BOOK REVIEW ROUNDTABLE

Nicholas R. Lardy's

The State Strikes Back: The End of Economic Reform in China? Washington, D.C.: Peterson Institute for International Economics, 2019 ISBN: 978-0-88-132737-3 (paper)



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China's Future Isn't What It Used to Be—But Maybe That's How China's Leaders Want It

Kenneth Pomeranz

N icholas Lardy's *The State Strikes Back: The End of Economic Reform in China?* is a slim book on a big topic; it nonetheless backs its arguments with a wealth of data. The book makes one point that is not very controversial—that the state is playing a growing role in the Chinese economy—and another that is much more provocative: that if the state would reverse its growing support for the state sector, China could return to the very high growth rates of the early 21st century.

The book focuses sharply both on impediments to growth that lend themselves to econometric analysis and on the short to medium term. That matters because its core argument for the possibility of returning to faster growth—presenting obstacles other than the recent growth of state-owned enterprises (SOEs) and explaining why they need not be insurmountable—requires that this list be reasonably complete. There is, however, no discussion of environmental obstacles to China's future growth or of the role of corruption in misallocating resources.

There is discussion of demography's role, but it is one of the less compelling ones in the book. Its key points are that (1) China's now-vanished demographic dividend was most important in the early years of its boom, and (2) China probably hit the Lewis turning point, at which it no longer had surplus labor, around 2006 and economic growth continued (pp. 23–24). But worsening dependency ratios began about 2010,¹ and growth since then has not hit the levels that Lardy thinks possible. Granted, growth rates were very high during many years when the dependency ratio was higher than it is today, but trends, not just levels, may well affect investment and thus growth. Meanwhile, the decline in labor compensation as a share of GDP between 2000 and 2011 (p. 30)—past the Lewis turning point—suggests caution about assuming that we know when to expect the effects of demographic change.

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¹ "Age Dependency Ratio (% of Working-Age Population)," World Bank, https://data.worldbank.org/ indicator/SP.POP.DPND?locations=CN.

That said, Lardy is probably right to argue that in the near term these sorts of structural factors do not preclude faster growth than China is currently experiencing. He is also right to point out that arguments about reversion to the mean—that China's rapid growth must slow down simply because it has been unusually high, and that this happened in Japan, Taiwan, South Korea, and Singapore—are not by themselves compelling. As Lardy notes, those countries had all achieved levels of GDP per capita much closer to the U.S. level when their growth slowed (p. 27). Thus, to the extent that the mechanism behind reversion to the mean is the exhaustion of "easy" growth, China still has room. But if this shows that China's unusually rapid growth does not have to stop, it also does not mean that it is bound to continue. It is worth remembering how unusual dramatic economic convergence is within the larger sample of developing countries (pp. 45-47). And if the mechanism by which rapid growth stops is not that there is something magical about having reached a particular level of convergence, but rather that vested interests and institutional rigidities accumulate over time as a system succeeds well enough to be exempt from radical overhauls (perhaps especially where rapid growth occurred under a strongly interventionist regime and where a free press is lacking), then the analogy to other East Asian "tigers" might be relevant to China after all. Indeed, this might suggest that reversion to the mean is not an alternative to Lardy's core claim that policy is responsible for China's growth slowdown but a manifestation of it.

The biggest policy problem, as Lardy sees it, is the return since roughly 2006–7 to a focus on state-led growth and SOEs—a trend that Xi Jinping initially seemed inclined to reverse but has instead accelerated. The book is particularly persuasive in showing that SOEs have become an increasingly large drag on the Chinese economy in recent years, and that various attempts to explain their poor financial performance relative to private firms either never held much water or do not anymore. They no longer carry unusual social welfare obligations (pp. 71–74); arguments that SOEs happen to be concentrated in less-profitable sectors (such as steelmaking) are undercut by the fact that SOEs underperform private firms in the same sectors (pp. 68–70, 74–75). And while SOEs can borrow more easily than private firms, allowing them to accept lower profits, this does not explain why so many lose money or why their performance has deteriorated so markedly in recent years (pp. 64–66).

