/prices-07022021100752.html](https://www.rfa.org/english/commentaries/energy_watch/prices-07022021100752.html).
- <sup>64</sup> Stella Qiu and Kevin Yao, “China Frees Up \$154 Billion for Banks to Underpin Economic Recovery,” *Reuters*, July 9, 2021. <https://www.reuters.com/article/us-china-economy-rrr-cut/china-frees-up-154-billion-for-banks-to-underpin-economic-recovery-idUSKCN2EF0U4>; Kevin Yao, “Explainer: Is China Set to Cut RRR Soon? What Are the Implications?” *Reuters*, July 8, 2021. <https://www.reuters.com/world/china/is-china-set-cut-rrr-soon-what-are-implications-2021-07-08/>.
- <sup>65</sup> Stella Qiu and Kevin Yao, “China Frees Up \$154 Billion for Banks to Underpin Economic Recovery,” *Reuters*, July 9, 2021. <https://www.reuters.com/article/us-china-economy-rrr-cut/china-frees-up-154-billion-for-banks-to-underpin-economic-recovery-idUSKCN2EF0U4>.
- <sup>66</sup> *Bloomberg*, “China Asks Banks to Curtail Credit for Rest of Year,” April 5, 2021. <https://www.bloomberg.com/news/articles/2021-04-06/china-is-said-to-ask-banks-to-curtail-credit-for-rest-of-year?sref=mxblZfB4>.
- <sup>67</sup> *S&P Global*, “China’s Reserve Requirement Cut to Give Banks Some Breathing Room,” July 12, 2021. <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/china-s-reserve-requirement-cut-to-give-banks-some-breathing-room-65420983>.
- <sup>68</sup> Nathaniel Taplin, “China’s Monetary Policy Slips a Gear into Neutral,” *Wall Street Journal*, July 12, 2021. <https://www.wsj.com/articles/chinas-monetary-policy-slips-a-gear-into-neutral-11626098702>.
- <sup>69</sup> Trivium China, “RRR Analysis Redux: What the PBOC Giveth, the PBOC Taketh Away,” *Trivium China Markets Dispatch*, July 21, 2021; Dinny McMahon, “No More Flooding the Plains: The PBOC Opts for ‘Precision Irrigation,’” *MacroPolo*, November 7, 2019. <https://macropolo.org/analysis/no-more-flooding-the-plains-the-pboc-opts-for-precision-irrigation/>.
- <sup>70</sup> People’s Bank of China, *The People’s Bank of China Decided to Lower the Deposit Reserve Ratio of Financial Institutions on July 15, 2021* (中国人民银行决定于2021年7月15日下调金融机构存款准备金率), July 9, 2021. Translation. <https://webcache.googleusercontent.com/search?q=cache:buAbndCCIMoJ:https://www.cmhk.com/uploadfiles/202107/20210713163058640.pdf+&cd=2&hl=en&ct=clnk&gl=us>.
- <sup>71</sup> Trivium China, “RRR Analysis Redux: What the PBOC Giveth, the PBOC Taketh Away,” *Trivium China Markets Dispatch*, July 21, 2021.
- <sup>72</sup> Trivium China, “RRR Analysis Redux: What the PBOC Giveth, the PBOC Taketh Away,” *Trivium China Markets Dispatch*, July 21, 2021.
- <sup>73</sup> *Bloomberg*, “PBOC Adviser Sees Stable China Liquidity after Reserve Ratio Cut,” July 11, 2021. <https://www.bloomberg.com/news/articles/2021-07-11/pboc-adviser-sees-stable-china-liquidity-after-reserve-ratio-cut?sref=mxblZfB4>; Li Guohui, “Members of the Central Bank’s Monetary Policy Committee Talk about RRR Cuts! (央行货币政策委员会委员谈降准!)” *Financial News*, July 11, 2021. Translation. [https://webcache.googleusercontent.com/search?q=cache:fj3vLV9lUgsJ:https://www.financialnews.com.cn/gc/gz/202107/t20210711\\_223029.html+&cd=1&hl=en&ct=clnk&gl=us](https://webcache.googleusercontent.com/search?q=cache:fj3vLV9lUgsJ:https://www.financialnews.com.cn/gc/gz/202107/t20210711_223029.html+&cd=1&hl=en&ct=clnk&gl=us).
- <sup>74</sup> Frank Tang, “China Reforms Bank Deposit Rate System to Unleash Liquidity for Small Businesses,” *South China Morning Post*, June 21, 2021. <https://www.scmp.com/economy/china-economy/article/3138171/china-reforms-bank-deposit-rate-system-unleash-liquidity>.
