OCTOBER 2021

Chinese State Capitalism

DIAGNOSIS AND PROGNOSIS

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A Report of the
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1

Introduction

By Jude Blanchette

How should China's economy be described? Is it capitalist, socialist, command and control, or an admixture of all three? More than four decades after the post-Mao Zedong leadership launched their economic reforms, the precise nature of the country's economy and the political orientation of the institutions that govern it remain subject to debate.

Since the early 1990s, Western observers have come to a loose agreement that "state capitalism" both sufficiently captures the entrepreneurial dynamism that can readily be found throughout the country and acknowledges the guiding role of the state or, more accurately, the Communist Party of China (CCP). Yet even labeling China a "state capitalist" economy does little to enliven a precise understanding of how market and political power interact, as the recent regulatory storm targeting China's most influential and well-known companies indicates. If, as some critics argue, there is no such thing as a truly private company, then why has Beijing recently felt compelled to unleash a torrent of new data-security regulations, anti-monopoly fines, and guidelines for overseas listings? Surely, if all Chinese firms are mere appendages of the CCP, such actions would not be necessary. Yet at the same time, the speed with which the Party was able to bring entire sectors to heel with just a few policy pronouncements speaks to the extraordinary power it has over the economy.

To further animate the discussion on China's evolving state capitalism system, the CSIS Trustee Chair in Chinese Business and Economics and the CSIS Freeman Chair in Chinese Studies convened some of

the world's leading experts on China's political and economic system for a two-day workshop in March 2021, from which the essays herein emerged.

The views expressed in these pages are far from unified, either in their diagnosis of what precisely China's state capitalist system is or in their prognosis for how the United States and other market economies should respond. Some contributors, such as Arthur Kroeber, argue that the term "state capitalism" might itself be inapposite given the variety of actors—government, party, and private—that play important roles in China's economy. While some, including the present author, believe that the transformations to China's political-economic system over the past decade are significant enough that they represent a new paradigm of Chinese state capitalism, others, including Wendy Leutert and Sarah Eaton, argue that when it comes to the role of state-owned enterprises, Chinese leader Xi Jinping's approach is "surprisingly consistent" with his immediate predecessor, Hu Jintao. As Scott Kennedy argues in the final contribution to this edited volume, there remain critical, even fundamental, debates that have yet to be resolved about how to understand and respond to Chinese state capitalism; until some form of basic agreement is achieved, policy responses will remain only partially effective.

One area of consensus throughout this edited volume, however, is that the CCP wields expanding de facto and de jure power over nearly all areas of political and economic activity in China. This is a development with a clear demarcation in 2012, which saw the accession to power of Xi Jinping. While the country has been under the unchallenged rule of the CCP since its founding in 1949, the functional role and organizational strength of the CCP has undulated over this 70-plus-year period, most notably regarding its direct involvement in the economy. During the "reform and opening up" period, the party remained the sole political authority but yielded regulatory authority to the government (the State Council) and remained focused on political and ideological tasks. This is no longer the case. The Party, as Xi Jinping has repeatedly reminded us, is at the very core of all domestic activities, and Xi himself now stands unchallenged at the core of all major decisionmaking.

It is this feature of China's state capitalist system—the expansive and expanding role of the CCP—that poses the most significant challenges not only in how the workings and structure of China's economy are understood, but also in how market economies can and should respond. This volume does not conclusively resolve this critical dilemma, but the authors hope that it can help further a much-needed discussion with careful and considered analysis.

2

Six Factors behind China's Shift to "Grand Steerage"

By Barry Naughton

Chinese policymakers have made a dramatic turn away from the market reforms that dominated policy through the turn of the twenty-first century and toward an ambitious embrace of government steerage and pervasive intervention in the (still market-based) economy. Nobody anticipated this change. Is it possible to make sense of such a drastic turn? China's economy was, by most measures, performing better than any other economy in the world, and no large-scale domestic crisis, external conflict, or abrupt shift of leadership seems to explain this reorientation, even indirectly.

For a long time, many experts worked with a paradigm in which China was transitioning to a more-or-less typical, mixed-market economic model—until it suddenly became clear that it was not. A policy shift occurred that was at first moderate but quickly accelerated into an unprecedented commitment to a new course, and today it is clear that China—in particular the Chinese Communist Party (CCP)—is intent on forging a new type of market system in which government and Party actors maintain enormous discretionary power. Crucially, they intend to exercise this power to achieve ambitious goals to steer the economy and shape the future. How did this momentous change take place? Six factors can help make sense of this dramatic policy change.

1. Ideological Underpinnings

Steerage of the economy and society is deeply encoded in the genetic makeup of the CCP. Starting in the 1920s, both the Kuomintang and the CCP adopted ambitious nation-building programs. Sun Yat-sen published a personal national plan containing hundreds of infrastructure projects, including the Three Gorges Dam on the Yangtze.[1] After 1949, there was no debate about adopting a planned economy: it was universally accepted that this was part of the CCP's historical mission. Thus, the shift to market orientation after 1978 went against attitudes that were deeply engrained in the CCP's worldview. Observers may have underestimated how powerful the latent desire for an economic leadership role for the CCP was among the Party elite.

Policymakers repeatedly declared their intention to keep state-owned enterprises (SOEs) at the core of the socialist market economy. The high tide of painful restructuring in the late 1990s was carried out under the rubric of "grasp the large and let the small go," wherein access to equity financing was given to large SOEs first.[2] These facts were well-known and frequently commented upon at the time, but experts tended to interpret them as rear-guard actions—important measures, but subsidiary to the market transition process, designed to reduce costs and prepare SOEs for the brave new world of the market economy.

CCP ambitions for "steerage" have long been evident in how it shapes public opinion. The CCP is committed to 舆论导向, usually translated as "public opinion guidance" and viewed through the lens of censorship. However, it is far more ambitious, involving the creation of attractive, approved narratives and the crowding out of competing views—in other words, it is "opinion steerage." This mode of thinking surely helped prepare CCP leaders for a role in economic "grand steerage."

2. Structural Changes in the Economy

From 1978 through into the twenty-first century, the Chinese economy shifted toward labor-intensive manufacturing and services, which provided the main impetus to growth. Planning and steerage had little to offer in this process, which was instead best served by an effective market reform strategy. Sectoral strategy consisted of "enlivening" (搞活)—that is, targeting specific sectors for liberalization. Labor-intensive, consumer, and export-oriented sectors grew disproportionately quickly and drove most of the economic growth.[3]

These structural changes coincided with China's "miracle growth" period between 1978 and 2010, when annual GDP growth averaged just over 10 percent. Miracle

1 William C. Kirby, "Continuity and change in modern China: economic planning on the Mainland and on Taiwan, 1943-1958," *The Australian Journal of Chinese Affairs*, no. 24 (July 1990), 121-141.

2 Barry Naughton, *The Chinese Economy: Adaptation and Growth* (Cambridge, Mass.: MIT Press, 2018), 214, 333-335. Chang-tai Hsieh and Zheng Michael Song, "Grasp the Large, Let Go of the Small: The Transformation of the State Sector in China," *Brookings Papers on Economic Activity* (Spring 2015), 295-346, https://www.brookings.edu/bpea-articles/grasp-the-large-let-go-of-the-small-the-transformation-of-the-state-sector-in-china/.

3 Barry Naughton, "China's Domestic Economy: From 'Enlivening' to 'Steerage'" in Jacques deLisle and Avery Goldstein (eds.), *To Get Rich Is Glorious: Challenges Facing China's Economic Reform and Opening at Forty* (Washington, D.C.: Brookings Institution Press, 2019), 29–54.

growth required substantial policy support, the most important types of which were institutional creation ("market building"), the liberalization of foreign trade access, and the relaxation of rules on labor movement and migration. These issues required drawing from a policy playbook that was completely consistent with market liberalization, and there was little need for additional government intervention.

As the end of miracle growth loomed in the early 2000s, Chinese policymakers and economists began looking for "new growth drivers." It was understood that China's labor force, which grew extremely rapidly in the 1980s, would hit zero growth sometime in the 2010s and that China was already losing its competitive advantage in labor-intensive manufacturing. It became plausible that planners might add some value by finding policies to foster the emergence of new growth drivers.

3. Planning Failures

From 1978 into the 2000s, planners kept making efforts to shape economic growth, but their proposals were unrealistic and were repeatedly abandoned before the end of the envisaged planning period. Plans were often attempts to "lean against" newly unleashed market forces operating in a distorted environment. This was true both of five-year plans and of sectoral policies, which often sought to shore up "basic industries" and merge firms to create national champions that could reap economies of scale. These plans rarely, if ever, had any discernable impact. For example, proposals repeatedly called for consolidating the automobile and steel industries, but this never happened.

In retrospect, it is not surprising that these efforts were ineffective. Planners lacked information, instruments, and resources. Plans were often mere "dead letters" consisting of a few arbitrarily chosen goals and aspirations, and there were often literally no instruments to achieve the outcomes planners envisaged. The lack of budget for industrial policy objectives became a general rule during the mid-to-late 1990s, when the fiscal crisis (combined with Zhu Rongji's priorities) meant no money was available for grandiose projects. Planners of this period, including Liu He and Yang Weimin at the State Planning Commission (SPC), subsequently acknowledged the failure of planning in the 1990s.[4]

4. A Turning Point in 2005

A critical precursor to the policy shift was the resurgence of budgetary revenues, which had grown to 16.9 percent of GDP in 2005, up from 10.2 percent in 1995.[5] As resources became available, it made sense to do some serious thinking about how that money should be spent. Planners began to work on longer-range visions with concrete goals that paid greater attention to human capital, social equity, and environmental impact. At the same time, social expenditures began to increase after decades of neglect.

4 Sebastian Heilmann and Oliver Melton, "The Reinvention of Development Planning in China, 1993–2012," *Modern China* 39, no. 6 (2013): 580–628.

5 Naughton, *Chinese Economy: Adaptation and Growth*, 513-15.

"Scientific developmentalism" was the main theme of the eleventh five-year plan (2006–2010), drawn up in 2005. The Medium and Long-term Plan (MLP) for Science and Technology (2006–2020), drafted the same year, envisaged mainly horizontal policies that would improve the environment for innovation throughout the economy. In particular, the MLP contained a number of policy innovations that prefigured big future changes: the concept of "indigenous innovation," the establishment of 16 government-organized megaprojects, and the assignment of objectives to specific implementing agencies. In retrospect, these aspects marked a turning point, but it is worth stressing how moderate they were at the time. Most contemporary appraisals of the MLP were positive, and although some were uneasy with the concept of indigenous innovation, nobody realized that it would be a major turning point.[6]

Indeed, one interpretation was that these policies were the result of compromise. In this view, the top leadership was unwilling to accept the program of continued market-oriented reforms, which were advocated most strongly by the financial sector technocrats associated with former premier Zhu Rongji. At the same time, a "new left" was rising, a political current that was hostile even to existing market reforms. Initially targeting insider-driven management buyouts, the movement was partly a response to the dislocation caused by the intensified reforms under Zhu Rongji. Top leaders and the new left disagreed about most things, but both could sign off on a program of increased attention to human resources and innovation, along with a strategic rethinking of development and a moderate turn toward industrial policy.

At about this time, or shortly after, attitudes toward state ownership began to display unmistakable signs of change. An important milestone came in December 2006, when State-owned Assets Supervision and Administration Commission of the State Council (SASAC) head Li Rongrong announced which SOEs were needed to maintain absolute control over the seven key military, electricity, oil, telecommunications, coal, civil aviation, and shipping sectors.[7] While this, in itself, could potentially have been a liberalizing step—letting go of state control of other sectors—in practice this marked a new emphasis on SOEs. That year saw a few exceptional cases of renationalization of oil and coal extraction in northwestern China. By the end of 2007, central SOEs agreed to turn over about 10 percent of their profits to the Ministry of Finance, in return retaining a big say in the disposition of the money.[8] In August 2010, Li Rongrong, one of Zhu Rongji's protégés, retired and was succeeded by Wang Yong, who had previously served for nearly a decade as the Organization Department's overseer of state enterprise personnel. The state's emphasis had definitively shifted to creating big SOEs with international presence. While the

6 Sylvia Schwaag Serger and Magnus Breidne, "China's Fifteen-year Plan for Science and Technology: An Assessment," *Asia Policy*, no. 4 (July 2007): 135–164, https://lup.lub.lu.se/search/ws/files/5663330/1388869.pdf; Cong Cao, Richard P. Suttmeier, and Denis Fred Simon, "China's 15-Year Science and Technology Plan," *Physics Today* 59, no. 12 (December 2006): 38-43, http://dx.doi.org/10.1063/1.2435680.

7 Ren Fang and Liu Bing, "SASAC: The State Economy Must Maintain Absolute Control Power over Seven Sectors." Xinhuashe, December 18, 2006, http://www.gov.cn/jrzg/2006-12/18/content_472256.htm.

8 Barry Naughton, "Strengthening the Center, and Premier Wen Jiabao," *China Leadership Monitor*, Issue 21, (Summer 2007) and "SASAC and Rising Corporate Power," *idem*, Issue 24 (Spring 2008), https://www.hoover.org/sites/default/files/uploads/documents/CLM21BN.pdf.

changes were not large, they seemed to signal an important transformation in the way the CCP leadership viewed state ownership.

In retrospect, the short 2005–07 period was a turning point, as new initiatives were spawned and new attitudes took place—but a very moderate one. The changes introduced were not epochal or transformative, nor were they controversial. However, they represented a clear shift in the direction in which policy was moving, toward a more assertive and interventionist state that was beginning to define a new role for itself.

5. The Global Financial Crisis

The importance of the global financial crisis (GFC) of 2008–09 is widely recognized. The GFC demanded decisive, large macroeconomic stimulus, which China delivered. The international community rightly praised China's actions, while Chinese public opinion of the U.S. model was tarnished. Chinese leaders drew an entirely logical and unambiguous conclusion from this experience: they should repeat decisive government interventions—so successful in the stimulus case—in other arenas. Premier Wen Jiabao, clearly articulating an official position in the 2010 government work report, put it this way: "In the course of the past year . . . we came to the conclusion that . . . [while continuing to rely on the basic role of markets], we must fully bring into play the superiority of the socialist system, which is efficient decisionmaking, powerful organization, and concentration of resources to achieve big things."[9]

These themes—and confidence in the government's ability to intervene decisively, massively, and effectively in the economy—have been constants in Chinese government policy pronouncements ever since.

6. A Technological Revolution

Increasingly, Chinese industrial policy is based on the idea that China has a once-in-a-lifetime opportunity to get in on the ground floor of a technological revolution and vault into the leading ranks of economic and technological powers. The 2016 Innovation-Driven Development Strategy states:

> A new round of global technological revolution, sectoral change and military change is accelerating, and scientific exploration is unfolding at every scale from the microscopic to the cosmological. A group of revolutionary new technologies that are intelligent, green and ubiquitous are reshaping the global competitive landscape and changing the relative strength of nations.[10]

9 Wen Jiabao, "Report on the Work of the Government (2010)," Third Session of the 11th National People's Congress, March 5, 2010, translation accessed at http://www.npc.gov.cn/englishnpc/c2866/201003/5336fc5dcaf14a74a60fd6d77a0867e8.shtml. This is my translation, which is considerably sharper (and more accurate) than the official Xinhua translation, especially of this final phrase: 充分发挥我国社会主义制度决策高效、组织有力、集中力量办大事的优势.

10 Chinese Communist Party and State Council, "国家创新驱动发展战略纲" [Outline of the Innovation-Driven Development Strategy], Xinhua News Agency, May 19, 2016, http://www.xinhuanet.com/politics/2016-05/19/c_1118898033.htm.

These technologies, founded on the triangle of communication, data, and artificial intelligence, are jointly conceived of as a single "general purpose technology" that will be implemented across the board, improving productivity not just in industrial sectors but also in agriculture and services. The arrival of a new general purpose technology—such as electricity, internal combustion engines, or computers—is rare, occurring only a few times a century. However, it provides a justification for industrial policy, since externalities to innovation can be expected to be large, diverse, and hard for the private sector to capture. It also provides urgency for industrial policy, to the extent that adopting the general purpose technology is viewed as part of a race between strategic competitors. Since the GFC, the Chinese government's conviction about its ability to drive the adoption of a new general purpose technology has remained strong and steadily increased. The volume of resources supporting an interventionist government policy rose especially rapidly between 2015 and 2018 and shows no signs of decreasing.

In short, as a historic period of "miracle growth" and breakneck structural change reached its end in the early 2000s, policymakers began to cast around for an appropriate development strategy. Thirty years of rapid growth meant they had substantial new resources and new capabilities to apply to this task. The new strategy involved introducing some elements of industrial policy and steerage, but these were initially modest and uncontroversial. Ultimately, however, this experiment in light-touch industrial policy lasted only a couple of years, and there's little indication of how well it would have worked. Two important external events forced the pace of change: the GFC and the global technological revolution. Impelled by these changes, CCP leaders rediscovered the inclinations deeply built into their history, political organization, and worldview. They drove this new policy package forward with the decisiveness, organizational strength, and concentration of resources that they see as fundamental to their system.

3

Some Facts about China's State Capitalism

By Andrew Batson

There may be no single phrase that can capture all the complexities of China's distinctive economic system, but "state capitalism" is probably as good a term as any. It manages to cover both the fact that Chinese firms are vigorous competitors in domestic and global markets and that the state plays a major role in the economy. Lenin used the term "state capitalism" in the 1920s to describe the New Economic Policy he briefly introduced to the Soviet Union, in which state-owned enterprises (SOEs) operated alongside private businesses within a market economy supervised by the Communist Party. Those are the same basic features of China's economy today: the coexistence of state and private companies and the combination of a market economy with an authoritarian and interventionist government. Yet there is still substantial debate over the exact nature of that mixture, not least within China itself. What follows is an attempt to establish some stylized facts about the nature and functioning of China's state capitalism, based as much as possible on quantitative evidence.

China's economy is split roughly 60–40 between the private and public sectors. Estimates based on official data show that SOEs in the nonfinancial and financial sectors together generate value added amounting to 25 to 30 percent of China's GDP.[1] Although there have been modest ups and downs in this share over time, the relative size of the SOE sector has not changed substantially over the past 25 years. Over the same period, the government proper has usually produced value added

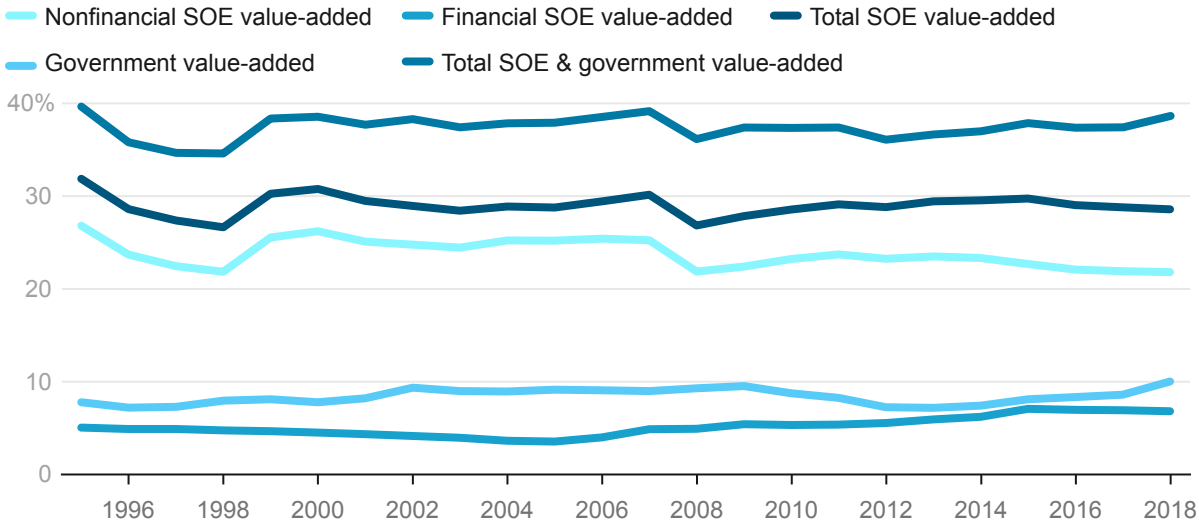
1 Andrew Batson, "The State Never Retreats," Gavekal Dragonomics, October 1, 2020, https://research.gavekal.com/article/state-never-retreats.

equivalent to 7 to 10 percent of GDP, according to the flow of funds accounts. By a strict definition, then, the combined value added of the public sector is around 40 percent of GDP. (It is common to use the ratio of government spending or revenue to GDP as a measure of the government's command over resources; for China, these figures usually run around 20 percent. For direct comparison with the value added produced by corporations, however, it is more appropriate to use the government's value added.[2]) These numbers are consistent with the occasional statements from Chinese officials that the private sector accounts for about 60 percent of GDP.[3] It is not always straightforward or even appropriate to draw a sharp line between the public and private sectors in China. But it is useful to be aware both that China's formal public sector is quite large and that it operates within a mainly private sector economy.

Figure 3.1

The Size of China's Public Sector

by percent of GDP



Source: Author estimates and Macrobond data.

China's state sector is exceptionally large in global context. While the amount of revenue that China's government extracts from the economy is not unusually high compared to most other countries, the size of its SOE sector is. Since the 1990s, SOEs in the United States and the United Kingdom have accounted for just 1 to 2 percent of GDP.[4] Continental European economies during the 1960s and 1970s had larger SOE sectors than later became the norm, but SOEs in France, Italy, and Germany never accounted for

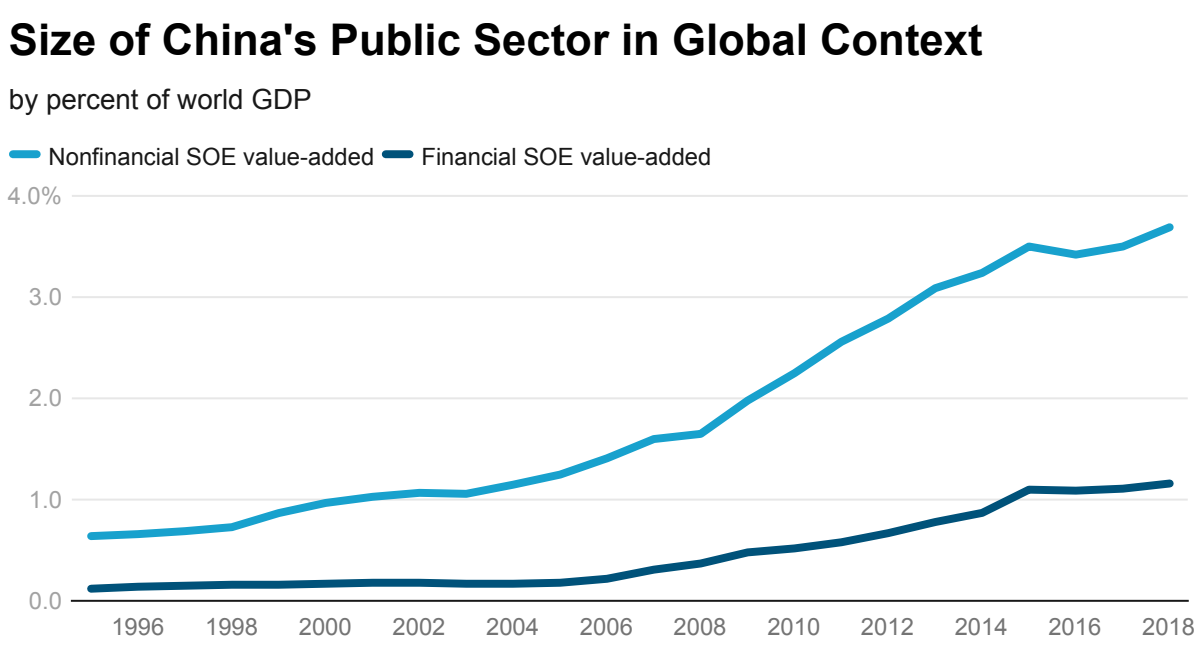
2 François Lequiller and Derek Blades, *Understanding National Accounts: Second Edition* (Paris: OECD Publishing, 2014), 285, doi:10.1787/9789264214637-en.

3 "Chinese vice premier vows unwavering support for private sector," Xinhua News Agency, October 19, 2018, http://www.xinhuanet.com/english/2018-10/19/c_137544504.htm.

4 The World Bank, *Bureaucrats in Business: The Economics and Politics of Government Ownership* (Washington, DC: World Bank, 1995), https://datacatalog.worldbank.org/dataset/bureaucrats-business-economics-and-politics-government-ownership.

more than 10 to 13 percent of GDP at their peak.[5] Postwar Japan always had a minimal SOE sector, and public corporations have accounted for just 1.4 percent of GDP in expenditure terms over the past decade.[6] Some other East Asian economies have had larger SOE sectors, but in both South Korea and Taiwan the SOE share of GDP never went much above 10 percent and has substantially declined in recent decades.[7] Even in Eastern European economies, which share a socialist heritage with China, the SOE share of GDP has generally fallen below 20 percent in recent years.[8] Thus, China clearly has a different kind of economic system than most of its trading partners. Those differences have not only become more pronounced over time, but also more difficult to ignore as China's role in the global economy has increased.

Figure 3.2



Source: Author estimates and Macrobond data.

China's economic rise has reshaped the structure of the world economy. The fact that China has become the world's second-largest economy while maintaining a large state sector has changed the global balance between the public and private sectors. The value added produced by Chinese SOEs accounted for about 1 percent of global GDP at market exchange rates in 2000, when China produced

5 Robert H. Floyd, Clive S. Gray, and R.P. Short, *Public Enterprises in Mixed Economies: Some Macroeconomic Aspects* (Washington, DC: International Monetary Fund, 1984), https://doi.org/10.5089/9780939934300.071.

6 Japanese Ministry of Internal Affairs and Communications, *White Paper on Local Public Finance 2020* (Tokyo: Local Public Finance Bureau, 2020), https://www.soumu.go.jp/iken/zaisei/r02data/chihouzaisei_2020_en.pdf.

7 For Taiwan, the SOE share of GDP can be tracked using the official series for gross fixed-capital formation by public enterprises. See Republic of China (Taiwan) Directorate-General of Budget, Accounting and Statistics, *National Accounts Yearbook 2019* (Taipei: Chinese Statistical Association, 2021), https://eng.stat.gov.tw/ct.asp?xItem=46691&ctNode=3570&mp=5. For South Korea, in addition to estimates in the World Bank and IMF studies cited above, see also Il Sakong, "Macro-economic aspects of the Korean Public Enterprise Sector," Korea Development Institute, Working Paper 7906, November 1, 1979, https://www.kdi.re.kr/kdi_eng/publications/publication_view.jsp?pub_no=702.

8 Christine J. Richmond et al., *Reassessing the Role of State-Owned Enterprises in Central, Eastern and Southeastern Europe* (Washington, DC: International Monetary Fund, 2019), https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2019/06/17/Reassessing-the-Role-of-State-Owned-Enterprises-in-Central-Eastern-and-Southeastern-Europe-46859.

about 3.5 percent of global GDP. Since then, Chinese SOEs have grown roughly as fast as Chinese private companies, maintaining their share of GDP, so they are much larger entities today. By 2018, China accounted for about 17 percent of global GDP, which means its SOEs were producing around 4.5 percent of global GDP—more than the entire economic output of France, India, or Brazil.[9] Similarly, an analysis by the International Monetary Fund (IMF) found that Chinese SOEs' share of the assets of the world's largest firms rose from 1.5 percent in 2000 to 13.3 percent in 2018.[10] While much of the economic activity of Chinese SOEs does stay within national borders, they have accounted for much of the last decade's massive increase in cross-border flows of investment, lending, and business contracts. For instance, SOEs manage the majority of overseas projects under the Belt and Road Initiative.[11] It is undeniable that China's state sector is having a major impact on the world economy.

A large state sector imposes economic costs. It is a well-documented fact that SOEs generally achieve lower financial returns than private companies, in China and elsewhere. An IMF study using data for about 1 million companies across 109 countries found that SOEs have systematically lower profitability and productivity than private companies.[12] Within China, the publicly traded subsidiaries of Chinese SOEs had a median return on assets of 5.6 percent over the past two decades, below the median 8.4 percent for non-state companies; in almost every economic sector, SOEs earn lower returns than non-state companies in most years.[13] This gap means that if the returns of SOEs were to rise to those of private companies, China's GDP would be substantially higher than today.[14] The high levels of capital expenditure by SOEs, particularly in infrastructure, have also helped keep China's investment share of GDP unusually high. That, in turn, has produced declining investment efficiency at the macroeconomic level, with a rising capital-output ratio and a falling aggregate return on capital.[15] While government officials are certainly aware of these efficiency issues, they are not seen as requiring a substantial downsizing or transformation of the state sector. SOEs are valued for how they can buffer the economy against shocks, assist in regional development, and help execute the government's strategic priorities.