Lardy is also quite convincing when he argues that SOE reforms beyond shutting down and/or selling off many of these firms—such as corporatization and mergers—have produced generally disappointing results, especially in the last few years. Corporatization, for instance, seemed to have a positive influence (independent of privatization) on productivity and adding value for a sample of firms observed from 2000 to 2005,² when this policy was just getting underway; but the much larger number of corporatizations since then has not had much effect (pp. 84–85).

Poor SOE performance, then, is clearly a drag on the economy and appears to be worsening as the state sector has again received large infusions of capital from government-controlled banks. The growth of SOEs since 2005, Lardy shows, far exceeds what could be explained by either retained earnings or cash infusions from private investors.

Reversing that direction would then presumably improve Chinese economic performance, though whether 9% growth would return is another matter. After all, despite their recent growth, SOEs are far smaller relative to the whole economy than they were before Zhu Rongji's reforms twenty years ago; and while they are not doing well, they are not doing as badly as they were then either.³ Nor is the global economic environment as promising as it was in the late 1990s and early 2000s, in terms either of quantitative indicators or trends toward openness.

But whatever precise growth rate China might achieve with aggressive SOE reform, there are clearly some gains available. So it is worth turning to the last section of the book, which after acknowledging serious impediments to reform, lays out "reasons to be optimistic" (pp. 127–29).

The argument ultimately hinges on necessity: it is, essentially, that the Chinese government sees further income growth as vital to its legitimacy, while current policies hinder growth and will do so more severely if continued. First, Lardy emphasizes that the current rate of progress toward reducing financial risk in China's economy is glacial, and progress will get harder if global interest rates rise. Second, China's increasingly interventionist policies are feeding a backlash among its trading partners, which also threatens China's growth.

² Linda Yueh, *China's Growth: The Making of an Economic Superpower* (London: Oxford University Press, 2013).

³ Returns for SOE industrial firms were close to zero in 1996 versus almost 4% in 2016 (p. 57); in the first quarter of 1996, the SOE sector as a whole actually lost money. And while the losses of those SOEs that do lose money have doubled as a share of GDP from 2005 to 2016 (to 2.6%), this is still much less of a problem than it was in the 1990s when, by some estimates, all SOEs (including the profitable ones) absorbed fiscal and quasi-fiscal resources approaching 5% of GDP. See Fan Gang and Nicholas Hope, "The Role of State-Owned Enterprises in the Chinese Economy," 5, available at https://www.chinausfocus.com/2022/wp-content/uploads/Part+02-Chapter+16.pdf.

There are, undoubtedly, people in Zhongnanhai thinking along these lines, but there also many reasons to doubt that they will prevail. China's leadership certainly wants growth, but that does not commit the state to maximizing growth. And its leaders also care about keeping the many levers of power that a state-led economy gives them, the rents that accrue to insiders like themselves, and the short-term instability that could result from significantly downsizing the state sector (even if all short-term losers eventually became better off). They are aware of growing hostility to China in various international settings, but some of them may see this as all the more reason to pursue more nationalistic policies, such as insisting on all Chinese components in future high-tech products or encouraging SOEs to make expensive purchases that lock in supplies of strategic resources. As Lardy notes (citing Barry Naughton), it would not be new for the Chinese leadership to accept slower growth and higher financial risks if doing so means more control (p. 122). It is not clear that the risks are so much greater now that they will change that calculus. Indeed, having kept the growth rate high for so long (as it still is, comparatively speaking) without sacrificing control probably increases Chinese leaders' confidence that they can keep doing so. They may also believe that other tools, both ideological and technological, mean that very high rates of growth will not remain central to the regime's survival indefinitely.

