CHINA'S ECONOMIC SLOWDOWN: PART TWO

Ambition and Overreach: Countering One Belt One Road and Beijing's Plans to Dominate Global Innovation

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Cover: Aerial view of high-speed trains at a maintenance factory on June 20, 2016 in Zhengzhou, Henan Province of China. (Visual China Group via Getty Images)

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Lee was also appointed the foreign minister's lead adviser on the 2017 Foreign Policy White Paper, the first comprehensive foreign affairs blueprint for Australia since 2003, written to guide Canberra's external engagement for the next ten years and beyond. His articles have been published in leading policy and academic journals in the United States, Asia, and Australia. He is the author of Will China Fail?, published in 2007 and updated and reissued in 2009.

Lee's opinions have been published in over fifty major newspapers and current affairs magazines around the world, including leading broadsheets in the United States, Asia, Europe, the Middle East, and Oceania.

He received his master's degree and doctorate in international relations from the University of Oxford and his bachelor of laws and arts degrees (1st class, philosophy) from the University of New South Wales.

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AUTHOR'S NOTE

This monograph, the second in a two-part series, is the result of a proposal that was accepted and funded by the Smith Richardson Foundation.

The project was approved and begun in the first half of 2015. Around that time, a bourgeoning cottage industry of experts was trying to work out what the real growth rate for the Chinese economy might be, given the widespread skepticism about official figures. Of greater importance were growing fears that the Chinese economy was burdened by too much debt, severe misallocation of capital, and the emergence of a vast and unregulated "shadow banking" sector that posed a systematic threat to the entire Chinese financial system.

A growing band of pessimists pointed to the prevalence of "ghost cities"—newly built housing that was largely unoccupied—as just one example of the economic and financial irrationality and dysfunction that was taking hold in China. Other traditional commercial measures such as return on assets and investment, non-performing loans, excess capacity, and rocketing inventory stores suggested something very worrying was going on.

In workshops, roundtables, and individual discussions with experts in New York, Washington, DC, Hong Kong, Taipei, Tokyo, Singapore, Canberra, and other regional capitals, the prevailing mood was one of deep pessimism. Many were certain that China would experience a slowdown like that of Japan in the 1980s and 1990s, even though it was likely to avoid the financial crash and liquidity crunch that afflicted many economies during the global financial crisis from 2007 onward. That was in 2015.

From 2016–18, the project was placed on hold as I entered the Australian government and served as the senior national security adviser to the minister for foreign affairs.

When I left government and recommenced work on the project, the mood had changed significantly. China seem to have sailed through its difficulties, just as it did after its export markets in the major advanced economies collapsed from 2007 onward. Although official indicators of Chinese growth were slower than a decade before at 6–8 percent, the talk was about "successful rebalancing" and "higher-quality growth." The layperson's view was that China had again proved that its authoritarian leaders were skillful and adroit economic managers.

Around this time, Xi Jinping also seemingly emerged as the most powerful leader since Deng Xiaoping, and in the view of others, the most dominant leader since Mao Zedong. Moreover, under Xi, China abandoned Deng's more cautious diplomatic and strategic approach of "hide brightness, cherish obscurity." Xi confidently put forward visions of what a Sinocentric economic and strategic region might look like and left few doubts that China's objective was to become the preeminent power in Asia and possibly the whole of Eurasia. This was the new setting in which this project recommenced in mid-2018.

The fundamental questions I posed back in 2014, far from needing to be changed, seem even more apposite in 2020. China's growth has slowed moderately to around 6 percent per annum. Is that significant, and what are the strategic consequences of slower Chinese growth for the US and allies? Did China really sail through its difficulties leading up to 2015? What are the ramifications of how it managed its problems?

Has that made China stronger, or is overreach more likely at a time when Beijing is projecting a far more confident (and assertive) image of itself, promoting and expanding ambitious plans such as the Belt and Road Initiative and Made in China 2025?

More generally, what are the strengths and vulnerabilities of the "new China" under Xi? Have these changed from several years ago? Finally, what are the points of leverage and worry for Washington in an era of deepening competition and US-China rivalry? In this context, the monograph is part *forensic* (e.g., How did China manage its problems of just a few years ago to get to where it is now?), *explanatory* and *analytical* (i.e., What is the link between its vulnerabilities, the way it has managed them, and its current policy settings?), and *policy-* or *action-based* (i.e., How should the US and allies respond?).

I would like to thank Allan Song, program director, Smith Richardson Foundation for his guidance in helping to define the contours of the project as well as his patience during the two years (2016–18) when work on it was suspended. I am grateful to SRF for funding this project.

I would also like to thank Hudson Institute for continuing to back my work.

Finally, I thank my wife, Dr. Lavina Lee, for her constant encouragement and support.



I. INTRODUCTION

Good policies and responses depend on accurate analysis, sound assessments of the strengths and vulnerabilities of oneself and one's competitor, and appreciation of structural and other trends that are difficult to shift or circumvent.

The Donald Trump administration has recognized that China poses the most comprehensive and formidable challenge to American interests and values. It is a view increasingly shared by both major political parties, the national security community and policy elites, and the general population.

The United States openly discusses its strengths and weaknesses. The difficulty is in coming up with sensible and effective responses to an opaque competitor or rival that is increasingly adept at controlling grand narratives by trumpeting apparent strengths and concealing weaknesses.

The first monograph in this series, *China's Economic Slowdown: Root Causes, Beijing's Response and Strategic Implications for the US and Allies*, examined the structural problems in the Chinese economy that have led to a recent permanent slowdown after three decades of double-digit growth rates. The monograph focused on the political and economic costs of the slowdown and efforts to stabilize an economy that has poured far too much national wealth into commercially unproductive areas.

Yet the Communist Party is not passively awaiting an unhappy economic fate in connection with its mounting

Photo Caption: A police robot capable of identifying passengers' faces patrols the Zhengzhou East Railway Station on February 15, 2017 in Zhengzhou, Henan Province of China. (VCG via Getty Images) imbalances and domestic economic dysfunction. In many respects, its leaders have been highly creative in seeking solutions that do not entail a weakening of the party's hold on economic power.

On the contrary, the party has been busily shaping and pursuing grand strategic policies such as the Belt and Road Initiative (BRI) and Made in China 2025 (MIC 2025) to solve or alleviate many of its domestic political-economic problems.

This monograph, part two in the series, examines how the US and its allies can confront and counter these Chinese strategies

and initiatives. It will do so by taking seriously the challenge they present and suggesting responses that take into account Chinese vulnerabilities and the points of leverage available to the US and its allies. This linking of China's vulnerabilities and weaknesses, on the one hand, and its ambition and purpose with respect to its outward-focused policies, is essential for effective policy responses. If the domestic is not linked with the external, US policies are much more likely to become complacent, counterproductive, or susceptible to overreaching. In linking analyses of Beijing's domestic political economy with its external policies, the monograph will challenge some enduring but incorrect grand narratives that play into the hands of the CCP.



II. COUNTERING CHINA'S BELT AND ROAD INITIATIVE

The foundations of the Belt and Road Initiative and Made in China 2025 were established years before they became official Chinese policies.* When they were formally introduced earlier last decade, some viewed them as a more comprehensive strategic and economic response to the "pivot" or "rebalance" to Asia announced by President Barack Obama's administration. This rebalance included the Trans-Pacific Partnership (TPP) trade agreement, which was to be the centerpiece of Obama's economic response to China.

Regrettably, the US under Obama never ratified the TPP, and the Donald Trump administration subsequently pulled out of the

agreement. Even so, strategic and economic competition between the US and China has intensified. The "free and open Indo-Pacific" (FOIP) concept which is a reaffirmation of the liberal rules-based order serves partly as a counter to the BRI and MIC 2025. Trump has used Chinese industrial policies and theft of intellectual property as justification for an ongoing trade war.¹ In a speech at Hudson Institute that some have called the declaration of "Cold War 2.0,"² Vice President Mike Pence offered the following remarks:³

Photo Caption: Shipping containers at the new port in Trieste, Italy. The historic European city is preparing to open its new port to China, with Italy becoming the first Group-of-Seven nation to sign on to China's "One Belt, One Road" infrastructure project. The deal primes Trieste to receive investment from China as it eyes a faster trade route into the heart of Europe. (Marco Di Lauro/Getty Images)

^{*} Explanations of the Belt and Road Initiative and Made in China 2025 are available in the appendix.

Over the past 17 years, China's GDP has grown 9-fold; it has become the second-largest economy in the world. Much of this success was driven by American investment in China. And the Chinese Communist Party has also used an arsenal of policies inconsistent with free and fair trade, including tariffs, quotas, currency manipulation, forced technology transfer, intellectual property theft, and industrial subsidies doled out like candy, to name a few. These policies have built Beijing's manufacturing base, at the expense of its competitors—especially America...

Now, through the "Made in China 2025" plan, the Communist Party has set its sights on controlling 90% of the world's most advanced industries, including robotics, biotechnology, and artificial intelligence. To win the commanding heights of the 21st Century economy, Beijing has directed its bureaucrats and businesses to obtain American intellectual property—the foundation of our economic leadership—by any means necessary.