The financial sector is central to the operations of state capitalism. The formal government budget in China plays a modest role in both macroeconomic and industrial policy. The official budget deficit has rarely exceeded 3 percent of GDP, and direct government subsidies to SOEs are on the order of 0.2 percent of GDP, a modest sum.[16] Much more important are indirect subsidies delivered through the financial system, such as easier access to and lower prices for debt and equity fundraising. Only this preferential access to finance has allowed SOEs to grow roughly as fast as private companies

9 Batson, "The State Never Retreats."

10 International Monetary Fund, "State-Owned Enterprises: The Other Government," *Fiscal Monitor - April 2020* (Washington, DC: International Monetary Fund, 2020), https://www.imf.org/en/Publications/FM/Issues/2020/04/06/fiscal-monitor-april-2020.

11 According to the Peng Huagang, spokesman for the State-owned Assets Supervision and Administration Commission (SASAC), SOEs owned by the central government account for over 60 percent of the number of Belt and Road projects and over 80 percent of the contracted value. "国新办就2019年中央企业经济运行情况举行发布会" [The State Council Information Office held a press conference on the economic operation of central enterprises in 2019], Chinese State Council Information Office, January 15, 2020, http://www.china.com.cn/zhibo/content_75610634.htm.

12 International Monetary Fund, "State-Owned Enterprises."

13 Batson, "The State Never Retreats."

14 Nicholas R. Lardy, *The State Strikes Back: The End of Economic Reform in China?* (Washington, DC: Peterson Institute for International Economics, 2019).

15 Batson, "The State Never Retreats."

16 Thomas Gatley, "The Size of State Subsidies," Gavekal Dragonomics, July 25, 2019, https://research.gavekal.com/article/size-state-subsidies.

over the past couple of decades despite their poorer financial performance. The financial sector also mediates much of China's expanding industrial-policy support to preferred sectors. For instance, while semiconductor firms in many countries enjoy sizable tax breaks and investment incentives, the benefits that Chinese companies have received in the form of debt and equity finance are much larger.[17] The state's control of the financial system is thus a crucial tool for realizing its various ambitions. It is telling that finance today remains one of the most purely state-dominated sectors: 85 to 90 percent of financial assets are controlled by state-owned institutions.[18]

The channels of state influence over the private sector are multiplying. Successful private companies in China have usually had to reach an accommodation with the government to survive, and large private firms often behave similarly to SOEs.[19] Nonetheless, pressure on private companies to conform with government priorities does appear to have increased in the past decade or two. An increasingly elaborate and well-funded industrial policy apparatus has grown up since 2006, offering stronger financial incentives for private companies to develop in directions the government desires.[20] In particular, there has been a surge in investments by venture capital and other funds with government backing, although the exact scale is difficult to measure.[21] The fact that the share of GDP produced by SOEs in 2018 was no higher than it was in 2012 suggests that there has not been a major expansion of formal state ownership over the private sector. There has, however, been an increase in state firms making minority investments in—or forming joint ventures with—private companies.[22] Under President Xi Jinping, who has spoken of the need to "unite and guide" private sector entrepreneurs, the Chinese Communist Party (CCP) has also increased political links with private firms.[23] Surveys by the All-China Federation of Industry and Commerce show that, as of 2018, 48 percent of China's private companies had Party organizations, up from 35 percent in 2010 and just 17 percent in 2000.[24]

The government is exerting more direct control over SOEs. Although the CCP's general commitment to a strong SOE sector has not changed in recent decades, how it interprets that commitment has evolved. In the mid-1990s, former president Jiang Zemin emphasized separating the government from SOEs to make them independent commercial actors. Many of the early overseas investments by SOEs, such as the national oil companies, were driven more by the companies' own ambitions

17 "Measuring distortions in international markets: The semiconductor value chain," OECD, *OECD Trade Policy Papers*, no. 234, December 12, 2019, http://dx.doi.org/10.1787/8fe4491d-en.

18 Using data for the banking system only, state institutions account for 85 percent of assets, according to Batson, "The State Never Retreats." For a different methodology that produces a higher estimate, see Chunlin Zhang, "How Much Do State-Owned Enterprises Contribute to China's GDP and Employment?," World Bank, July 15, 2019, https://openknowledge.worldbank.org/handle/10986/32306.

19 Curtis J. Milhaupt and Wentong Zheng, "Beyond Ownership: State Capitalism and the Chinese Firm," *Georgetown Law Journal* 103 (2015): 665–722, http://scholarship.law.ufl.edu/facultypub/696.

20 Barry Naughton, *The Rise of China's Industrial Policy 1978 to 2020* (Mexico City: Universidad Nacional Autónoma de México, 2021), https://dusselpeters.com/CECHIMEX/Naughton2021_Industrial_Policy_in_China_CECHIMEX.pdf.

21 Lance Noble, "Paying for Industrial Policy," Gavekal Dragonomics, December 4, 2018, https://research.gavekal.com/article/paying-industrial-policy.

22 Chong-En Bai et al., "Special Deals from Special Investors: The Rise of State-Connected Private Owners in China," University of Chicago, Becker Friedman Institute, Working Paper, November 30, 2020, https://bfi.uchicago.edu/working-paper/special-deals-from-special-investors-the-rise-of-state-connected-private-owners-in-china/.

23 "习近平对新时代民营经济统战工作作出重要指示" [Xi Jinping gave important instructions for the united front work of the private economy in the new era], Xinhua News Agency, September 16, 2020, http://cpc.people.com.cn/n1/2020/0916/c64094-31864240.html.

24 Neil Thomas, "Party Committees in the Private Sector: Rising Presence, Moderate Prevalence," MacroPolo, December 16, 2020, https://macropolo.org/party-committees-private-sector-china/.

than by any direct government instruction.[25] Under Xi Jinping, by contrast, concerns about excessive SOE autonomy and corruption have led a drive to reassert effective central control over these firms.[26] Publicly listed SOEs have even formally amended their corporate charters to affirm the leading role of the Party.[27] It is not always clear how these changes affect specific corporate decisions, but more direct government control of SOEs is in tension with China's desire to have its SOEs' international activities treated as normal commercial operations—and with prior commitments to trading partners. In China's negotiations for accession to the World Trade Organization, it pledged that "the Government of China would not influence, directly or indirectly, commercial decisions on the part of state-owned or state-invested enterprises."[28]

There is a durable political consensus on a large state role in the economy. Underlying these facts is perhaps the most important one: that there has consistently been a strong political consensus among the CCP elite on the need for a large and strong public sector and for government guidance of the economy. In their view, the trajectory of China's economic development is simply too important to be left to the unpredictable and unreliable whims of market forces. The fact that China has maintained a large state sector over the past 25 years is evidence that this consensus is not new and has persisted under multiple leaders. Under Xi Jinping, the modalities of how the public sector operates and how the government guides the economy have evolved in some important ways from that of previous administrations. The government's generally strong and effective response to the Covid-19 pandemic, in which SOEs were ordered to deliver many types of emergency economic assistance, has only strengthened the political consensus that a high level of state intervention in the economy is good for China.[29] Future administrations will no doubt continue to adjust individual policies, but these basic foundations are unlikely to shift substantially.

25 Erica S. Downs, "Who's Afraid of China's Oil Companies?," in *Energy Security: Economics, Politics, Strategy, and Implications*, edited by Carlos Pascual and Jonathan Elkind (Washington, DC: Brookings Institution, 2010): 73–102, https://www.brookings.edu/research/whos-afraid-of-chinas-oil-companies/.

26 Wendy Leutert, "Firm Control: Governing the State-owned Economy Under Xi Jinping," *China Perspectives 2018*, no. 1-2 (April 2018): 27–36, https://journals.openedition.org/chinaperspectives/7605.

27 John Zhuang Liu and Angela Huyue Zhang, "Ownership and Political Control: Evidence from Charter Amendments," University of Hong Kong Faculty of Law, Research Paper no. 2019/031, July 2019, https://ssrn.com/abstract=3424079.

28 World Trade Organization, *Report of the Working Party on the Accession of China,* WT/ACC/CHN/49 (Geneva: World Trade Organization, 2001), https://www.wto.org/english/thewto_e/acc_e/a1_chine_e.htm.

29 Lingling Wei, "China's Coronavirus Response Toughens State Control and Weakens the Private Market," *Wall Street Journal*, March 18, 2020, https://www.wsj.com/articles/chinas-coronavirus-response-toughens-state-control-and-weakens-the-private-market-11584540534.

4

State-Connected Private Firms in China

By Chang-Tai Hsieh

Over the past two decades, China has seen an expanding network of "politically-connected investors" in private firms. These owners, whether state-owned enterprises (SOEs) themselves or owned by them in turn, have helped smaller companies overcome obstacles to their growth and significantly increased the output of the private sector. In one early example, Chinese car manufacturer Chery, which was producing "low-priced knockoffs of the Volkswagen Jetta" in the late 1990s, was unable to obtain the required permit. Chinese central planners were "adamant that companies such as Chery were not part of their plan for China's automobile industry," worried that these small enterprises would cut into the market share of state-led giants. In response to an appeal from Chery, the Shanghai Automobile conglomerate stepped in to purchase a 20 percent stake in the company, which legally became its subsidiary and was thus allowed to proceed with manufacturing. As a result, Chery has become China's largest automobile exporter and tenth-largest automobile producer today.[1]

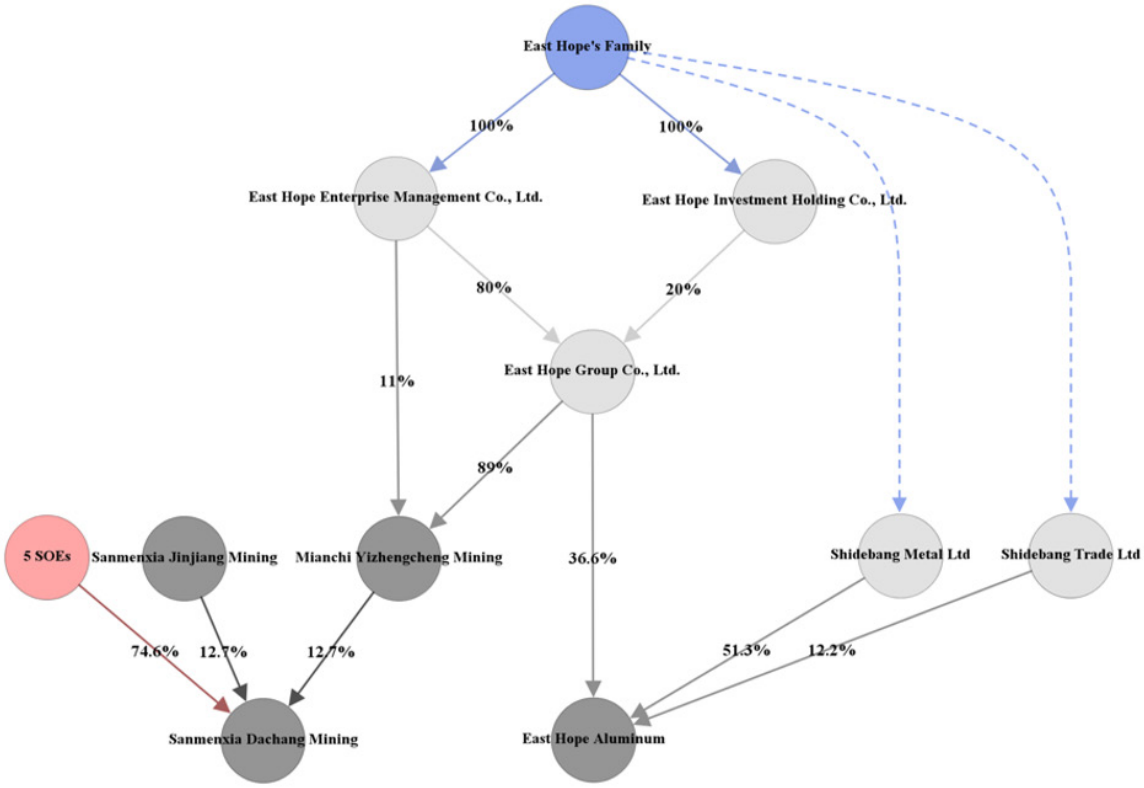
As such ties have become more common, they have also become more opaque. "Connected" investors in private Chinese companies are typically hidden behind multiple layers of holding shells. For example, registrations filed with the State Administration for Market Regulation show how one family owns most of the East Hope Group—"a large conglomerate with multiple companies in the heavy

1 Chong-En Bai et al., "Special Deals from Special Investors: The Rise of State-Connected Private Firms in China," University of Chicago, Becker Friedman Institute, November 1, 2020, 2, https://bfi.uchicago.edu/working-paper/special-deals-from-special-investors-the-rise-of-state-connected-private-owners-in-china/.

metals and animal food processing industries," notably East Hope Aluminum and Dachang Mining, which specializes in bauxite prospecting and business services (Figure 4.1).[2]

Figure 4.1

Owners of East Hope Aluminum and Dachang Mining



Source: Chong-En Bai et al., "Special Deals from Special Investors: The Rise of State-Connected Private Firms in China," University of Chicago, Becker Friedman Institute, November 1, 2020, https://bfi.uchicago.edu/working-paper/special-deals-from-special-investors-the-rise-of-state-connected-private-owners-in-china/.

The circles directly connected to East Hope Aluminum and Dachang Mining are the immediate owners. In the case of East Hope Aluminum, these are three holding shells, two registered outside of China and one domestically—which is, in turn, owned by two other holding shells. All five holding shells in this chain are fully owned by the same family. As for Dachang Mining, five of its immediate owners are SOEs and two are private firms—one of which is also fully owned by the East Hope family through a layer of holding shells. (The other private firm, Sanmenxia Jinjiang Mining, is fully owned by a separate large private conglomerate.[3])

The ownership links in the East Hope Group exemplify the equity ties in a typical large Chinese "private" company today. Table 4.1 lays out the owners behind all the companies in the East Hope Group as of 2019. Of these 236 companies, 209 are 100-percent owned by East Hope's founder. Of the remaining 27, 15 are joint ventures with state owners and only 11 are joint ventures with other private owners.

2 Ibid., 5–6.

3 Ibid., 6–7.

Table 4.1

Owners of the East Hope Group

	EAST HOPE FOUNDER	STATE OWNERS	OTHER PRIVATE OWNERS
# of Owners	1	15	11
Firms per Owner	236	599	305
East Hope's Joint Ventures	27	15	12
Capital per Owner (billion yuan)	26.5	226	5.1

Source: Chong-En Bai et al., "Special Deals from Special Investors."

The example of East Hope makes clear several facts regarding how large private companies in China interact with other state-owned and private entities. First, large private companies almost always have equity links with state owners, not only through the blurry hierarchy of shell companies that own these firms but also through joint ventures. By 2019, there were about 100,000 private owners with joint ventures with state owners, collectively accounting for about 35 percent of total registered Chinese assets in 2019.[4]

Second, such owners often have joint ventures with multiple SOEs and grow substantially after they take on investments from state owners. In the usual pattern, private firms enter into these ventures when they expand to a new locality or a new industry. For instance, Chery finally obtained its automobile manufacturing license when it took on Shanghai Automobile as an investor. And the East Hope Group was able to penetrate Chinalco's stranglehold on the aluminum industry after it established a joint venture with the local government of Sanmenxia in Henan Province.[5]

Third, private owners that have joint ventures with state owners also increasingly invest in joint ventures with other private owners. The net effect of these two forces—more investments by state owners in private entities and more investments by these entities in other private companies—is a large expansion in the network of "connected" private owners. The share of assets of these owners roughly doubled from about 16 percent in 2000 to 35 percent by 2019. Meanwhile, the share of connected state owners at the "top of the food chain" fell from about 33 percent in 2000 to about 21 percent by 2019 (these numbers include the equity of SOEs' joint ventures with private owners).[6] To be clear, it is not that SOEs have not grown—they have—but their growth is overshadowed by the growth of the private companies in which they have invested.

The broad story of China's growth is that it is driven by the marriage of the economic interests of private entrepreneurs and politically connected agents. In the key process, local governments broker informal deals to benefit private firms. As indicated here, equity links are now playing a similar role in aligning the economic interests of private companies with that of state owners—and with the political actors behind them.

4 Ibid., 3.

5 Chong-En Bai, Chang-Tai Hsieh, and Zheng Michael Song, "Special Deals with Chinese Characteristics," National Bureau of Economic Research, *NBER Macroeconomics Annual* 34, May 2019, https://www.nber.org/papers/w25839.

6 Chong-En Bai et al., "Special Deals from Special Investors," 3–4.

5

A New "Xi Era" in China's State-Owned Economy?

By Wendy Leutert and Sarah Eaton

As Chinese leader Xi Jinping nears the end of his second five-year term in 2022, consensus is emerging about a new "Xi era" in China's economic governance. In this view, Xi has eschewed the reform era's gradual marketization in favor of centralized Chinese Communist Party (CCP) control. This claim appears especially true in China's state-owned economy, where the Xi administration (2012–present) seems to be turning back the clock on market-oriented reforms.[1] As Elizabeth Economy writes, "Nowhere is stasis more evident than in efforts to reform the system of SOEs [state-owned enterprises]. Not only has there not been progress . . . but in a number of respects it is moving backwards."[2] This chapter reflects on the governance of the state-owned economy under Xi. Are reforms being reversed? Is Xi striding in a new direction? Or is there more continuity with Xi's predecessors than is commonly assumed?

Many contend that the defining feature of "Xinomics" is an increase in centralized CCP control.[3] The intensity of Xi's efforts to ramp up Party influence over state and non-state firms at home and abroad

1 Nicholas R. Lardy, *The State Strikes Back: The End of Economic Reform in China?* (Washington, DC: Peterson Institute for International Economics, 2019).

2 Elizabeth C. Economy, *The Third Revolution: Xi Jinping and the New Chinese State* (New York: Oxford University Press, 2018), 104.

3 "Xi Jinping is Reinventing State Capitalism. Don't Underestimate It," *The Economist,* August 15, 2020, https://www.economist.com/leaders/2020/08/13/xi-jinping-is-reinventing-state-capitalism-dont-underestimate-it.

is said to have transformed "China Inc." into "CCP Inc.," signaling a "new paradigm" in the country's development trajectory.[4] Some scholars argue that China under Xi has transitioned from state capitalism to "Party-state capitalism," in which economic activities now "place politics in command with state capitalism more directly in the service of the party's political survival."[5] At the company level, the Xi administration has directed SOEs to revise their articles of association to clarify and formalize the CCP's leadership role. Taken together, some interpret these developments as signaling China's entry into a "counter-reform era," characterized by the closer integration of Party, state, and business.[6]

In contrast to accounts of a radically different "Xi era," Xi's core vision for SOEs is surprisingly consistent with that of the preceding Hu Jintao administration (2002–12). Both leaders wanted to achieve market competitiveness and state control of SOEs on a global scale via concentrated state ownership and overseas expansion. Xi's governance of SOEs relies on established mechanisms of bureaucratic design, the cadre management system, Party organizations, and campaigns. While Xi has indeed amplified Party-centered tools of command and control, this is an incremental rather than a radical shift in approach. The Xi administration's governance of the state-owned economy thus reveals a deepening of pre-existing trends—defined as the elevation and formalization of extant practices—rather than wholesale divergence.

Hu and State Ownership 2.0

Crisis in China's state-owned economy during the late 1990s impelled China's leaders to re-envision the form and function of state ownership. Many SOEs were deeply in debt, and state firms accounted for virtually all state-owned banks' non-performing loans.[7] To address these challenges, Chinese leader Jiang Zemin and Premier Zhu Rongji initiated a radical retrenchment of the state sector. Thousands of small and medium-sized SOEs were sold off or allowed to go bankrupt. At the same time, the government further concentrated state ownership in a select group of large, centrally controlled SOEs. These "national champions" were to cement state control in sectors with high strategic value and lead Chinese firms' advance into global markets.[8] This vision of state ownership 2.0 has driven SOE policymaking ever since.

The Hu administration sought to implement state ownership 2.0 primarily by redesigning the bureaucracy responsible for managing state-owned assets. In 2003, it established the State-Owned Assets Supervision and Administration Commission (SASAC) within the State Council to manage

4 Jude Blanchette, "From 'China Inc.' to 'CCP Inc.': A New Paradigm for Chinese State Capitalism," *China Leadership Monitor* 66, (Winter 2020), https://www.prcleader.org/blanchette.

5 Margaret Pearson, Meg Rithmire, and Kellee S. Tsai, "Party-State Capitalism in China," Harvard Business School, Working Paper 21-065, November 2020, 6, https://www.hbs.edu/faculty/Pages/item.aspx?num=59229.

6 Carl Minzner, *End of an Era: How China's Authoritarian Revival is Undermining its Rise* (New York: Oxford University Press, 2018).

7 In March 1999, the State Economic and Trade Commission reported that 30 percent of 7,680 large and medium SOEs and one-third of the 512 key large SOEs were in the red during the first half of 1998. SOEs accounted for 90 percent of all non-performing loans held by state-owned banks by 1999 (*China Statistical Yearbook*, cited in U.S. Embassy in Beijing, "Cable," June 1999, declassified (in part) at author request on April 6, 2016).

8 Roselyn Hsueh, *China's Regulatory State: A New Strategy for Globalization* (Ithaca, NY: Cornell University Press, 2011); and Sarah Eaton, *The Advance of the State in Contemporary China: State-Market Relations in Reform-Era China* (Cambridge: Cambridge University Press, 2016).

an initial portfolio of 189 SOEs owned by the central government.[9] The SASAC recentralized control over SOEs' budgeting and profit remission, further consolidated state-owned assets in strategically important sectors through mergers, and facilitated their public listing on domestic and international equity markets. Hu did not as actively use the cadre management system, through which the CCP controls the careers of leading officials, to govern SOEs. Only 14 top executives were transferred from one core central SOE to another between 2002 and 2012, with leadership rotation occurring at an average rate of 1.4 transfers per year.[10] In these largest and most strategically important core central SOEs, most top leaders (55 percent) entered retirement directly after departing their executive posts.[11]

Under Hu, Party organizations and Party building were an important, albeit variable, part of SOE governance. The Party committee's decisive authority on issues involving the "three majors and one large"—prior to final determination by SOE boards of directors—was already established during the Hu administration, although board establishment and the institutionalization and implementation of this principle varied across firms.[12] Hu focused on broader party-building efforts rather than targeted campaigns. Specifically, his administration aimed to strengthen the Party's governance capability by continuing Deng Xiaoping-era reforms to clarify regulations and professionalize the cadre corps.[13] The Hu administration also attempted to address corruption inside SOEs through targeted campaigns and stepped up Party-building activities.

The Hu administration's approach to SOE governance began to founder during his second term (2007–12). The rapid expansion of SOE assets, organizational complexity, and international business curtailed the SASAC's ability to monitor them effectively. Official and public concern about corruption in the state-owned economy also began to rise. Many state firms operated beyond their core industry areas, and their involvement in already overheated urban real estate markets further sparked intense public criticism.[14] Even highly profitable SOEs remitted few dividends to the state.[15] Ultimately, the Hu administration found it had only weak capacity to "steer" SOEs that had become larger, more powerful, and more publicly controversial than ever before.[16]

9 For a list of these companies, see "国务院办公厅关于公布国务院国有资产监督管理委员会履行出资人职责企业名单的通知" [General Office of the State Council Notice Regarding SASAC Carrying Out Investor Responsibilities Enterprise List], Chinese State Council, October 21, 2003, https://zh.m.wikisource.org/zh-hans/国务院办公厅关于公布国务院国有资产监督管理委员会履行出资人职责企业名单的通知.

10 Wendy Leutert, "Firm Control: Governing the State-owned Economy Under Xi Jinping," *China Perspectives* 2018, no. 1-2 (April 2018): 27–36, https://journals.openedition.org/chinaperspectives/7605. Core central SOEs have vice-ministerial rank equivalence and are concentrated in industries with high strategic importance and barriers to entry. Non-core central SOEs have department-level rank equivalence and commonly operate in more competitive sectors.

11 Wendy Leutert, "The Political Mobility of China's Central State-owned Enterprise Leaders," *The China Quarterly* 233 (March 2018): 1–21, https://doi.org/10.1017/S0305741017001412.

12 The Jiang administration directed Party committees to participate in SOE decisionmaking when it involves macro-level controls, national strategy, or national security (the "three majors")—or operational or managerial matters that are important or broad in scope ("one large").

13 Kjeld Erik Brødsgaard, "China's Political Order Under Xi Jinping: Concepts and Perspectives," *China: An International Journal* 16, no. 3 (August 2018): 1–17, https://muse.jhu.edu/article/703437.

14 "国企大量进入房地产行业引发业界导议" [SOEs' Entry into Real Estate Market Attracts Industry Scrutiny], China News Network, August 15, 2009, http://bj.house.sina.com.cn/news/2009-08-15/0837324646.html.

15 Barry Naughton, "SASAC and Rising Corporate Power in China," *China Leadership Monitor* 24 (March 2008), https://www.hoover.org/sites/default/files/uploads/documents/CLM24BN.pdf.

16 Barry Naughton, "Grand Steerage," in Thomas Fingar and Jean C. Oi, eds., *Fateful Decisions: Choices That Will Shape China's Future* (Palo Alto, CA: Stanford University Press, 2020): 51–81.

Party Time under Xi

The Xi administration remains committed to the vision of state ownership 2.0. Today, it incentivizes SOEs to expand in international markets through the Belt and Road Initiative: a global campaign to increase trade, investment, and infrastructure connectivity between China and the world. At the same time, the Xi administration continues state guidance and support for strategic industries such as advanced manufacturing, artificial intelligence, renewable energy, and high-speed rail using subsidies and other forms of government assistance. Premier Li Keqiang's push for policies promoting a "lean and healthy body" for SOEs, such as by cutting administrative layers and limiting SOE activities in real estate and other non-core industry areas, extends earlier efforts to concentrate state ownership.[17]

Xi has employed a two-pronged approach to strengthen Party control over the state sector. With the SASAC's shortcomings evident by the end of Hu's term, the Xi administration acted first to curtail its authority and revamp the bureaucracy responsible for SOE governance. In 2013, Xi created the Leading Small Group (LSG) for Comprehensively Deepening Reform.[18] Xi then charged the staff office of this LSG's Economic System sub-group, which Liu He first led, with formulating the SOE policy roadmap for the new administration.[19] This arrangement weakened the authority of the SASAC, as well as that of other actors such as the National Development and Reform Commission (NDRC) and the Ministry of Finance. In 2018, the State Council further undermined the SASAC's monitoring function by eliminating its supervisory board and transferring its responsibilities and personnel to the National Audit Office.[20]

Second, the Xi administration has used the cadre management system and campaigns to strengthen party control over SOEs. Although the SASAC was initially sidelined during the early Xi period, its role in SOE policymaking now appears revived—but positioned more clearly under Party authority, with a single individual now serving as both director and Party secretary for the first time.[21] It shuffled 19 core central SOE leaders to head other SOEs during Xi's first five-year term alone—an average transfer rate of 3.8 per year, compared with 1.4 under Hu.[22] The Xi administration also ordered SOEs to revise their corporate charters to specify and formalize the leadership role of Party committees, and it revised the Party constitution to do the same.[23] Last,

17 "国资委给央企参股投资划红线央企将加速退出房地产" [SASAC Draws a Red Line for Central SOE Shareholding, Central SOEs to Accelerate Future Real Estate Exit], Caixin, April 16, 2020, https://finance.sina.com.cn/roll/2020-04-16/doc-iircuyvh8026701.shtml.

18 LSGs are supra-ministerial, extra-constitutional organizations that bring together high-ranking officials from the government agencies, Party organs, and the military involved in decisionmaking for specific policy areas. See Sebastian Heilmann, "China's Core Executive: Pursuing National Agendas in a Fragmented Polity," in Vivienne Shue and Patricia M. Thornton, eds., *To Govern China: Evolving Practices of Power* (Cambridge, UK: Cambridge University Press, 2017): 57–81.

19 Xinhua News Agency, "中共中央、国务院关于深化国有企业改革的指导意见" [Guiding Opinions of the CCP Central Committee and the State Council on Deepening the Reform of State-Owned Enterprises], Xinhuanet, September 13, 2015, http://www.xinhuanet.com//politics/2015-09/13/c_1116547305.htm.

20 China Agency Network, "中共中央办公厅 国务院办公厅关于调整国务院国有资产监督管理委员会职责机构编制的通知" [Circular of the General Office of the Central Committee of the CCP on Adjusting the Personnel Allotments of the Functional Organs of SASAC], Chinese Central Government Portal, November 13, 2018, http://www.gov.cn/zhengce/2018-11/13/content_5339914.htm.