Finally, it is worth remembering that the size of the state sector is not the only measure of state intervention in the economy, and other indicators also point, for now, in the direction of a growing party-state role. To cite just one example, the share of private businesses that have an organized Chinese Communist Party branch within them has been rapidly increasing: at the end of 2014, 53% of private firms had one, compared to only 16% in 2008. It is not clear how much these organizations will affect strictly economic decisions, but they do seem to affect patenting behavior.⁴ In short, Beijing has multiple goals and multiple tools. Some uses of those tools may be counterproductive, but that does not mean they will stop. \otimes

⁴ Xiaojun Yan and Jie Huang, "Navigating Unknown Waters: The Chinese Communist Party's New Presence in the Private Sector," *China Review* 17, no. 2 (2017): 38. On the party branches and patent-seeking, see Ingo Liefner, Henning Kroll, and Arman Peighambari, "Research-Driven or Party-Promoted? Factors Affecting Patent Applications of Private Small and Medium-Sized Enterprises in China's Pearl River Delta," *Science and Public Policy* 43, no. 6 (2016): 849–58.

Three Factors Confounding China's Trajectory: Corruption, Speculative Investment, and the Climate Crisis

Yuen Yuen Ang

S ince President Xi Jinping came to power in 2012, the sharp shift in political winds not only has startled global observers but also has forced some analysts to dramatically revise their prior conclusions about China's trajectory. In Nicholas Lardy's previous book *Markets Over Mao: The Rise of Private Business in China* (2014), he expressed optimism about the triumph since 1978 of market forces and the private sector over state planning. Five years later, however, his latest book—*The State Strikes Back: The End of Economic Reform in China*?—acknowledges both the resurgence of state dominance in China's economy and the deceleration of market-oriented reforms under Xi's leadership. The book argues that these are the largest stumbling blocks to China's growth.

In explaining China's growth slowdown after the 2008 financial crisis, Lardy rejects the "natural slowing" thesis—meaning that as China matures into an upper-middle-income country, growth will naturally slow and stay permanently low. This argument, he contends, masks the fact that China remains at a level of GDP per capita that is only 25% that of the United States, and far lower than that of Japan in the 1990s. There is still plenty of room for China to catch up, Lardy maintains, by liberalizing market forces and correcting inefficiencies in resource allocation.

According to Lardy, two principal factors account for China's slowdown. First, prior to 2008, the country performed far above its potential due its unprecedentedly large trade surplus, so the slowdown constitutes an adjustment. Second, and more importantly, under Xi growth is dragged down by "the slowing pace of economic reform and the steadily deteriorating performance of state-owned enterprises" (p. 41). Worsening these problems, he adds, are the predominant allocation of bank credit to state companies and the weakening protection of private property rights, as seen in recent instances of illegal state seizures of private assets. Hence, in 2016, China saw its first-ever decline in the share of private investment relative to state investment.

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Lardy's recommendation for the way forward is therefore clear—return to markets. China should increase competition, promote bankruptcy and mergers and acquisitions, cut excess credit to state-owned enterprises (SOEs), and loosen political control. He is aware that politics and vested interests stand in the way of doing the right things. Nevertheless, Lardy sounds an optimistic note, pointing out that if the leadership resolutely implements the necessary economic reforms, China "still will have another two decades of super rapid growth" (p. 27).

In the current climate of "fake news" and hyperbole, this book provides much-needed measure and balance. Lardy uses a wide variety of data and commands deep knowledge of the mechanisms of economic growth. He highlights dangers while pointing to potential for reform. And in his projections, Lardy makes an especially useful distinction between policy factors and structural factors that are "not subject to policy reversal and thus will persist" (p. 37), such as China's shrinking young population. By doing so, he distinguishes between problems that can be fixed through policies and those that cannot. This approach is far superior to making simplistic predictions of whether China will collapse as those so often read in the media.

I would like to raise three issues for thought from my perspective as a political scientist and my work in international development. The first concerns corruption and its relation to speculative investment. The word "corruption" only appears once in Lardy's book, although he also alludes to it by referring to "vested interests"—"including the top management of large SOEs, some government bureaucrats, and many local political officials" (p. 125)—who block reform. In fact, corruption pulses throughout the inefficiencies and misallocation of resources that Lardy analyzes at length. As we know well, since coming to office, Xi has embarked on China's most vigorous anticorruption campaign, disciplining more than 1.5 million officials to date.