The US and global pushback against many Chinese policies has begun. In his October 2018 speech, Pence referred pointedly to China's "debt diplomacy," which is intended to expand Beijing's influence, create disproportionate benefits for the Chinese economy, and gain military bases for China throughout the Indo-Pacific when debt-burdened economies are unable to service onerous loans. The creation of "debt traps" under the BRI banner is now commonly spoken about, and "debt sustainability" has become an important measure of the BRI's desirability.⁴ In addition, the negative aspects of MIC 2025 are openly discussed and condemned.⁵ Countries such as the US, Japan, and Australia have announced a partnership to deliver high-quality "infrastructure" to the region—an explicit counter to the BRI.⁶

These countries have taken concrete measures to support that announcement. In October 2018, the US passed the Better Utilization of Investment Leading to Development (BUILD) Act, which increases the amount of public funding and streamlines the way the US works with the private sector and other countries to deliver developmental assistance to countries.⁷ This was a response to common criticisms that the amount of US development assistance and the way in which it was delivered required significant organizational and legislative reform.⁸ In July 2019, Canberra announced an Infrastructure Financing Facility for the Pacific Fund of approximately \$1.35 billion as part of Canberra's "Pacific Step-Up" to respond to China's growing footprint in that sub-region."⁹

In terms of responding constructively and resolutely to Chinese actions, Japan under Shinzo Abe has emerged as the political, strategic, and economic leader among allies and democracies in the Indo-Pacific region. To offset allies such as South Korea, which remains distracted by its reigniting of historical animosities with Japan and seeking a premature reconciliation with China and North Korea,¹⁰ Japan has been consistently putting meat on the bones of its previously declared "proactive contribution to peace" in the region.¹¹ In the context of countering Chinese economic policies, Tokyo recently announced the largest ever infrastructure fund set up by a Japanese bank-about \$925 million-to invest in overseas infrastructure projects by the end of 2019.12 This is in addition to Japan's Expanded Partnership for Quality Infrastructure, which aims to spend \$200 billion on infrastructure projects from 2016–21.13 Indeed, Japan, not China, is already the leading infrastructure investor in Southeast Asia.¹⁴

Considerable progress has been made in comprehending the potential threat of various outward-focused Chinese economic policies. Notwithstanding the concerted pushback and various initiatives by the US and other countries, they are largely at the reactive stage. It is illustrative that they have made desperate attempts to minimize the possibility that there will be Chinese-run dual-purpose ports in Vanuatu and Cambodia and have hurriedly offered countries such as the Solomon Islands and Papua New Guinea an alternative to the rollout of critical infrastructure by Chinese firms. The challenge is to construct a more strategic, comprehensive, effective, and affordable approach to countering China. The key is to understand where leverage exists to persuade or compel Beijing and Chinese firms to behave in certain ways. In this context, it is critical to understand the vulnerable foundations on which China's geo-economic strategies are being introduced in order to conceive of a better approach.

Confronting China's Grand Narrative

In the report's first volume, I argued that the BRI is a more meaningful brand in the region than the free and open Indo-Pacific. This might seem counterintuitive. While the BRI (and MIC 2025) are undoubtedly China-centric, the FOIP is a reaffirmation and championing of principles that all nations ought to embrace, such as national sovereignty and resilience, respect for the rule of law, and protection from the economic and political coercion openly practiced by Beijing.

The reality is that countries do not have to like or even trust Chinese policies to accept and/or embrace them. No country disputes the growing reports about Chinese debt traps and the disproportionate benefits secured by Chinese entities from the country's outward-focused economic policies. Neither is it contested that MIC 2025 is a blueprint to entrench the interests of Chinese firms in advanced sectors, with profound political and strategic ramifications.

Even so, over one hundred countries have signed memoranda of understanding (MOUs) with China or else released joint statements supporting various aspects of the BRI.¹⁵ These include the Association of Southeast Asian Nations (ASEAN), Central European economies, and about half a dozen South Pacific nations. Few countries are prepared to rebuff MIC 2025 and commit to concrete measures such as banning Huawei and other Chinese firms from rolling out 5G infrastructure. In fact, the frustration for the US and its partners tends to be that many countries will view Chinese policies warily and with suspicion while facilitating their implementation at the same time.

There are two keys to understanding this apparent paradox. The first is the skillful Chinese narrative of inevitable success and comprehensive dominance in the region-that time is on China's side and nations can either accept and accommodate that reality or resist it at their peril. This narrative has accelerated since Xi assumed power and abandoned the model adopted under Deng Xiaoping of "hiding brightness and biding time." As Xi declared at celebrations to mark the seventieth anniversary of the Communist Party (CCP), "no force can shake the foundations of this great nation."¹⁶ According to Xi, as China becomes a leading global power from 2035 onward, the Chinese people will enjoy the "common property" of the international system. He added that "the Chinese nation will stand with a more high-spirited image in the family of nations," and that "socialism with Chinese characteristics" is a "new choice" for other developing nations that seek economic growth but wish to retain their independence.¹⁷ Xi's underlying message is that it is futile and foolish to struggle against the historical inevitability of China's emergence and dominance.

Second, Beijing's grand narrative is one of Chinese competence and a results-focused approach, which it contrasts with approaches favored by the US and other democracies. On the day of President Trump's inauguration, the Chinese state-owned People's Daily devoted an entire page to editorials criticizing Western democracies as chaotic and suffering from "social crises." Democracy had "reached its limits," according to the paper, unlike China's one-party system, which, it said, offered stability, social harmony, competent policymaking and implementation, and economic progress.¹⁸ Editorials in China's state-owned press persistently argue that "endless political backbiting, bickering and policy reversals, which make the hallmarks of liberal democracy, have retarded economic and social progress and ignored the interests of most citizens," and they attack the "crisis and chaos swamp[ing] Western liberal democracy."19 China actively promotes its authoritarian model as a counterpoint, one which is politically stable, technically superior, and better able to pursue sensible policies in a consistent manner.²⁰

This narrative is highly persuasive throughout Asia. Its proponents in China and elsewhere begin from the basis that any political system ought to be assessed according to practical outcomes, and that there is no intrinsic value to liberal democratic systems that emphasize individual rights and freedoms without regard to the consequences. Beijing argues it has resolved the contradiction between the subordination of individual rights and freedoms to one-party rule on the one hand, and better social and economic outcomes, on the other—a contradiction the Cold War-era Communist regimes failed to address. Xi argues that the party is meeting the basic needs of over one billion people and that its authoritarian system has made it possible for people to live fulfilling and materially better lives.²¹

It is also the case that an overwhelming majority of countries in Asia are developing economies that have yet to fully industrialize. Only Japan, South Korea, Singapore, Taiwan, Australia, and New Zealand could be considered fully industrialized economies. The rest are straining to become middle-income economies, while only a small number of others, such as Malaysia and Thailand, are seeking to break out of the so-called "middle-income trap." It is true that authoritarian systems have demonstrated an impressive capacity to generate rapid economic growth through the forced mobilization of capital, land, and even labor in undeveloped and developing economies. Although such approaches tend to become increasingly inefficient and ineffective over time,²² they have generated significant GDP growth for some nations at the early stages of development.

For autocratic governments of developing countries, China is actively fueling growing confidence that a lack of political freedom or reform need not result in economic stagnation. In 2017, the fastest-growing economies in East Asia were Laos, the Philippines, Vietnam, Cambodia, Myanmar, and China—all either authoritarian systems, or in the case of the Philippines, suffering democratic erosion.

This needs some elaboration. There were several reasons for their strong growth performance: big-ticket infrastructure spending; a pickup in net exports (due to growing consumption levels throughout East Asia and increased consumption in advanced economies like the US); and growth in services sectors as middle-class populations in these countries enter the digital age.23 Their capacity to take advantage of economic opportunities is aided by changes to-or relaxing of-regulations and laws to encourage foreign investment and enhance entrepreneurial initiative. For example, in these countries, state-owned and other entities are encouraged to engage in market-based transactions with each other and with international firms. State assets have been partially privatized to encourage and develop commercial know-how. Even so, ruling elites continue to largely control the distribution of land, capital, and contracts: political connections are the gateway to commercial opportunity.24

This means that the relationship between the ruling party and commercial elites is becoming more cozy and intimate, not less, impeding the emergence of an *independent* middle class. Such an arrangement is clearly appealing to autocrats throughout Asia, whose primary objective is to remain in power. In this sense, China's message—that the higher priority is to achieve "order" rather than guaranteeing "justice" for the individual—is effective.

The acclaimed domestic policy competence of the CCP can (and should be) openly challenged after many decades in which the US and other governments vacated the field and allowed the party to write its own sanitized and self-serving performance record.²⁵ With respect to this monograph, the ambition of China's outward-focused economic policies is clear. Their flaws, limitations, and failures should also inform both the public narrative and a strategy for formulating a response. In both public narrative and strategy, it is imperative to connect the domestic vulnerabilities and structural problems of the Chinese political-economic model with an effective and credible approach for responding to Beijing's outward-focused policies.