- <sup>75</sup> Tian Chen and Livia Yap, “China Boosts Short-Term Cash Injection to Easy Liquidity Worries,” *Bloomberg*, June 23, 2021. <https://www.bloomberg.com/news/articles/2021-06-24/china-lifts-short-term-cash-injection-for-first-time-since-march?sref=mxblZfB4>.
- <sup>76</sup> *Reuters*, “China Holds Benchmark Lending Rate for 15th Straight Month,” July 19, 2021. <https://www.reuters.com/article/us-china-economy-lpr-idUSKBN2EQ04N>.
- <sup>77</sup> Kevin Yao, “China’s Economic Growth to More than Halve in Q2, More Policy Support Seen: Reuters Poll,” *Reuters*, July 13, 2021. <https://www.reuters.com/business/chinas-economic-growth-more-than-halve-q2-more-policy-support-seen-2021-07-13/>.
- <sup>78</sup> Hong Kong Stock Exchange, “China Huarong Asset Management Co., Ltd., Proposed Implementation of Huarong Consumer Finance Equity Transfer Project and Huarong Trust Equity Restructuring Project,” August 2, 2021, 1. <https://www1.hkexnews.hk/listedco/listconews/sehk/2021/0802/2021080202352.pdf>.
- <sup>79</sup> Hong Kong Stock Exchange, “China Huarong Asset Management Co., Ltd., Proposed Implementation of Huarong Consumer Finance Equity Transfer Project and Huarong Trust Equity Restructuring Project,” August 2, 2021, 2. <https://www1.hkexnews.hk/listedco/listconews/sehk/2021/0802/2021080202352.pdf>.
- <sup>80</sup> Hong Kong Stock Exchange, “China Huarong Asset Management Co., Ltd., Proposed Implementation of Huarong Consumer Finance Equity Transfer Project and Huarong Trust Equity Restructuring Project,” August 2, 2021, 2. <https://www1.hkexnews.hk/listedco/listconews/sehk/2021/0802/2021080202352.pdf>.
- <sup>81</sup> Wu Yujian and Tang Xiyi, “Great Wall Offloads Insurance Unit as Asset Managers Ordered to ‘Get Back to Basics,’” *Caixin*, April 15, 2021. <https://www.caixinglobal.com/2021-04-15/great-wall-offloads-insurance-unit-as-asset-managers-ordered-to-get-back-to-basics-101691829.html>.
- <sup>82</sup> *Bloomberg News*, “Inside the Race to Avert Disaster at China’s Biggest ‘Bad Bank,’” May 23, 2021. <https://www.bloomberg.com/news/features/2021-05-23/bad-bank-huarong-tests-china-s-financial-system-and-xi-jinping-s-control?sref=mxblZfB4>.
- <sup>83</sup> World Bank Group, “Beyond the Recovery: Charting a Green and Inclusive Growth Path,” *China Economic Update* (June 2021), 30. <https://documents1.worldbank.org/curated/en/764051625169940524/pdf/China-Economic-Update-Beyond-the-Recovery-Charting-a-Green-and-Inclusive-Growth-Path.pdf>.
- <sup>84</sup> State Council Information Office of the People’s Republic of China, *State Council Information Office Holds Press Conference on Development Circumstances of the Banking and Insurance Industry in the First Half of 2021* (国新办举行上半年银行业保险业运行发

- 展情况新闻发布会), July 14, 2021. Translation.  
<http://www.scio.gov.cn/xwfbh/xwfbfh/wqfbh/44687/46257/wz46259/Document/1708513/1708513.htm>; CBIRC via CEIC database.
- <sup>85</sup> State Council Information Office of the People's Republic of China, *State Council Information Office Holds Press Conference on Development Circumstances of the Banking and Insurance Industry in the First Half of 2021* (国新办举行上半年银行业保险业运行发展情况新闻发布会), July 14, 2021. Translation.  
<http://www.scio.gov.cn/xwfbh/xwfbfh/wqfbh/44687/46257/wz46259/Document/1708513/1708513.htm>; Charlie Zhu et al., "China's Bad Loan Managers Face Growing Pressure on Core Business," *Bloomberg*, April 16, 2021. <https://www.bloomberg.com/news/articles/2021-04-16/china-s-bad-loan-managers-face-growing-pressure-on-core-business?sref=mxblZFb4>.
- <sup>86</sup> PwC, "The Chinese NPL Market in 2020: Regulatory Catalyst May Lead to Higher Volumes," 2020.  
<https://www.pwccn.com/en/deals/publications/the-chinese-npl-market-in-2020.pdf>.