While private investors are generally more efficient than state investors, they have their share of problems too. Private businesses are major players in real estate and have dominated land sales.¹ Through political connections and graft, private-sector bosses can fetch phenomenal windfalls from bargain land deals extended by government officials; hence, real estate is described in China as a "super rents" (*baoli*) sector. Such outsized rewards

¹ Chang Liu and Wei Xiong, "China's Real Estate Market," National Bureau of Economic Research, Working Paper, no. 25297, November 2018.

have lured private entrepreneurs away from productive activities in manufacturing into speculative real estate investment—known in Chinese as "abandoning the real for the virtual" (*tuoshi xiangxu*)—a trend that Premier Li Keqiang and the National Development and Reform Commission acknowledged as persistent and worrisome.² Deal-making corruption has allowed a minority of private capitalists to amass fabulous wealth without needing to be competitive. From this perspective, the expectation that China would be back on a sustainable growth path if only the private sector returned to dominance seems sanguine.

This prompts the important question of how Xi's crusade against corruption affects China's growth prospects, which Lardy does not address in his book. He mentioned the crackdown once in connection with Xi's attempts to consolidate his "personal political power" (p. 18). Other analyses generally fixate on the immediate effects of anticorruption, such as drops in the sales of luxury goods or potentially corrupt transactions, without considering the long-term, structural impact. My own analysis finds no evidence that Xi's campaign is merely an excuse for elites to hunt down enemies, yet its effects in paralyzing the bureaucracy are clear: it has gone too far and evolved into demands for ideological conformity within the party-state on top of mounting and conflicting targets imposed on officials at all levels. This does not bode well for carrying out the deep, politically risky reforms that Lardy argues are necessary for pushing the economy forward.

The third concern, an existential one, is the tension between maintaining rapid economic growth and keeping the climate crisis from worsening. Despite its comprehensive coverage of multiple forces shaping Chinese growth, the book does not address environmental and climate crises, either in China or globally. Yet the author, it should be noted, is not alone in his omission; classical economics has long ignored environmental factors in its projections and prescriptions for economic growth.

One provocative claim in Lardy's book stands out: "If China replicates the experience of these countries [Japan, Taiwan, Korea, and Singapore], it still will have another two decades of super rapid growth" (p. 27). On the one hand, this possibility should excite any observer of world politics. If four decades of growth turned China from an impoverished planned economy into an upper-middle-income country, creating the world's largest middle class in the process, imagine the transformative effects of a further

² "Fangdichan he shiti jingji shiheng" [The Imbalance between Real Estate Investment and the Real Economy], *Jingji Xinwen*, March 20, 2017.

two decades of "super rapid growth" on China—and the world. Indeed, in this scenario, "the future is Asian," as the title of Parag Khanna's book declares.³ On the other hand, it is deeply worrying. If China replicates the East Asian development path for another two decades, centering on mass industrialization and globalized mass consumption, it will produce more carbon emissions, more resource extraction, and more plastics and trash. These problems magnified at China's scale, on top of similar developments elsewhere, undermine the existence of a future for the planet.

This does not mean, however, that China should not grow its economy. It is further worth remembering that, although China is the world's largest carbon emitter by total volume, its per capita emissions in 2015, 6.59 metric tons, are only a fraction of that of the United States (15.53 metric tons). What it does mean is that replicating the experience of 18th-century Britain, 19th-century America, or 20th-century East Asia is not viable in the 21st century unless prosperity is more important than breathing. Countries, including but not limited to China, must all radically rethink their development models.

Understanding China's growth through the lens of classical economics is essential and valuable, but it is not enough. Classical economics originated two centuries ago when people assumed that countries could endlessly exploit the earth and spew carbon into the air. Since then, realities have changed drastically. While I agree completely with Lardy's diagnosis of the obstacles to China's growth and his prescriptions for greater private-sector participation and market liberalization, this perspective is still premised on a classic industrial, consumerist capitalist model that hastens global warming—as captured in the title of a seminal article by Nobel laureate William Nordhaus, "To Slow or Not to Slow."⁴ I do not know the way out. But I do believe that analysts of all countries, not just China, must confront this conundrum. \otimes

³ Parag Khanna, The Future Is Asian (New York: Simon and Schuster, 2019).