Responding to the BRI Trap

The macrostatistics of the BRI region are impressive. For example, the BRI corridor economies accounted for over 40 percent of global trade in 2018, compared to 15 percent in 1990 and less than 25 percent in 2010.²⁶ In 2018, these economies accounted for over one-third of all global foreign direct investment (FDI). But lumping the BRI corridor economies together conceals massive differences with respect to their regional and global importance. For example, East Asia dominates global exports, while South Asia and sub-Saharan Africa are far less significant, as illustrated in figure 1. Even in the Middle East and North Africa, half the

Figure 1: Percentage of Global Exports by Region 1990–2016

East Asia and Pacific Europe and Central Asia

Percentage of global exports



INFORMATION AND FIGURE SOURCE: IMF DIRECTION OF TRADE STATISTICS DATABASE, 2019, HTTPS://DATA.IMF.ORG/REGULAR.ASPX?KEY=61013712

exports of corridor economies were accounted for by Saudi Arabia and the United Arab Emirates. In South Asia, India's exports are more than nine times the value of exports from Bangladesh, the second-largest exporter in that group.

The point is that many corridor economies are poorly integrated into global and regional markets and supply chains. Most of these economies are low-income-per-capita nations with policies that do not welcome broader and deeper economic integration with neighbors and the region.²⁷ Tariff, behind-the-border, and FDI restrictions are generally far more austere in developing BRI corridor economies than in high-income economies, whether or not they are within the BRI geographical purview. Even allowing for trends over the past two decades, deeper integration has been occurring for the corridor economies within East Asia, within Europe, and within Central Asia, where intraregional trade is dominant. But integration between corridors remains slow, while enduring political and policy arrangements suggest that increased connectivity between corridors will mostly prove disappointing, even if there is a burst of infrastructure investment in the poorer economies. The point is that for commercially oriented entities, most of the corridor economies are not attractive places in which to invest.²⁸

It is worth noting that since 2013, the volume of Chinese outward investment in non-BRI countries has increased more rapidly than the volume of investment in BRI countries. The notable exception is China's construction projects in BRI economies, which have exceeded its construction projects in non-BRI countries.²⁹ This suggests two things: first, that Chinese construction companies are the most enthusiastic supporters of the BRI, as it allows them to quickly deploy excess capacity outwards; and second, that the BRI is pursuing a speculative and high-risk "build and they will come" approach to economic development in many less-developed BRI areas. "Build and they will come" mirrors China's domestic economic development approach since the mid-1990s, in which fixed investment drives economic activity, whether demand for that investment is evident or not.





INFORMATION SOURCE: MIS, MOODY'S ANALYTICS FIGURE SOURCE: "THE BELT AND ROAD INITIATIVE — SIX YEARS ON," MOODY'S ANALYTICS JUNE 2019 HTTPS://WWW.MOODYSANALYTICS.COM/-/MEDIA/ARTICLE/2019/BELT-AND-ROAD-INITIATIVE.PDF

While increased investments in many of these corridor nations do provide them with potential benefits and increased relevance to other trading economies, managing the cost of new infrastructure would outweigh the gains for many of these low-income economies. Using World Bank accountability methodologies, fewer than one-third of BRI countries have fiscal mechanisms in place to manage public-private partnership (PPP) liabilities, and about one-quarter can reliably reflect and integrate PPP in sovereign balance sheets.³⁰ In this sense, widely quoted statistics—such as that of the Asian Development Bank, which says that developing Asia needs \$1.7 trillion in annual infrastructure investment up to 2030 to maintain present

levels of growth³¹—must be taken with a grain of salt. The risks of overinvestment are also compounded by the reality that the sovereign debt levels of almost 43 percent of BRI countries listed are rated as "junk" by the three main ratings agencies, while 32 percent have no rating at all.³² Figure 2 illustrates the sovereign ratings of BRI countries.

Reliable estimates demonstrate that debt risk in low-income BRI corridor economies (i.e., the majority of corridor economies) has risen substantially in recent years. About 40 percent of those low-income economies are now at high risk of debt, double the figure in 2013,³³ when Xi first began his BRI push. Another study

suggests that twelve out of forty-three low-income corridor economies would experience a considerable deterioration in the medium-term outlook for debt sustainability if they took part in large-scale infrastructure projects. This is true even allowing for modeling suggesting that BRI investments would boost growth in those economies.³⁴

All of the above is pertinent, as the record indicates that over 60 percent of the value of all BRI projects is financed through public or government-guaranteed debt in these corridor countries.³⁵

With the above realities in mind, it does not make sense for the US and other countries to seek to replicate the ambitious expanse of the BRI. In important respects, it would be impossible for them to do so in any event. Private firms are far more reliant PPPs for even strategic investments in the region, and thus would be reluctant to invest in unprofitable projects without government guarantees on return on investment (ROI). Even where a strong case for nation-building could be made for certain fixed investments, private firms would still need an attractive ROI to justify the outlays and efforts to their shareholders.

Competing in Profitable BRI Regions

Beijing conceived the BRI economic corridors with a Chinacentric strategic and economic worldview. As mentioned earlier in the preceding report, *China's Economic Slowdown Part I*, the China-Indo-China economic corridor is intended to help development in southern Chinese provinces such as Yunnan, while the China-Pakistan economic corridor is designed to fuel development in areas such as Xinjiang and to provide routes that circumvent the Malacca Straits. Many of the countries on the periphery of China's land borders are ruled by authoritarian regimes, have developing economies and poor governance standards, and offer unattractive opportunities to American and other international firms. It would make little sense for the US to focus too heavily on areas that play to China's authoritarian strengths and whose development would benefit China disproportionately. The better approach would be for Washington to informally divide responsibilities with other like-minded countries and to concentrate on sub-regions that suit its interests and strengths. For example, Japan is the leading source of FDI and infrastructure investment in Southeast Asia, while the Asian Development Bank and other multilateral banks are key entities for Central Asia. In Eastern and Central Europe, continental European entities remain the dominant investors.³⁶ This is consistent with enduring trends showing that intraregional FDI and trade are underappreciated and underestimated.

For the US, a focus on Southeast Asia as the primary theater for responding to and countering aspects of the BRI is critical for several reasons. First, the geostrategic and geo-economic importance of Southeast Asia cannot be understated. Countries like Singapore, Malaysia, Indonesia, Thailand, the Philippines, and Vietnam are allies and/or security partners, occupying prime strategic real estate. Their national capabilities, though small in comparison with China's, as well as their location, can severely complicate or else enhance Beijing's presence and influence in the Indo-Pacific region.³⁷

The ten major Southeast Asian states that form ASEAN have a combined GDP of almost \$3 trillion and comprise a subregion where local and foreign supply chains are increasingly integrated. The lip service paid to "ASEAN centrality" means the major Southeast Asian nations remain in a strong position to define the diplomatic conversation and language in the Indo-Pacific. As is commonly observed, Southeast Asia is a uniquely contested space and is at the front line of China's expanding diplomatic influence, economic leverage, and strategic planning.³⁸ It is also a region continually vulnerable to the Chinese vision of authoritarian state-led capitalism and the erosion of liberal-democratic institutions and practices.³⁹

For both the US and China, it is of higher strategic importance to influence and/or control digital data and standards in Southeast Asia than in other sub-regions. There is more advanced economic and social readiness for a digital economy in Southeast Asia than in most other parts of the BRI, such as Central Asia and South Asia, excluding India. Indeed, a strong case could be made that the digital revolution is changing and "disrupting" Southeast Asia at least as rapidly as any other region in the world,⁴⁰ making it the most important sub-region for China's Digital Silk Road – a subset of the BRI to enhance digital connectivity abroad and link these economies with China as the central hub - as far as the US is concerned. Its importance is increased by Chinese economic activities, such as investments in that region and the laying of fiber optic and undersea cables, which are of high strategic significance. ⁴¹

Most broadly, the Chinese hopes of "easing America out of Asia" can only be fulfilled if Southeast Asia becomes a Sinocentric and China-dominated sub-region. At the same time, the US cannot entrench and strengthen its role and presence in the Indo-Pacific without entrenching and strengthening its role and presence in Southeast Asia.

Second, there are stronger market-based demand signals for greater fixed investment in Southeast Asia than in the other BRI zones. Given the area's commercial attractiveness, it is not surprising that Chinese state-controlled firms favor Southeast Asia over all other BRI sub-regions.⁴² For private firms as well, the commercial case in Southeast Asia tends to be far more compelling than in other BRI sub-regions.

Moreover, ASEAN economies are already deeply integrated into global production networks, and the US government and US firms have established economic footholds in Southeast Asia. FDI from advanced economies such as Japan, the US, the EU, South Korea, Australia, and Singapore far exceeds that from China. More than half of all FDI in Singapore, Thailand, and the Philippines is headed to the services sectors, which play to American strengths, while about 40 percent of FDI in Malaysia and Myanmar are bound for these sectors. The emphasis in Vietnam and Indonesia is on manufacturing, which suits America's world-class manufacturing multinationals.⁴³ More high-quality investment in Southeast Asia will have positive spillover effects for the entire region and the US.