21 Previously, this occurred only in times of exigency: Zhang Yi was originally appointed as party secretary in March 2013 and later took on the directorship in December 2013 only after Director Jiang Jiemin was removed on corruption charges. He held the two positions jointly until 2016.

22 Leutert, "Firm Control."

23 General Office of the Central Committee of the Communist Party of China, "关于在深化国有企业改革中坚持党的领导加强党的建设的若干意见" [Several Opinions on Adhering to Party Leadership and Strengthening Party Building in Deepening the Reform of SOEs], Chinese Central

but certainly not least, Xi launched a far-reaching anti-corruption campaign in 2013 in which SOEs have been a major focus.

Conclusion

Comparative analysis of SOE governance under the Hu and Xi administrations suggests that claims of reversal or departure in SOE governance under Xi should be approached carefully. While there are notable differences across the two periods, analysis of this domain reveals a deepening of Party control rather than decisive departure from past practice. The goal of making SOEs both market-competitive and obedient to the Party is consistent across both administrations. Under Xi, the balance has shifted toward Party obedience, but market competitiveness remains a vital objective. And the Xi administration has used the same governance mechanisms as its predecessor—bureaucratic design, the cadre management system, Party organizations, and campaigns—while leaning more heavily on Party-centered tools of command and control.

Other recent research also supports a narrative of deepening, not departure. The share of SOEs in China's economy has remained strikingly stable for nearly a quarter of a century, at about 25 percent of GDP.[24] This suggests that an "advance of the state," defined in terms of overall state-sector encroachment on the private economy, has yet to occur under Xi. In addition, the share of central SOE leaders who are simultaneously CCP Central Committee members was in the single digits at the beginning of the Xi administration—and actually slightly less than Hu-period peaks. This reveals little evidence of divergence in how these individuals are integrated into top Party leadership.[25] Nor does departure seem apparent in the private sector, with recent research also finding that Xi's policies do not diverge fundamentally from those of his predecessors.[26]

Finally, it may be premature to make claims about the defining attributes of the "Xi era," simply because it has no fixed endpoint. The removal of term limits for Xi's position as CCP general secretary in 2018 means that he is likely to retain power after the next Party Congress in 2022.[27] Taking a singular, new "Xi era" as the unit of analysis may therefore overlook important variation within the Xi period over time. For example, Xi's current approach to governing SOEs departs significantly from his administration's early pledges at the 2013 Third Plenum conclave to grant "a decisive role for markets in resource allocation."[28] It is conceivable, if unlikely, that the administration's future SOE policy could shift again after the next Party Congress to prioritize market discipline—consistent with

Government Portal, September 20, 2015, http://www.gov.cn/zhengce/2015-09/20/content_2935714.htm.

24 Andrew Batson, "The State Never Retreats," Gavekal Dragonomics, October 1, 2020, https://research.gavekal.com/article/state-never-retreats.

25 Jun Zhang, Qi Zhang, and Zhikuo Liu, "The Political Logic of Partial Reform of China's State Owned Enterprises," *Asian Survey* 57, no. 3 (May/June 2017): 395–415, doi:10.1525/as.2017.57.3.395. The authors examine data covering 2012–14; they report similar results when alternate CCP Central Committee members are also counted.

26 Yue Hou, "The Evolving Relationship Between the Party and the Private Sector in the Xi Era," Unpublished manuscript, http://www.yue-hou.com/working-papers.html.

27 Ben Blanchard and Christian Shepherd, "China Allows Xi to Remain President Indefinitely, Tightening His Grip on Power," Reuters, March 11, 2018, https://www.reuters.com/article/us-china-parliament/china-allows-xi-to-remain-president-indefinitely-tightening-his-grip-on-power-idUSKCN1GN07E.

28 Xinhua News Agency, "中共中央关于全面深化改革若干重大问题的决定" [Decision of the Central Committee of the CCP on Several Major Issues of Comprehensively Deepening Reform], Chinese Central Government Portal, November 15, 2013, http://www.gov.cn/jrzg/2013-11/15/content_2528179.htm.

earlier images of Xi as a market reformer in disguise who saw a need to clean house in the state sector before pursuing deeper marketization.[29] An alternative and perhaps more likely post-2022 scenario is a further deepening of the Party-obedience line once Xi has decisively freed himself from term limits. With no clear end in sight for Xi's rule, breaking down the "Xi era" by tracking developments in specific governance mechanism domains is the best way to differentiate what is truly distinctive about the current regime compared to past practice.

29 See, for example, Steven Jiang, "China's Xi Jinping: Reformer in Disguise?," CNN, April 24, 2016, https://www.cnn.com/2016/04/24/asia/china-xi-jinping-analysis/index.html.

6

The Party in the Boardroom

By William Norris[1]

Introduction

While the Chinese Communist Party (CCP) has always maintained a degree of influence over China's private sector, there have been recent drives to increase Party influence through formal legal mechanisms and the expansion of informal tools of institutional capacity, such as Party committees. This will change the internal structure and decisionmaking processes of Chinese firms and grant the CCP greater influence and control. The increase in Party influence over private firms blurs existing distinctions between state-owned enterprises (SOEs) and private-owned ones—and will ultimately force outsiders to rethink the ways in which they view Party-state relations with Chinese commercial actors. The state's use of investment to both increase control over private firms and pursue strategic aims further highlights the weakening of distinctions between state-owned and private enterprises in modern China.[2] Developments in Party-firm relations will not only affect the workings of the Chinese private sector, but also the entire Chinese economic landscape.

This chapter describes these recent developments regarding the state's formal legal and regulatory institutional capacity. It also examines the augmentation and rejuvenation of the CCP apparatus for

1 With adept research assistance from Jamahl Bonds, Roy Eakin, Kedar Pandya, & Ted Tyler.

2 Hao Chen and Meg Rithmire, "The Rise of the Investor State: State Capital in the Chinese Economy," *Studies in Comparative International Development* 55, no. 3 (September 2020): 257–277, doi:10.1007/s12116-020-09308-3.

influencing and directing both state-owned and non-state-owned enterprises. The net result of these efforts is an increased capacity for the Chinese Party-state to influence the behavior of commercial actors. This piece concludes by offering initial thoughts about why such initiatives are happening at this moment.

Formal Legal and Regulatory Enhancements

The CCP's consolidation of the legal environment has increased its capacity to exercise control over commercial actors. On May 3, 2017, the State Council issued a document outlining the formalization of Party committees in SOEs, calling for them to take on a more direct role supervising Party members, supporting the board of directors, appointing discipline and inspection teams, and ensuring implementation of Party and national laws.[3] The document ordered SOEs to incorporate this into their charters by 2020. Having taken a wider scope of political authority, the CCP could now focus on adding the technical capabilities to wield that authority. June 2017, the very next month, saw the implementation of the Cybersecurity Law and the National Intelligence Law.[4] The Cybersecurity Law grants the Party the legal authority to compel network operators to "accept supervision," while the National Intelligence Law codifies the power of the state intelligence apparatus to "demand" support, also compelling organizations to "support" those efforts. If Party committees receive or perceive any resistance to sharing desired information, these laws provide the foundation for directly seizing whatever they want from companies.

Changes in the regulatory environment have also created an additional lever of control. In September 2018, the China Securities Regulatory Commission (CSRC) issued Guidelines for the Governance of Listed Companies.[5] Article 5 stipulates that companies are required to provide for the activities of the Party committees, which they are notably obligated to bring into their equity structure. But the CSRC soon ran into trouble, coming under unwelcome scrutiny during an anti-corruption probe, with Liu Shiyu, the chairman and Party secretary from 2016 to 19, placed under investigation by the Central Commission for Discipline Inspection (CCDI). Among the charges against him were "lacking Party spirit and ineffective implementation of major Central Committee decisions."[6] The CCDI removed him from all leadership positions, stripped him of his alternate membership on the Central Committee, and gave him a two-year suspension from the Party. Such a corruption investigation and disciplinary judgment of a ministerial-level official suggests that the CCP felt uncomfortable with its ability to wield control.

Many of these legal and regulatory developments coincide with the rise of President Xi Jinping and the consolidation of his position. As Party committee powers started becoming more formalized in

3 "国务院办公厅关于进一步完善国有企业法人治理结构的指导意见" [General Office of the State Council's Guiding Opinions on Further Improving the Corporate Governance Structure of State-owned Enterprises], Chinese Office of the State Council, May 3, 2017, http://www.gov.cn/zhengce/content/2017-05/03/content_5190599.htm.

4 "中华人民共和国网络安全法" [Cybersecurity Law of the People's Republic of China], National People's Congress of the People's Republic of China, November 7, 2016, http://www.npc.gov.cn/npc/c30834/201611/270b43e8b35e4f7ea98502b6f0e26f8a.shtml.

5 "上市公司治理准则" [Guidelines for the Governance of Listed Companies], China Securities Regulatory Commission, September 30, 2018, http://www.csrc.gov.cn/pub/zjhpublic/zjh/201809/t20180930_344906.htm.

6 "中华全国供销合作总社原党组副书记、理事会主任刘士余因严重违纪违法受到留党察看二年、政务撤职处分" [Liu Shiyu, Former Party Deputy Secretary and Director of the Board of the All-China Federation of Supply and Marketing Cooperatives, Was Subject to a Two Year Party Probation and Was Removed From Office for Serious Violations of Discipline and Law], Central Commission for Discipline Inspection and State Supervision, October 4, 2019, http://www.ccdi.gov.cn/toutiao/201910/t20191004_201995.html.

mid-2017, Xi and his allies were finishing their preparation work for the 19th Party Congress. With Xi's position secure and growing stronger, Party elites could devote more attention to developing the role of Party committees and giving them the legal powers and regulatory backing to ensure they have a free hand to oversee businesses. Under Xi, Party committees have seen their power and authority become more formalized, which enhances the CCP's control. But what exactly are the mechanisms of control over firms, and how are they utilized?

Expanding Informal Mechanisms of Control

The development of legal and regulatory institutional capacity has been accompanied by an expansion of informal mechanisms of control over firms. Calls to reform party-private relations have come from many sides of the Chinese Party-state. Chinese political bodies—from the Central Committee to the United Front Work Department (UFWD) to numerous provincial All-China Federations for Industry and Commerce—note the importance of increasing Party influence over private firms.[7] The promulgation of the CCP's "party building" (党建 dǎng jiàn) policy in 2015, though intended for incorporating Party committees into SOEs, was later adopted by many significant and well-connected private enterprises.[8] Numerous suggestions and "guidances" have since signaled the ways Party committees should operate and convinced firms that implementation is in their best interest.

As part of the dǎng jiàn effort, the UFWD was charged in 2015 with the explicit goal of building Party committees across the domain of private enterprise—and ensuring that private entrepreneurs remain patriotic and faithful to "socialism with Chinese characteristics."[9] The UFWD's more recent return to center stage in September 2020, at both national and provincial levels, has made it the central advocate for the adoption of Party committees within private firms and a fount of moral "guidance" (指导 zhǐ dǎo) for entrepreneurs.[10] Ye Qing, vice-chairman of the All-China Federation of Industry and Commerce, echoed the UFWD communique in a speech two days later, emphasizing the need for Party committees to act as representatives of the CCP within human resources departments and as "promoters of corporate culture."[11] Moreover, the Party itself has developed detailed guidelines for the mission and structure of Party committees in private enterprises, which should unite the company's workers under a Party secretary chosen from among the corporate leadership. The Central Committee has instructed all enterprises with more than seven Party members to form a Party committee consisting of three to five members, to include a secretary, deputy secretary, organization member, propaganda member, and discipline and inspection member.

7 General Office of the Central Committee of the Communist Party of China, "关于加强新时代民营经济统战工作的意见" [Opinions on Strengthening the Private Economy United Front Work in the New Era], Xinhuanet, September 15, 2020, http://www.xinhuanet.com/politics/2020-09/15/c_1126497384.htm.

8 Lauren Yu-Hsin Lin and Curtis J. Milhaupt, "Party Building or Noisy Signaling? The Contours of Political Conformity in Chinese Corporate Governance," *Journal of Legal Studies* 50, no. 1 (January 2021): 187–217, doi:10.2139/ssrn.3510342.

9 General Office of the Central Committee of the Communist Party of China, "中国共产党统一战线工作条例（试行）" [Regulations on the United Front Work of the Communist Party of China (for Trial Implementation)], Chinese Central Government Portal, September 22, 2015, http://www.gov.cn/zhengce/2015-09/22/content_2937054.htm.

10 Ibid.

11 China Business Times, "叶青：推动党的领导制度体系与民企治理体系有机融合" [Ye Qing: Promote the Organic Integration of the Party's Leadership System and Private Enterprise Governance System], All-China Federation of Industry and Commerce, September 17, 2020, http://www.acfic.org.cn/ldzc_311/jzhld/yq/yqgzhd/202009/t20200917_245057.html.

Enterprises with fewer than seven Party members are instructed to form committees with a Party secretary and a deputy secretary.[12]

While the central government has promulgated new authorities and guidance at the national level, there have also been more localized initiatives. As 2020 came to a close, the provincial director of the Henan UFWD began issuing communiques to promote "a new phase" (新局面 xīn jú miàn) for private enterprise in China.[13] Other provincial apparatuses soon began reporting on the successes of establishing new systems, such as a red/black list in Kunming, which discouraged private entrepreneurs' attempts to influence the selection of cadres within their firms' Party committees.[14] Further reports from Sichuan and the autonomous prefecture of Chuxiong praise the development of the Party committee and publicize that private entrepreneurs have welcomed Party committees in their firms.[15]

Analysis

The UFWD and Federations for Industry and Commerce are becoming tools to persuade Chinese private enterprises that incorporating a Party committee into their firms is in their best interests.[16] The strengthening of these Party instruments complements the more formal regulatory and legal tools discussed earlier; both types of mechanisms allow the CCP to institutionalize the capacity for control. The Party seems to be seeking to lock in a relatively inexpensive "option" that will allow it to exercise more direct influence if that proves necessary or desirable in the future.

The tasking of provincial UFWDs and federations to convince private enterprises to establish Party committees may indicate policy experimentation across a variety of corporate environments. Such decentralized regionalism may allow for innovation and provincial-led approaches to entice private enterprises to comply. Moreover, the use of a provincial body, as opposed to a national apparatus, leverages the power of local networks among public and private managerial elites. Deng Xiaoping's incrementalist philosophy of "crossing the river by feeling the stones" has supported regional economic experimentation since the 1980s, and Xi's renewed focus on retaining Party dominance in the economy may reflect elements of that approach.

12 Central Committee of the Communist Party of China, "中国共产党支部工作条例(试行)" [Regulations on the Work of Communist Party of China Branches (for Trial Implementation)], Communist Party Member Network, November 25, 2018, http://www.12371.cn/2018/11/25/ARTI1543146320637564.shtml.

13 Henan Daily, "贯彻落实党的十九届五中全会精神 深入推进民营经济'两个行动'" [Put Into Action the Spirit of the Fifth Plenary Session of the 19th Central Committee of the Communist Party of China to Further Deepen and Advance the Private Economy], People's Congress of Henan Province, December 2, 2020, https://www.henanrd.gov.cn/2020/12-02/15916.html.

14 Chunrong Weiyu, "昆明市列'正负清单'构建亲清政商关系" [Kunming City Provides 'Positive and Negative List' for Constructing Clean Government-Business Relations], United Front Work Department of CPC Central Committee, January 7, 2021, http://www.zytzb.gov.cn/fgjjxw/349849.jhtml.

15 Yuanmou County Federation, "元谋县工商联喜获全国工商联通报表扬" [Yuanmou County Federation of Industry and Commerce Won Praise in the National Federation of Industry and Commerce Announcement], United Front Work Department of Chuxiong, December 1, 2020, http://cxtz.gov.cn/file_read.aspx?id=3771; and Chinese Provincial Government Office, "全国工商联发布2020年'万家民营企业评营商环境'报告 四川位列全国第七名" [The All-China Federation of Industry and Commerce Published the 2020 'Ten Thousand Private Enterprises Evaluate the Business Environment' Report. Sichuan Ranks Seventh in the Nation], People's Government of Sichuan Province, February 19, 2021, https://www.sc.gov.cn/10462/c100366/2021/2/19/9f5cb0ce7a55430f9ba1d63296050383.shtml.

16 Central Committee of the Communist Party of China, "中国共产党支部工作条例(试行)" [Regulations on the Work of Communist Party of China Branches (for Trial Implementation)].

Conclusion

The Chinese Party-state is strengthening its institutional capacity to give the CCP the leverage to direct private capital toward strategic ends.[17] This capacity is being built both formally (through legal and regulatory mechanisms) and more informally (through enhancements to the Party apparatus). The developments highlighted in this chapter blur the analytical utility of distinguishing firms on the facile basis of ownership. Growing Party influence is a trend that is likely to continue for the foreseeable future, but it is not entirely clear why this capacity building is happening now.

There could be any number of drivers behind bringing the Party into the boardroom. Resuscitating the UFWD to reassert influence over China's affairs could be a priority for Xi Jinping.[18] Xi has breathed new life into UFWD work and may see it as an effective tool to steer firms into the orbit of the Party-state lest the CCP get left behind or become irrelevant in a rapidly changing Chinese economy and society. Alternatively, the Russian experience with the rise of powerful oligarchs may have encouraged the Party to act sooner rather than later to bring new economic players to heel. From another perspective, this type of reassertion of the Party-state's dominance over the economy may simply be part of a long-standing pattern of cyclical relaxation and tightening of the Party's grip on the productive forces of the economy. These and other possible explanations deserve to be explored in further analysis.

This chapter identifies a clear recent pattern of activities that are designed to provide the Chinese Party-state with greater formal and informal mechanisms that facilitate its influence, control, and direction of both SOEs and private companies. These developments increasingly define the operating environment for firms in China and are likely to have reshaping consequences for years to come.

17 "浙江省民营经济统战工作新闻发布会" [Press Conference on the United Front Work of the Private Economy in Zhejiang Province], People's Government of Zhejiang Province, December 23, 2020, http://www.zj.gov.cn/col/col1229462894/index.html.

18 Described as the magic weapon of the Party, the use of the UFWD within the Xi family goes back to Xi Zhongxun's time in the early years of the People's Republic of China. See Alex Joske, "The Party Speaks for You: Foreign Interference and the Chinese Communist Party's United Front System," Australian Strategic Policy Institute, June 9, 2020, https://www.aspi.org.au/report/party-speaks-you.

7

China's EV Supply Chain Growth

Policy Drivers and International Effects

By David Coffin

Introduction

China is the world's largest producer and consumer of passenger vehicles, as well as the world's largest market for electric vehicles (EVs) (Figure 7.1). In addition, Chinese battery plants make up the majority of global EV battery capacity. While Barry Naughton's chapter in this volume describes the Chinese government's current effort to direct the economy as "grand steerage," this chapter examines the specifics of this steerage for a single industry, EV and EV-battery manufacturing. It describes how the multilayered nature of Chinese central and provincial government policies and incentives have driven investment into the EV-battery supply chain, how that has affected global EV manufacturing, and how it could affect it in the future.

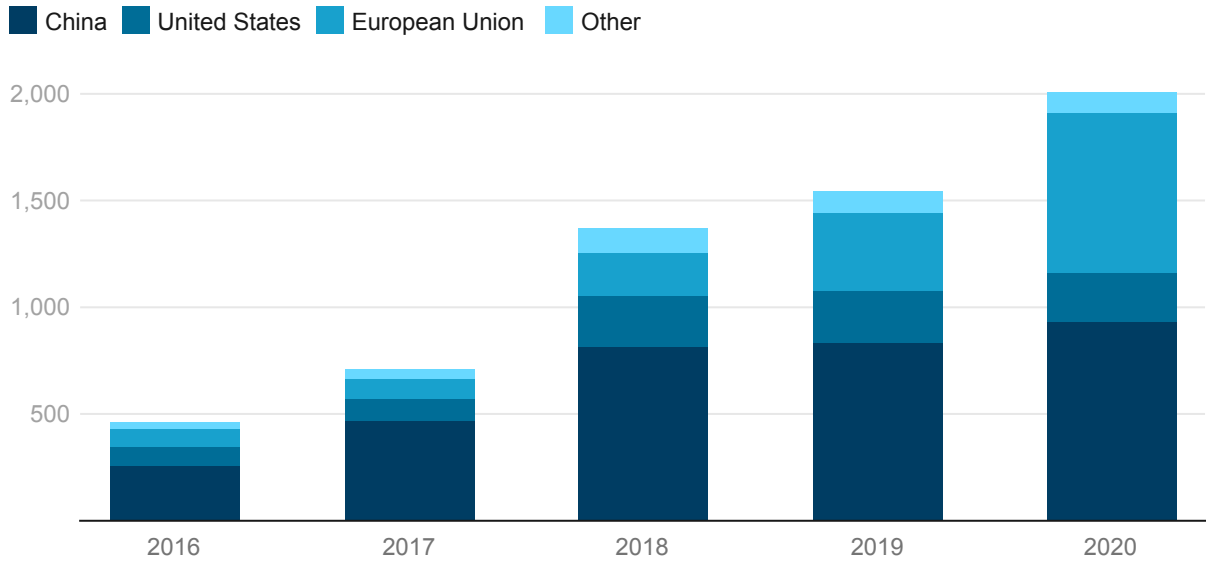
Government Policies and Incentives

Chinese policies supporting specific industries come from multiple agencies and layers of government. Central government policies, such as five-year plans, set top-line goals for the Chinese economy, including key industries and development targets. Much of the execution and specifics come from policies and plans published by central and provincial agencies that build upon central government policies, including purchase subsidies, research and development (R&D) spending, targeted government procurement, and facilitated access to license plates.

Figure 7.1

Annual Electric Vehicle Registrations, 2016–2020

in thousands of vehicles



Source: International Energy Agency (IEA), *Global EV Outlook 2021* (Paris: April 2021), https://www.iea.org/reports/global-ev-outlook-2021.

Note: This chapter will generally consider registrations to equal sales even though this may not always be true within a given year.

These layers of government policies and incentives have aligned to promote domestic EV-battery production. The central government first published a "Notice on Implementing Energy Saving and New Energy Vehicle Pilot Program" in 2009 and, since then, has implemented policies to encourage EV adoption, many of which were intended to increase demand.[1] In 2015, several government agencies jointly announced a subsidy policy for EV purchases, which after multiple modifications and extensions was most recently extended in 2020 to $2,300 to $3,200 per vehicle.[2] The Ministry of Industry and Information Technology also published a list of approved battery suppliers, and only EVs with batteries produced by one of those suppliers were eligible for the subsidy (with all of the listed suppliers being Chinese).[3] Chinese government procurement of EVs has provided additional support in the form of approximately $1 billion in new-energy vehicles per year.[4] Province- and municipality-specific plans together support the central plan and have more detailed goals and incentives, which often focus on increasing demand for EVs. For example, EV purchase incentives within Shanghai's

1 Lingzhi Jin et al., *Driving a Green Future: A Retrospective Review of China's Electric Vehicle Development and Outlook for the Future* (Washington, DC: International Council on Clean Transportation, 2020), 4, https://theicct.org/publications/china-green-future-ev-jan2021.

2 "关于完善新能源汽车推广应用财政补贴政策的通知" [Notice on Improving the Financial Subsidy Policy for the Promotion and Application of New Energy Vehicles], Chinese Ministry of Finance, April 23, 2020, http://jjs.mof.gov.cn/zhengcefagui/202004/t20200423_3502975.htm.

3 Echo Huang, "China's Breaking up the EV Battery Monopoly it Carefully Created," Quartz, June 25, 2019, https://qz.com/1651944/china-ends-policy-steering-ev-makers-to-local-battery-firms/.

4 Scott Kennedy, "The Coming NEV War? Implications of China's Advances in Electric Vehicles," CSIS, *CSIS Briefs*, November 18, 2020, https://www.csis.org/analysis/coming-nev-war-implications-chinas-advances-electric-vehicles.

plan include easy access to license plates (which are limited in Shanghai) and less expensive (or free) registration. Beijing has its own plan that includes an EV-taxi purchase subsidy.[5] As a result, Chinese EV sales grew rapidly from 257,000 in 2016 to over 900,000 in 2020.[6]

In addition to policies that increase demand, there are also Chinese policies that are focused on supply. For example, government expenditures on R&D have helped increase the number of EVs produced, which CSIS estimated at nearly $9 billion for 2019, roughly equivalent to the annual total R&D budget for a major vehicle manufacturer.[7] At the local level, there may be further supply-side support to benefit local firms, including tax incentives, access to inexpensive land, reduced environmental restrictions, or preferential loans from local financial institutions.[8]

Chinese EV-Battery Capacity Utilization

Capacity utilization in China's EV-battery manufacturing plants appears to have been quite low. The automotive industry considers 80 percent to be full capacity utilization, but there is often significant short-term variation.[9] EV-battery production capacity is measured in gigawatt-hours (GWh), where 1 GWh equals 1,000,000 kilowatt-hours (kWh). Chinese EV-battery capacity reached 235 GWh in 2019, outpacing the goal of 100 GWh by 2020, with 300 GWh more under construction.[10] Assuming 60 kWh per car (slightly more than the average among EVs sold in the United States), that was enough capacity to produce over 3.9 million EVs in 2019 (Figure 7.2). Many Chinese EVs have much smaller batteries, meaning Chinese manufacturers likely have room to build more. China's EV sales in 2019 totaled 834,000 vehicles, more than half of the 1.5 million sales globally.[11] Global sales increased even further in 2020 to 2.25 million, with Chinese sales accounting for over 900,000.[12]

Chinese capacity may be necessary to meet future global demand. The International Energy Agency projects that EV sales could increase from 1.5 million in 2019 to over 7.1 million in 2025, for which there is not nearly enough battery capacity.[13] This inability to accommodate anticipated sales may provide an opportunity to Chinese suppliers.

5 Beijing Municipal Finance Bureau, "北京:支持出租车更新为纯电动车" [Beijing: Support the Upgrade of Taxis to Pure Electric Vehicles], Tram Resources, July 19, 2019, https://www.evpartner.com/news/12/detail-46416.html; and Shanghai Municipal Development and Reform Commission, "上海市鼓励购买和使用新能源汽车实施办法" [Implementation Measures of Shanghai Municipality on Encouraging the Purchase and Use of New Energy Vehicles], Shanghai Government Portal, February 9, 2021, https://www.shanghai.gov.cn/nw12344/20210210/432b54af74bb48b093d6b0108b2eb286.html.

6 International Energy Agency (IEA), *Global EV Outlook 2020* (Paris: June 2020), 249, https://www.iea.org/reports/global-ev-outlook-2020.

7 Kennedy, "The Coming NEV War?"

8 Kerry Liu, "China's Visible Hand," *Journal of Business and Economic Studies* 23, no. 1 (May 2019), 38, https://jbes.scholasticahq.com/article/8218-china-s-visible-hand-an-analysis-of-the-chinese-government-s-intervention-in-its-economy-during-2015-17.

9 Capacity utilization is usually found by dividing the number of vehicles produced by the number of vehicles that would have been produced if the plant had been producing a full complement of vehicles for two or three shifts, five days a week, for the full year. For short periods of time, plants can produce above 100 percent capacity by adding a third shift (if the plant usually does two shifts) or working on Saturday and Sunday.

10 eter Harrop, "Here Comes Over Capacity of Lithium-ion Batteries?," IDTechEx, August 8, 2017, https://www.idtechex.com/en/research-article/here-comes-over-capacity-of-lithium-ion-batteries/11480; and author calculations based on data from "Battery Manufacturing," Bloomberg NEF Database, May 30, 2019 (subscription only).

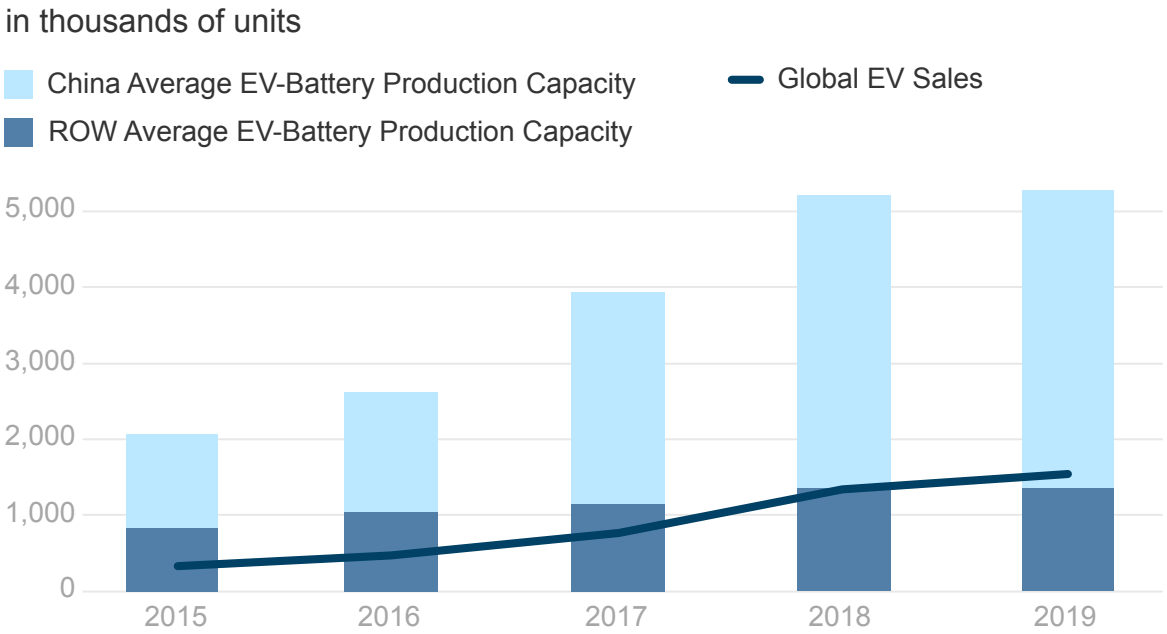
11 IEA, *Global EV Outlook 2020*, 155.