⁴ William Nordhaus, "To Slow or Not to Slow: The Economics of the Greenhouse Effect," *Economic Journal* 101, no. 407 (1991): 920–37.

China's Productivity Problem

Loren Brandt

N icholas Lardy's *The State Strikes Back: The End of Economic Reform in China?* is an excellent sequel to his 2014 book *Markets Over Mao: The Rise of Private Business in China.* Combined, the two books offer a compelling narrative that is often advanced by academic economists working on China. In this review, I briefly summarize this larger narrative and highlight a few issues.

Up through the global financial crisis beginning in 2008, China's rapid growth owed much to market-liberalizing reforms that freed up prices and resources, lowered entry barriers facing nonstate firms, opened up China to the rest of the world, and facilitated the reallocation of resources between agriculture and non-agriculture and the state and nonstate sectors. Estimates by my colleague Xiaodong Zhu show that during the first three decades of reform, rapid growth in total factor productivity (TFP) was the source of more than three-quarters of the 8.1% annual growth in GDP per capita.¹ Especially important were productivity gains in the nonstate (largely private) sector, followed by those coming from the reallocation of labor and capital from the state to the nonstate sector where returns were higher. Even after three decades of reform, however, huge inefficiencies in resource allocation persisted. Per capita GDP on a purchasing power parity basis was also only 20% of that in advanced countries, and the level of productivity was probably even lower in international comparison. The implication is that China had a decade or two in which 8% growth was still in its future.

In the wake of the global financial crisis, a halt—if not a reversal—in liberalizing reforms in most sectors led to a marked slowdown

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¹ Xiaodong Zhu, "Understanding China's Growth: Past, Present and Future," *Journal of Economic Perspectives* 26, no. 4 (2012): 103–24. The rest of China's growth largely came from increases in rates of labor force participation, investments in human capital, and rising levels of educational attainment, and much less so from rising rates of capital accumulation and an increase in capital-output ratios.

in economic growth.² Drawing heavily on estimates of profits, rates of return on assets, and leverage in the state and nonstate sectors to make his case, Lardy links the decline in growth to policy once again favoring the state sector. Although Zhu's estimates of productivity growth only extend to 2007, recent estimates by David Dollar (2017) and Chong-en Bai and Qiong Zhang (2017) that extend through 2015 suggest TFP growth after 2008 that is only a quarter to a half of prior levels.³ Harry Wu's recent estimates (2018) for a slightly shorter period suggest negative productivity growth after 2007.⁴ China's declining growth after the financial crisis appears to be a productivity problem.

How has state policy contributed to this decline? Lardy goes through a long list of the ways in which the state has reasserted itself, but on the basis of his analysis, it is not possible to rank or quantify how important they are. Much more structure and formal modeling are required, but in terms of productivity, three margins are key. First, expansion of the state sector, in which productivity is lower, at the expense of the private sector would have resulted in lower productivity growth. Second, productivity growth in the state sector might have declined, thereby pulling down TFP growth in the aggregate. And third, productivity growth in the private sector may have fallen.

Data presented in *The State Strikes Back* suggests that the problem is not the expanding weight of the state sector in GDP. On the production side, the share of state-owned firms continued to fall in industry, and has also likely declined in services. In the small but rapidly growing business services sector, for example, the share of the private sector rose significantly. On the expenditure side, a fall in the state's share of investment (see p. 19, Figure 1.1)

² New research suggests that the decline in GDP growth might be sharper than is indicated by the official data from the National Bureau of Statistics of China that Lardy cites. Using alternative methodologies, two recent papers identify problems of overreporting of GDP at the aggregate level that only became serious after 2007. See Wei Chen, Xilu Chen, Chang-Tai Hsieh, and Zheng Song, "A Forensic Examination of China's National Accounts," National Bureau of Economic Research, Working Paper, no. 25754, April 2019 ~ https://www.nber.org/papers/w25754; and Yingyaho Hu and Jiaxiong Yao, "Illuminating Economic Growth," International Monetary Fund (IMF), IMF Working Papers, April 9, 2019 ~ https://www.imf.org/en/Publications/WP/Issues/2019/04/09/ Illuminating-Economic-Growth-46670.