It is also helpful that the ASEAN nations already have a developed "connectivity agenda" under the ASEAN Connectivity 2025 master plan,⁴⁴ which makes it easier for US entities to tap into. The master plan includes principles of financial sustainability, high regulatory standards for transparency and quality, fair and commercially sensible procurement processes, and an emphasis on innovation. This has allowed Southeast Asia to become the leading external destination for Japanese firms. It ought to be the preferred destination for US firms as well at a time when decoupling of the US and Chinese economies is likely to accelerate.⁴⁵

Third, domestic protectionist measures, such as minimum procurement guotas and discounts for domestic firms and extra tendering points for domestic entities are more manageable for foreign firms in Southeast Asia than in regions such as Central Asia, South Asia, and the Middle East.⁴⁶ This offers one advantage to firms from the US and other advanced economies over Chinese competitors. This author, in conversations with politicians, officials, and businesspeople throughout Southeast Asia, learned that there is resentment over the accumulating evidence that well over 60 percent of all contracts are awarded to Chinese firms when Chinese funding is involved. Another report puts the figure at 89 percent for Chinese firms, compared to only 8 percent for local firms. When Chinese entities are not involved in funding the project and tendering processes play out as was intended, only 30 percent of contracts are awarded to Chinese firms, 30 percent to foreign firms, and 40 percent to local firms.⁴⁷ For transportation projects funded by Chinese entities, around 90 percent of contracts by value are awarded to Chinese firms.⁴⁸

Indeed, there is palpable resentment in these economies that Chinese-funded BRI projects are explicitly tied to the

provision of Chinese equipment, services, or even labor.⁴⁹ The extreme example is the port city of Koh Kong in Cambodia, where the construction of a virtual Chinese city is raising questions about the effective erosion of sovereignty and the emergence of a new colonialism.⁵⁰ Economies with relatively strong institutions and better access to global capital, such as Malaysia, have been successful in renegotiating the terms of BRI projects.⁵¹ But China cannot commit to a genuinely open and transparent regime for the tendering and implementation of projects. A China-centric BRI exists to offer some outlet for Beijing's own domestic political-economic problems of capital misallocation and excess capacity. The whole point of the BRI is to predetermine the outcome of economic competition or else extract enduring economic rents in the BRI regions.⁵²

Ensuring Fair Competition

The BRI is here to stay, and the considerable resources China is devoting to it mean that few countries can afford to reject it outright. Moreover, Beijing's investment in infrastructure and other sectors is facilitating greater trade and other economic transactions with China.⁵³ The object for the US is not to stop the BRI but to force it to confront the challenges of its own contradictions and inefficiencies.

It is first critical to understand how the BRI is financed and funded from the Chinese side. More than four-fifths of the funding comes from the state-owned policy banks and statecontrolled commercial banks. These entities are also the major source of capital for the government-sponsored bilateral funds and are the primary issuers of BRI bonds. In total, the stateowned policy banks and state-controlled commercial banks provide around 87 percent of all Chinese BRI funding. Of the remaining 13 percent, about 9 percent comes from Chinese firms (mainly through funds raised from equity financing in Chinese capital markets), 2 percent from multilateral financial institutions such as the Asian Infrastructure Investment Bank (AIIB), and 2 percent from the Silk Road Fund. Of the state-owned policy banks, the China Development Bank (CBD) and the Export–Import Bank of China (Exim Bank) account for about 45 percent of funding under this category. Of the state-owned commercial banks, the "big four" (the Industrial and Commercial Bank of China [ICBC], Bank of China, the China Construction Bank, and the Agricultural Bank of China) provide around 82 percent of funding under this category. The first three of the big four mainly provide funding through a line of credit to Chinese firms engaged in BRI projects, while the Agricultural Bank tends to issue and insure international bonds in addition to issuing loans.

With respect to the Silk Road Fund, around two-thirds of the \$40 billion in assets was supplied by China's foreign currency reserves, with another 15 percent coming from China's sovereign wealth fund, the China Investment Corporation (CIC). The remainder of the Silk Road Fund is financed by China's state-owned banks and through direct capital injections from the Chinese central and local governments. The bilateral funds such as the China-ASEAN Investment Cooperation Fund and the China-Central and Eastern Europe Investment Cooperation Fund are predominantly sponsored by Chinese state-owned banks, despite their status as bilateral funds.⁵⁴

In summary, the BRI is not a magical policy initiative with rivers of unused funding from deep within the Chinese system. As illustrated in figure 3, it is financed predominantly from the already overleveraged and vulnerable Chinese financial system described in the preceding report, *China's Economic Slowdown: Root Causes, Beijing's Response and Strategic Implications for the US and Allies.* As China openly admits, the BRI needs to be commercially viable and cannot survive as a gigantic aid program to advance China's strategic objectives. Yet the BRI is far more attractive to state-controlled than private firms because the former receive more support and finance to take on BRI projects. Almost two-thirds of state-controlled firms expressed enthusiasm for the BRI, compared to about one-third of private Chinese firms surveyed.⁵⁵ Excess capacity



Figure 3: Sources of Chinese Funding for BRI Projects

INFORMATION SOURCE: THE STATE COUNCIL INFORMATION OFFICE OF CHINA, WWW.SCIO.GOV.CN; CDB (2017, 2018); XINHUA, WWW.XINHUANET.COM/FORTUNE, WWW.XINHUANET. COM/MONEY; BANK OF CHINA (2018); ICBC (2017, 2018); WWW.CCB.COM; HTTPS://FINANCE.SINA.COM.CN/MONEY/BANK; WWW.CHINA-ASEAN-FUND.COM, WWW.CHINA-CEEFUND. COM; WWW.CHINA-EURASIAN-FUND.COM; WWW.SINOCEEF.COM; 21ST CENTURY BUSINESS HERALD, HTTPS://L21JINGJI.COM; BELT AND ROAD ENERGY COOPERATION, HTTP:// OBOR.NEA.GOV.CN; RUSSIA-CHINA INVESTMENT FUND, HTTPS://CN.INVESTINRUSSIA.COM; MOFCOM, WWW.MOFCOM.GOV.CN; CHINA-LAC COOPERATION FUND, WWW.CLACFUND. COM.CN; WWW.THE PAPER.CN; YICAI.COM; YI (2019); AIB (2019); NDB (2018); PBOC (2019); ECONOMIC INFORMATION DAILY, WWW.JJCKB.CN; CLIMATE BONDS INITIATIVE, HTTPS:// CN.CLIMATEBONDS.NET; WWW.EXIMBANK.GOV.CN; WWW.CE.CN8; HTTPS://ZAOBAO.COM. FIGURE SOURCE: ALEX HE, "THE BELT AND ROAD INITIATIVE: MOTIVATIONS, FINANCING, EXPANSION AND CHALLENGES OF XI'S EVER-EXPANDING STRATEGY," CIGI PAPERS NO. 225, SEPTEMBER 2019

is also far more a problem for inefficient state-controlled firms than for private firms.

Beyond an already overstretched domestic financial/banking and fiscal system, there are further acute sources of pressure. Although Xi has seized upon the BRI as his flagship initiative, it is only the project's marketing and promotion that is top-down. In practice, it is yet another way for central and local statecontrolled firms to gain privileged access to cheap funding for overseas projects, which exacerbates the problems described in the first volume of this report.

Moreover, the BRI creates a new and additional source for moral hazard, since the more BRI-branded projects local governments undertake, the more they are rewarded. This discourages them from prudently winding back investments in even more questionable projects. For example, in the name of supporting the BRI, local leaders were assessed according to the volume of rail freight trips to Europe. From 2011–16, provincial governments spent over \$300 million subsidizing China-Europe block trains. So eager were these governments to announce new train services that they were undercutting each other with more and more generous subsidies.⁵⁶ This is just one example of how the BRI is encouraging officials to show their support for Xi's plan rather than become more fiscally responsible and efficient. The inclusion of the BRI in the CCP constitution only increases the difficulty of winding back the initiative in a sensible way.

Notably, there is widespread internal criticism of Xi's constant desire to expand the reaches of the BRI and the pressure this is placing on provincial and local officials to follow the plan at any cost.⁵⁷ One estimate by a Chinese researcher is that there are only about twenty specialists in the country with the expertise to properly assess Central Asian investments.⁵⁸ Others contrast the wastefulness of the BRI with the fact that much of the population is struggling to pay for school, health care, and elder care.⁵⁹

To be sure, China has considerable immediate advantages when it comes to winning BRI contracts. First, they often include locked-in guarantees of winning the tender. In addition, it can use tools that enhance its capacity for elite capture (e.g., bribery or funding ostentatious but economically questionable projects). Furthermore, it can subsidize its firms or else force Chinese firms to cross-subsidize each other.

Nevertheless, and beyond the immediate priority of creating outlets for excess capacity of overinvested firms, it is imperative for BRI projects to be sufficiently profitable in the medium term (or at least generate adequate cashflow) to ensure loans are eventually repaid to Chinese lending and funding entities. The Chinese financial and banking system depends on the BRI being an outbound investment initiative (that also creates economic rents for Chinese entities), rather than a development assistance initiative.

Leveraging China's Unsustainable Investment Strategy

To counter Chinese geostrategy, it is important for the US to find ways to guarantee that Beijing gets less strategic bang for its buck. One way is to ensure Chinese firms compete according to established standards for commerciality, transparency, and quality in potentially profitable markets and sectors.