12 Roland Irle, "Global Plug-in Vehicle Sales Reached Over 3.2 million in 2020," EV-Volumes, February 2020, https://www.ev-volumes.com/.

13 IEA, *Global EV Outlook 2021* (Paris: April 2021), 75, https://www.iea.org/reports/global-ev-outlook-2021.

Figure 7.2

Global EV Sales and Global EV-Battery Production Capacity, 2015–2019



Source: IEA, *Global EV Outlook 2020* (Paris, June 2020), https://www.iea.org/reports/global-ev-outlook-2020; and author calculations based on data from "Battery Manufacturing," Bloomberg NEF Database, May 30, 2019 (subscription only).

Note: Average EV-battery production capacity is converted based on the assumption that the average battery size is 60kWh for comparison purposes.

Will China Export EV Batteries?

While China is the world's largest EV-battery producer, the effects of Chinese EV-battery capacity on global EV-battery prices and supply have thus far been limited. Global manufacturers have not yet selected Chinese batteries for many vehicles, and Chinese EVs are not exported to many markets.[14] As of 2020, the only EVs with Chinese batteries sold in the United States were buses. While China's Contemporary Amperex Technology Co., Ltd (CATL) is the world's largest lithium-ion battery manufacturer, 2020 was the first year that the total GWh of its EV-battery shipments surpassed LG Chem (a South Korean manufacturer with plants in Korea, China, and the United States).[15] In addition, many firms are investing in U.S. and EU battery manufacturing instead.[16]

14 On the battery side, none of the battery manufacturers are established suppliers of global manufacturers, which is a multi-step process that takes at least six months but can take several years, with manufacturers inspecting production facilities and sampling products to ensure they meet the manufacturers' standards. On the vehicle side, Chinese vehicle manufacturers are not major exporters and do not sell many vehicles in other markets, making it an extra challenge to attempt to sell Chinese EVs.

15 Zachary Shahan, "CATL & LG Chem Are World's Biggest EV Battery Producers," CleanTechnica, January 2, 2021, https://cleantechnica.com/2021/01/02/catl-lg-chem-are-worlds-biggest-ev-battery-producers/.

16 Tesla, CATL, and Northvolt all announced new EV battery plants in the European Union. SK Innovation and LG Chem (in a joint venture with

However, Chinese EV-battery companies are increasingly supplying global EV manufacturers in China. CATL has signed supply deals with BMW and Volkswagen.[17] It also signed a cooperation deal with Toyota and supplies batteries to Tesla in Shanghai.[18] Tesla has subsequently begun exporting the Model 3, its mid-size sedan, with CATL batteries from China to Europe, and some have predicted it will export them to the United States as well.[19] Shenzhen-based Build Your Dreams (BYD) Auto Co., a lithium-ion battery and EV manufacturer, exports battery cells for further assembly at its electric bus plant in California and signed a deal in 2020 to supply Ford's Changan joint venture with batteries for a plug-in hybrid vehicle.[20]

How Could China Emerge as a Major EV-Battery Supplier?

As global demand for EVs increases, China's EV-battery manufacturing capacity could have a significant effect on global EV manufacturers and their suppliers, whether as a supplier or a competitor. Global manufacturers have started purchasing Chinese EV batteries in China, and once they have a history of supplying global manufacturers within the country, those manufacturers may consider using them as suppliers outside of China. Many Chinese automotive suppliers have followed the path of first supplying global manufacturers in China, then supplying them globally for many other types of automotive parts.[21]

These Chinese batteries could follow a path of disruptive innovation, wherein a cheaper, "inferior" product disrupts established incumbents by providing a battery that meets many consumers' needs for significantly less than the cost of a higher-end one.[22] Many Chinese manufacturers produce batteries with lithium-ion phosphate (LFP) cathodes, which are heavier than the lithium-ion batteries produced by most non-Chinese manufacturers—who use formulations with higher cobalt and nickel content—but less expensive to produce.

General Motors) have announced new battery plants in the United States that will add at least 50 GWh of U.S. capacity. "SK Innovation to Start Building Second EV Battery Plant in United States," Reuters, April 29, 2020, https://www.reuters.com/article/us-sk-innovation-electric/sk-innovation-to-start-building-second-ev-battery-plant-in-united-states-idUSKCN22B0IJ; and "General Motors and LG Chem Team Up to Advance Toward an All-Electric Future, Add Jobs in Ohio," General Motors, December 5, 2019, https://media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2019/dec/1205-lgchem.html.

17 "CATL Europe Chief Says Company Eyes Plant in North America," Reuters, September 10, 2017, https://www.reuters.com/article/us-autoshow-frankfurt-catl-americas/catl-europe-chief-says-company-eyes-plant-in-north-america-idUSKCN1VV1EP; and Jack Ewing, "With a $2 Billion Factory From China, a German City Lets Others Worry," *New York Times*, September 2, 2019, https://www.nytimes.com/2019/09/02/business/china-germany-battery-factory.html.

18 "CATL and Toyota Form Comprehensive Partnership for New Energy Vehicle Batteries," Toyota, July 17, 2019, https://global.toyota/en/newsroom/corporate/28913488.html; and "China's CATL Signs Battery Supply Agreement with Tesla," Reuters, February 2, 2020, https://www.reuters.com/article/us-tesla-catl-battery-electric/chinas-catl-signs-battery-supply-agreement-with-tesla-idUSKBN1ZX02D.

19 Fred Lambert, "Elon Musk Says Tesla is Shifting More Electric Cars to LFP Batteries over Nickel Supply Concerns," Electrek, February 26, 2021, https://electrek.co/2021/02/26/elon-musk-tesla-shifting-more-electric-cars-lfp-batteries-nickel-supply-concerns/.

20 "Buffett-backed BYD to Supply EV Batteries to Ford," Reuters, June 1, 2020, https://www.reuters.com/article/us-ford-byd-electric/buffett-backed-byd-to-supply-ev-batteries-to-ford-idUSKBN2381VJ.

21 Quality and safety are very important for vehicle manufacturers, who usually have a much lower tolerance for defects (usually 5 or 6 per million) than in other products. See David Coffin, "China's Growing Role in U.S. Automotive Supply Chains," U.S. International Trade Commission (ITC), Office of Industries, Working Paper 60, August 9, 2019, https://usitc.gov/sites/default/files/publications/332/working_papers/id-19-060_chinese_auto_parts_final_080519-compliant_0.pdf; and Peter Hertenstein, Dylan Sutherland, and John Anderson, "Internationalization Within Networks: Exploring the Relationship Between Inward and Outward FDI in China's Auto Components Industry," *Asia Pacific Journal of Management* 34 (2017), 69–96, 8, 13, https://econpapers.repec.org/article/kapasiapa/v_3a34_3ay_3a2017_3ai_3a1_3ad_3a10.1007_5fs10490-015-9422-3.htm.

22 Clayton M. Christensen, Michael E. Raynor, and Rory McDonald, "What is Disruptive Innovation?," *Harvard Business Review*, December 2015, 44–53, https://hbr.org/2015/12/what-is-disruptive-innovation.

Foreign-invested enterprises are still important to China's economy, even in key sectors such as EVs.[23] For example, Tesla uses CATL's LFP batteries in its latest assembly plant in Shanghai to produce the standard-range Model 3, which it has begun exporting to Europe.[24] The LFP technology has advanced such that when Tesla started using it in its standard-range Model 3s, the price of that model dropped and the range increased.[25] Previously, Tesla's main global source of EV batteries was Panasonic, with some batteries supplied by LG Innovation. Non-Chinese EV-battery suppliers could lose significant market share if Chinese manufacturers sell EV batteries significantly below these other producers' costs.

Will Chinese EV Companies Succeed in Foreign Markets?

Chinese EV manufacturers may face difficulties in foreign markets. While several Chinese EV-battery manufacturers have a serious opportunity to be major suppliers for global vehicle manufacturers, it is likely much more challenging for Chinese EV manufacturers to access major markets outside of China. Chinese vehicle manufacturers have aimed to enter the U.S. market since 2004 but have not yet sold a passenger vehicle in the U.S. market (though BYD has produced electric buses in the United States since 2013).[26] This is likely due to a combination of factors, including the high cost of developing a dealer network in the United States, the high cost of producing vehicles that meet U.S. safety and environmental standards, and other entry costs (such as advertising and designing vehicles for the market). Many Chinese vehicle manufacturers have announced their intention to enter the U.S. market, but as of 2021 the only exports of vehicles from China to the United States have been from established non-Chinese brands such as Volvo (now owned by Geely, a Chinese company) and General Motors.[27]

Comparison with Other Industries

Comparing several industries can be helpful to understand how Chinese investment in EVs could affect the global market. As Dan Ikenson writes in his chapter, Chinese state capitalism "generates industrial overcapacity in targeted sectors; provides SOEs [state-owned enterprises] favorable access to credit and other advantages; chases promising companies, industries, and investment out of the United States; and causes numerous other economic distortions around the world." That said, this is not always the case. In some industries, overinvestment has indeed led to a flood of goods on the global market, while others saw no such consequences.

ALUMINUM

Aluminum is one sector where increased capacity in China appears to have affected the global industry.

23 See the chapter in this volume by Arthur Kroeber.

24 Nora Manthey, "CATL to Kick-off LFP Cell Supply for Tesla China Model 3," electrive.com, July 20, 2020, https://www.electrive.com/2020/07/20/catl-to-kick-off-lfp-cell-supply-for-tesla-china-model-3/; and Fred Lambert, "Tesla is Starting to Export Made-in-China Model 3 to Europe," Electrek, October 18, 2020, https://electrek.co/2020/10/18/tesla-export-made-in-china-model-3-to-europe/.

25 Fred Lambert, "Tesla Cuts Model 3 Price in China, Improves Range with Cobalt-free LFP Batteries," Electrek, October 1, 2020, https://electrek.co/2020/10/01/tesla-reduces-model-3-prices-china-range-lfp-batteries/.

26 Alysha Webb, "Chery Still Plans to Export Cars to the United States," Autoweek, December 3, 2006, https://www.autoweek.com/news/a2073396/chery-still-plans-export-cars-united-states/; and Anthony York, "Chinese Firm to Open Bus Factory in Lancaster," *Los Angeles Times*, April 16, 2013, https://www.latimes.com/local/la-xpm-2013-apr-16-la-me-brown-buses-20130417-story.html.

27 The Volvo S-60, Cadillac CT-6 PHEV, and Buick Envision are all made in China.

From 2001 to 2015, there was an unprecedented increase in Chinese capacity.[28] By 2015, China made up over half of the world's primary aluminum and downstream wrought aluminum (e.g., bars, rods, wire, plates, sheet, and foil) production.[29] The Chinese central and local government provided extensive support to both the primary and secondary aluminum industries through such mechanisms as energy subsidies, government intervention in lending and financing, tax benefits, government grants, low-priced inputs from SOEs, and low land-use fees.[30] The low prices of Chinese wrought aluminum propelled a substantial increase in exports and global market shares. Primary aluminum subsidies also directly benefited wrought aluminum producers by lowering the price of downstream production.[31]

The aluminum example shows how upstream support can affect downstream products. With regard to EVs, China is a major refiner and processor of key minerals and metals used in the battery supply chain, as well as other upstream manufactured inputs.[32] The presence of these inputs in China encourages cell production there as well.

However, EVs have some distinct differences from aluminum. First, EVs are a consumer product, and consumers are more concerned about brand than aluminum purchasers are. Consumer preferences could make it more challenging for Chinese EV manufacturers to compete globally, as they are not yet familiar with these companies. Second, EVs are a relatively new product, so there is not a built-in market as there was when aluminum supplies increased. Relatedly, consumers have shown some hesitance to replace their internal-combustion-engine vehicles with EVs due to concerns about EV range and upfront cost. These concerns present a challenge for all EVs, but particularly for those that are not produced by a trusted brand. This may be less of an issue for Chinese EV batteries used in global vehicle manufacturers' EVs, as the consumer will trust the brand and likely will not know where the batteries came from. Finally, aluminum seems to be an instance where Chinese policies focused on supply, while Chinese policies concerning EVs have encouraged both increased supply and demand.

SEMICONDUCTORS

Semiconductors may provide a more instructive example of how Chinese investment in a product could affect the global supply chain. China is the world's largest market for semiconductors but has still generally needed to import high-tech semiconductors.[33] Despite massive investment and support from the Chinese central government for semiconductor R&D and production, Chinese manufacturing has failed to catch up with cutting-edge semiconductor producers.[34] China is also the world leader in semiconductors' packaging,

28 Organisation for Economic Cooperation and Development (OECD), *Measuring Distortions in International Markets: The Aluminium Value Chain* (Paris: OECD Publishing, 2019), 9, doi:10.1787/18166873.

29 ITC, *Aluminum: Competitive Conditions Affecting the U.S. Industry* (Washington, DC: U.S. International Trade Commission, June 2017), 29, https://usitc.gov/publications/332/pub4703.pdf.

30 OECD, *Measuring Distortions in International Markets*, 12; and ITC, *Aluminum*, 255–64.

31 OECD, *Measuring Distortions in International Markets*, 7; and ITC, *Aluminum*, 250.

32 Sarah Scott and Robert Ireland, "Lithium-Ion Battery Materials for Electric Vehicles and their Global Value Chains," ITC, Office of Industries, Working Paper 68, June 11, 2020, https://www.usitc.gov/publications/332/working_papers/gvc_overview_scott_ireland_508_final_061120.pdf; and David Coffin, "The Forgotten Middle: Manufactured Inputs for Electric Vehicle (EV) Batteries," ITC, February 2021, https://www.usitc.gov/publications/332/executive_briefings/ebot_lithium_batteries.pdf.

33 Susan K. Mays, "Rapid Advance: High Technology in China and the Global Electronic Age," PhD dissertation, (Columbia University, 2013), 290, https://academiccommons.columbia.edu/download/fedora_content/download/ac:161507/content/Mays_columbia_0054D_11384.pdf.

34 Douglas B. Fuller, "Growth, Upgrading and Limited Catch-Up in China's Semiconductor Industry," in Loren Brandt and Thomas G. Rawski, eds., *Policy, Regulation, and Innovation in China's Electricity and Telecom Industries* (Cambridge, UK: Cambridge University Press, 2019), 262–303.

assembly, and testing (PAT) stage, a part of the process that manufacturers like to locate close to the production location of the electronics in which the semiconductor will be installed.[35]

Similarly, Chinese investments in the EV-battery supply chain and Chinese demand for EVs make it very likely that a significant share of EV-battery production will remain in China. However, it is unclear whether Chinese EVs (or even EV batteries) will compete at the top end of the market, or if they will supply inputs for the global market and for vehicles produced and sold in China.

However, the semiconductor example also has some differences from EVs and EV batteries. First, because the EV supply chain is not nearly as established as the semiconductor one, there may be less "distance" between technology leaders and Chinese manufacturers. When China started investing heavily in the semiconductor industry in the 1990s, Chinese technology was decades behind its competitors. The EV-battery and EV industries are relatively young, so there is not as much technological catchup necessary. Second, EV-battery production is significantly cheaper and quicker than semiconductor production. For instance, the cost of an EV battery or vehicle assembly plant is between 10 percent (for vehicle assembly) and 20 percent (for EV batteries) of that of a semiconductor fabrication plant, which costs $10 billion to build. These factors may make it easier for Chinese manufacturers to produce both EV batteries and EVs.

Conclusion

Chinese EV and EV-battery manufacturing already makes up a significant share of global production; China appears positioned to be a global supplier of EV batteries and possibly EVs as well. Chinese EV-battery suppliers appear to be following a similar path to other Chinese automotive suppliers, first supplying global manufacturers in China, then presumably supplying global manufacturers producing vehicles outside of China. Chinese EV manufacturers face more challenges exporting EVs, as they will need to market their product to consumers, but over time could see their share of global sales increase. Although rapidly expanded investment in other sectors, such as aluminum, have led to a huge increase in Chinese exports—depressing prices and hurting China's competitors—this outcome is not preordained regarding EVs and EV batteries. Much will depend on trends in demand in China and elsewhere, as well as on how multinational producers and governments adapt to these trends.

35 Mays, "Rapid Advance," 300–3.

8

Subsidies and Overcapacity

The Need for an Evidence-Based Approach

By Simon J. Evenett

The pervasive resort to subsidization is said to be a key feature of Chinese state capitalism. At present, there is no comprehensive data set to bear out this contention. More and more evidence is being pieced together—often in sectoral analyses such as the Global Trade Alert's study of the steel sector and the Organization for Economic Cooperation and Development's study of the aluminum sector—that suggests the need for a much more nuanced understanding.[1]

As is often the case in trade policy discourse, exacerbated in part by growing geopolitical tensions, rhetoric has gotten well ahead of the underlying evidence. For example, assertions are often made about the global harm created by the apparent nexus between Chinese subsidies and overcapacity.[2] Demonstrations of causality—relating either to the original subsidies or to the impact of international

1 Simon J. Evenett and Johannes Fritz, *Going Spare: Steel, Excess Capacity, and Protectionism* (London: Centre for Economic Policy Research, May 3, 2018), https://www.globaltradealert.org/reports/44; Organization for Economic Cooperation and Development, *Measuring Distortions in International Markets: The Aluminium Value Chain* (Paris: January 7, 2019), doi:10.1787/18166873. The Evenett and Fritz study reveals the extent of the patchy information collection effort on relevant policy intervention undertaken by the Global Forum on Steel Excess Capacity during the German G20 presidency. The flaw in the forum's approach was to rely on the submissions of governments as opposed to assembling information on relevant policy intervention based on published official sources.

2 The statements made by representatives of several governments at a meeting of the WTO Committee on Subsidies and Countervailing Measures are a case in point. See item 9 in WTO Committee on Subsidies and Countervailing Measures, *Minutes of the Regular Meeting Held on 27 October 2020* (Geneva: World Trade Organization, February 2020), https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/G/SCM/M113.pdf.

initiatives such as the Global Forum on Steel Excess Capacity—are notable by their absence. It appears that the rush to condemn Chinese state practice takes priority.

The premise of this chapter is that deliberations on the ramifications for the world economy of Chinese state capitalism would be better served if they were grounded in evidence. It sketches out some of what is known about the degree of Chinese subsidization, highlights the need for empirically validated theories of harm relating to such subsidies, and makes a plea for a more balanced discussion—given that other governments also dispense significant amounts of state largesse in a far from transparent manner.

Scaling Trade-Related Chinese Subsidies

How much trade in goods is potentially affected by Chinese subsidies? To answer this question, this analysis extracted information on such subsidies recorded in the Global Trade Alert database, which draws from policy announcements by provincial and central Chinese government authorities as well as the financial statements of publicly listed Chinese firms.

That database contains information on 4,098 subsidies awarded by Chinese state bodies from November 1, 2008 (soon after the outbreak of the global financial crisis) to December 31, 2020. This database is updated frequently, providing ever-better documentation of Chinese subsidies—the statistics presented here are best seen as a statement of what is known as of early 2021.[3] No country has more subsidies recorded in the Global Trade Alert database than China: over 3,800 of the subsidies recorded in the Global Trade Alert database are classified as financial grants to Chinese firms, principally publicly listed companies.

Perhaps due to concerns about resulting trade distortions, attention tends to focus on the awarding of new Chinese subsidies or increases in the magnitude of subsidies. However, China frequently cuts assistance as well. Of the 4,098 subsidy interventions in the Global Trade Alert, a total of 1,569 involved the reduction or elimination of subsidies from one year to the next. A balanced account of Chinese subsidization should reflect both increases and decreases in state largesse.

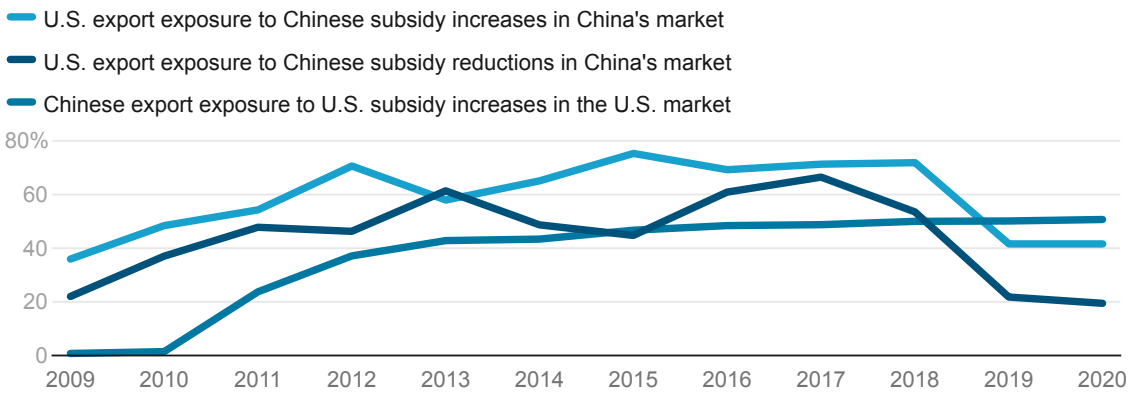
Counts of policy intervention are useful but do not shed light on the quantity of commerce at stake. Where it was possible to tie a subsidy to producers of a particular good, the second step was to calculate (for each year) the share of total goods imported into China that are in sectors where local firms have received state largesse. Moreover, with data on a trading partner's exports to China, it is possible to calculate the share of that trading partner's exports competing in Chinese markets against local firms that have received some type of subsidy.

The top blue line in Figure 8.1 shows the share of bilateral U.S. goods exports in competition against Chinese rivals that have received subsidies for the first time or for which subsidies have been increased. These export shares do not take into account subsidies awarded to Chinese firms before November 2008 (the starting date for the Global Trade Alert database). However, the estimates reported below do include the date when a subsidy is unwound or removed.

3 The Global Trade Alert team is undertaking an intensive data collection effort this year on subsidies awarded by China, the European Union, and the United States with the goal of publishing a report before the G20 Leaders' Summit in October. Readers are cautioned that the statistics presented here could be revised (almost certainly upward).

Figure 8.1

The Scale of U.S.-China Bilateral Trade Covered by Subsidies



Source: "Data & methodology," Global Trade Alert, accessed February 12, 2021, https://www.globaltradealert.org/data_extraction.

Note: The falloff of U.S. export exposure to Chinese subsidies in 2019 and 2020 is almost certainly due to delayed reporting of subsidies received by publicly traded Chinese firms. This database's coverage of subsidies has expanded considerably during the third quarter of 2021, and readers are urged to consult the Global Trade Alert website for more up-to-date information.

As shown in Figure 8.1, by 2015, approximately 70 percent of U.S. goods exports to China competed against at least one subsidized local rival that saw an increase in the support it received. To the extent that the Global Trade Alert has failed to document subsidy increases, the true percentage is likely higher. The implied percentages fall off in 2019 and 2020. This is because of the reporting lags by Chinese publicly listed firms (which are mandated to report their receipt of certain subsidies).

The exposure of U.S. goods exporters to Chinese firms that have had their subsidies reduced or eliminated is also sizeable (see the middle, darkest blue line in Figure 8.1). That exposure peaks at 66 percent in 2017 and falls sharply in 2019 and 2020 (again for reporting lag reasons). Comparing the top and middle lines in this chart reveals that, on net, U.S. export exposure to Chinese subsidy increases is larger than to Chinese subsidy reductions. Interestingly, apart from 2014 and 2015, these lines move in sync.

Compared to What? The United States Also Has a Subsidy Problem

China does not have a monopoly on state largesse. The comparable export share for Chinese shipments to the United States was calculated in an identical manner for 2009 to 2020. Those shares—which reflect Chinese export exposure to U.S. subsidies—are plotted in Figure 8.1 and reveal that, by 2020, half of Chinese goods exports competed against U.S.-based firms that had received subsidy increases.

Further analysis reveals that these subsidies are primarily awarded by U.S. state governments (and some cities), not by the U.S. federal government. U.S. states and municipal authorities scaled up their

subsidies well before President Trump was elected and before the subsequent U.S.-China trade war.[4] The subnational dimension to U.S. subsidization should not be overlooked.

The United States appears to have a subsidy problem as well—not just in scale, but also in transparency. Very few U.S. cities and states comply with the Government Accounting Standards Board's (GASB) Statement #77 mandating full disclosure of tax abatements to firms. U.S. criticism of a lack of Chinese transparency about subsidies smacks of the pot calling the kettle black.

The Subsidy-Overcapacity Nexus

In narrow trade-policy terms, trading partners have a stake in the evolution of Chinese state capitalism for several reasons: (1) their companies may operate in the Chinese market, (2) Chinese firms may sell or invest in foreign markets or seek to do so, and (3) other governments may emulate Chinese policies. In what follows, the focus is on the second reason insofar as it relates to "overcapacity" in Chinese manufacturing sectors.

The salience of the claims about Chinese overcapacity in manufacturing need not be rehearsed here. Instead, it is worth observing the successful campaign mounted by non-Chinese steel producers to persuade many Group of Twenty (G20) governments that this was a first-order challenge facing the world trading system. Subsequently, concerns about excess capacity in other sectors were raised. Moreover, overcapacity was elevated to a "systemic threat" to the world trading system and folded into the currently fashionable "level playing field" agenda beloved by many trade diplomats critical of Chinese state capitalism.

This position is based on an in-depth assessment the author conducted with Johannes Fritz of the claims made about the systemic impact of excess capacity in the Chinese steel sector in particular and in the manufacturing sector in general. These findings were published in a Global Trade Alert report entitled Going Spare: Steel, Excess Capacity, and Protectionism.

This report does not make comfortable reading for policymakers and officials who uncritically accepted the arguments advanced by the steel sector. The implications reach wider, however, as the very concept of excess capacity is hard to pin down, let alone measure.[5] Microeconomists and industrial-organization economists have found it very difficult to translate the theoretical concept of excess capacity into a meaningful, operational metric. In short, the concept of excess capacity does not provide a sound basis for the conduct of international economic relations.

Wanted: An Empirically Validated Theory of Harm

In addition to shaky conceptual foundations, no validated theory of harm has been articulated and demonstrated by critics of Chinese subsidization and attendant overcapacity. Ultimately, Going Spare found that the case of systemic negative spillovers created by Chinese manufacturing capacity was unproven. This does not let Chinese policymakers off the hook—because any Chinese policies that induce uneconomic production capacity represent a waste of resources when compared to

4 Simon J. Evenett, "Economic Statecraft: Is There a Sub-National Dimension? Evidence from United States–China Rivalry," *World Trade Review* 20, no. 2 (May 2021), 220–37, doi:10.1017/S1474745620000506.

5 Evenett and Fritz, *Going Spare*, 43–45.

their opportunity costs. However, when condemning Chinese excess capacity, very rarely have trade diplomats explained how such excess capacity has harmed their nation's commercial interests.[6]

Figure 8.2

The (Infamous) Case of Chinese Excess Capacity in Steel: A Potential Theory of Harm

Source: Author's own creation.

The term "theory of harm" is used in antitrust law to describe how a corporate practice may impair buyers, suppliers, or some other third party. Antitrust experts demand a well-specified theory of harm so that they can identify the evidence needed to assess the nature and consequences of an alleged corporate misdeed. That theory is then tested against evidence and against potential alternative explanations for the market outcomes observed. This way of thinking should be adapted to assessments of the cross-border impact of foreign economic policies.

In the case of allegations of harm done by excess capacity in the Chinese steel sector, a potential theory of harm is laid out in Figure 8.2. It is important to verify each of the six steps and the linkages between them empirically before accepting the proposition that a Chinese policy of subsidization has resulted in harm to foreign trading partners. Key steps in the chain of logic can break down. For example, greater production capacity does not necessarily result in more production, nor in more exports.