³ David Dollar, "China's New Macroeconomic Normal" (paper presented at the East-West Center and Korean Development Institute conference "China's New Normal and Korea's Growth Challenge," November 3–4, 2016); and Chong-En Bai and Qiong Zhang, "Is the People's Republic of China's Current Slowdown a Cyclical Downturn or a Long-term Trend? A Productivity-based Analysis," in *Slowdown in the People's Republic of China: Structural Factors and the Implications for Asia*, ed. Justin Yi-fu Lin, Peter J. Morgan, and Guanghua Wan (Tokyo: Asian Development Bank Institute, 2018).

⁴ Harry X. Wu, "China's Institutional Impediments to Productivity Growth: An Industry Origin Growth Accounting Approach" (unpublished manuscript, 2018).

more than offset a slight rise in the percentage of GDP going to capital formation, implying that capital formation by the state as a share of GDP also fell.

Productivity growth in the state sector may have fallen, however. I am less comfortable than Lardy in inferring changes in productivity on the basis of profitability estimates—the link is highly imperfect.⁵ But given that the state sector is the source of at most a third of GDP, the decline in productivity in the state sector required to explain the decline in productivity at the national level is huge, perhaps unreasonably so. This suggests that the most important reason for the decline in growth is actually falling productivity growth in China's private sector. Preliminary work with colleagues using annual firm survey data from China's National Bureau of Statistics shows that productivity growth in industry, which is largely private, began to fall in 2005 and turned negative between 2007 and 2013.⁶

As important as ownership may be for how well the Chinese economy performs, far more important is the entire regulatory and policy environment facing firms, state and nonstate alike. By all indications, significant differences exist between sectors in this regard, differences that may have only widened with policies such as the National Medium- and Long-Term Program for Science and Technology Development (2006–2020) and Made in China 2025. Unfortunately, how policy matters at the firm and sector level remains a black box, and the book's analysis does not provide much in the way of clues. Are the choices of private sector Chinese firms increasingly motivated by policy priorities of the state rather than economic considerations? Does an entrepreneur's ability to start a new firm or to access capital to expand depend as much on connections as on their capabilities? Have positive productivity spillovers from foreign firms to the domestic economy been limited by the push for indigenous innovation and more restrictive policy with respect to foreign direct investment, including requirements on technology transfers and sourcing? All three are potential sources of declining productivity growth in the private sector and recommend slightly different policy choices.

⁵ Changes in market power (i.e., the ability of a firm to sell its output at a price in excess of marginal cost), state influence over pricing, access to key resources such as land, cost of upstream inputs, and so forth can sever the link between the two. In addition, state enterprise groups increasingly have been structured in ways that make it easier for insiders to extract rents (and thereby lower profits) through, for example, related third-party transactions.

⁶ Loren Brandt, Luhang Wang, and Yifan Zhang, "Productivity Growth in Chinese Industry," background report prepared for the World Bank Development Research Group's study "New Drivers of Economic Growth in China," 2018.

Since the onset of reforms, the Chinese economy has always combined enormous amounts of dynamism with huge inefficiencies. The two go hand in hand. Dynamism in the nonstate sector has consistently provided the state and the Chinese Communist Party (CCP) with the rents and resources to achieve its multiple objectives—of which remaining in power has been the most important. The Tiananmen Square protests and the breakup of the Soviet Union were sobering reminders of the risks the CCP faced. Initially, these rents were largely used to rebuild patronage and align interests domestically, but over time, they have also been leveraged internationally—for example in the Belt and Road Initiative. In both periods, state-connected firms have played important roles. Is it possible that the CCP now sees the West and its institutions as a more serious obstacle to its future ambitions than domestic opposition?