Consider the increased investment directed toward countries that are strategically and/or economically important to China (and the US) since 2013. It is the increased focus on Southeast Asian countries such as Malaysia, Singapore, Indonesia, and Laos that is noteworthy. Malaysia and Singapore are traditional US security partners and are significant economies in the supply and value chains in Southeast Asia. Singapore is also the financial and services hub in the region for advanced economies. Indonesia, critically located from a strategic perspective, is likely to emerge as the economic giant in Southeast Asia. Its size makes it a natural leader within ASEAN if it continues its progress. All three are Southeast Asian strategic "swing states," while Laos (and Cambodia) have played the role of spoiler on the issue of ASEAN taking a more robust stance against Chinese activities in the South China Sea.

It is critical that the US and other like-minded countries work with these and other key Southeast Asian countries to ensure that Chinese firms do not enjoy privileged access to investment and commercial opportunities in the region. One way is bilateral and multilateral cooperation to define common tendering and procurement standards for investment activity. The objective would not be to exclude Chinese firms, but to ensure that all external commercial actors compete for projects fairly and transparently, abide by common procurement standards, and observe common rules and standards on issues such as gathering and accumulation of data and personal information.

This would mean using the regional standards and processes of multilateral organizations such as the World Bank and Asian Development Bank rather than individual agreements introduced by China under the current BRI structure. It would also restrict Beijing's attempts to entrench its advantages in defining standards and rules, which come from its economic incumbency and dominant presence. Chinese firms would either compete for projects using the preferred standards and processes of the US, or else enter into less-profitable markets. Having lost some bids in more attractive markets in Southeast Asia, these firms would not be able to stand still, as they need to utilize excess capacity, while provincial and central officials remain under constant pressure to support more BRI projects in attractive or less-attractive markets.

There is also benefit in merely forcing China to compete for contracts in competitive markets even if the US (or a like-minded country) does not prevail in that instance. Chinese firms will often abandon prudential terms in a desperate effort to win the tender. For example, for the investment in high-speed rail projects in Malaysia, Thailand, and Indonesia, Chinese firms, to prevail over competitive Japanese tenders, gave up the protection of government guarantee from receiving countries.⁶⁰ If the Chinese terms cannot be matched, it is still a US interest for Chinese entities (and ultimately the Chinese government) to take on the risk.

Figure 4 shows the leading destinations for Chinese investment and construction contracts from 2014-2018.

For the US, there is a further strategic advantage in pushing Chinese firms to take on less-profitable projects and/or projects in higher-risk markets (bearing in mind that when BRI participants sign joint venture agreements with sovereign entities, as they often do, a high proportion of their sovereign risk ratings are "junk" or they have no rating at all).

The renmimbi (RMB) has failed to become a genuine international currency. Given the CCP's determination to capture national savings and retain control over the country's deployment of capital, Beijing is committed to a closed capital

	AFTER	VALUE	
1	Pakistan	39.51	
2	Nigeria	30.75	
3	Malaysia	29.89	
4	Singapore	28.03	
5	Indonesia	26.12	
6	Russia	24.25	
7	Bangladesh	22.84	
8	UAE	21.22	
9	Laos	17.86	
10	Israel	16.67	
11	Egypt	15.69	
12	Saudi Arabia	13.83	
13	Iran	12.97	
14	India	10.93	
15	Kazakhstan	10.44	

Figure 4: China's Investment and Construction Contracts by Destination in US billion \$, 2014-2018

INFORMATION SOURCE: AEI AND HERITAGE FOUNDATION (2019) FIGURE SOURCE: ALEX HE, "THE BELT AND ROAD INITIATIVE: MOTIVATIONS, FINANCING, EXPANSION AND CHALLENGES OF XI'S EVER-EXPANDING STRATEGY," CIGI PAPERS NO. 225, SEPTEMBER 2019, HTTPS://WWW.CIGIONLINE.ORG/PUBLICATIONS/BELT-AND-ROAD-INITIATIVE-MOTIVATIONS-FINANCING-EXPANSION-AND-CHALLENGES-XIS-EVER

account and cannot take the risk that the RMB will too easily flee the country. Paranoid about the instability resulting from the ups and downs of a liberalized economy and the resulting fluctuations in the value of its currency, it will not allow the RMB to be fully convertible.

Nor will the CCP allow the unrestricted issuing of corporate bonds and other forms of private debt, thereby preventing the emergence of deep and diverse financial markets inside China. Under these circumstances, the RMB is generally used to trade directly with, and invest in, China. However, it is not generally considered a safe store of value to park and protect



Figure 5: International Currency Use of Select Major Currencies in 2017

INFORMATION SOURCE: BIS, IMF, RBA, SWIFT FIGURE SOURCE: CALLAN WINDSOR AND DAVID HALPERIN, "RMB INTERNATIONALISATION: WHERE TO NEXT?," RBA BULLETIN, SEPTEMBER 2018, HTTPS://WWW.RBA.GOV.AU/PUBLICATIONS/BULLETIN/2018/SEP/RMB-INTERNATIONALISATION-WHERE-TO-NEXT.HTML#R6

accumulated wealth. Consequently, its use in international transactions is miniscule considering China's economic size and importance. This is demonstrated in figure 5, which illustrates the global use of the US dollar (USD), the euro (EUR), the Japanese yen (JPY), the British pound (GBP), and the RMB in 2017.

Partner firms and contractors engaged in BRI projects generally prefer that the contracts be executed, like most global transactions, in US dollars or some other fully convertible currency, such as euros. This includes firms and contractors in areas such as Africa and Eastern Europe. To accommodate this preference, China has drawn billions from its admittedly massive stock of foreign exchange reserves to finance BRI projects. Most of the drawdown has been in US dollars, which comprised around 58 percent of China's reserves in 2014.⁶¹

Beijing has since refused to give more updated figures. Publicly available estimates from the US suggest China holds around \$1.1 trillion.⁶²

However, the so-called forex war chest is not illimitable or as ample for any foreseeable contingency as is frequently assumed. Figure 6 illustrates China's foreign currency reserves in trillions of US dollars from 2013–19.

The level of Beijing's foreign reserves is sufficient to pass three out of the four International Monetary Fund tests for adequacy.⁶³ However, the one it fails is the need to cover 20 percent of broad money supply (M2), which happens to be the one pertinent to highly overleveraged economies such as China's. The ratio (of forex reserves to M2) is currently just above 11 percent.

Figure 6: China's Foreign Currency Reserves, 2013-2019





INFORMATION SOURCE: BLOOMBERG FIGURE SOURCE: NOAH SMITH, "THE U.S.-CHINA CURRENCY WAR IS FOR LOSERS," BLOOMBERG, 7 AUGUST, 2019, HTTPS:// WWW.BLOOMBERG.COM/OPINION/ARTICLES/2019-08-07/U-S-CHINA-TRADE-WAR-CURRENCY-IS-THE-NEW-FRONT

Moreover, the fastest way for China to increase its foreign exchange reserves is through current account surplus. Although Beijing's trade surplus with the US is still substantial, its overall current account surplus has been in structural decline since 2008 and is approaching zero.

The point is that China cannot sustain a growing portfolio of BRI investments in commercially unsound or unprofitable projects. Unless it has timely and adequate returns from existing investments, it will have a harder time financing the BRI without further significant drawings from its foreign exchange reserves. This would degrade the government's ability to use the reserves to arrest any serious system-wide domestic financial panic.⁶⁴ It would also make it more difficult for it to continue to manage the RMB's peg to a basket of international currencies to prevent massive devaluation in the event of such a crisis (as asset values fall and capital flight out of the country accelerates).⁶⁵ Beijing would be unable to support an expansive BRI strategy and have no option but to wind it back.

Figure 7 shows the decline of China's current account balance since it peaked just before 2008.

Figure 7: China's Current Account Balance, 2003-2018





INFORMATION SOURCE: BLOOMBERG FIGURE SOURCE: NOAH SMITH, "CHINA'S PLAN TO END ITS U.S. TRADE SURPLUS IS A RED HERRING," BLOOMBERG, 21 JANUARY 2019, HTTPS://WWW.BLOOMBERG.COM/OPINION/ARTICLES/2019-01-20/BE-SKEPTICAL-OF-CHINA-OFFER-TO-ELIMINATE-TRADE-SURPLUS-WITH-U-S

Pressuring China to Cooperate through Competition

The US-led pushback against the BRI has focused on China's creation of extreme debt traps in strategically important countries such as Sri Lanka, Pakistan, and Malaysia, in return for Chinese use of dual-purpose (i.e., civilian and military) utilities or diplomatic support for Chinese policies. From a public narrative perspective and in terms of agreeing on common rules for any large capital

project (BRI or non-BRI), the above cases set the bar far too high for potential Chinese malfeasance in inducing debt distress for BRI countries.

The problem with Beijing's low transparency and poor prudential standards is the asymmetry between Chinese financing and that of the host country, when considered as a proportion of national debt and GDP. It is important to remember that official development assistance (ODA), which has a grant element of at least 25 percent, accounts for a small share of BRI financing. Up to four-fifths of Chinese financing is classified as non-concessional, with a grant element of below 25 percent. This means that most Chinese financing is a loan that has to be repaid.