Even if there are more Chinese steel exports, other factors determine competitive conditions in the world steel market (including simple supply and demand). Furthermore, some countries, such as the United States, have long erected so many barriers to importing steel (through the repeated application of unfair trade laws) that it would be difficult to argue that any recent expansion in Chinese steel capacity has had adverse consequences in the U.S. market due to direct exports from China.

There may be harm to trading partners from excess capacity in the Chinese manufacturing sector. However, the case has yet to be convincingly made based on sound analysis of the industrial structure of the sectors in question and of associated trade flows. It is unclear why trade policy officials and those who seek to influence them should be held to a lower evidentiary standard than those enforcing antitrust laws.

To date, as far as the alleged harm done by excess capacity in the Chinese manufacturing sector is concerned, the required evidentiary standard has not been met. This is a pity because, with such evidence, the global policy community could assess whether this is a systemic or localized problem. Such evidence would also inform the type of policy interventions that would blunt any adverse cross-border harm.

6 For more details, see Evenett and Fritz, *Going Spare*, 46–48.

Concluding Remarks

The lack of transparency concerning subsidies awarded by China and by other nations exacerbates trade tensions. For all the talk of the impact of market-distorting subsidies on the global trading system, governments and international organizations have done little to systematically collect information on state aid.[7] Worse, many governments have choked off or delayed the flow of information on their subsidies to the World Trade Organization Secretariat. Clearly, there are interests that benefit from this unsatisfactory state of affairs—both inside China and elsewhere.

Compounding this limited evidence base is the absence of any serious discussion—let alone empirical validation—of a theory of harm concerning the cross-border ramifications of subsidies. The cavalier way discussions on such serious matters are conducted in trade policy circles is in contrast with the exacting requirements demanded in leading jurisdictions on antitrust law enforcement. Why should different standards apply to two economic laws that seek to tackle market distortions?

A further complicating factor in many nations is that subnational governments are often the vehicle for delivering state largesse, and they need not have the same interests or objectives as the central government. Discussions of subsidy reform need to address "by whom." After all, it would be of questionable value to implement far-reaching reforms that limit state largesse by central governments only to see that replaced by greater financial support from city, province, and state governments.

7 This statement also applies to the European Union's state aid regime, which is being progressively weakened over time.

9

China's "Innovation Mercantilism" Reduces the Rate of Global Innovation

By Robert D. Atkinson

Most analysis of China's mercantilist economic and trade practices has focused on its impacts on production and jobs in affected countries. But the aperture needs to be widened to consider the effect on innovation outside of China.[1] Logic suggests that China's "innovation mercantilist" policies have harmed the pace and amount of global innovation because Chinese firms are far from the frontier in virtually all industries, taking market share from innovation leaders. Indeed, China turned to innovation mercantilism in 2006 (as reflected in its Medium- and Long-Term Plan for the Development of Science and Technology and later in the Made in China 2025 initiative) precisely because the government desperately wanted to catch up to foreign technology leaders.

These unfair policies, including limiting access to the rapidly growing Chinese market, reduce the global market share of foreign innovation leaders, in turn reducing their revenue growth and research and development (R&D) spending. This dynamic is particularly problematic in innovation industries (such as biopharmaceuticals, software, and semiconductors) characterized by high fixed costs relative to marginal costs and that rely on the largest possible global markets to cover those fixed costs.[2] Moreover, firms in innovation

1 This chapter is based on the recent Information Technology and Innovation Foundation (ITIF) report, Robert D. Atkinson, I*ndustry by Industry: More Chinese Mercantilism, Less Global Innovation* (Washington, DC: ITIF, May 2021), https://itif.org/publications/2021/05/10/industry-industry-more-chinese-mercantilism-less-global-innovation.

2 Phillip Aghion et al., "Competition and Innovation: An Inverted-U relationship," *Quarterly Journal of Economics* 120, no. 2 (May 2005): 701–728, https://www.ucl.ac.uk/~uctp39a/ABBGH_QJE_2005.pdf; F.M. Scherer, "Market Structure and the Employment of Scientists and

industries rely heavily on intellectual property (IP) protection to justify their steep investments in R&D, and when Chinese firms get access to that IP without paying market rates—or, as is often the case, without paying anything at all—other companies' returns are lessened, limiting their ability to continue to innovate.

Certainly, some Chinese government technology policies, such as supporting early-stage research and encouraging science, technology, engineering, and mathematics (STEM) graduates, enable both national and global innovation. But China has deployed an array of policies to gain global market dominance over advanced technology industries. Most of these policies—including forced technology transfer and domestically allocated markets—are clearly harmful to global innovation because they weaken incentives for investment by foreign firms while supporting innovation laggards and reducing the market share of more innovative firms (see Table 9.1). While some policies, such as China's R&D tax credit, could help global innovation, this credit is more generous for Chinese firms than foreign ones, creating discriminatory effects that may, on net, harm global innovation.

Table 9.1

Assessing China's Innovation Policies on Global Innovation

TYPE OF POLICY	IMPACT ON GLOBAL INNOVATION
Funding technology development and sharing with Chinese firms	Harmful
Forced technology transfer	Harmful
Intellectual property theft	Harmful
Currency manipulation	Harmful
Export financing above OECD guideline levels	Harmful
Tariffs	Harmful
Government-allocated domestic market shares to Chinese firms	Harmful
Political hardball to gain access to foreign markets	Harmful
Supporting corrupt business practices among foreign firms	Harmful
R&D tax incentives favoring Chinese firms	Neutral
R&D subsidies favoring Chinese firms	Neutral
Low-cost financing for Chinese firms only	Neutral
Limited export-control regime	Neutral
Supporting STEM education	Helpful
Supporting more rapid broadband rollout, including 5G networks	Helpful

Source: Robert D. Atkinson, *Industry by Industry: More Chinese Mercantilism, Less Global Innovation* (Washington, DC: ITIF, May 2021), https://itif.org/publications/2021/05/10/industry-industry-more-chinese-mercantilism-less-global-innovation.

Engineers," *American Economic Review* 57, no. 3 (June 1967): 524–531, https://www.jstor.org/stable/1812118; and Toshihiko Mukoyama, "Innovation, Imitation, and Growth with Cumulative Technology," *Journal of Monetary Economics* 50, no. 2 (March 2003): 361–380, doi:10.1016/S0304-3932(03)00005-9.

China's policies have expanded global market share for Chinese companies, heightening competition in relevant markets. Economic theory suggests that such enhanced competition could have one of two effects. It could spur affected firms to "pedal faster" and try to innovate more quickly to outpace the competition. Alternately, it could diminish revenues, limiting the ability of the affected firms to reinvest in R&D and advanced production, leading to an erosion of innovation abilities.

Economic studies suggest that the latter effect has been predominant. Most studies on the issue find the effects of Chinese economic growth and trade expansion have been negative for innovation—particularly among developed nations in North America and Europe.[3] For example, Autor, Dorn, Hanson, Pisano, and Shu "document a robust, negative impact of rising Chinese competition on firm-level and technology class-level patent production. Accompanying this fall in innovation, global employment, sales, profitability, and R&D expenditure all decline within trade-exposed firms."[4]

The same findings can be seen among case studies. The Information Technology and Innovation Foundation (ITIF) analyzed the impact of Chinese mercantilist policies on five industries: telecommunications equipment, high-speed rail, solar panels, biopharmaceuticals, and semiconductors.[5] The impacts in the latter two industries are more prospective because of the relatively small Chinese market share, but the impacts in the first three are quite sizeable.

In telecommunications, unfair Chinese policies—such as forced tech transfer for market access, blocked Chinese market access, IP theft, government funding of product development, and massive export financing—helped Huawei and ZTE grow and survive. Even Huawei's founder, Ren Zhengfei, acknowledged that without Beijing's policy of protecting Chinese companies from foreign competition at home, "Huawei would no longer exist."[6] Yet Huawei and ZTE are less innovative per dollar of revenue than the global leaders (Ericsson, Nokia, and Samsung), which invest more in R&D and patents and contribute more to international standards, when controlling for sales and size (Figure 9.1). In fact, if Ericsson and Nokia took all of Huawei's and ZTE's sales, ITIF estimated that there would be 20 percent more global telecommunications equipment R&D and 75 percent more essential 5G patents.[7]

The same dynamic exists regarding solar panels and high-speed rail, where less innovative Chinese firms took market share from more innovative foreign firms.[8] As Figure 9.2 shows, solar panel patents

3 Robert D. Atkinson, "Innovation Drag: China's Economic Impact on Developed Nations," *ITIF*, January 6, 2020, https://itif.org/publications/2020/01/06/innovation-drag-chinas-economic-impact-developed-nations.

4 David Autor et al., "Foreign Competition and Domestic Innovation: Evidence from U.S. Patents," National Bureau of Economic Research, Working Paper 22879, December 2017, https://www.nber.org/papers/w22879.pdf.

5 Robert D. Atkinson, "How China's Mercantilist Policies Have Undermined Global Innovation in the Telecom Equipment Industry," ITIF, June 22, 2020, https://itif.org/publications/2020/06/22/how-chinas-mercantilist-policies-have-undermined-global-innovation-telecom; Nigel Cory, "Heading Off Track: The Impact of China's Mercantilist Policies on Global High-Speed Rail Innovation," ITIF, April 26, 2021, https://itif.org/publications/2021/04/26/heading-track-impact-chinas-mercantilist-policies-global-high-speed-rail; David M. Hart, "The Impact of China's Production Surge on Innovation in the Global Solar Photovoltaics Industry," ITIF, October 5, 2020, https://itif.org/publications/2020/10/05/impact-chinas-production-surge-innovation-global-solar-photovoltaics; Robert D. Atkinson, "The Impact of China's Policies on Global Biopharmaceutic al Industry Innovation," ITIF, September 8, 2020, https://itif.org/publications/2020/09/08/impact-chinas-policies-global-biopharmaceutical-industry-innovation; and Stephen Ezell, "Moore's Law Under Attack: The Impact of China's Policies on Global Semiconductor Innovation," ITIF, February 18, 2021, https://itif.org/publications/2021/02/18/moores-law-under-attack-impact-chinas-policies-global-semiconductor.

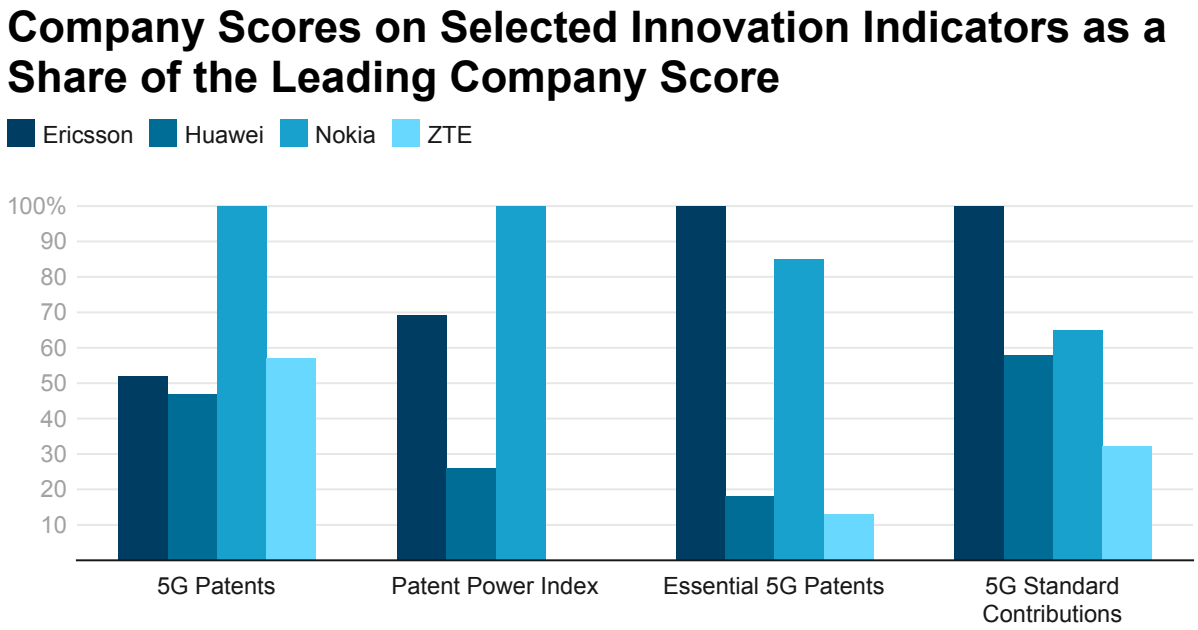
6 Alberto F. De Toni, ed., *International Operations Management: Lessons in Global Business* (London: Routledge, 2016), doi:10.4324/9781315589497.

7 Atkinson, "How China's Mercantilist Policies Have Undermined Global Innovation in the Telecom Equipment Industry."

8 Hart, "The Impact of China's Production Surge on Innovation in the Global Solar Photovoltaics Industry."

peaked in 2011, with Chinese firms receiving a very small share. This was also the year when China's share of the global market reached its peak of nearly 60 percent, up from 14 percent in 2006. Because of massively subsidized Chinese solar producers, many foreign firms could not compete and either went out of business or shrank in size, and these more innovative firms applied for fewer patents. Similarly, in the semiconductor industry, ITIF found that if Chinese firms had 80 percent fewer sales, there would be more than 5,000 more semiconductor patents issued by the U.S. Patent and Trademark Office annually.[9]

Figure 9.1



Source: ITIF calculations.

Although the logic and evidence for China's negative impact on global innovation appear strong, there are several potential objections that need addressing.

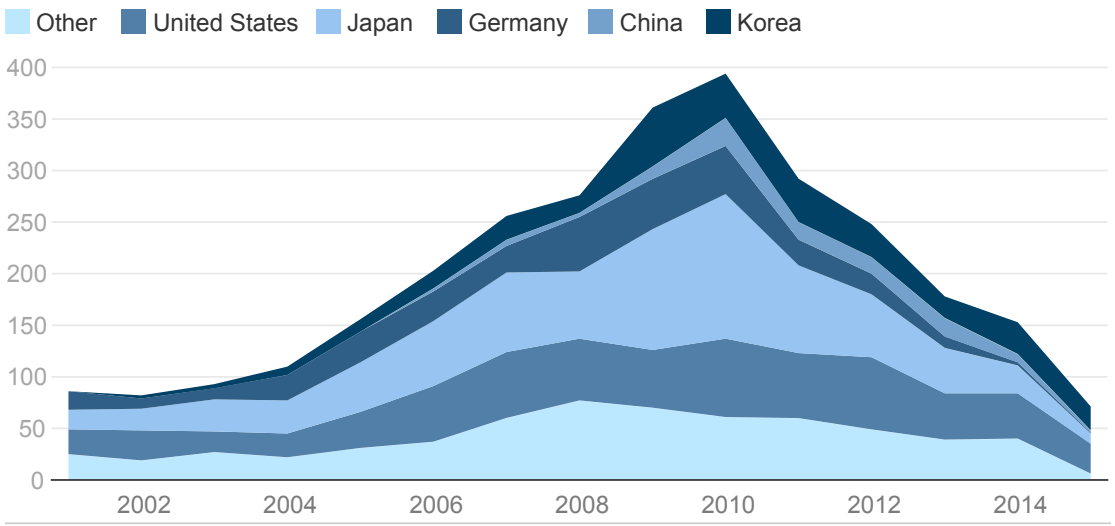
The first is the "we're all sinners" argument. In other words, while China may engage in unfair practices such as subsidies and forced technology transfer, so do most countries. Therefore, China's negative effect is no worse than that of other nations. In this volume, Simon J. Evenett argues that the United States (especially state governments) also provide subsidies, implying that China and the United States are similar. But this ignores two things. Subsidies are not the principal policy tool China uses to gain unfair advantage: forced technology transfer, closed domestic markets, IP theft, and other tactics play a large distorting role, and the United States does not engage in any such similar systematic behaviors. Second, just because two nations engage in the same behavior does not make them equivalent, any more than a 50 percent tariff is equivalent to a 5 percent tariff. In fact, U.S. state government subsidies are quite limited. For example, the Wall Street Journal reports that, as of 2019, Huawei has received around $75 billion in Chinese government subsidies, whereas U.S. tech giant Cisco has received around $44 million, almost all from state governments.[10]

9 Ezell, "Moore's Law Under Attack."

10 Chuin-Wei Yap, "State Support Helped Fuel Huawei's Global Rise," *Wall Street Journal,* December 25, 2019, https://www.wsj.com/articles/state-support-helped-fuel-huaweis-global-rise-11577280736.

Figure 9.2

Triadic Patents for Photovoltaic Inventions by Country, 2001–2015



Source: Martin Kalthaus, "Identifying technological sub-trajectories in patent data: the case of photovoltaics," *Economics of Innovation and New Technology* 28, no. 4 (2019): 407–434.

Second, some argue that even though patenting is lower in industries where China overinvests, this could be the healthy consequence of the maturation of markets, wherein products are now manufactured at scale and diffused through the world. But this dynamic does not apply to the five industries ITIF reviewed, which are continuing to develop cutting-edge products. Telecommunication equipment companies are working on 6G technology. Solar panel companies are working on perovskite solar cells, thin films, and solar paint.[11] High-speed rail companies are working on maglev and hyperloop systems.[12] Semiconductor companies are working on ensuring Moore's Law—which posits that microchip speeds double every two years even as their costs decline—does not come to an end.[13] And the biopharmaceutical industry is amid a technological revolution based on genomics and nanomaterials.

Third, there may be a difference in the global innovation effect of constructively innovative Chinese companies and those that are built upon copying and subsidized production. In other words, although Huawei and the China Railway Construction Corporation (CRCC) were technology laggards whose government-supported growth hurt foreign innovation leaders, there may be other Chinese sectors and companies that are leaders in their own right and whose advancement also advances global innovation. Here, one might point to Baidu, Alibaba, and Tencent, which appear to be innovating significantly in various areas, including artificial intelligence and payments processing. (Interestingly,

11 Tufan Mukhopadhyay, "Current and Upcoming Innovations in Solar Cell Technologies," PreScouter, September 2020, https://www.prescouter.com/2020/09/current-and-upcoming-innovations-in-solar-cell-technologies/.

12 Saikat Dutta, "Five Innovations that Could Shape the Future of Rail Travel," The Conversation, October 19, 2020, https://theconversation.com/five-innovations-that-could-shape-the-future-of-rail-travel-147962.

13 Ezell, "Moore's Law Under Attack."

while these firms benefited significantly from the Chinese government limiting access for foreign competitors, they do not appear to have received significant direct government support and, in fact, have recently been under significant attack.) Also potentially constructive are China's efforts to develop a national digital currency, which would be a net addition to global innovation.[14] In sum, when China intervenes unfairly in particular sectors or technologies, its effect on global innovation is likely to be negative. But when it provides an enabling environment for innovation, it can contribute to innovation in China and globally.

Fourth, in this volume Evenett emphasizes that there is very little evidence Chinese subsidies have actually harmed others. Intel is still producing chips, the U.S. biopharmaceutical industry is still innovating, and Ericsson and Nokia are still producing 5G equipment. But this is a bit like saying that unless the patient is in the hospital, there is no harm. And, as noted above, for many companies the harm is that they are not even bigger and investing even more in R&D. They may still exist and be profitable, but because of unfair Chinese policies they are not as innovative as they could be. Moreover, many "patients" were in the hospital and "died." Hundreds of solar-panel companies in developed nations went out business because of unfair Chinese policies; Nortel, a global leader in telecommunications equipment, went out of business because of competition from Huawei and Chinese IP theft.[15]

Finally, some argue that China's spending creates big markets that spur innovation. Case in point is China's unprecedented investment in high-speed rail, smart cities, renewable energy, and 5G networks. Such demand-pull policies are critical to innovation.[16] The problem comes when Chinese governments limit the bidders for these projects to less innovative Chinese firms rather than allowing competitive, merit-based bidding, wherein many more contracts would go to foreign innovation leaders.

In summary, the challenge of Chinese innovation mercantilism is not just to the U.S. economy and national security. It is to innovation itself across a wide array of sectors around the globe. It is common for pundits to say that it is good that China is innovating because Chinese companies might invent the cure for cancer. That statement would only be true if China were innovating in a way consistent with Organization for Economic Cooperation and Development (OECD) guidelines on appropriate innovation policy—such as by supporting basic, early-stage research, funding research universities and STEM education, allowing open markets, and protecting IP. But because China has chosen an innovation mercantilist model, China's gains in treating cancer (to use this example) will almost surely be offset by losses in other nations with more innovative biopharmaceutical firms.

If the desire is a world with a robust rate of technological innovation—and everyone should if they value human life, the planet, and increasing standards and quality of life—then the entire world has a stake in encouraging China to roll back its innovation mercantilism and replace it with the type of effective and non-distorting innovation policy most OECD nations engage in.

14 James T. Areddy, "China Creates Its Own Digital Currency, a First for Major Economy," *Wall Street Journal*, April 5, 2021, https://www.wsj.com/articles/china-creates-its-own-digital-currency-a-first-for-major-economy-11617634118.

15 Robert D. Atkinson, "Who Lost Lucent? The Decline of America's Telecom Equipment Industry," *American Affairs* 4, no. 3 (Fall 2020), https://americanaffairsjournal.org/2020/08/who-lost-lucent-the-decline-of-americas-telecom-equipment-industry/.

16 Robert D. Atkinson and Jackie Whisman, "Podcast: Global Supply Chains Under Pressure, with Willy Shih," ITIF, May 5, 2020, https://itif.org/publications/2020/05/05/podcast-global-supply-chains-under-pressure-willy-shih.

10

Mitigating the Risks of China's State Capitalism

By Daniel J. Ikenson

Introduction

In earlier chapters of this volume, fellow contributors describe the origins, evolution, and institutions of Chinese state capitalism. Others assess whether and how China's approach distorts markets. Here the discussion turns to policies that might encourage Beijing to change course or—at the very least—help mitigate the risks Chinese state capitalism presents to the global economy.

Some contributors doubt that Beijing would deviate from its model of state capitalism, at least not without clear and compelling evidence that its approach is failing. In Chapter 2, Barry Naughton notes that "steerage of the economy and society is deeply encoded in the genetic makeup of the Chinese Communist Party [CCP]." He adds that China's "shift to market orientation after 1978 went against attitudes that were deeply engrained in the CCP worldview. Observers may have underestimated how powerful the latent desire for an economic leadership role for the CCP was among the party elite." And in Chapter 11, Arthur Kroeber offers, "Because China's economic system works well for China, Chinese leaders will not take well to arguments for systemic reform, except on terms they have set for themselves."

Another reason Beijing is content with the status quo is that it has not been held to account for state capitalism's externalities. Many of its costs are borne outside of China. The recommendations in this chapter derive from expectations that Beijing will not change course meaningfully unless and until

China is made to bear a much greater share of the costs of its approach. Accordingly, U.S. policy should prioritize mitigating Chinese state capitalism's impact on the United States while ultimately aiming to persuade Beijing that its economic model is also too costly for China.

Mitigation first requires identifying problems and their consequences. In Chapter 8, David Coffin describes the distortions Beijing's largesse has created in the global electric-vehicle and automobile-battery markets. Subsidies drive down costs to industry of research, development, and production in China, raising barriers to entry in other countries. At best, it is a zero-sum game, with the rents shifting toward Chinese industry.

By Rob Atkinson's accounting (Chapter 9), Beijing's artificial prominence in the technology ecosystem is negative-sum. Atkinson argues that by channeling resources to innovation firms that are not at the technological fore—and are therefore unlikely to generate the returns necessary for the next generation of technological investment—Beijing is not just cornering rents but also obstructing innovation and depriving humanity of its benefits.

Simon J. Evenett (Chapter 8), on the other hand, is unconvinced a credible case has been made that Beijing's market interventions are causing any harm. By the evidentiary standards of Western legal norms, there is no problem to remediate!

A Broader Conception of Distortions

The mitigation measures recommended below respond to a broader conception of the distortions caused by Chinese state capitalism. For many years, conventional wisdom in Washington was that if Beijing wanted to support certain industries and subsidize U.S. consumption in the process, Americans should be sure to thank them for their beneficence. After all, the costs of top-down interventions would be borne in China in the form of malinvestment and slower economic growth, while the benefits of access to cheaper goods would accrue to the rest of the world.

It turns out that thinking was shortsighted. Beijing's "steerage" could be tolerated when the Chinese economy was smaller and its leadership was committed to moving away from state control toward greater market orientation. But, as Andrew Batson notes (Chapter 3), China's state-owned enterprises (SOEs) account for 4.5 percent of global GDP today, making China's SOEs larger than almost every other national economy aside from those of the United States, Japan, and Germany.

Today, Chinese state capitalism generates industrial overcapacity in targeted sectors; provides SOEs favorable access to credit and other advantages; chases promising companies, industries, and investment out of the United States; and causes numerous other economic distortions around the world.

Americans and the U.S. political process are at least as concerned about the trade rules ("fairness") as they are about lower costs from trade. The failure of U.S. policymakers to hold China to its commitments—either through World Trade Organization (WTO) litigation, "strategic and economic" dialogues, investment in new trade architecture (such as the Trans-Pacific Partnership), or other channels—has generated political and social blowback, which must be counted among the distortions of Chinese state capitalism.

In response to the global steel glut attributed primarily to excess Chinese production capacity, the U.S. government has expanded the scope of the antidumping law to impose excessive duties on imports of finished steel from other countries based on the assumption that those import costs are lower because the finished steel is comprised of Chinese commodity steel.[1] Here, some of the costs of Chinese state capitalism are being amplified and allocated across industries and countries. Taking advantage of the protectionist, anti-China climate in Washington, in April 2021, Senators Sherrod Brown and Rob Portman of Ohio introduced the Eliminating Global Market Distortions to Protect American Jobs Act, which would significantly lower the evidentiary threshold for finding dumping and injury in antidumping cases.[2] Several other pieces of legislation have been introduced in the 117th Congress, including the Strategic Competition Act and the Endless Frontiers Act, which have been integrated into the U.S. Innovation and Competitiveness Act. These should all be counted among the extensive consequences—the distortions, externalities, and costs—of Chinese state capitalism.

Security Dimension

Beyond the economic, social, and political consequences, it is the security implications of Chinese state capitalism that have generated the most concern in the United States. Barry Naughton reckons one of the reasons for the resurgence of the state in China's economic affairs is Beijing's identification of a "once-in-a-lifetime" opportunity to "get in on the ground floor of a technological revolution and vault into the leading ranks of economic and technological powers." The emergence of a new general purpose technology, "founded on the triangle of communication, data, and artificial intelligence," provides justification and urgency for industrial policy to hasten adoption of such technology in a race between strategic competitors. Naughton adds, "The volume of resources supporting an interventionist government [technology] policy rose especially rapidly between 2015 and 2018 and shows no signs of decreasing."

Indeed, since publication of the Medium- and Long-Term Plan for Science and Technology in 2006, Beijing has set its sights on technological self-sufficiency, which more recently evolved into a quest for technological preeminence. Even before the launch of the Made in China 2025 initiative, Beijing was contesting U.S. technological primacy in some areas, funneling hundreds of billions of dollars per year into research, development, and production. It was also underwriting efforts to conduct technology theft on a grand scale, as well as extorting technology and other assets from U.S. businesses as the price of entry into the Chinese market.

In fairness, it is hard to fault Beijing for its efforts. Being king of the technological hill confers all sorts of strategic advantages—commercial, cybersecurity, intelligence, and military—including, perhaps most importantly, a head start in the race to develop the next generation of technology.

For the same reasons, Washington should not be faulted for trying to thwart Beijing's progress. Staying ahead of China in the technology race—or getting ahead, with respect to 5G and 6G networks—is simply a U.S. national security imperative that should be treated as such. Beijing and Washington agree

1 Daniel J. Ikenson, "Tariffs by Fiat: The Widening Chasm between U.S. Antidumping Policy and the Rule of Law," Cato Institute, Policy Analysis no. 896, July 16, 2020, https://www.cato.org/policy-analysis/tariffs-fiat-widening-chasm-between-us-antidumping-policy-rule-law.

2 Senator Rob Portman, "Portman, Brown Introduce Legislation to Strengthen Trade Remedy Laws, Protect American Workers," Press Release, April 16, 2021, https://www.portman.senate.gov/newsroom/press-releases/portman-brown-introduce-legislation-strengthen-trade-remedy-laws-protect.

that primacy in the next generation of technology could lock in advantages with very serious security implications for years and decades to come.

Policy Options

What can be done to mitigate these costs? Of course, the "solution" would be for Beijing to admit to the problems caused by its approach, agree to loosen its grip on the economy's steering wheel, and return China to the reformist, market-liberal path it seemed to be pursuing when it joined the WTO in 2001. But, for now, that option is a non-starter.