We do not have a crystal ball—very few, for example, predicted the more inward-looking policy shift under Xi Jinping, which clearly has a powerful constituency in China. But overall, I agree with Lardy's major conclusion that, short of major reform, growth will continue to languish, largely because current policy is undermining the dynamism of China's most important economic asset, the private sector. Much more difficult to assess are the forces that might prompt a return to the policy agenda expressed in the *China 2030* study by the State Council's Development Research Center and the World Bank, which was briefly adopted in 2013 by the CCP. Is the largely abandoned 2013 reform agenda simply viewed as a threat to the rents the state and the CCP now enjoy? Or could it be that Chinese leaders firmly believe that the kind of top-down industrial policies favoring indigenous innovation now promoted are key to China's future economic growth and well-being? The ongoing trade dispute with the United States has only helped to further validate this perspective. \otimes

Author's Response: Assessing China's Potential Growth

Nicholas R. Lardy

The commentators on *The State Strikes Back: The End of Economic Reform in China?* for the most part agree with the first of the two key themes of the book: that the increased role of the state in resource allocation in recent years has been an important contributor to China's slowing economic growth. They mostly disagree with the second key theme: that since China's level of GDP per capita is only about one-quarter of the level of advanced industrial economies, it potentially has substantial room for convergence toward higher levels of development that might be captured by a return to the more market-oriented economic policies of the past. In this response, I will focus on addressing some of their concerns around both of these themes.

The State Contribution to China's Slowing Growth

Loren Brandt focuses in his review on the state's role in the economy. He acknowledges that productivity growth in the state sector has slowed, but he argues that the most important reason for China's slowing economic growth is the declining productivity of private firms. In support of this, he points to research showing how productivity growth in industry slowed after 2005 and eventually turned negative. Industry, he contends, is largely private, so the productivity growth of private firms must have fallen.

There are two problems with this approach. First, in 2005, one-third of value added in industry was contributed by state firms.¹ The decline in return on assets of state firms by two-thirds after 2007 may explain most of the downturn in industrial productivity that Brandt reports. Second, Brandt's approach ignores China's service sector, which as early as 2005 was as important as industry in terms of its contribution to output and is much more heavily dominated by state firms than industry. But the return on assets of state service companies is lower than for state industrial firms and also fell substantially after 2007.

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¹ Estimate based on data in National Bureau of Statistics of China, *China Statistical Yearbook 2005* (Beijing: Statistics Press, 2005), 488; and National Bureau of Statistics of China, *China Statistical Yearbook 2006* (Beijing: Statistics Press, 2006), 511, 521.

Brandt questions the use of return on assets, which looks at profits relative to assets, as a proxy for productivity-a measure of value added in constant prices relative to an appropriately weighted basket of assets and labor. For two reasons, however, the sharp decline in the return on assets of state industrial firms relative to private industrial firms is a good proxy for underlying trends in the productivity in firms of the two types of ownership. First, to claim that the productivity of state firms did not fall relative to private firms after 2007, one would have to show that there was some combination of accelerated employment growth relative to assets in private industry and an unusual slowdown in employment growth relative to assets in state industrial firms. Second, Brandt also points out that changes in market power can influence profitability and thus the return on assets, making the latter an unreliable guide to underlying productivity. But the consolidation of large state firms under the State-owned Assets Supervision and Administration Commission, established in 2003, likely gives state companies more influence on pricing relative to the influence of private firms. This suggests that the data in the book showing a sharp decline in the return on assets of state companies understates the pace of deterioration in their underlying economic performance.

The Potential for Convergence

China faces three potential headwinds that were absent or possibly less significant in the other East Asian economies that converged toward advanced-economy levels of per capita output—demographics, the environment, and corruption. One or more of these is mentioned by each of the reviewers.

Kenneth Pomeranz refers to the demographic issue of China's workforce. China's ratio of the working-age population to the non-working-age population began to decline in 2010, a trend that will continue for at least two more decades. Other things being equal, this is certainly adverse for China's potential growth. But other things need not be equal. Most importantly, as I point out in the book, China has a very low labor force participation rate among older age cohorts. This is a function of low retirement ages that the government set many decades ago that have not been adjusted upward as life expectancy in China has been rising toward the levels of advanced industrial economies. Moreover, about half of all workers retire prior to reaching the low mandatory retirement ages. The World Bank and China's Development Research Center estimate that if China trended

toward the same labor force participation per age cohort as Japan has today, the labor force would expand by 38 million workers between 2010 and 2030. This would offset four-fifths of China's projected labor force decline between 2010 and 2030.² As noted in the book, whether China can capture this potential labor force expansion will depend on politics.