Although numbers are difficult to locate and confirm, figures produced by AidData covering 4,300 projects financed by Chinese entities from 2000–14 indicate that interest rates are above 5 percent for 40 percent of loans, while they are 2–5 percent for 25 percent of loans.⁶⁶ Even after taking into account the positive spillovers from BRI projects, debt-to-GDP ratios for all ASEAN countries (with the exception of Myanmar and possibly Indonesia) are predicted to rise significantly.⁶⁷

The modeling does not imply that any country will necessarily come under debt distress. But that possibility becomes far more likely if projects are inadequately or opaquely assessed, structured, and delivered, as is currently occurring under the BRI banner. This offers a stronger public and policy case that standards preferred by the US ought to be adopted in highpriority markets in Southeast and South Asia.

Furthermore, the more effectively the US and others compete in these priority markets, the more likely it is that China will be forced to cooperate more genuinely with other governments, foreign firms, and multilateral organizations in deploying its BRI capital in these markets. Finally, it is true that China's willingness to operationalize elite capture is difficult to counter. This might be through the removal of "conditionality" when offering even non-concessionary loans (such as governance or policy reform, respect for human rights, and labor and environmental standards). Other more overtly corrupt examples include bankrolling ostentatious projects like presidential palaces, outright bribery, or else political slush funds to decision makers.⁶⁸

Forcing Higher Standards and Terms for BRI Investment Projects

Part of a US response must be based on collaborating with others to collectively persuade or pressure host countries to accept appropriate formal standards for all investment projects. There is already a rich body of policy and practice regarding standards and processes that should be applied—including common audit standards, transparency initiatives, red flags, and community monitoring.⁶⁹ If the US and other countries are persistent and insistent on these standards, it will become difficult for many governments to formally rebuff them.

It is notable that all the countries that have pushed back and renegotiated terms with China are democracies such as Malaysia and Sri Lanka.⁷⁰ Democratically elected governments have also been forced to publicly deny to their populations that China is seeking dual-use facilities on their territory, for example in Vanuatu and Sri Lanka. While around 40 percent of the top fifty countries with BRI projects are autocracies, almost all of the countries that are important for the US to engage with in countering aspects of the BRI are fledging and/or imperfect democracies—Indonesia, Singapore, Malaysia, the Philippines, Thailand, India, Papua New Guinea, and the South Pacific Island nations. They have relatively strong civil societies that resent any exploitation of their sovereign territory and resources by a great power.

In contrast, authoritarian societies such as Cambodia and Laos are the most susceptible to sustained elite capture and

the exchange of short-term gains for longer-term diminution of their sovereignty and political independence. For authoritarian states like Vietnam, enduring strategic hostility to Beijing means that countering Chinese encroachment is already baked into policies and actions. As a counter to elite capture, the US and other countries need to be up-front about publicly promoting their preferred approach to investment and criticizing China's preferred approach.

Scrutiny of China for creating debt traps has put Beijing on the back foot and placed the onus on it to show it is not creating dangerous indebtedness for host countries. The Second Belt and Road Forum in April 2019 was largely characterized by Xi defensively reassuring participants that the BRI was focused on being "inclusive" and "green" and building "quality infrastructure" that was financially "sustainable."⁷¹ Contrast this to the first Belt and Road Forum speech in May 2017, which Xi framed around the enduring greatness of Chinese civilization and where he grandly laid out the vast ambition of the BRI.⁷²

This changing discussion is helpful. In one typical poll conducted by ISEAS-Yusof Ishak Institute in Singapore, close to half of all respondents from ASEAN countries believed that the BRI will draw them into China's orbit. That fear is widely shared across seven ASEAN member states: Singapore (60.2 percent), Vietnam (58.7 percent), Brunei (52.3 percent), Malaysia (51.8 percent), Thailand (51.3 percent), Indonesia (44.4 percent), and the Philippines (38.7 percent). The overwhelming majority of the respondents (70 percent) believe their government "should be cautious in negotiating BRI projects to avoid getting into unsustainable financial debts with China." This reservation is noticeable in all nine ASEAN member states, and particularly strong in Malaysia (84.2 percent), the Philippines (78.6 percent), Thailand (72.7 percent), Indonesia (72.6 percent), and Cambodia (70.8 percent).⁷³

Overtly holding China to that standard and encouraging greater activism by the community and other stakeholders in even imperfect democratic nations within the BRI will generally work to US advantage.



III. CHALLENGING MADE IN CHINA 2025 AND BEIJING'S MILITARY-CIVIL STRATEGY

In 2010, China did not only overtake Japan as the world's second-largest economy; it also overtook Japan as the country filing the largest number of domestic patents in the world. In 2018, China filed about 1.8 million such patents, about three times more than the United States.

While it is true that many of the Chinese applications fall far below international patent standards and the number of filings can be a misleading indicator of economic strength and innovation,⁷⁴ it is a sign of the country's restless ambition. Beijing's national plans,⁷⁵ such as MIC 2025, the Thirteenth Five Year Plan for Science and Technology, the Thirteenth Five Year Plan for National Informatization, and the National Cybersecurity Strategy, can be overwhelming and intimidating to countries wishing to respond and to counter these blueprints. In national upscaling and innovation, there is widespread recognition that China has a head start when it comes to wholeof-government approaches to technological competition with the US and other advanced economies.

Raising the stakes even higher is that Xi Jinping has tightened the party's executive and legal grip over state-controlled and major private firms to achieve party and national objectives. Chinese policies and initiatives to accelerate progress in areas such as robotics, artificial intelligence (AI), unmanned and

Photo Caption: A robot copies the movement of a visitor wearing a sensor suit at the 5G stand during the opening of the 2019 Beijing International Horticultural Exhibition on April 29, 2019. (Visual China Group via Getty Images)

automated systems, quantum computing, space technology, and hypersonic capabilities have become even more top-down and are being linked increasingly with "civil-military fusion" in the country.⁷⁶ The Central Commission for Integrated Military and Civilian Development was established in 2017 under the party's leadership to achieve and coordinate efforts to that end.

However, China continues to have significant weaknesses and vulnerabilities in this regard despite its narrative of growing technological dominance over the US and superior whole-of-nation coordination. The key is to ensure that these weaknesses are exposed and exploited if Beijing continues to pursue strategic, economic, and political policies detrimental to the US and allies.

The Weaknesses of China's State-Led Approach

Up to the mid-2000s, China's approach largely mirrored the general East Asian model of export development: make it as easy and profitable as possible (through legitimate and illegitimate means) for advanced multinational firms to base operations in China, and use their presence to accelerate domestic innovation. Since then, China has developed what many refer to as a "China Inc." model based on indigenous innovation that occurs at the expense of foreign firms. Much of this was codified in its National Medium- and Long-Term Program for Science and Technology Development (2006–20), which called for China to master over 400 core technologies.⁷⁷ As described in the first volume of this report, MIC 2025 is built on those foundations as a blueprint for China's future exportoriented model.

Reporting on the 119 Chinese companies in the Fortune 500 list for 2019—the same number as in the US—was accompanied by headlines such as "It's China's World" and "the Chinese century nears its third decade."⁷⁸ While this is an impressive achievement (there were only forty-nine on the list in 2010), the overwhelming majority of listed Chinese firms operate in highly protected and virtual monopoly (or oligopoly) environments. Almost all enjoyed substantial CCP support in the form of subsidies, tax breaks, and other advantages.

Importantly, more than 80 percent of their revenue is still earned in the Chinese market. Their international presence, especially in advanced economies, is still disproportionately limited. On common measures of efficiency and total factor productivity, return-on-assets, return-on-investment, etc., these firms fall significantly short of their advanced economy competitors.⁷⁹

With respect to the current state of play in key technologies, China is not as dominant as much of the common reporting might suggest. This is true for several reasons.

First, China is not yet the standard setter for high-tech and emerging industries. For example, one comprehensive analysis of over eighty technologies in eleven categories found that more than 90 percent of technologies used in China adhered to global standards, which were largely shaped by advanced economy firms and governments.⁸⁰ Indeed, MIC 2025 and other Chinese blueprints were adopted to reverse this situation of global standards were being set by other countries.

Second, supply chains for relatively lower-tech tradable goods are becoming more regional, which accounts for much of the increase in trade between China and the ASEAN countries. In contrast, supply chains for high-tech products are becoming more global, and China is seeking to dominate them through greater horizontal and vertical integration.

However, in high-technology supply chains, Beijing is still greatly dependent on global technology inflows and global supply chains. As figure 8 illustrates, in areas such as robotics, aeronautics, semiconductors, and closed-circuit chips, Chinese firms remain heavily dependent on foreign markets and firms, while domestic firms possess a very small share of the domestic market.