Some measures could help mitigate the costs, and others could shift part of the burden onto Beijing—all while keeping communication channels open. Those measures might include "high-level dialogues" devoted to managing overcapacity issues, WTO rules revisions, new bilateral trade rules, more aggressive use of domestic trade laws, or greater transparency requirements. But why indulge—and legitimize—China's behavior this way? It will only encourage more transgressions.

What is the point of insisting on greater corporate transparency when it is already known, as Callahan and Milhaupt (Chapter 14) note, that "publicly listed, globally active Chinese corporations are hybrid commercial policy actors whose attributes are not contemplated by transnational economic and market regulatory regimes" and whose global investments and operations already "raise legitimate national security and other regulatory concerns in the United States and elsewhere?" How well would insistence on greater transparency stand up to a regime that is committed to the primacy of SOEs and the practice of military-civil fusion?

Meanwhile, the WTO—and the General Agreement on Tariffs and Trade before it—was established as a set of rules agreed upon and applied to market economies whose leadership was committed to trade liberalization and the letter and spirit of its constituent agreements. In the years preceding China's accession to the WTO, Beijing agreed to major reforms and committed itself to a path of liberalization. Those reforms—and the promise of more reforms—accelerated China's economic growth.

Thus, what would be the value in securing new WTO commitments when, as Daniel Crosby (Chapter 12) notes, "China's recent structural interventions in its national economy and in foreign trade operations illustrate major shortcomings concerning compliance with its 'systemic WTO obligations' to let the market allocate economic resources and trading opportunities." There is simply a vast disconnect between Chinese state capitalism and the basic principles of the WTO. The cases to challenge these interventions should have been filed, and China should already have been made to come into compliance with existing rules.

Instead, China and the United States disregard WTO rules whenever doing so is assumed to serve their interests. For example, the U.S.-China Phase I Agreement, issued in January 2020, is discriminatory, violates both countries' WTO obligations, and, as Crosby notes, relies on Beijing's ability "to influence commercial decisions of enterprises in China." Those incentives are profoundly at odds with the point of agreeing to new commitments.

To the extent distortions can be countervailed through domestic trade laws or managed through multilateral capacity or production agreements, those approaches can help treat the symptoms. But they cannot cure the disease. They cannot be used effectively to discipline a state that has chosen to

act outside the rules as a matter of course. Most importantly, they cannot address concerns about the impact of Chinese state capitalism on the race for technological preeminence and its related national security implications.

Where such state capitalism is distorting and threatening, restricting trade and investment may be the best option.[3] Tightening export controls, expanding the list of entities with which U.S. companies are prohibited from transacting, instituting investment restrictions, and sealing off other conduits for theft of intellectual property are among the ways the Biden administration (like the Trump administration before it) is trying to keep cutting-edge U.S. technology—and the advantages it bestows—out of the wrong hands.

Restricting engagement in this manner is not a "solution" but a trade-off, as are all policy choices, which require properly weighing the costs and benefits of each option. When choosing among alternatives, the optimal policy is that which maximizes the expected net benefits (expected benefits minus expected costs).

Among the commonly discussed costs of restricting Chinese access to U.S. technology are lower revenues and smaller market shares for U.S. firms, a hastening of China's pursuit of self-sufficiency, and a splintering of the global technology ecosystem. But that must be weighed against the security and economic benefits obtained by restricting China's access to U.S. technology. Moreover, perhaps Beijing's enshrining of the goal of self-sufficiency in semiconductors and other technologies—and its sanctifying of all the measures deployed in service to that goal—already committed China to the "decoupling" outcome long ago.

In other words, developments were already heading in this direction, so these outcomes should not be considered costs of the U.S. policy response. A recent study by the Rhodium Group and the U.S. Chamber of Commerce grapples with the herculean task of identifying the many categories and manifestations of costs and benefits that must be taken into consideration to comprehensively assess the net benefits of a mostly depressing set of policy options. Among its conclusions is that:

> China's leadership is focusing attention on economic self-sufficiency, and there are few signs that it is prepared to address Western complaints about distortions arising from the state's role in the economy or to reduce its application of economic statecraft and coercion abroad. In the words of President Xi, China seeks to tighten the dependence of international industrial chains on its economy to form a "powerful retaliatory and deterrent capability." Though CCP leaders continue to promote a message of broader and deeper opening up—which will benefit select foreign industries, such as financial services and insurance—Beijing's overall policy agenda is clearly oriented toward increasing China's own indigenous technological power and economic self-sufficiency.[4]

The best U.S. course of action may be to maintain export controls and investment restrictions and to put and keep Chinese entities on the Bureau of Industry and Security (BIS) Entity List. But those

3 For elaboration, see Dan Ikenson, "China's Long March To Technological Preeminence Threatens U.S. Security," *Forbes*, March 5, 2021, https://www.forbes.com/sites/danikenson/2021/03/05/chinas-long-march-to-technological-preeminence-threatens-us-security.

4 Daniel H. Rosen and Lauren Gloudeman, *Understanding U.S.-China Decoupling: Macro Trends and Industry Impacts* (Washington, D.C.: Rhodium Group and U.S. Chamber of Commerce, 2021), 69, https://rhg.com/research/us-china-decoupling/.

measures can be made more surgical, less distortionary, and more effective; they can be designed and implemented to minimize collateral damage and encourage the support and cooperation of allies. The Trump administration committed many errors in its conduct of trade policy, probably none more significant than its disregard for the utility of soft power in advancing U.S. interests. By pulling out of the Trans-Pacific Partnership, hitting most of the world with tariffs on steel and aluminum, and then waging a trade war with China, Washington's blindness to the necessity of alliances could not have been made any clearer.

To close loopholes and buttress the U.S. effort, the Biden administration should move quickly to terminate the U.S.-China Phase I deal. It is a discriminatory trade agreement that gives preference to U.S. businesses over European (and other) businesses and enables Beijing to drive wedges between the United States and its allies. Terminating that deal would give Biden leverage to convince the European Union to completely abandon, not just place in purgatory, its Comprehensive Agreement on Investment (CAI) with China and provide momentum toward building a durable Western alliance—to include Japan, India, Australia, and others—that can work together to neutralize some of the many market distortions created by Chinese state capitalism.

11

Taking On China's "Venture Capitalist State"

By Arthur R. Kroeber

China's mixed economy has exhibited high-speed growth, technological progress, and resilience to shocks. Despite numerous predictions over the years of collapse or sclerosis due to excessive political control, drag from unproductive state-owned enterprises (SOEs), or financial instability, China's economy continues to grow substantially faster than that of any developed country—and about as fast as other high-growth emerging economies such as India and Indonesia. Despite criticisms that its economy is "unbalanced," with too much investment and too little consumption, consumer spending has grown twice as fast in China over the past 25 years as in any other country. Despite warnings that rising inequality would undermine the social contract, surveys suggest that most Chinese have positive views of the system and of their future economic opportunities.[1]

China has responded more effectively to external economic shocks than many other countries. During the 1997–98 Asian financial crisis, it maintained relatively high economic growth, increased its rate of investment (while investment in the rest of the region collapsed), and undertook key structural reforms that boosted productivity. Following the 2008 global financial crisis and the outbreak of Covid-19 in 2020, its economic recovery was swifter and arguably more robust than those of the

1 Edward Cunningham, Tony Saich, and Jessie Turiel, "Understanding CCP Resilience: Surveying Chinese Public Opinion Through Time," Harvard Kennedy School, Ash Center for Democratic Governance and Innovation, July 2020, https://ash.harvard.edu/publications/understanding-ccp-resilience-surveying-chinese-public-opinion-through-time; and Bruce Dickson, *The Dictator's Dilemma: The Chinese Communist Party's Strategy for Survival* (New York: Oxford University Press, 2016).

United States and Europe. In short, China's system is flexible and adaptable, its market mechanisms function well in most respects, and the quality of governance (both macroeconomic and in other respects) is generally high.

These observations lead to two conclusions. First, the baseline assumption should be that China will keep growing at a relatively rapid rate (4 to 5 percent a year) for the next decade. Second, because China's economic system works well for China, Chinese leaders will not take well to arguments for systemic reform, except on terms they have set for themselves.

Thus, China has a distinctive economic system resistant to outside pressure, and China's economy will likely be much larger, both in absolute terms and relative to the world economy, in the coming years. This bigger economy will have a far higher degree of state involvement than any other major country and will probably have more companies that are directly competitive with U.S. and European ones in technology-intensive sectors. The question, then, is how much of a problem is this for the United States and global economic institutions, and how can it most effectively respond.

"State Capitalism" Only Part of the Picture

To answer these questions, it is critical to first describe the nature of the Chinese system and how it is evolving. "State capitalism" is an imperfect label because it captures only part of a more complicated reality in which three features stand out.

1. **China has fairly unfettered markets for most goods and services but a restricted market for corporate control.**

   Prices for the vast majority of final goods and services were fully marketized by the end of the 1990s.[2] Progress on liberalizing the prices of factor inputs—labor, land, energy, and capital—has been more uneven, but the general trend has been toward liberalization. Most product markets are highly competitive, with dozens or hundreds of viable participants. Service markets vary, but many are also quite competitive, regardless of whether they are populated mainly by private firms (such as with the internet) or state firms (such as in finance).[3]

   The picture changes, however, when looking at the market for corporate control. The key fact here is that many important companies in a wide range of sectors are owned by state entities (e.g., the central government, local governments, or collections of other SOEs). There is no market for control of these enterprises. Changes in ownership can only occur administratively, by decisions of central or local governments. Thus, for about a quarter of the Chinese economy, there is no obvious pathway to reduce the state's ownership role. This is an important constraint on the efficacy of market forces.

2 Nicholas Lardy, *Markets Over Mao: The Rise of Private Business in China* (Washington, DC: Peterson Institute for International Economics, 2014).

3 Kai-fu Lee, a venture capitalist and former Google executive in China, has a compelling description of the cutthroat competition in China's internet sector, which he argues was far more important than state support for the rise of internet companies such as Alibaba and Tencent. Kai-fu Lee, *AI Superpowers: China, Silicon Valley and the New World Order* (Houghton Mifflin Harcourt, 2018), 51–80.

2. **There is an unusually large—but fragmented—state role, both in direct ownership of assets and in resource allocation.**

   As Andrew Batson's contribution to this volume shows, the overall state-sector share of Chinese (GDP has been roughly constant at a little over 25 percent since the late 1990s.4 This share is larger than for any major economy except Russia. Perhaps more important is the state's role in finance. Virtually all significant Chinese financial institutions are state owned. And while most operate in a competitive market, several large ones enact state policies. Finally, the state can organize non-financial (but cash-rich) SOEs to make investments in strategic projects.

   The Chinese state's financial role is unusually large, but not monolithic. Some state companies are owned by agencies of the central government, others by local governments, and still others by groups of additional SOEs. Moreover, state enterprises serve a wide range of functions, not just the execution of industrial policy. These include promoting political cohesion, overseeing economic redistribution (such as by state-led investment programs in underdeveloped regions), and performing industry regulatory functions that in other countries are done by government agencies.

3. **There is an unusually large role for foreign-invested enterprises.**

   China has long been the second-most popular destination for foreign direct investment, behind the United States. Foreign-invested enterprises enjoy large, growing, and profitable positions in many sectors. Between 2010 and 2018, U.S. company affiliates in China saw their annual sales nearly double from $303 billion to $580 billion, a far faster rate of growth than their sales in the rest of the world.[5] Foreign firms have also had an unusually large role in China's export sector, accounting for 36 percent of China's exports in 2020—well down from the peak of 56 percent in 2006, but still an extraordinarily high figure. About 55 percent of China's exports now come from private firms, while SOEs account for only 8 percent of China's export value and collectively run a large trade deficit.[6]

   Foreign companies are also crucial to technology value chains in China. Many of the tech-intensive goods produced in China are still not of China, in that much of the intellectual property and profits are attributable to foreign firms. This continues to be the case even in industries China has designated as "strategic." By various estimates, for instance, 85 to 94 percent of the value of semiconductor production in China is controlled by foreign companies.[7]

4 See also Andrew Batson, "The State Never Retreats," Gavekal Dragonomics, October 1, 2020, https://research.gavekal.com/article/state-never-retreats.

5 "Activities of U.S. Multinational Enterprises, 2018," U.S. Bureau of Economic Analysis, August 21, 2020, https://www.bea.gov/data/intl-trade-investment/activities-us-multinational-enterprises-mnes.

6 Author calculations based on "CEIC Data Global Database," CEIC Data, https://info.ceicdata.com/en-products-global-database. See also Arthur Kroeber, *China's Economy: What Everyone Needs to Know*, 2nd ed. (New York: Oxford University Press, 2020), 81–82.

7 Antonio Varas et al., *Strengthening The Global Semiconductor Supply Chain in an Uncertain Era* (Washington, DC: Boston Consulting Group and Semiconductor Industry Association, April 2021), https://www.semiconductors.org/wp-content/uploads/2021/04/SIA-BCG-Report_

These features suggest that calling China a "state capitalist" economy is too simple. The image it invites—of a unitary "state" directing the activities of most corporations toward strategic ends—does not account for the high degree of market competition in most sectors, the complex array of state actors with often cross-cutting objectives, or the outsized role of foreign firms in technology and exports.

The "Venture Capitalist State"

Undoubtedly, both the strategic ambition and the coordinating capacity of the Chinese Party-state have steadily increased in the past two decades. Strategic ambition is evident in the "Made in China 2025" industrial plan and other elements of the "innovation-driven development strategy" that target a range of high-tech industries for massive investment. Increased coordinating capacity is evident in at least two ways. First is the ability of the state to orchestrate large-scale financing for strategic objectives, both directly (through "government guidance funds") and indirectly (by fostering an environment where private-sector funding of strategic industries is attractive).[8] Second, the Chinese Communist Party's control of SOEs (through improved disciplinary tools) and influence over private companies (through state ownership stakes and mandatory Party committees) is increasingly effective.[9]

In his chapter here and elsewhere, Barry Naughton calls this combination of ambition and coordinating capacity "grand steerage," a term that accurately conveys the aspirations of state policymakers.[10] One could also describe it as the "venture capitalist state," an analogy that captures the variety of actors, the fact that both state direction and market forces play important roles, and the indeterminacy of the final destination. The Chinese government organizes a portfolio of investments in a range of technology industries, financed both by the general partner (the state) and limited partners (private-sector and foreign capital). Once financed, the companies operate in largely competitive markets. For the strategy to work—meaning that economic growth is sustained and China's overall technological level is raised—it is not necessary that all bets pay off. The bets that do win just need to deliver enough of a return to pay for the capital wasted on the losing bets.

Defining an Appropriate Response

How should the United States respond to these developments? First, the United States should acknowledge that aspiration does not equal outcome and input does not equal output. China has a technological development plan and ample financing; there is no guarantee of how successful this

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Strengthening-the-Global-Semiconductor-Supply-Chain_April-2021.pdf; Saif Khan, Alexander Mann, and Dahlia Peterson, *The Semiconductor Supply Chain: Assessing National Competitiveness* (Washington, DC: Georgetown University Center for Security and Emerging Technology, January 2021), https://cset.georgetown.edu/wp-content/uploads/The-Semiconductor-Supply-Chain-Issue-Brief.pdf; and "China Forecast to Fall Far Short of its 'Made in China 2025' Goals for ICs," IC Insights, January 6, 2021, https://www.icinsights.com/news/bulletins/China-Forecast-To-Fall-Far-Short-Of-Its-Made-In-China-2025-Goals-For-ICs/.

8 A recent Organization for Economic Cooperation and Development (OECD) study explains both explicit and implicit financial support for Chinese semiconductor firms and how this compares to government support for global integrated-circuit companies. See "Measuring Distortions in International Markets: The Semiconductor Value Chain," OECD, *OECD Trade Policy Papers*, no. 234, December 12, 2019, doi:10.1787/8fe4491d-en.

9 See the contributions in this volume by William Norris; Michael Callahan and Curtis J. Milhaupt; and Wendy Leutert and Sarah Eaton.

10 Barry Naughton, *The Rise of China's Industrial Policy, 1978 to 2020* (Mexico City: Universidad Nacional Autonoma de Mexico, 2021), https://dusselpeters.com/CECHIMEX/Naughton2021_Industrial_Policy_in_China_CECHIMEX.pdf.

"venture capitalist state" will be. Past Chinese industrial policy efforts have delivered decidedly mixed results, and the fact that more money is attached to present efforts does not mean that the success rate will be higher.[11]

Even if this program succeeds in upgrading China's technological capacities, it is not clear that it will create Chinese-controlled companies that seriously threaten the positions of U.S. technology industries. One possible outcome is that China evolves technology industries and markets that continue to afford big profit and innovation opportunities for foreign companies, either by creating new niches within the Chinese market or because China's commoditization of certain technology products facilitates global innovation in fields for which those products are inputs.

Second, the United States should recognize that much of China's technology drive is essentially defensive. Its investments in semiconductors, for instance, reflect the reality that China's technology industries remain heavily dependent on imported chips and that its domestic chip production depends on equipment that is a virtual monopoly of the United States and its allies. While Chinese leaders talk about their desire for global technology "leadership," much of their activity appears aimed at technology self-sufficiency. If China succeeds in becoming more technologically self-sufficient by creating second-best domestic alternatives with limited global competitiveness, this does not necessarily mean that U.S. technology industries are in peril. In fact, excessive efforts by the United States to "decouple" the U.S. and Chinese economies could wind up being more costly—and more harmful to the global competitiveness of U.S. firms—than simply learning to live with heightened competition from Chinese companies.[12]

Finally, the United States should be precise about the sources of its discontent. There are several aspects of China that Americans find problematic:

- China is huge and increasingly successful in sectors that have traditionally been U.S. strengths;
- China's "state capitalism" distorts global markets in ways that seriously harm U.S. companies and industries; and
- Americans do not like the nature of the Chinese state and view China's increased strength as a national security risk.

The response to the first concern is mainly to strengthen U.S. competitiveness. This can include investing in infrastructure, research and development (R&D), and education; refreshing the technical talent pool through immigration; and adopting policies in areas such as taxation and competition to ensure strong incentives for productive business investment. In a few cases, specific industrial policies may be needed to maintain or create U.S.-based capacity in sectors that are important for economic self-sufficiency or national security. These should be narrowly targeted in order to avoid rent seeking.

11 See, for instance, Scott Kennedy, *The Fat Tech Dragon: Benchmarking China's Innovation Drive* (Washington, DC: Center for Strategic and International Studies, 2017), https://www.csis.org/analysis/fat-tech-dragon; and Scott Kennedy, *China's Risky Drive into New-Energy Vehicles* (Washington, DC: Center for Strategic and International Studies, 2018), https://www.csis.org/analysis/chinas-risky-drive-new-energy-vehicles.

12 Antonio Varas and Raj Varadarajan, *How Restrictions to Trade With China Could End US Leadership in Semiconductors* (Boston: Boston Consulting Group, March 2020), https://image-src.bcg.com/Images/BCG-How-Restricting-Trade-with-China-Could-End-US-Semiconductor-Mar-2020_tcm9-240526.pdf; and Daniel H. Rosen and Lauren Gloudeman, *Understanding U.S.-China Decoupling: Macro Trends and Industry Impacts* (Washington, DC: U.S. Chamber of Commerce and Rhodium Group, February 2021), https://www.uschamber.com/report/understanding-us-china-decoupling-macro-trends-and-industry-impacts.

In general, the government should focus on developing a favorable ecosystem via infrastructure and R&D rather than supporting specific producers.

The second problem demands two types of response. If market distortions are real and harmful, then U.S. firms are not the only victims, so coordinated pressure via multilateral and plurilateral mechanisms (both formal and ad hoc) should be preferred. Despite the logic of Daniel Crosby's argument in this volume, existing formal mechanisms such as the World Trade Organization (WTO) most likely cannot be reformed to address the problems created by China. It will probably be necessary to create or strengthen new mechanisms, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). In general, shaping the international environment in which China operates is likely to be more productive than direct negotiations aimed at getting China to change its domestic arrangements. But any such negotiations will be more successful if they take place in an international context that gives China incentives to reform in order to maintain access to the global system.

In crafting these responses, it is essential to define the actual harm arising from China's state actions and show that this harm is at least somewhat systemic. Simply pointing to the size of state intervention on the input side is not enough. Huge Chinese government support for its semiconductor, aviation, and automotive industries over the past two decades has not created globally competitive rivals to U.S. semiconductor, aviation, or automotive firms. Critics often point to China's subsidization of its solar-panel industry as an example of harmful intervention, since it led to the demise of U.S. solar-panel companies and R&D.[13] Yet climate change analysts unanimously hold that cheaper solar panels from China have been a massive boon for the world's transition to a carbon-free future. In this case, the harm to a small niche industry is vastly outweighed by a systemic benefit. Any shortfall in cutting-edge R&D can be remedied by government research support.

Finally, any economic activities by the Chinese state or Chinese companies that pose an identifiable threat to U.S. national security should be firmly countered. These cases are few in number, though occasionally serious. The rising tendency of U.S. policymakers to characterize every intervention by the Chinese state in its own economy—and every international economic activity by China—as a threat to U.S. national security and a revisionist effort to overturn the existing global economic system should be resisted. A stronger China is only a threat to the United States to the extent that the United States allows itself to become weak. By exaggerating the challenge, the United States will damage its international credibility and make it harder to enlist allies and focus on the specific problems it needs to address.

13 David M. Hart, "The Impact of China's Production Surge on Innovation in the Global Solar Photovoltaics Industry," Information Technology and Innovation Foundation, October 5, 2020, https://itif.org/publications/2020/10/05/impact-chinas-production-surge-innovation-global-solar-photovoltaics.

12

Chinese State Capitalism and the Challenge of Systemic Interface with the Multilateral Trading System

By Daniel C. Crosby

This chapter addresses whether a new multilateral arrangement is necessary to serve as an interface between market-oriented economies and China's alternative economic system, which its authorities refer to as a "socialist market economy with Chinese characteristics." After reviewing the current situation with China and the World Trade Organization (WTO), this chapter outlines a process for assessing whether the existing multilateral trading system can coexist with China's economic system and whether particular elements of China's system can be dealt with through the WTO. Ultimately, there are several interface options for revising a multilateral system to create a stable and pragmatic interface between market and hybrid/non-market economic systems.

Expected Systemic Convergence

The WTO—and the General Agreement on Tariffs and Trade (GATT) before it—accommodated different kinds of economic systems along a broad spectrum from planned to mixed to more free-market economies. However, the major GATT contracting parties and WTO members generally maintained market-oriented systems founded in the rule of law, including specific obligations regarding transparency, judicial independence, and equal treatment based on the application of non-discretionary rules. Even in cases where governments owned trading enterprises, they did not generally intervene in trade or enterprise management to distort international trade outside of agreed rules and exceptions. Countries that did not guarantee the predominance of market forces and rule of

law were either completely excluded from the multilateral trading system or were only allowed to join on discriminatory terms deemed necessary to control for state-directed trade distortions.[1]

The challenges of interfaces between economic systems are not new to the multilateral trading system. In the context of non-market economies (NMEs), one of the earliest observers of systemic differences under the GATT remarked that "fundamentally the GATT is based on a market-economy view of world trade, where state authorities which collect duties, fix standards and so on, are clearly distinct from the traders themselves."[2] A leading scholar of the GATT/WTO system noted, "The post–World War II international trading system is obviously based on rules and principles that more or less assume free market oriented economies. The rules of GATT certainly were constructed with that in mind."[3]

According to economist logic, market-oriented economies and NMEs cannot interact fairly in "unconditional" market-based trade agreements such as the GATT or WTO because they cannot guarantee mutually beneficial market access when governments—not market forces—dictate competitive outcomes.[4] In addition, governments of NMEs have typically offered little transparency concerning their intentions, policies, or legal regimes, to say nothing of judicial independence or access to economic data on trade regimes, all of which have been unconditionally required by substantive GATT rules since 1947.[5]

In light of these systemic incompatibilities, governments with market-oriented economies cannot guarantee that: (1) their own companies and workers will enjoy equal opportunities for market access or legal protections in NME systems; (2) imports from NMEs will compete against market-oriented producers on fair market conditions; and (3) trade-related employment gains and losses will reflect a fair and efficient allocation of resources. As a result of incompatibilities between these economic systems, under the GATT and WTO, unconditional most-favored nation (MFN) treatment was only applied among market-oriented economies that were committed to the same basic principles of economic openness, market orientation, nondiscrimination, and rules-based competition.[6]

China's WTO Systemic Commitments

China's GATT and WTO accession negotiations were delayed until Beijing could assure members of its commitment to transitioning to a market-oriented system. Based on formal statements

1 For a discussion of GATT relations with the Soviet Union, the Council for Mutual Economic Assistance (CMEA), and the People's Republic of China, see Jozef Wilczynski, *The Economics and Politics of East-West Trade: A Study of Trade Between Developed Market Economies and Centrally Planned Economies in a Changing World* (New York: Macmillan, 1969); K. Grzybowski, "Socialist Countries in GATT," *American Journal of Comparative Law* 28, no. 4 (Autumn 1980): 539–554, doi:10.2307/839705; and Béla Csikós-Nagy and David G. Young, eds., *East-West Economic Relations in a Changing Global Environment* (New York: Macmillan, 1986).

2 M. M. Kostecki, *East-West Trade and the GATT System* (London: MacMillan, 1979), 60.

3 John H. Jackson, "State Trading and Nonmarket Economies," *International Lawyer* 23, no. 4 (Winter 1989): 891–908, https://www.jstor.org/stable/40706876.

4 Ibid., 891–92.

5 "The General Agreement on Tariffs and Trade," WTO, opened for signature October 30, 1947, available at https://www.wto.org/english/docs_e/legal_e/gatt47_01_e.htm.

6 Under U.S. law, granting MFN treatment to China and other state trading systems was conditioned on the countries' commitments to introduce systemic changes to ensure that U.S. companies could benefit from trading opportunities dictated by commercial conditions and market competition. See 19 U.S. Code § 2905 - Accession of state trading regimes to General Agreement on Tariffs and Trade or WTO, available at https://www.law.cornell.edu/uscode/text/19/2905.

and binding commitments made by China during its WTO accession negotiations, members expected that China would continue to reform its economic system to be consistent with WTO principles, as well as specific rules and obligations limiting state interference in the economy and business decisions by state-owned enterprises (SOEs).[7] For example, in addition to its recognition that "decisions by state-owned and state-invested enterprises had to be based on commercial considerations as provided in the WTO Agreement," China specifically committed that the state would not influence trade and business operations (emphasis added):

> 46. The representative of China further confirmed that China would ensure that *all state-owned and state-invested enterprises would make purchases and sales based solely on commercial considerations*, e.g., price, quality, marketability and availability, and that the enterprises of other WTO Members would have an adequate opportunity to compete for sales to and purchases from these enterprises on non-discriminatory terms and conditions. In addition, *the Government of China would not influence, directly or indirectly, commercial decisions on the part of state-owned or state-invested enterprises, including on the quantity, value or country of origin of any goods purchased or sold, except in a manner consistent with the WTO Agreement*. The Working Party took note of these commitments.[8]

As observed during China's accession negotiations,

> The main challenge ahead is for the WTO to ensure that China's large state-owned economy does not enable the country to evade the effective responsibilities and policies of GATT/WTO, even though the socialist market economy can be in complete conformity with the technical rules of the WTO.[9]

Beijing's retrenchment in statist economic intervention—and its expansion of intervention to China's "private" sector—further expands the original challenge. In particular, China's recent structural interventions in its national economy and in foreign trade operations illustrate major shortcomings concerning compliance with its "systemic WTO obligations" to let the market allocate economic resources and trading opportunities. For instance, the implementation of China's Phase One Agreement with the United States to increase purchases of U.S.-origin goods and services depends on Beijing's ability to influence the commercial decisions of enterprises in China. New requirements to strengthen the influence of SOEs and establish Chinese Communist

7 As China's negotiators assured members of the working party, the crucial difference between a socialist market economy and a capitalist market economy lies in the difference of ownership. Public ownership plays a predominant role in China while private ownership serves as a foundation for capitalist countries. However, in terms of economic mechanisms such economic principles as comparative advantage, supply and demand relationships, and market competition must be observed in developing market economies regardless of different social and economic systems. In short, the new system of socialist commodity economy China pursues is the one in which "the state regulates the market and the market orientates enterprises" by integrating both forms of regulations through planning and the market, so as to ensure the predominant role of public ownership. "The Progress and Objective of China's Economic Structural Reform," GATT Working Party on China's Status as a Contracting Party, June 1, 1988, 8, https://www.wto.org/gatt_docs/English/SULPDF/92260060.pdf.

8 World Trade Organization, *Report of the Working Party on the Accession of China* (Geneva: 2001), https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=Q:/WT/ACC/CHN49.pdf. The phrase "the Working Party took note of these commitments" confirms that they are legally binding under China's WTO Protocol of Accession.