- <sup>87</sup> PwC, "The Chinese NPL Market in 2020: Regulatory Catalyst May Lead to Higher Volumes," 2020, 5.  
<https://www.pwccn.com/en/deals/publications/the-chinese-npl-market-in-2020.pdf>.
- <sup>88</sup> PwC, "The Chinese NPL Market in 2020: Regulatory Catalyst May Lead to Higher Volumes," 2020, 5.  
<https://www.pwccn.com/en/deals/publications/the-chinese-npl-market-in-2020.pdf>; China's State Council, *News Office Holds a Press Conference on Banking and Insurance Operations, Servicing the Real Economy and Preventing and Resolving Risks* (新闻办就银行保险业运行、服务实体经济和防范化解风险情况举行新闻发布会), January 13, 2020. Translation. [http://www.gov.cn/xinwen/2020-01/13/content\\_5468710.htm](http://www.gov.cn/xinwen/2020-01/13/content_5468710.htm).
- <sup>89</sup> Dinny McMahon, "The Challenges—and Opportunities—of Chinese Distressed Debt," *Chartered Alternative Investment Analyst Association*, January 4, 2021. <https://caia.org/blog/2021/01/04/the-challenges-and-opportunities-of-chinese-distressed-debt>.
- <sup>90</sup> Dinny McMahon, "The Challenges—and Opportunities—of Chinese Distressed Debt," *Chartered Alternative Investment Analyst Association*, January 4, 2021. <https://caia.org/blog/2021/01/04/the-challenges-and-opportunities-of-chinese-distressed-debt>.
- <sup>91</sup> Orange Wang, "China's Economic Slowdown Prompts Beijing to Reaffirm Commitment to Opening Up Financial Markets," *South China Morning Post*, July 22, 2021. <https://www.scmp.com/economy/china-economy/article/3142103/chinas-economic-slowdown-prompts-beijing-reaffirm-commitment>.
- <sup>92</sup> Kate Larsen, Hannah Pitt, Mikhail Grant, and Trevor Houser, "China's Greenhouse Gas Emissions Exceeded the Developed World for the First Time in 2019," *Reuters*, May 6, 2021. <https://rhg.com/research/chinas-emissions-surpass-developed-countries/>; *Reuters*, "China's Carbon Trading Scheme Makes Debut with 4.1 Mln T in Turnover," July 20, 2021.  
<https://www.reuters.com/business/sustainable-business/chinas-national-carbon-emission-trading-opens-48-yuant-chinese-media-2021-07-16/>.
- <sup>93</sup> Mikhail Grant, Hannah Pitt, and Kate Larsen, "Preliminary 2020 Greenhouse Gas Emissions Estimates for China," *Rhodium Group*, March 4, 2021. <https://rhg.com/research/preliminary-2020-greenhouse-gas-emissions-estimates-for-china/>; International Energy Agency, "Global Energy Review: CO2 Emissions in 2020," March 2, 2021. <https://www.iea.org/articles/global-energy-review-co2-emissions-in-2020>.
- <sup>94</sup> Jingwei Jia and Mervyn Tang, "National Carbon Market Tool to Help China's Low-Carbon Transition," *Fitch Ratings*, January 2021.  
<https://www.fitchratings.com/research/corporate-finance/national-carbon-market-tool-to-achieve-china-low-carbon-transition-08-02-2021>.
- <sup>95</sup> Environmental Defense Fund, "Analytical Report on the Status of the China GHG Voluntary Emission Reduction Program," July 24, 2020. [https://www.edf.org/sites/default/files/documents/Analytical-Report\\_on\\_the\\_Status\\_of\\_the\\_China\\_GHG\\_Voluntary\\_Emission\\_Reduction\\_Program-ENG.pdf](https://www.edf.org/sites/default/files/documents/Analytical-Report_on_the_Status_of_the_China_GHG_Voluntary_Emission_Reduction_Program-ENG.pdf); Jingwei Jia and Mervyn Tang, "National Carbon Market Tool to Help China's Low-Carbon Transition," *Fitch Ratings*, January 2021.  
<https://www.fitchratings.com/research/corporate-finance/national-carbon-market-tool-to-achieve-china-low-carbon-transition-08-02-2021>; International Carbon Action Partnership, "China National ETS," July 23, 2021.  
[https://icapcarbonaction.com/en/?option=com\\_etsmap&task=export&format=pdf&layout=list&systems%5B%5D=55](https://icapcarbonaction.com/en/?option=com_etsmap&task=export&format=pdf&layout=list&systems%5B%5D=55).