Figure 8: Chinese Share of Production in Key Sectors & Reliance on Global Sources and Supply Chains, 2018

Chinese Producers Non-Chinese Producers		Market Share in	Market Share	% of first-tier components from
Technology		China ¹	in Rest of World ¹	Chinese Suppliers ¹
	Solar Panels	100%	50%	70-80%
Leading Local Players With Local Contents	High-Speed Rail	100%	5%	75-90%
	Digital Payments	95%	10%	>85%2
	Wind Turbines	80%	5%	20-75%
	Electric Vehicles	95%	5%	20-75%
	Cargo ships	90%	45%	40-50%
Leading Local Players With Foreign Contents	Agricultural Machinery	88%	19%	60-80%
	Smartphone	85%	25%	35-50%
	Cloud Services ³	70%	8%	<35%
	Robotics ⁴	50%	15%	25-45%
Leading Local	Semiconductors⁵	5%	5%	<10%
Players	Aircraft	<5%	<1%	<20%

¹ Based on 2018 or the latest available data

- ² Compares local vs. imported software development costs
- ³ Servers used for cloud storage purposes
- ⁴ Captures only industrial robots
- ⁵ China and rest-of-world market shares assumed to be equal due to data availabaility

INFORMATION SOURCE: MCKINSEY GLOBAL INSTITUTE ANALYSIS FIGURE SOURCE: SUSAN LUND, JAMES MANYIKA, JONATHAN WOETZEL, JACQUES BUGHIN, MEKALA KRISHNAN, JEONGMIN SEONG, AND MAC MUIR, GLOBALIZATION IN TRANSITION: THE FUTURE OF TRADE AND VALUE CHAINS (WASHINGTON DC: MCKINSEY GLOBAL INSTITUTE JANUARY 2019), HTTPS://WWW.MCKINSEY.COM/FEATURED-INSIGHTS/ INNOVATION-AND-GROWTH/GLOBALIZATION-IN-TRANSITION-THE-FUTURE-OF-TRADE-AND-VALUE-CHAINS#PART1

High-Tech Growth and Market Access

Growth in the high-tech market is generally predicated on four conditions: investment at scale; access to large and advanced markets; an effective system to drive innovation and competition; and channels to acquire technology and know-how.⁸¹

China's state-led approach can easily meet that first condition. The others are not as straightforward. Regarding access to large and advanced markets, one might counter that China has its own domestic market to provide the foundation for success in any emerging sector. An example might be the advantage it has in rolling out its 5G network in the domestic economy. Its Al sectors can also take advantage of the big data Chinese firms gather in the domestic setting and continually enhance the use of Al applications in that way.

It becomes more problematic if China's access to markets in North America and Europe is becoming more restricted-as it is-or if its firms are denied access to big data in those markets. Australia's lead to ban Huawei from the rollout of the country's 5G network and the possibility that the US and other countries will do the same would be an enormous blow to Beijing's plans. Chinese firms need to be commercially active in advanced economies in the earlier stages of the emergence of these advanced sectors. If they are not, it will be extremely difficult for them to enter markets already dominated by competitive advanced economy firms at a later stage. For example, accessing and utilizing big data required from those markets would be commercially and technically difficult, even if there were no ban on Chinese firms. For most MIC 2025 categories, lack of access to these large foreign markets will impede the development of local Chinese clusters - a concentration of locally connected businesses, suppliers and associated institutions - in those sectors, and simply dominating the Chinese market will not suffice. Beijing needs the first-mover advantage in foreign markets if it is to develop a new export-oriented market, as MIC 2025 and other blueprints envisage.

Moreover, while China has narrowed the R&D spend gap with the US (\$254 billion by China compared to \$564 billion by the US),⁸² around 80 percent of China's R&D system is geared toward using acquired knowledge and innovation to produce or improve products and services ("experimental" commercial development). In China, fewer resources go toward basic or applied research than in other advanced economies. This is reflected in a surprising finding that Chinese universities contributed on average just over 9 percent of Chinese R&D activity between 1991 and 2016. There are poor links between Chinese universities and businesses, with one report suggesting that only 2.6 percent of research articles were collaborations between universities and industry in the same period.⁸³

Forced Technology Transfers

The point is that China's system to accelerate creativity and basic innovation is lagging behind those of other advanced economies, such as those in North America, Europe, and Japan. Its impressive advances in high-speed rail, quantum and high-speed computing, information and communications technology (ICT), AI, electric vehicles, solar panels, and space, have been on the back of technologies and know-how acquired or stolen from advanced economies. Advances driven by graduate students in these fields depend on their continued access to foreign universities and academics. Reports indicate that Chinese regulatory hurdles favoring state-controlled companies and private "national champions," the crowding out of the private sector, and insufficient IP protections continue to adversely affect creativity and basic innovation in the Chinese political economy.⁸⁴

To get ahead in high-tech areas, China relies on the acquisition and adaptation of basic and applied research, mainly from overseas, through forced transfers or IP theft. It pours resources into building a presence in these sectors, blocks foreign competitors from entering these markets domestically, captures and vertically integrates supply chains for associated products and applications, and funds the "going out" strategies



Figure 9: The Comparative Balance of Trade in IP Charges (Select Countries, 2017)

INFORMATION SOURCE: OECD, IMF BALANCE OF PAYMENTS, MCKINSEY GLOBAL INSTITUTE ANALYSIS FIGURE SOURCE: SUSAN LUND, JAMES MANYIKA, JONATHAN WOETZEL, JACQUES BUGHIN, MEKALA KRISHNAN, JEONGMIN SEONG, AND MAC MUIR, GLOBALIZATION IN TRANSITION: THE FUTURE OF TRADE AND VALUE CHAINS (WASHINGTON DC: MCKINSEY GLOBAL INSTITUTE JANUARY 2019), HTTPS://WWW. MCKINSEY.COM/FEATURED-INSIGHTS/INNOVATION-AND-GROWTH/GLOBALIZATION-IN-TRANSITION-THE-FUTURE-OF-TRADE-AND-VALUE-CHAINS#PART1

of its domestic firms in order to underprice foreign competitors before eventually dominating these markets globally. This was the model Beijing pursued in becoming a dominant supplier of solar and LCD panels to the world.

Evidence of this can be seen in figure 9, which illustrates how China spends far more in IP charges in absolute and relative terms than it receives, compared to the US, Japan, Germany, and South Korea. This is so even though China is becoming less reliant on the global economy in lower-tech consumer goods such a textiles and apparel, automotive vehicles, and non-cutting-edge computers and electronics. Bear in mind that China's payments of IP charges would be substantially more onerous if it abided by international economic rules. Its systematic methods for forced technology transfer and unlicensed use of IP-protected products (such as software) amount to hundreds of billions of dollars' worth of procuring illegitimate advantages each year.⁸⁵ As noted in the 2018 report of the US government's National Counterintelligence and Security Center, *Foreign Economic Espionage in Cyberspace*:⁸⁶

China has expansive efforts in place to acquire U.S. technology to include sensitive trade secrets and proprietary information. It continues to use cyber espionage to support its strategic development goals—science and technology advancement, military modernization, and economic policy objectives. China's cyberspace operations are part of a complex, multipronged technology development strategy that uses licit and illicit methods to achieve its goals.

Winning the Future Technological Battle

Much of the public rhetoric around ongoing economic tensions with China is that the US is seeking to compel Beijing to engage in genuinely free, fair, and reciprocal trade. The issue is framed as preservation of a rules-based approach to the international economic order, with the US merely seeking reciprocal access to the Chinese market and an end to practices that give Chinese firms an unfair advantage, such as subsidies, forced transfers, IP theft, and regulatory hurdles against foreign firms. In this framing, the emphasis is not on the emerging strategic rivalry or the importance of the technological competition in the context of that rivalry.

Given China's indispensable role in the global economy, there will never be complete economic decoupling between it and the US. Moreover, as supply and production chains for many manufactured goods and services are becoming more regional, China will remain the leading or substantial trading and investment partner for many countries in the Indo-Pacific, including US allies and partners such as Australia, Japan, India, and key Southeast Asian maritime nations. This means that US economic disengagement from China is impossible and unwise, even if the administration of the day wished for it to happen.

The report's first volume describes the extent to which the CCP depends on maintaining its control over the political economy to remain in power and the regime's fundamentalist Leninist views about the important role of economic actors as servants of the party. Without a substantially different regime, it seems extremely unlikely that China can reform to the extent necessary to allow for free, fair, and reciprocal trade.⁸⁷

Moreover, even if the above assessment were incorrect and Beijing instituted substantial reforms that ended many of the unfair and/or illegal practices described above, without a very different Chinese government, reaching the end goal of "free, fair and reciprocal trade" would not end the US-China strategic rivalry.⁸⁸ Indeed, greater US-China economic collaboration could have dangerous ramifications if the strategic rivalry remained.

This is especially true of technological competition, given that the US is the more advanced economy, with more to "give" than China. Beijing could still compel or incentivize local firms to share their know-how in dual-use technologies with the People's Liberation Army (PLA). An influx of advanced American firms into China would invariably lead to legal but accelerated knowledge and know-how transfer into the Chinese system. Similarly, Chinese firms would have a freer hand to legally purchase advanced American firms or enter into joint ventures with them. As has been noted by many observers, the primary purpose for most Chinese firms buying US technology companies is to use the technology to upgrade their own capabilities (and that of other Chinese firms) rather than to make a profit.⁸⁹

The point is that the economic and strategic benefits for the US of free, fair, and reciprocal trade with other liberal democracies like Japan and the EU are generally well aligned with the longer-term benefits for these trading partners. This is not the case with China.

With critical technologies such as those named in the MIC 2025 blueprint, the dynamic with China will be competitive rather than cooperative. Any cooperation on development or commercialization of these technologies will be largely tactical rather than strategic.

There are several ways to maintain current advantages and to push back against China where it has had a head start.