9 Jan Hoogmartens, "Can China's Socialist Market Survive WTO Accession? Politics, Market Economy and Rule of Law," *Law and Business Review of the Americas* 7, no. 1 (Winter/Spring 2001): 37–83, https://scholar.smu.edu/lbra/vol7/iss1/4/.

Party (CCP) committees in all private companies also illustrate the retrenchment of statist economic policy in China.[10]

WTO Compatibility of the "Socialist Market Economy with Chinese Characteristics"

Following a post-accession honeymoon, "the illusion has been shattered" that China will integrate into the liberal international order.[11] As more details of its new direction in economic management emerge, it has become clear that the country has decided to turn away from rules-based, market principles and return to Party-state intervention and expanded state ownership and control of broad swathes of its economy.[12]

Since 2017, China has formally offered its "socialist market economy with Chinese characteristics" as an alternative economic model for "blazing a new trail for other developing countries to achieve modernization."[13] China's alternative model raises fundamental—and perhaps irreconcilable—concerns of systemic compatibility with the rules-based trading system that has existed since 1947.[14]

As more non-market elements of China's alternative system come to light, WTO members need to be prepared to decide whether to maintain a global trading system based on either: (1) convergence around a market-oriented, rules-based order or (2) coexistence with China's "socialist market economy with Chinese characteristics."

Assessing the "socialist market economy with Chinese characteristics" within the WTO framework faces the preliminary hurdle of identifying the contours of Party-state intervention in the Chinese economic and trading system. In the absence of reliable official information, such an assessment of China's economic system will need to be informed by input from a range of specialists on China's economic and political system. In addition to determining compliance with China's sectoral trade commitments, the assessment should consider "systemic" obligations that frame the limits of Party-

10 Scott Livingston, "The Chinese Communist Party Targets the Private Sector," Center for Strategic and International Studies, October 8, 2020, https://www.csis.org/analysis/chinese-communist-party-targets-private-sector. According to guidelines published in September 2020, CCP units in private firms have formally asserted their influence: "Ye Qing, vice-chairman of the All-China Federation of Industry and Commerce - an organization in charge of linking private businesses and CCP departments - clarified what that entails. According to Ye, firms should strengthen the socialist system with Chinese characteristics by recognizing in their charter the leading role of the party, as well as their support for party work, including through specific funding. While CCP guidelines are not binding on non-party entities, such as private businesses, writing them in corporate charters leads to a legal codification of CCP requirements." Jérôme Doyon, "Influence without Ownership: the Chinese Communist Party Targets the Private Sector," Institut Montaigne, January 21, 2021, https://www.institutmontaigne.org/en/blog/influence-without-ownership-chinese-communist-party-targets-private-sector.

11 "How the West got China wrong," *The Economist*, March 1, 2018, https://www.economist.com/leaders/2018/03/01/how-the-west-got-china-wrong.

12 Nicholas R. Lardy, *The State Strikes Back: The End of Economic Reform in China?* (Washington, DC: Peterson Institute for International Economics, January 2019), 2. Although praising China's unprecedented economic performance until 2012, Lardy observes, "Since 2012, however, this picture of private, market-driven growth has given way to a resurgence of the role of the state in resource allocation and a shrinking role for the market and private firms."

13 "Socialism with Chinese characteristics enters new era: Xi," Xinhuanet, October 18, 2017, http://www.xinhuanet.com/english/2017-10/18/c_136688475.htm.

14 Alan William Wolff, "COVID-19 and the Future of World Trade," virtual presentation to the Korean International Trade Association, May 27, 2020, https://www.wto.org/english/news_e/news20_e/ddgaw_27may20_e.htm. According to WTO Deputy Director-General Wolff, "The fundamental underlying assumption of the WTO is that market forces will dictate competitive outcomes. Few if any of the rules would have their intended positive effect if commercial considerations — price, quality, delivery, and the like — were overcome by political considerations such as the implementation of buy national policies due to government influence."

state intervention in state-owned and private enterprises, taking into account government "measures," evidence regarding company statements and actions, and market research.

In addition to identifying and understanding direct and indirect Party-state interventions in the economic and trading system, the "WTO compatibility assessment" by like-minded members will need to consider China's compliance with other systemic aspects of WTO rules, including:

1. Influencing the issuance of credit by state-owned banks to support SOEs and state industrial policy on a non-commercial basis;
2. Violating the letter and spirit of WTO intellectual property rules by conducting state-sponsored economic espionage and requiring technology transfers as a condition of market access;
3. Limiting the export of raw materials, manufacturing inputs, and finished products;
4. Applying national security restrictions to the movement of data, controlling trade and economic data, and gathering personal data that affects the supply of goods and services in the digital economy;
5. Providing subsidies that create excess production capacity and distort world markets;
6. Leveraging access to China's market to advance geopolitical and political purposes in retaliation for actions by foreign states and companies;
7. Violating WTO transparency and reporting requirements, including for subsidies and measures affecting state trading and private enterprises; and
8. Implementing judicial independence of Chinese courts and administrative authorities in trade disputes.

Systemic Interface for Coexistence

The nature of any multilateral systemic evolution will depend on the outcome of the fact-based WTO compatibility assessment. If the assessment confirms that China's Party-state does not influence trade and economic outcomes—or that new or strengthened rules, with enhanced enforcement, can address shortcomings—then no new systemic architecture will be needed, and China will continue its efforts to "converge" into the market-oriented system.

However, if the assessment of China's economic system concludes that the measures taken by the Party-state to influence trade and economic outcomes cannot be sufficiently identified, isolated, or trusted (due to the lack of transparency), or if the assessment identifies measures that cannot be reconciled with WTO rules and principles, these findings should be published and openly debated at the WTO with China and interested members. In the end, decisions will need to be made based on available facts. Where information is not available or reliable, presumptions will need to be made, and measures applied accordingly.

The core logic of any necessary alternative systemic interface should seek to balance China's non-market interventions with "managed trade" because, absent market-based outcomes, governments determine outcomes. Under a market-NME interface, China decides outcomes; under an NME-managed trade interface, trading partners have the opportunity to decide on outcomes together. In

order to limit trade management as much as possible, the parties should try to identify sectors where market principles prevail and where rule of law shortcomings do not prejudice outcomes, and they should agree not to manage those sectors. However, renewed attention to the full range of "level playing field" issues—such as those concerning labor and the environment—will complicate the assessment and create challenges for the new interface.

WTO members can find potential solutions in the GATT experience, when countries in transition to market economies committed to reforming their economic systems and negotiated quantitative import commitments in order to manage trade increases with market economies in a verifiable manner. In addition, the GATT established special safeguard regimes to protect market-oriented economies from increases in state-directed trade.[15] The GATT interface with non-market-oriented economies was based on non-MFN treatment and specific rules that addressed systemic incompatibilities and imbalances while accommodating countries' desire to engage in limited, verifiable, and mutually beneficial trade.

A critical mass of WTO members can be expected to commit to a serious revision of the "interface" function of the WTO because the United States has already created a non-MFN bilateral interface with China through the Phase One Agreement. The continuing deterioration of political and economic relations with China and the wider recognition of the incompatibility of China's system with the WTO will bring countries together to assess whether to: (1) create an alternative trading system to the WTO without China or (2) revise the WTO to include a non-MFN interface to address the non-market aspects of China's alternative system. The second alternative would be more desirable as a commercial and practical matter because countries want to trade with China and need a framework for doing so, notwithstanding differences in their economic systems.

Although the specifics of any alternative system would evolve through negotiations, it is reasonable to predict that a hybrid multilateral system based on conditional MFN status could create a stable and pragmatic interface between market and hybrid economic systems.

15 See Wilczynski, *The Economics and Politics of East-West Trade;* Grzybowski, "Socialist Countries in GATT"; and Csikóos-Nagy and Young, *East-West Economic Relations*.

13

No Silver Bullet

By Claire Reade

The chapters in this volume by Daniel Crosby, Daniel Ikenson, and Arthur Kroeber flag a range of issues and offer various possible responses to the challenge of Chinese state capitalism, including obstacles created by the actions of the Chinese "venture capitalist state," as Kroeber puts it. The bottom line is that there is no silver bullet. Some progress seems possible over time, but (as discussed below) only if the United States undertakes a candid assessment of how much each potential response can accomplish and then persists with a broad array of long-term initiatives. The most progress will likely come from U.S. initiatives to strengthen U.S. assets at home, with important (but perhaps incremental) gains from other efforts. This challenge involves playing a three-dimensional chess game requiring concerted, savvy action—and restraint—over the long term and on many fronts.

Chinese state capitalism creates economic risks to future innovative and market-based industries competing with Chinese industries propped up by the state. If the state capitalist system ends up putting too much power in the hands of a regime that can seriously constrict or hobble open systems, it also creates national security issues regarding specific technologies and the future U.S. national welfare. Finally, as Ikenson points out, such a system creates important political issues regarding unfair trade and bad behavior, starting with resentment at the imbalance in opportunity for foreign companies (due to limited market openness and major Chinese subsidies) and at Chinese gangster-style pressure tactics used to stifle economic activity when Beijing is angry with

a trading partner. The tensions are then compounded by broader human rights concerns. This combination of problems makes policy solutions especially complex.

Chinese state capitalism presents another conundrum: There is a need to act strategically now to try to mitigate risks and avoid significant potential damage from policies being implemented by a huge and growing global player. At the same time, it is important not to overreact, lest the U.S. economy and national security be harmed.

An even more difficult problem stems from the fact that the United States is, in effect, trying to respond while in the middle of an ongoing, unprecedented phenomenon. No country has been in this situation before against such a global behemoth, and no one knows what damage Chinese activity will cause—nor which policies in response would be terribly counterproductive, effectively throwing all the babies out with the bathwater. In other words, the United States is both experiencing and conducting a very important experiment that is generating new data in real time.

While historians and economists will have much to say about this in 50 years, the consensus seems to be that the United States cannot afford to stand back and simply measure what is happening without responding right away. But given the huge uncertainties regarding the impact of new policies on the heavily interdependent global economy, it seems prudent to start aggressively with the steps that have clear significant upsides—and to proceed judiciously with other policies, staying alert for their implications, measuring as much as possible, and adjusting accordingly. In formulating policy, it is also critical to acknowledge both the limited U.S. leverage over China and the limits to U.S. allies' interest in aligning with the United States. That does not mean shrugging off work in those domains, but it does mean maintaining completely realistic expectations.

Start by Taking Measures at Home, Both Offensive and Defensive

This complex situation underscores how wise it is to start by doing what can be controlled, which is to take positive action at home to improve and safeguard the future. That includes strengthening safety nets such as healthcare—including access to contraception and other women's health measures—as well as improving and expanding childcare, education, wages, worker training, and physical and digital infrastructure. It is also critical to strengthen the United States' economic future in every way possible, including in terms of innovative capacities; the United States needs to improve incentives for basic research and development (R&D) and examine tax and other policies to ensure they are not hobbling business.

U.S. policies can likewise limit the negative impacts of Chinese state capitalist policies with carefully targeted investment and technology reviews, export controls, oversight of data flows, and the like, while avoiding overreach that could throw the entire U.S. economy into disarray. Similarly, work can be done to try to ensure Chinese business interactions in the U.S. sphere are more trustworthy by imposing more (universal and reasonable) requirements to meet standards, provide information, allow investigations or audits, and otherwise enhance transparency. Accounting rules, Securities and Exchange Commission (SEC) disclosures, and environmental and labor laws all seem ripe areas for further work. The overarching rule will continue to be: comply or do not come in. As discussed below, if U.S. allies echo these kinds of policies, their impact will be even more significant.

U.S. trade-remedy laws offer another unilateral tool, but they have limits. Injury or an imminent serious threat may emerge too late to allow an optimal remedy. Further, these laws are very granular and therefore do not deal efficiently with broader challenges from an entire economic system. Sanctions laws may also play a role and, if addressed at very large Chinese players, may have a significant impact.

Multilateral Efforts Have Value, but Keep Expectations Realistic

The multilateral arena includes formal institutions and agreements, as well as informal arrangements with allies. As a first step, it makes sense to reset the World Trade Organization (WTO) so the United States can use it to make China meet existing WTO rules. It can be difficult to enforce some of these rules in practice; for example, evidence gathering is a challenge in the context of both subsidies and the activities of state-owned enterprises. However, WTO rules do create a minimum floor that limits what has long been understood as very problematic economic behavior by China, and it seems counterproductive to eliminate these regulations despite their real limitations in dealing with certain current problems, much less new issues not yet covered by the rules.

Crosby (in Chapter 12) indicated it would be worth trying to change the current WTO rules to treat China the way the WTO handles non-market countries in transition, but it is hard to see this happening given the WTO consensus such an action would require. Other efforts to change WTO subsidy rules, heighten restraints on forced technology transfer, and combat the distortions created by excess-capacity industries face the same constraint. However, they can heighten awareness of the issues China raises and perhaps indirectly pressure China to mitigate certain practices. Over the longer term, it is even conceivable that China might view some of these rules as helpful for its own future.

Efforts to create new trade rules can move forward with allies in non-WTO settings—or conceivably in plurilateral negotiations tied to the WTO where not all members have to participate. It seems doubtful that U.S. allies would abandon the WTO, at least for the foreseeable future. That makes a proposal to set up a comprehensive "WTO 2.0" agreement without China, as Crosby suggests may be needed, appear out of reach for now.

It seems more realistic to put energy into working with allies on important cooperative projects, wherein countries may act independently but operate in parallel to draw up harmonized, beneficial national rules that together create a positive rules ecosystem. One example could involve creating secure and trusted supply chains that work for key products and services. This will be a complex, granular effort that will be further complicated by needing to determine which supply chains to disrupt and rework. Additional gains seem achievable if other major economies engage in "parallel play" on business rules, technology and investment reviews, export controls, data flows, transparency, and standards wherein domestic interests—not just a U.S. ask—can be drivers to generate change.

It is also possible to use allies' unified positions to pressure China to change in some spaces, assuming ally consensus can be gained. Again, a reality check is key. The United States and the European Union have yet to agree to a free trade agreement, despite the obvious value of this kind of harmonization vis-à-vis China. In other words, this kind of ally alignment effort is more difficult than it may appear to an outsider. However, issues that touch on national security, economic security, climate, labor, and

safety may offer opportunities if they fall in areas where China could move. These could include areas where change is in China's self-interest or where it could be isolated for not acting in a respectable manner.

Bilateral Negotiations with China Could Generate Some Additional Gains

While joint action with allies can create amplified political pressure—compared with the United States alone objecting to Chinese actions—the Trump administration used unilateral tariffs and bilateral talks as its primary tool to try to bring about change in China's behavior. The Trump administration's actions certainly disrupted China's expectations and, in the short term, generated Chinese energy toward addressing some U.S. concerns regarding state capitalist policies and other distortions created by Chinese protectionism.

Going forward, while there are clear limits to this tariff strategy in the long term, Ambassador Katherine Tai, the U.S. trade representative, has pointed out that "no negotiator walks away from leverage."[1] Even granting that the Phase One Agreement runs counter to many stabilizing principles for global trade—and that its purchase commitments run directly counter to open-market competition—the terms of the deal do grapple with some of the realities of Chinese state capitalism.

Thus, as a pragmatic matter (and unlike Ikenson's view), it seems important not to jettison the Phase One Agreement until there is better leverage in place—which seems unlikely in the near term. This deal was agreed to at the highest levels in China, so Beijing would lose face if it significantly breached its terms. (It remains to be seen how the purchasing commitments will ultimately go, but the policy commitments are largely on track.) The agreement is not just for two years; it has an indefinite duration. Further, it not only includes some valuable commitments but has also set up some useful infrastructure that allows U.S. officials to interact directly and frequently with the appropriate high-level officials in China—unlike past, frustrating diplomatic customs, under which U.S. officials often could not speak easily to the true power brokers in the Chinese system. The Phase One infrastructure also allows the United States to take prompt action if commitments are unfulfilled.

It would be useful to see whether leverage from existing tariffs and the Phase One Agreement mechanisms can remove the additional important distortions in China's market that have been flagged as issues for years, ranging from intellectual property theft to market access restrictions to discriminatory subsidies. This would be most feasible where the blockage comes from corruption or vested interests in China and where, overall, it is better for China in the longer term to remove the distortion. Again, this would be an incremental gain, but a step forward nonetheless.

What Not to Do

China's official media outlets have again begun to buzz about the value of "dialogue" for dealing with problems. The past has demonstrated convincingly how dialogue can instead function as a vehicle for China to avoid taking constructive steps forward. It will be important not to put resources into

1 Jonathan Ponciano, "Trade War: Biden Administration Not Ready To 'Yank' China Tariffs, But Open To Talks," *Forbes*, March 28, 2021, https://www.forbes.com/sites/jonathanponciano/2021/03/28/trade-war-biden-administration-not-ready-to-yank-china-tariffs-but-open-to-talks/.

"talk fests" that substitute for action. Forums such as the Asia-Pacific Economic Cooperation or the Organization for Economic Cooperation and Development can serve as workshops that educate participants about issues, advance new approaches to problems, and build data that supports action, but hard work will be required to prevent international fora from being used to smother an issue.

14

The Rule of Law in the U.S.-China Tech War

By Michael Callahan and Curtis J. Milhaupt

Introduction

U.S. policy is increasingly being influenced by suspicion of links between Chinese companies and the Chinese Party-state and military. These suspicions have been fueled by President Xi Jinping's economic strategy, his focus on state-owned enterprises (SOEs), and his emphasis on loyalty to the Chinese Communist Party (CCP) in all aspects of Chinese society, including the corporate realm.

Suspicions are most prominent in the tech sphere. The battle lines of this conflict are now well drawn and include technologies such as 5G networks, artificial intelligence, biotech, robotics, space technologies, and other advanced components that confer economic and military advantage in the twenty-first century. At the same time, the internet's promise of an autonomous, borderless means of communication is giving way to a "splinternet" comprised of competing democratic and authoritarian governance regimes.[1] These forms of technological competition and decoupling between the United States and China implicate enormously consequential policy issues spanning the realms of national security, data protection, and the innovative capacity of national economic systems.

1 Marietje Schaake and Tyson Baker, "Democratic Source Code for a New U.S.-EU Tech Alliance," Lawfare, November 24, 2020, https://www.lawfareblog.com/democratic-source-code-new-us-eu-tech-alliance.

Technological competition between the world's two largest economies has produced a legal thicket of statutes, regulations, and executive orders in areas including foreign investment, data storage and privacy, and access to the U.S. capital markets. These new legal regimes were created or bolstered due to legitimate concerns about the geo-economic impact of transactions that implicate control over advanced technology and data. Yet the regulatory uncertainty they engender has greatly complicated many aspects of the prosaic but fundamental work of producing innovative companies and technologies, including cross-border investment, mergers and acquisitions, and talent procurement.

This chapter approaches the big policy issues in the U.S.-China tech war from the ground up, by exploring how the legal regimes—recently developed in both countries to wage the tech war and operationalize technological decoupling—affect cross-border deal making and domestic innovation. Ironically, the rule of law necessary to maintain continued vibrancy in U.S. high-tech sectors may be compromised of some of the very actions ostensibly taken to protect these sectors from malign foreign influence.[2]

The chapter proceeds in three parts. The first contextualizes U.S. concerns over Chinese firms by summarizing recent research into CCP influence on Chinese corporate governance. The second section describes the legal landscape practitioners must navigate to operate businesses across borders or make deals involving cross-border investments and acquisitions in high-tech sectors, highlighting the regulatory uncertainty engendered by the current political and legal environment for U.S.-China tech relations. The final section focuses on concrete measures to improve the transparency and effectiveness of national security and data protection regimes in the United States while advancing a second crucial objective: maintaining a regulatory environment conducive to technological innovation.

Party-State Inc. and U.S. National Security Concerns

Recent research highlights the increasing infusion of the CCP into Chinese corporate governance, a development likely to exacerbate suspicions about the motives of Chinese firms investing in or accessing capital from U.S. markets. The research has emphasized the blurred dichotomy between SOEs and privately owned enterprises (POEs) in China and the problems entailed in measuring the degree of Party-state influence in these firms by the level of state equity ownership; the ways in which China has adapted the corporate form and used state influence over the corporate sector to serve the interests of the political regime; and the "party-building" policy of elevating and formalizing the role of the CCP in the governance of SOEs, a policy that politically connected POEs have also voluntarily followed.[3] Party building in particular has potentially serious implications for foreign investors and policymakers.[4] This and other research suggests that many publicly listed, globally active

2 China has thus far managed to develop economically without a robust rule of law. The authors expect recent developments in the mainland and Hong Kong to increase regulatory uncertainty for entrepreneurs even further, with potentially significant implications for China's innovation ecosystem. Given the focus of this volume on U.S. responses to Chinese state capitalism, however, the authors concentrate on implications for the United States.

3 See Curtis J. Milhaupt and Wentong Zheng, "Beyond Ownership: State Capitalism and the Chinese Firm," *Georgetown Law Journal* 103 (March 2015): 665–722, https://law.stanford.edu/publications/beyond-ownership-state-capitalism-and-the-chinese-firm/; Curtis J. Milhaupt, "Chinese Corporate Capitalism in Comparative Perspective," in Weitseng Chen, ed., *The Beijing Consensus?* (Oxford: Oxford University Press, 2017); and Lauren Yu-Hsin Lin and Curtis J. Milhaupt, "Comment Letter to the U.S. Securities and Exchange Commission on the Holding Foreign Companies Accountable Act," SEC, April 5, 2021, https://www.sec.gov/comments/s7-03-21/s70321-8587637-230902.pdf.

4 Lin and Milhaupt's empirical study of the party-building policy highlights the blurriness of the line between SOEs and POEs: more than three years after the policy was implemented, 10 percent of SOEs had adopted no charter amendments in response to the mandatory policy, while

Chinese corporations are hybrid commercial policy actors whose attributes are not contemplated by transnational economic and market regulatory regimes.[5] As such, these firms' global investments and operations raise legitimate national security and other regulatory concerns in the United States and elsewhere. The challenge is to respond to these concerns without undermining the regulatory certainty essential to business operations and investment.

The Tech War's Legal Thicket

CHINA ENTERS THE TECH REGULATORY ARENA

Over the past four years, China has made substantial progress in adopting a comprehensive cybersecurity and data security regime, with wide-ranging implications for cross-border deal making and operations. While this new regime has several central branches, the common theme of protecting national security runs through each, reflecting China's concern about data flows outside China and perceived risks of this data reaching the U.S. government's national security and law enforcement agencies.

China's Cybersecurity Law, effective June 2017, set the broad framework upon which more detailed data protection regulations would be built. The Cybersecurity Law casts a wide net of jurisdiction by governing broadly defined areas of technology, including "critical information infrastructure," "critical network equipment," and "network security products."[6] The Cybersecurity Law also introduced operational risk and uncertainty with three provisions that require companies to: (1) have their data security systems subjected to a "national security review" overseen by the government; (2) store personal information and important business data inside China; and (3) submit to a Chinese government "security assessment" before data may be transferred offshore. Requiring U.S. corporate network-security professionals to allow Chinese government reviews of the technology, process, and operations of some of their most sensitive infrastructure set off immediate alarm bells. Local storage of personal data—in a country notorious for human rights abuses—caused U.S. corporate legal departments concern about their ability to protect customers' privacy and security and adhere to commitments made to these customers.

China followed up with a draft of a Data Security Law, published in July 2020, which focuses on corporate data and doubles down on two areas: (1) data security review by the Chinese government; and (2) regulation of data controllers inside and outside of China.[7] The law's introduction of the

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6 percent of listed POEs had adopted party-building amendments even though the policy was not directed at private firms. Among A-Share listed companies that complied with the party-building policy, 74 percent of the SOEs amended their corporate charters to provide that the internal Party committee must be consulted by the board of directors before taking major decisions, and 37 percent of publicly listed POEs that complied with the policy also did so. Among the same group of listed firms, 41 percent of SOE charters (14 percent of POE charters) now provide that the Party committee must be consulted by management. In addition, 66 percent of publicly listed SOEs (23 percent of POEs) that amended their charters now allow the CCP to nominate corporate directors and senior managers. Each of these charter provisions deviates significantly from globally accepted corporate governance norms. See Lauren Yu-Hsin Lin and Curtis J. Milhaupt, "Party Building or Noisy Signaling? The Contours of Political Conformity in Chinese Corporate Governance," *Journal of Legal Studies* 50, no. 1 (January 2021): 187–217, doi:10.1086/713189.

5 Mark Wu, "The 'China, Inc.' Challenge to Global Trade Governance," *Harvard International Law Journal* 57, no. 2 (Spring 2016): 1001–1063, https://www.law.berkeley.edu/wp-content/uploads/2020/05/WuMark.pdf.

6 Rogier Creemers et al., "Translation: Cybersecurity Law of the People's Republic of China (Effective June 1, 2017)," New America, June 29, 2018, https://www.newamerica.org/cybersecurity-initiative/digichina/blog/translation-cybersecurity-law-peoples-republic-china/.

7 "Data Security Law of the People's Republic of China (Draft) (Second Review)," Covington & Burling LLP, May 3, 2021, https://

principle of extraterritorial jurisdiction in the data protection field was a major change in China's data regulation. It also introduced a layered regulatory approach for data based on its perceived importance to Chinese national security and implemented a requirement of prior Chinese government approval before companies are permitted to transfer data to overseas law enforcement agencies. Together with extraterritorial jurisdiction, prior approval before a U.S. company operating in China can comply with a U.S. government search warrant sets the stage for internal corporate policy challenges for any cross-border business.

China's Personal Information Protection Law, published in October 2020 and set to take effect on November 1, 2021, is the last piece of the data protection regime.[8] This part of the framework implements a key pillar of the Cybersecurity Law regarding personal data and was seen as China's answer to the European Union's General Data Protection Regulation (GDPR). This draft focuses on personal information processing and data flows, continues the trend of asserting extraterritorial jurisdiction, and, perhaps most concerning for global companies, establishes a detailed set of requirements that must be met before data may be transmitted outside of China.[9] Unlike the GDPR, China did not provide guidelines for how existing data flows to the United States or elsewhere could continue to function in compliance with these new regulations.

China's last major regulatory initiative in this area is the Export Control Law, published in October 2020. This hastily rolled out framework established China's first system for regulating exports of potential military-use technology, something long in place in the United States through the Departments of State, Commerce, and the Treasury.[10] The Export Control Law, widely seen as a response to U.S. actions against TikTok (described below), restricts exports of software and technology the Chinese government considers off-limits.[11] The immediate responses of U.S. companies operating in China were concern for the work of their China-based research and development centers and uncertainty over whether that technology, developed by their own employees, could safely be deployed across the border to their global operations.

THE UNITED STATES EXPANDS ITS NATIONAL SECURITY REGIME

National security concerns have influenced U.S. policy regarding foreign investment since the influx of Japanese foreign direct investment in the 1980s. Protecting national security from foreign threats is of course a legitimate, high-priority policy objective of any country's foreign investment regime—particularly for an advanced technological and military power such as the United States. But "national security" is not self-defining, and efforts to protect it through restrictions on foreign investment and ad hoc executive actions on foreign corporate operations in the United States entail trade-offs against other important national priorities, including economic growth, job production, and technological advancement.

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covcommunicate.com/104/4260/uploads/draft-data-security-law-(bilingual).pdf.

8 Josh Horwitz, "China Passes New Personal Privacy Law, to Take Effect Nov. 1," Reuters, August 20, 2021, https://www.reuters.com/world/china/china-passes-new-personal-data-privacy-law-take-effect-nov-1-2021-08-20/.

9 For a detailed summary of the draft, see George Qi et al., "China Releases Draft Personal Information Protection Law," *National Law Review* 11, no. 21 (January 2021), https://www.natlawreview.com/article/china-releases-draft-personal-information-protection-law.

10 Karen M. Sutter, "China Issues New Export Control Law and Related Policies," Congressional Research Service, October 26, 2020, https://fas.org/sgp/crs/row/IN11524.pdf.

11 Paul Mozur et al., "TikTok Deal is Complicated by New Rules from China over Tech Exports," *New York Times*, August 29, 2020, https://www.nytimes.com/2020/08/29/technology/china-tiktok-export-controls.html.

While national security screening of foreign investments and corporate activities is not new, the Trump administration took three measures to expand the scope of this regime. First, the United States tightened the Committee on Foreign Investment in the United States (CFIUS) regime, a long-standing, interagency national security screening process for foreign investment, expanding its scope and strengthening its review powers by passing the Foreign Investment Risk Review Modernization Act (FIRRMA) in 2018. Prior to FIRRMA, CFIUS review was triggered only by foreign persons acquiring control of U.S. entities or critical infrastructure. Under FIRRMA, CFIUS also reviews investments giving access to critical technology, critical infrastructure, or sensitive personal data, or where the investment gives a foreign person access to information about or involvement in the decisionmaking of a U.S. business.