Moreover, numerous studies have shown that the contribution of labor force growth to economic expansion in China since 1978 has been relatively small. Far more important is the contribution of human capital. Here, China has substantial potential for improvement. In 2015, only 30% of China's workforce had a high school education—far below the levels achieved in some other upper-middle-income countries and even less than a few lower-middle-income countries. In short, demographic factors in China are less favorable for sustained economic growth than in earlier successful modernizers in East Asia. But by investing further in human capital and adopting policies to incentivize older workers to remain in the labor force, the state can partially ameliorate this demographic drag.

Yuen Yuen Ang raises the challenge of economic growth during a worsening global climate crisis. While China has stepped up its environmental protection programs in recent years and has recorded substantial reductions in emissions of some pollutants like sulfur dioxide, the effect of these initiatives on China's growth is difficult to judge. Though the government is increasingly responsive to citizen concerns about high levels of air and water pollution, the remedial measures taken so far do not appear aggressive enough to have contributed to China's slowing economic growth in recent years. Confirming or rejecting this conjecture will require more research, and whether this might change is indeed an open question, one not addressed in *The State Strikes Back*.

Ang also raises the third potential headwind that could slow or perhaps even stall China's movement toward advanced-economy levels of per capita output: corruption. In the book, I indicate more than once that corruption is a possible explanation for the low profitability of state firms and that vested interests have slowed and even blocked proposed reforms of underperforming state companies. There certainly is ample anecdotal evidence supporting this view. But I am not aware of systematic evidence that would allow a quantitative assessment of the importance of this factor in explaining the weak performance of state firms, and assessing whether

² World Bank Group and the Development Research Center of the State Council of the People's Republic of China, *Innovative China: New Drivers of Growth* (Washington, D.C.: World Bank, 2019), 15.

Xi Jinping's anticorruption campaign has or will alleviate this problem lies beyond my competence.

In addition to these headwinds, both Pomeranz and Brandt argue that the state sector's substantially reduced size when compared to two or three decades ago is unfavorable for China's convergence toward levels of per capita output found in advanced industrial economies. Even if renewed economic reforms lead to a pickup in the productivity of state firms, they wonder whether the sector is big enough to make a measurable difference in China's potential growth. Certainly, the contribution of state firms to China's GDP is much smaller than in the past, but the assets these firms control have continued to expand, and they are huge-140 trillion yuan in 2015, the equivalent of more than twice GDP.³ As the book makes clear, the potential for China to return to an annual growth of 8% or even slightly more is not due exclusively or even primarily to a pickup in productivity within state firms. Rather, it depends very much on the reallocation of underperforming assets to more productive firms. That is why the study emphasizes the importance of increased bankruptcies of failing firms and an increase in mergers and acquisitions. Both of these mechanisms offer opportunities for more productive firms-typically private-to acquire the assets of underperforming companies, which are mostly state-owned.

In my previous book, I predicted confidently—but in retrospect clearly incorrectly—that China would continue on the path of market-oriented economic reform by implementing the far-reaching agenda endorsed by the party at its plenum in the fall of 2013.⁴ In *The State Strikes Back*, I adopt a more cautious approach and am agnostic on the question of China's future economic policy. Xi's insistence that the party must control everything, everywhere, all the time, strongly suggests that the party's intrusion, even in private enterprises; the state's failure to protect private property rights; and the misallocation of resources by state-owned financial institutions in favor of underperforming state firms may well persist, even at the cost of growth that falls further and further below potential. But the party's continuing quest for legitimacy means Xi cannot entirely overlook growth. If growth continues to slow, at some point Xi may alter his priorities. \otimes

³ Assets of state nonfinancial enterprises account for about half of the value all state assets.

⁴ Nicholas R. Lardy, Markets Over Mao: The Rise of Private Business in China (Washington, D.C.: Peterson Institute for International Economics, 2014).