- <sup>96</sup> China Ministry of Ecology and Environment, *Measures for the Administration of Carbon Emissions Trading (for Trial Implementation)* (碳排放权交易管理办法(试行)), January 5, 2021. Translation.  
[http://www.mee.gov.cn/xxgk2018/xxgk/xxgk02/202101/t20210105\\_816131.html](http://www.mee.gov.cn/xxgk2018/xxgk/xxgk02/202101/t20210105_816131.html); Jingwei Jia and Mervyn Tang, "National Carbon Market Tool to Help China's Low-Carbon Transition," *Fitch Ratings*, January 2021. <https://www.fitchratings.com/research/corporate-finance/national-carbon-market-tool-to-achieve-china-low-carbon-transition-08-02-2021>.
- <sup>97</sup> International Carbon Action Partnership, "China National ETS," July 23, 2021, 3.  
[https://icapcarbonaction.com/en/?option=com\\_etsmap&task=export&format=pdf&layout=list&systems%5B%5D=55](https://icapcarbonaction.com/en/?option=com_etsmap&task=export&format=pdf&layout=list&systems%5B%5D=55).
- <sup>98</sup> ETS China, "Emission Trading Schemes in China." <https://ets-china.org/ets-in-china/>.
- <sup>99</sup> Jingwei Jia and Mervyn Tang, "National Carbon Market Tool to Help China's Low-Carbon Transition," *Fitch Ratings*, January 2021.  
<https://www.fitchratings.com/research/corporate-finance/national-carbon-market-tool-to-achieve-china-low-carbon-transition-08-02-2021>; *Reuters*, "Explainer: How Will China's New National Carbon Emissions Trading Scheme (ETS) Work?" July 14, 2021.  
<https://www.reuters.com/business/chinas-national-emissions-trading-scheme-ets-2021-07-14/>.
- <sup>100</sup> Scott Carpenter, "Toothless Initially, China's New Carbon Market Could Be Fearsome," *Forbes*, March 2, 2021.  
<https://www.forbes.com/sites/scottcarpenter/2021/03/02/toothless-at-first-chinas-carbon-market-could-be-fearsome/>; Trivium China, "Can China Achieve Net Zero?" July 14, 2021. <https://triviumchina.com/2021/07/12/deep-dive-can-china-reach-net-zero/>.
- <sup>101</sup> China Clean Development Mechanism Fund, "Steel, Cement, Chemical and Other Industries Will Be Included in the Carbon Emission Trading Market during the 14th Five-Year Plan," (钢铁、水泥、化工等行业“十四五”将纳入碳排放权交易市场) Translation. January



- 
- 18, 2021. <http://www.cdmfund.org/27893.html>; Jingwei Jia and Mervyn Tang, “National Carbon Market Tool to Help China’s Low-Carbon Transition,” *Fitch Ratings*, January 2021. <https://www.fitchratings.com/research/corporate-finance/national-carbon-market-tool-to-achieve-china-low-carbon-transition-08-02-2021>.
- <sup>102</sup> Scott Carpenter, “Toothless Initially, China’s New Carbon Market Could Be Fearsome,” *Forbes*, March 2, 2021. <https://www.forbes.com/sites/scottcarpenter/2021/03/02/toothless-at-first-chinas-carbon-market-could-be-fearsome/>.
- <sup>103</sup> Scott Carpenter, “Toothless Initially, China’s New Carbon Market Could Be Fearsome,” *Forbes*, March 2, 2021. <https://www.forbes.com/sites/scottcarpenter/2021/03/02/toothless-at-first-chinas-carbon-market-could-be-fearsome/>; Trivium China, “Can China Achieve Net Zero?” July 14, 2021. <https://triviumchina.com/2021/07/12/deep-dive-can-china-reach-net-zero/>.
- <sup>104</sup> Jingwei Jia and Mervyn Tang, “How China’s National Emissions Trading Scheme Will Work,” *Paulson Institute*, June 18, 2021. <https://www.paulsoninstitute.org/green-finance/green-scene/analysis-how-chinas-national-emissions-trading-scheme-will-work/>.
- <sup>105</sup> *Bloomberg*, “China’s Giant Carbon Market to Start Trading This Week,” July 13, 2021. <https://www.bloomberg.com/news/articles/2021-07-13/china-s-giant-carbon-market-to-finally-begin-trading-this-week?sref=mxbIZFb4>.
- <sup>106</sup> Trivium China, “Can China Achieve Net Zero?” July 14, 2021. <https://triviumchina.com/2021/07/12/deep-dive-can-china-reach-net-zero/>.