While updating the CFIUS process to broaden the scope of its jurisdiction and reflect the importance of data protection was overdue, FIRRMA has caused major confusion and disruption for U.S. venture capital and private equity firms with Chinese investors. Some specific impacts have included limiting the role of foreign investors on a fund advisory board, curtailing investment information rights, and eliminating investments from sovereign wealth funds. In addition, even before the uncertainties introduced by FIRRMA, the CFIUS process was criticized for being non-transparent and subject to politicization.[12]

An enforcement team within CFIUS has been bolstered over the past two years to review completed venture-backed technology deals in which investments can be traced back to China. As a result of this process, CFIUS has ordered companies to divest interests held by Chinese investors from deals that closed several years ago, and more enforcement actions are expected. An official from the Department of the Treasury warned that enhanced CFIUS enforcement is intended to impress upon the market "that there are risks and you can take money from a certain investor and the next thing you know potentially have a divestment ordered."[13]

For those deal makers, CFIUS is not the only source of regulatory uncertainty arising from national security concerns with respect to China. A second strand of recent measures seeks to deny U.S. sources of funding or access to U.S. capital markets to Chinese companies that allegedly promote the interests of the Chinese military. Until June 2021, the Department of Defense (DOD) maintained a list of "Communist Chinese military companies" operating directly or indirectly in the United States.[14] Aimed at blunting China's military-civil fusion strategy, the DOD's list identified ostensibly civilian companies suspected of being linked to China's military. Under an executive order signed by former president Donald Trump, all investments in the securities of a company placed on the list must cease within

12 For example, Milton Mueller argues that "CFIUS is the most Chinese of U.S. regulations, it's totally a black box." See Milton Mueller, "CFIUS Blocks Deal: Is the U.S. becoming Chinese?," Internet Governance Project, January 5, 2018, https://www.internetgovernance.org/2018/01/05/cfius-blocks-deal-u-s-becoming-chinese/. Another report notes: "Lawmakers and business competitors . . . are seeking to leverage the largely opaque [CFIUS] process to advance their own interests, which in turn further politicizes the process. The result is an M&A landscape where multinational companies face increased political, regulatory and reputational risks." See Adam Broder, "Consequences of a Politicized CFIUS," FTI Strategic Communications, October 2, 2017, https://fticommunications.com/en/the-consequences-of-a-politicized-cfius-process/.

13 Heather Summerville, "Government 'SWAT Team' is Reviewing Past Startup Deals Tied to Chinese Investors," *Wall Street Journal*, January 31, 2021, https://www.wsj.com/articles/government-swat-team-is-reviewing-past-startup-deals-tied-to-chinese-investors-11612094401.

14 As of June 2021, there were 44 companies on the list. See "DOD Releases List of Additional Companies In Accordance with Section 1237 of NDAA for FY99," U.S. Department of Defense, January 14, 2021, https://www.defense.gov/Newsroom/Releases/Release/Article/2472464/dod-releases-list-of-additional-companies-in-accordance-with-section-1237-of-fy/.

60 days.[15] The order caused considerable confusion, leading the New York Stock Exchange to flip-flop several times on whether it would enforce the executive order. The Biden administration modified and expanded this policy by imposing prohibitions on transactions in the publicly traded securities of companies included in a newly created list of "Chinese Military-Industrial Complex Companies" administered by the Treasury Department's Office of Foreign Assets Control.[16]

In 2020, Congress passed the Holding Foreign Companies Accountable Act, which requires U.S. stock exchanges to delist companies whose auditors fail to submit to legally mandated inspections by the Public Company Accounting Oversight Board (PCAOB) for three consecutive years. After a single year of non-compliance, a company must certify to the Securities and Exchange Commission (SEC) that it is not owned or controlled by a foreign government. While the immediate impetus for the statute (a long-simmering dispute between the PCAOB and China's securities regulator over accounting audits) is a step removed from national security concerns, it is integrally related to frustrations over Chinese government assertions that its Law on Guarding State Secrets prevents access to the audit reports of Chinese companies, as well as congressional suspicion that U.S. investors are funding Chinese companies carrying out Beijing's technological ambitions.

The third element of the thicket was composed of Trump administration executive orders in August 2020 purporting to "ban" two popular Chinese social media apps in the United States. The first, on "Addressing the Threat Posed by TikTok," was designed to prevent U.S. persons and businesses from doing business with the platform.[17] A second responded to the Musical.ly acquisition by ByteDance and was the culmination of a CFIUS review process.[18] This order targeted the assets and data ByteDance obtained in the acquisition and required it to divest any assets that supported the operation of the TikTok app in the United States.

These executive orders, related CFIUS actions, and implementing actions by the Department of Commerce highlighted that the ultimate U.S. national security concern was the Chinese government's ability to access Americans' user data. The U.S. government expressed concern that due to Chinese laws governing Bytedance, TikTok's parent company, the Chinese government could use this data in intelligence or espionage against U.S. citizens and interests.

The executive orders and subsequent statements from President Trump and other officials set off a chain of events with serious consequences for TikTok's business. On August 27, 2020, TikTok's chief executive officer resigned after just three months on the job.[19] At the same time, it was reported

15 Separately, the U.S. Department of Commerce maintains an "Entity List" of foreign companies that operate contrary to U.S. national security or foreign policy interests. Exports of technology and certain other items to companies on the list require a license from the Department of Commerce.

16 "Biden Administration Revises and Expands Restrictions on U.S. Person Investment in Chinese Companies and Releases New List of 'Chinese Military Companies' Under 2021 NDAA Section 1260H," Dorsey & Whitney, June 10, 2021, https://www.dorsey.com/newsresources/publications/client-alerts/2021/06/new-list-of-chinese-military-companies. As of August 2021, there were 47 companies on the new OFAC NS-CMIC list.

17 "Executive Order 13942 of August 6, 2020, Addressing the Threat Posed by TikTok, and Taking Additional Steps to Address the National Emergency With Respect to the Information and Communications Technology and Services Supply Chain," Federal Register 85 (2020): 48637–48639, https://www.federalregister.gov/d/2020-17699.

18 "Executive Order of August 14, 2020, Regarding the Acquisition of Musical.ly by ByteDance Ltd.," Federal Register 85 (2020): 51297–51299, https://www.federalregister.gov/d/2020-18360. A third executive order purported to ban Tencent's WeChat app.

19 Liza Lin, "TikTok CEO Kevin Mayer Quits as Trump Pushes Chinese App to Sell U.S. Business," *Wall Street Journal*, August 27, 2020, https://www.wsj.com/articles/tiktok-ceo-kevin-mayer-quits-as-trump-pushes-chinese-app-to-sell-u-s-business-11598505535.

that Microsoft, Walmart, Oracle, and a consortium of U.S. venture capital and private equity firms with equity interests in ByteDance were bidding to acquire TikTok and rescue ByteDance from the situation.[20] TikTok, presumably needing to exercise all possible options, brought legal actions seeking temporary restraining orders and preliminary injunctions in U.S. district courts to block the executive orders.[21]

Not to be left on the sidelines, on August 31, 2020, the Chinese government issued a series of export-control regulations (described above) that prevented the sale of TikTok or its technology without Chinese government approval, leaving TikTok caught between the regulatory actions of two superpowers.

Toward the end of 2020, TikTok made progress clearing some of the hurdles it faced. Ultimately, several U.S. district courts issued preliminary injunctions blocking the executive orders. In January 2021, the United States agreed to extend the deadline for reaching a deal, putting the fate of the proposed TikTok transaction into the hands of the Biden administration and the Chinese government. On June 10, 2021, the administration added a little more clarity to the situation by withdrawing the executive orders aimed at banning TikTok and WeChat, among other applications. In a new executive order, Biden instructed the U.S. Department of Commerce to review certain applications, including TikTok, that are deemed to impact U.S. national security and to put forth policy proposals within 120 days regarding how to safeguard data held by corporations deemed controlled by foreign antagonists.[22] As of this writing—long after the national security concerns were made public—TikTok and its employees, users, business partners, and shareholders do not have certainty about a resolution. Technology businesses move quickly, talent is fluid, and competition does not stand still. Regulatory purgatory is harmful for TikTok and its constituents and sets a bad precedent for the U.S. government.

Policy Proposals

China's strategic challenges to the United States and the broader democratic world across a range of military and technological domains present legitimate national security concerns that should be met with a robust policy response. But the United States should avoid entering a race to the bottom with China in creating an investment and technology landscape fraught with uncertainty and political risk. This section outlines some realistically achievable steps that the U.S. government could take to address the challenges presented by Chinese state capitalism while reducing regulatory uncertainty for U.S. investors and businesses.

COMPREHENSIVE DATA POLICY

China's regulatory approaches to data, detailed above, are causing enormous inefficiency and confusion for companies operating cross-border from the United States and elsewhere. A focus on data storage localization, extraterritorial jurisdiction, government review of systems, and pre-approvals for data transfers

20 Mike Isaac, "TikTok Is Said to Wrestle With Two Competing Offers," *New York Times*, August 27, 2020, https://www.nytimes.com/2020/08/27/technology/walmart-tiktok-deal.html.

21 Mike Isaac, "TikTok Files for Injunction to Stop Ban of App," *New York Times*, September 23, 2020, https://www.nytimes.com/2020/09/23/technology/tiktok-injunction-ban-app.html.

22 Karen Freifeld and David Shepardson, "Biden Drops Trump Attempt to Ban TikTok, WeChat; Orders New Review," Reuters, June 10, 2021, https://www.reuters.com/technology/us-withdrawing-trump-executive-orders-that-sought-ban-tiktok-wechat-2021-06-09/.

ignores the way data is handled in business and how it drives innovation. Similarly, the undercurrent in the TikTok executive order litigation—as well as other public statements focused on storing data in the United States and having it controlled by U.S. persons in order to enhance national security—reflects a rudimentary approach to data regulation. The rollout of the GDPR caused global companies to redesign their internal data systems for EU data collection, tracking, use, and (if necessary) transfer to the United States. But through the cooperation of various U.S. agencies and the European Union, the GDPR recognizes that data is not static. Post-GDPR, China has placed its stake in the ground on data regulation—which, for the reasons noted above, is a step backward for global companies.

The United States should seize the opportunity to lead in global data regulation and not allow a proliferation of individual U.S. state regulations, or reactions to foreign regulation, to drive policy. The ability of the United States to continue to be a global center of innovation where entrepreneurs desire to found and nurture businesses depends on access to talent, free flow of investment capital, and smart, forward-thinking regulation. Data should be the first focus so that global companies do not have to navigate compliance obligations with separate data regimes in the European Union, China, and numerous U.S. states. With the right cooperation among stakeholders, it is reasonable to achieve regulation that embraces legitimate national security concerns, protects important rights to personal privacy, and promotes entrepreneurial innovation.

IMPROVING THE CFIUS PROCESS

While a degree of secrecy is obviously essential in national security screening, the CFIUS process seems unnecessarily opaque and susceptible to politicization. CFIUS would benefit from adopting practices followed by other U.S. government agencies that undertake reviews of proposed corporate transactions involving sensitive, proprietary information. For example, the staff of the SEC provides "no-action," interpretive, and exemption letters to companies proposing a range of actions in the U.S. securities markets. These letters serve as an important source of guidance to lawyers and market participants with respect to the SEC's institutional thinking. They are collected, organized by relevant statute or regulation, and easily searchable on the SEC's website.[23] Another example is the pre-merger notification process required under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 before parties may consummate mergers and acquisitions above a certain size threshold. The Federal Trade Commission and the Antitrust Division of the Department of Justice regularly review the process to promote transparency and reduce the burden on filing parties.

CHINESE COMPANIES' ACCESS TO U.S. AND GLOBAL CAPITAL MARKETS

The Holding Foreign Companies Accountable Act is a modest, long-overdue step toward mandating greater disclosure of the links between U.S.-listed Chinese companies and the Chinese government and of the role of the CCP in their corporate governance. However, the SEC's interim final regulations for implementing the act's disclosure requirements betray a lack of understanding about the channels of Chinese Party-state influence on Chinese firms and would require major revisions in order to be effective.[24]

23 "Staff No Action, Interpretive and Exemptive Letters," SEC, https://www.sec.gov/regulation/staff-interpretations/no-action-letters. By contrast, the Department of the Treasury's "CFIUS Laws and Guidance" section only contains a list of statutes, regulations, and executive orders, along with a short publication on "Guidance Concerning the National Security Review Conducted by CFIUS" from the 2008 Federal Register. See "CFIUS Laws and Guidance," U.S. Department of the Treasury, https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius/cfius-laws-and-guidance.

24 Lauren Yu-Hsin Lin and Curtis J. Milhaupt, "Comment Letter to the U.S. Securities and Exchange Commission on the Holding Foreign Companies Accountable Act," SEC, April 5, 2021, https://www.sec.gov/comments/s7-03-21/s70321-8587637-230902.pdf.

More importantly, because capital is global, unilateral U.S. efforts to ban trading in the securities of Chinese companies will be insufficient to cut off their access to funding, including from U.S. investors. But coordinated action by the world's non-Chinese stock exchanges, regulators, and globally active institutional investors could compel publicly traded Chinese firms to adopt globally accepted standards of corporate governance and be more transparent about the role of the CCP in their high-level decisionmaking. There is no substitute for marshalling foreign securities exchanges, regulators, and institutional investors in this effort.

15

No Consensus on China

By Scott Kennedy

Obstacles to Learning

It is often said that the Washington policy community is in agreement about the China challenge but that there is not yet a consensus on exactly how the United States and the world should respond. To borrow the now highly popular medical analogy, there appears to be agreement about the diagnosis, just not the prognosis. As the contributions to this volume demonstrate, any consensus about the nature of the malady is, in fact, quite superficial. Although most voices believe that the United States and China are locked in a strategic competition, there is no agreement about the nature of the competition, the metrics most appropriate for measuring who is winning, the current status of the competition, its likely trajectory, or how to define victory or defeat.

The Biden administration and Congress—as well as U.S. friends and allies—need to resolve these puzzles in order to make and implement sound policy choices vis-à-vis China. This volume is meant to help that process with respect to how China's economy operates and its implications for the rest of the world, not by providing clear answers but by highlighting both what is known and what gaps still remain to be filled. Although this exercise reveals that there is much more work to be done, luckily the assignment is clear.

This lack of agreement is not for want of effort. There is an extensive literature on the role of the state in China's economy.[1] This research examines the key institutions of governance, the policymaking process, the content of macroeconomic and industrial policies, the evolution of companies and financial institutions, the behavior of consumers and workers, state-society relations, China's economic performance in general and in specific industries and technologies, and the country's role in the global economy. The U.S.-China strategic competition may not be fully understood, but China is likely winning the competition for attention.

Yet consensus has not been reached on any of these issues. The reasons are complex but likely the product of a combination of at least three factors. First, it should not need repeating, but China is exceptionally large and complex. The diverse country with 1.4 billion people and over 2,800 counties stretched over a vast territory from near the Arctic to the deserts of Central Asia to the Himalayas to the fast-paced eastern coast—and everywhere in between—belies simple summary. Moreover, China is a country in perpetual motion; whether called "reform" or "revolution," the one constant seems to be change. The face of cities and the countryside, the socio-economic composition of society, and China's relationship with the world seem to be constantly in flux. Thus, it is no surprise that it is difficult to provide a static description of a situation that is inherently dynamic.

Second, Chinese authorities have made it very difficult for us to understand the system and all its components in depth. Elite politics is shrouded in mystery, with scholars having to invent indirect ways to know who is up and who is down and how officials interact with each other. There are only a few more public clues about the policy process, but most of the real decisionmaking process, including interactions among officials and industry, are hidden from view. The public faces of Chinese companies and financial institutions often mask how they actually operate and their genuine performance. On top of this is a lengthy global pandemic, which has radically reduced the ability of foreign scholars, journalists, and businesspeople to visit and travel within China, blinding the world further. Observers are left to decipher state media, official data, and occasional insights from the rare traveler—all highly useful but nevertheless incomplete.

Finally, the darkening U.S.-China relationship has placed China's economic governance and landscape in a different light than when ties were viewed more positively. Because of greater tensions, China's economic development has gone from being seen as largely constructive for the global economy to inherently more problematic. That has led some observers to shift the metrics they use, with a huge increase in attention to dual-use technologies and in judgments oriented to competitive comparisons between China, the United States, and other advanced market economies. This is understandable, but it also means analysts with conflicting views may be talking past each other because they stress different elements of China's economy and economic system.

1 Among the highlights, several of which include a synthesis of the field, are Barry Naughton, *The Rise of China's Industrial Policy, 1978 to 2020* (Mexico City: Universidad Nacional Autonoma de Mexico, 2021); Margaret Pearson, Meg Rithmire, and Kellee Tsai, "Party-State Capitalism in China," Harvard Business School, Working Paper 21-065 (November 2020), https://www.hbs.edu/faculty/Pages/item.aspx?num=59229; Arthur R. Kroeber, *China's Economy: What Everyone Needs to Know*, 2nd ed. (New York: Oxford University Press, 2016); Roselyn Hsueh, *China's Regulatory State: A New Strategy for Globalization* (Ithaca, NY: Cornell University Press, 2011); Scott Kennedy, ed., *Beyond the Middle Kingdom: Comparative Perspectives on China's Capitalist Transformation* (Stanford, CA: Stanford University Press, 2011); and Margaret M. Pearson, "The Business of Governing Business in China: Institutions and Norms of the Emerging Regulatory State," *World Politics* 57, no. 2 (January 2005), 296–322, https://www.jstor.org/stable/25054295.

Unresolved Debates

There are four large questions that contributors to this volume and observers more generally have debated a great deal but which have yet to be settled.

1. WHAT IS THE NATURE OF THE CHINESE ECONOMIC SYSTEM?

In early 2016, CSIS issued an edited volume that reached a basic, yet inexact, conclusion about this topic: "Although markets have become more important and will continue to grow in significance, at the same time the Chinese state, national and local, is not going anywhere, and, in fact, is reasserting itself."[2] Five years later, this seems like a huge understatement. Rather, "the advance of the state and retreat of the private sector" (国进民退 *guojin mintui*) is plain for all to see.[3]

That said, there are still significant unresolved debates about change and continuity in the past and prospects for the future. Barry Naughton argues that although China has intervened in the economy since the rise of the Party-state, the nature of that intervention has changed over time. Chinese authorities only began issuing targeted industrial policy plans in the mid-1990s, and the content and implementation structure of these plans have continued to evolve to the point where he suggests the most apt description of government planning is "grand steerage." This view aligns with other signals of changing governance, for example, the growing direct role of the Chinese Communist Party (CCP) in creating and implementing economic policies.[4]

At the same time, others here see more continuity over time. Andrew Batson notes that although the composition of state-owned assets has shifted toward the financial sector, the state's share of the economy has remained roughly the same, at around 25 percent, for the past two decades. Similarly, Wendy Leutert and Sarah Eaton suggest that even with the apparent rise in CCP attention to state-owned enterprises, there has been less change than meets the eye between the Hu era (2002–12) and Xi era (2012–present); any change, they say, is a "deepening" of prior trends.

This debate may partly be about definitions and modest differences in emphasis, but one genuinely unresolved question is how far China's system has diverged from other advanced industrial economies—or even other famous developmental states such as Japan and South Korea. An even more challenging question is whether a "return to reform," defined as economic liberalization and restraints on state interventionism, is at all likely in the foreseeable future. The ongoing crackdown on private high-tech firms suggests the opposite, an expansion of the Party-state's authority; that said, periods of tightening have historically given way to periods of loosening because of the negative effects that oppressive controls eventually have on economic growth.[5] Yet precisely how or when a change of course might come would be anyone's guess.

As a result, although the term "state capitalism" is used to characterize China's economic governance

2 Scott Kennedy, ed., *State and Market in Contemporary China: Toward the 13th Five-Year Plan* (Washington, DC: CSIS, March 2, 2016), vii, https://www.csis.org/node/35251.

3 Nicholas R. Lardy, *The State Strikes Back: The End of Economic Reform in China?* (Washington, DC: Peterson Institute of International Economics, January 2019), https://www.piie.com/bookstore/state-strikes-back-end-economic-reform-china.

4 Christopher K. Johnson and Scott Kennedy, "China's Un-Separation of Powers: The Blurred Lines of Party and Government," *Foreign Affairs*, July 24, 2015, https://www.foreignaffairs.com/articles/china/2015-07-24/chinas-un-separation-powers.

5 Richard Baum, *Burying Mao: Chinese Politics in the Age of Deng Xiaoping – Updated Edition* (Princeton, NJ: Princeton University Press, 2018).

in the volume's title, alternatives—such as "Party-state capitalism," "venture state capitalism," "authoritarian capitalism," or even "hybrid economy"—may also be helpful in capturing important elements of China's complex reality. As hinted above, understanding the dynamics of governance may be more important than describing the system at any one point in time.

2. HOW EFFECTIVE IS CHINA'S ECONOMIC SYSTEM FOR CHINA?

This was not a central question of this volume, but several contributors did speak to it. Without passing our own judgment on this issue, as Arthur Kroeber points out, it is clear why China's leaders seem so wedded to their system. He argues China has sustained rapid growth for several decades, transforming the domestic economy and the country's relationship with the rest of the world. David Coffin points to China's growing accomplishments in electric vehicles and battery-storage technology, one of several sectors where China has achieved success. Meanwhile, the United States and Europe suffered tremendously during the global financial crisis, have struggled to deal with the Covid-19 pandemic, and are facing internal political dysfunction.

Yet China's progress is far from unadulterated. Some observers highlight that economic growth has increasingly been achieved only through greater investment, with productivity contributing little to anything. This has led to a massive rise in debt in the corporate sector, among local governments, and (increasingly) among households. Other externalities include one of the widest wealth gaps in the world between rich and poor, a national health profile worse than the country's overall economic level, and severe environmental degradation.[6] Some argue that these deficiencies are not very significant because they are of secondary importance to the leadership, which is willing to bear any cost to move the country up the industrial hierarchy and gain technological independence. But unless China can walk on economic water, some analysts believe it will eventually face an economic and political reckoning. In fact, as Robert Atkinson notes in his chapter, innovation and economic growth have already declined far below what could otherwise be achieved with policies that place a higher premium on both efficiency and fairness.

In short, economists are highly divided about the long-term viability of China's state capitalist system. Relatedly, it is an open question whether Beijing's recent turn to tightening the regulatory screws on a wide range of industries—including finance, education, gaming, and food—will be an effective way for China to address these weaknesses and achieve what officials call "common prosperity," or whether it will generate even more problems because of the top-down, uber aggressive manner in which such regulation is pursued.

3. HOW PROBLEMATIC IS CHINESE STATE CAPITALISM FOR THE REST OF THE WORLD?

There is general agreement that China's system and its policies create enormous distortions—economic outcomes that one would not expect if free-market principles held sway—but there is little agreement among contributors to this volume or the broader analytical community on how problematic they are for the United States and the rest of the world.

That variation may be surprising to those who follow the debate in Washington, where warning sirens about the negative consequences of Chinese state capitalism have grown deafening. The contributions

6 Ren Zeping, "One Reason for China's New Emphasis on 'Common Prosperity'—Widening Wealth and Income Gaps," Caixin, August 23, 2021, https://www.caixinglobal.com/2021-08-23/opinion-one-reason-for-chinas-new-emphasis-on-common-prosperity-widening-wealth-and-income-gaps-101758675.html.

by Robert Atkinson and Daniel Ikenson—who hold that China's system has resulted in suppressed global innovation, created cyclical overcapacity, and reduced job opportunities—are most consistent with such concerns. Simon Evenett, however, argues that while there may be negative externalities to others from Chinese subsidies, the data currently available is not sufficient to confirm these fears. By contrast, Arthur Kroeber argues that China's behaviors may cause some downsides for others, but also that critics of China's system understate the benefits to others of China's development drive. This is indicated by the continued expansion of exports to and foreign direct investment in China, as well as the continued success of Western high-tech firms in China and elsewhere even in the face of the country's intensive import substitution strategy.

Resolving the differences over this question is of critical importance to Western policymakers, businesses, and the larger public. Doing so may begin with figuring out which metrics matter and which do not. There has been a great deal of attention to the bilateral trade balance in goods, general estimates of intellectual property theft, and the U.S. dollar-Chinese yuan exchange rate; however, there is reason to believe these figures may not be useful or have not been measured well. There is some good case-study work analyzing the level and effect subsidies have in specific sectors, but a comprehensive understanding has yet to be reached. More data is needed on total state support to Chinese industries and comparable data by other governments to their companies, along with equally detailed data on trade flows, investment patterns, production, sales, inventories, prices, market shares, productivity, and employment.

What will likely emerge is a mixed picture of the implications of Chinese state capitalism, with some sectors and regions suffering significantly, others benefiting, and still others being somewhat untouched. But the exact pattern of those results is far from clear.

4. WHAT SHOULD THE UNITED STATES AND ITS ALLIES DO?

It is well known that there are differences over what the most effective policy response should be for the United States and its allies. The above discussion is meant to show that policy differences about how to respond do not exist in spite of a consensus on the analysis of the problem but because of those enduring analytical differences. Those who see benefits or mixed implications from Chinese state capitalism for the rest of the world tend to favor relatively incremental policy responses, whereas those who believe China's system and consequent behavior are overall more harmful advocate more aggressive, thoroughgoing responses.

As Claire Reade points out in her chapter, policy responses fit largely into four categories: (1) implementing defensive measures to reduce or mitigate the downsides of China's system, (2) employing offensive tactics to strengthen the U.S. economy, (3) setting and enforcing international rules to align with U.S. interests and norms, and (4) determining what level of continued connectivity to facilitate between the United States and China and how to manage areas of disagreement.

Analytically speaking, proposals—which could draw on any of these areas—also seem to fall into one of four categories. Some, perhaps best represented here by Arthur Kroeber, believe that with modest reforms, for example, by the United States joining the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, Western countries can continue to interact effectively with China and blunt the risks of its distinctive system. Others, such as Daniel Ikenson, Claire Reade, Michael Callahan, and Curtis Milhaupt, suggest that the United States needs somewhat more assertive policy

changes, both on the defensive side (such as export controls and rules for stock market listings) and the offensive side (such as diversifying supply chains and proactively supporting strategic industries). A third, revisionist view, reflected in Daniel Crosby's chapter, advocates that because China has defied expectations and likely will remain a non-market economy for the foreseeable future, the United States and others have no choice but to either create an alternative to the World Trade Organization (WTO) trading system that does not include China or build a new interface within the WTO to handle the distortive non-market elements of China's system. The final view is that China's system is so dangerous and unmanageable that the only safe approach is to decouple from China's economy and isolate it. Although none of the contributors to this volume advocate comprehensive decoupling (a position that found some support within the Trump administration), those who suggest expanded defensive measures would probably accept some level of partial decoupling of the two economies if China does not reform its system in a more market-oriented direction and scale back its damaging behavior.

Lessons for U.S. Policymakers

Although the contributors to this volume were not in agreement on the nature of the Chinese system, China's economic trajectory, the implications for the rest of the world, or policy prescriptions, four broader unifying lessons do emerge from these pages that should provide valuable guidance to the policy community.

First, effective policy can only be built on a strong foundation of knowledge of China's economy. Policymakers need to be humble about what they know and do not know about China's economic system. Then they must continue to ask the right questions and do the hard math to get better answers.

Second, Washington needs to be clear-minded with regard to its goals, strategy, and tactics. The United States should be explicit about what end state it seeks with regard to its own economy and the international system, as well as what approach vis-à-vis China and others will help achieve those outcomes. There needs to be clear yardsticks to measure whether policies are helping achieve these goals.

Third, although Claire Reade is absolutely correct that there is "no silver bullet," Washington should not embrace a default policy of "all of above" or settle for an approach of "hope for the best, but prepare for the worst." Several of the policy options across the various approaches are mutually contradictory and would work at cross purposes with each other. By conducting careful analysis of China's economic system and rigorous evaluation of various policy tools, it is possible to choose an approach that best matches the actual challenges.

Finally, the United States will not be able to persuade the entire world to line up behind it in a competition of economic systems with China; nevertheless, the United States can aim to attract the support of as large a coalition as possible, with their composition perhaps changing based on the issue at hand.[7] If Washington is unable to attract sufficient support and its message is not resonating even among close allies, that is a sign it should reassess its policy approach or risk being isolated itself. Although the dangers of Chinese state capitalism are manifestly real, the downsides of an isolated United States or even a fragmented global economy would be even worse.

7 Matthew P. Goodman, "Variable Geometry Takes Shape in Biden's Foreign Policy," CSIS, *Commentary,* March 19, 2021, https://www.csis.org/analysis/variable-geometry-takes-shape-bidens-foreign-policy.

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