Requiring Reciprocity as a Precondition

The lack of reciprocity between what China offers the US and vice versa is so stark and such an entrenched feature of the Chinese political economy that the demand for genuine "reciprocity" will most likely never be met. This does not mean that demanding reciprocity is not useful. On the contrary, it can be useful in putting China on the back foot and dictating the pace and nature of negotiations.

Nor is the demand for reciprocity simply a negotiating tool that should not be sincerely held by US officials. In sectors and areas that are purely economic rather than genuinely strategic, American companies should be able to sell as freely in China as the Chinese are able to do in the US. Likewise, in nonsensitive areas, American firms should be able to invest as freely in China and with the same protections as China is able to do in the US.

However, in sensitive sectors such as technology, "reciprocal" treatment and protection of rights include measures that would entail deep reforms to China's economic and legal institutions and practices, without which reciprocity would be impossible. As Beijing will be unlikely or unable to offer those concessions, the US needs to justify to China (and to domestic stakeholders) why many Chinese purchases of US technology companies ought to be blocked, and to do so in a way that provides more than ambiguous explanations that the two countries are engaged in a strategic and technological competition or rivalry. That message, although accurate, is likely to trigger discussions

within the US that might preclude even tactical cooperation with China on matters that might make sense. Better, then, to appeal to the sincerely held legal and moral principle that reciprocity must be upheld as the basic precondition for substantial progress.

Bear in mind that the US needs time to organize its legal and regulatory response and must therefore be able to dictate the pace of negotiations with China. The Committee on Foreign Investment in the United States (CFIUS) is necessarily a flexible and adaptable regime, which must consider changing realities and new challenges to national interest. It will take some time for CFIUS to develop effective frameworks vis-à-vis China and for supporting legislation, such as the 2018 Foreign Investment Risk Review Modernization Act (FIRRMA) and reforms to the Export Control Act, to be considered and passed.

Moreover, it will also take some time for the US and other key allies and partners to coordinate legislative and policy responses involving scrutinizing and potentially blocking Chinese purchases of technology assets. In this case, FIRRMA has recommended that CFIUS establish a process for exchanging information with allies and partners to help coordinate action with respect to foreign direct investment policy that poses national security risks, especially in the technology sectors.⁹⁰

The principle of "reciprocity" can also be used to prevent or limit unintended or illegitimate technological leakage from the US to China. For example, the legislative and regulatory frameworks for FDI should only consider allowing Chinese investment in sensitive sectors if those sectors in China are open to foreign investors. Since virtually all these sensitive sectors are closed or restricted, this gives the US a strong reason to knock back any Chinese investment that might prove problematic. Science and technology cooperation with China should be reciprocal. A titfor-tat restriction by one against the other suits the US because cooperation has become far more beneficial to Beijing than to Washington. In this context, documents such as the US-China Agreement Science and Technology ought to be renewed and rewritten to reflect the principle of reciprocity.

Similar reasoning can be applied to issuing of student visas in areas that would enhance China's national capabilities in critical technologies. In anticipation of criticism, it should be pointed out that it is Beijing that has "weaponized" educational and scientific collaboration and the US is simply responding to that development.

Countering China's Mercantilist Blueprints

It is important to emphasize in pronouncements and policy responses that Chinese blueprints such as MIC 2025 are an inherently provocative and zero-sum approach that undermines US interests.

To do so, the administration should set up systematic and dedicated reporting of Chinese industrial and technological policies and the practices specifically designed to advance them. Critically, it should tie economic punishments to specific Chinese progress in pursuing these policies. This is to emphasize to China that there are direct diplomatic and economic costs associated with advances in its illegitimate pursuit of mercantilist technological policies.

There has been some successes in specifically targeting aspects of the BRI and announcing specific countermeasures, as detailed in earlier sections. This has forced Beijing to convince BRI countries that the plan is not primarily designed to benefit China rather than the region. Changing the focus and conversation away from justifying US countermeasures toward Chinese actions and intentions is helpful.

Decoupling Strategic Supply Chains from China

One of the most effective ways that China "absorbs" foreign technology and expertise is by requiring foreign firms to transfer technology to the country in exchange for investing, operating, or selling there. In many cases, it is impossible or impractical to institute an outright prohibition on American firms' operating in China.

When it comes to critical technologies, the US should consider permanent and prohibitive tariffs on certain components and products. This could be accompanied by government procurement regulations prohibiting the use of components and parts with value-add from China.⁹¹

The purpose would be to encourage supply chains to move away from China—if not back to the US, then to friendly or neutral countries. In this context, Southeast Asian countries are particularly important, and some will stand to gain, because many of these supply chains will not stray far from East Asia.⁹² This approach should be complemented by regulations that discourage foreign firms using components and parts from companies that are Chinese-owned, even if they are not based in China. Without such regulations, Chinese firms would simply relocate to other countries, or acquire high-tech firms in other countries, to circumvent the restrictions.⁹³

More positively, the US could consider offering advantages to companies based in countries that abide by certain rules and standards. This was one of the important aspects of the Trans-Pacific Partnership (TPP), from which the US has withdrawn. Nevertheless, the TPP strategy was to use the leverage resulting from the size of the US domestic market to persuade countries to abide by specific rules and standards. That general mindset can still be applied to bilateral and minilateral trade agreements.

Supply chain decoupling needs to be applied selectively rather than broadly. There should be greater US attempts to identify and capture a larger share of the value chain across a growing number of sectors and deny it to China. Washington already seems to be moving in that direction. An analysis of tariffs levied against Chinese goods by the White House under section 301 of the Trade Act of 1974 revealed that 80 percent (by value) of the targeted trade with China was in industries identified as "patent-intensive" by the Department of Commerce.⁹⁴ These include computer/electronic products and machinery/ equipment, which constitute about 30 percent and 22 percent, respectively, of Chinese exports to the US.⁹⁵

One of the justifications the US offered is that these are the industries that China heavily targets for forced transfers and IP theft. In addition to "targeting" Chinese-based firms in these high-value-creating and patent-intensive industries, the tariffs seem designed to make it less commercially attractive for foreign firms to invest in or engage in joint or cooperative ventures with local firms to produce high-value-creating intermediate parts in China. These two broad sectors (computer/electronic products and machinery/equipment) are prominent in integrated regional and global supply chains. Moreover, approximately one-third of all Chinese exports of these products to the US are directly related to the business operations of American-based firms.⁹⁶ In other words, around one-third form part of the supply chain for American-based firms.

Further analysis reveals that around two-thirds of these industries' products imported from China to the US are produced by foreign-invested firms based in China. This is significant because, in theory, these firms do not have to base operations there. In addition to concerns about IP transfers and theft, tariffs levied on China-based firms make it commercially less attractive for foreign-invested firms to base operations in China when the next or end destination for their product is the US.

Strengthening European and Japanese Alliances

It is widely noted that the US needs to work better with its allies and other like-minded countries to put collective pressure on China.⁹⁷ That makes sense given that Chinese policies, if substantially carried out, will detrimentally affect the core economic interests of other major economies, such as in the EU, Japan, and South Korea. MIC 2025, if successful, would severely diminish the future competitiveness and prospects for these economies.

Moreover, the US is not alone is expressing deep concerns. In September 2018, trade ministers from the US, the EU, and Japan issued a joint statement criticizing China on non-market activities such as massive state subsidies, forced technology transfer, and IP theft.⁹⁸ The EU recently declared China to be "an economic competitor in the pursuit of technological leadership, and a systematic rival promoting alternative forms of governance." Nevertheless, it has only committed to ensuring that "relations [with China] are set on a fair, balanced and mutually beneficial course."⁹⁹

In East Asia Japan, under the leadership of Shinzo Abe, has been the most proactive in terms of recognizing the multidimensional challenge and threat posed by China in strategic, economic, and diplomatic ways.¹⁰⁰ Others in East Asia, such as South Korea, have been more disappointing, underplaying or dismissing dangers posed by neighbors such as China and North Korea and focusing instead on continually reviving historical grievances against Japan, which should be seen as an indispensable ally with interests similar to Seoul's.¹⁰¹

In the future of technological leadership, the EU is a pivotal player. China's March 2015 White Paper, *Visions and Actions on Jointly Building Silk Road Economic Belt and 21st Century Maritime Silk Road*,¹⁰² states that its economic aim in funding and building infrastructure along the Eurasian continental belt is threefold: to export to overseas markets excess industrial capacity arising out of the fixed-investment explosion that occurred after the 2008 global financial crisis; to spur development in its impoverished western regions by connecting them to economies and markets to the west; and to form physical, digital, and financial networks with new and existing markets in Central Asia and Europe.

The BRI's so-called Eurasia Land Bridge Corridor concept extends from the east coast of China to Western Europe. While Europe is at the far edges of the BRI in geographical terms, it is essential for China. One purpose of the BRI is to bind consumer markets to Chinese exporters through its physical, financial, and digital networks, which lead back to China.

In nominal terms, the EU is the world's largest economy and constitutes about 22 percent of global GDP. Importantly, it is also the second-largest consumer market in the world and almost double China's size by that measure. Although the size of consumer markets in Southeast Asia and India is predicted to grow rapidly, Europe will remain the most important destination for finished goods throughout the BRI in the foreseeable future.

Moreover, the aim of MIC 2025 is to lead in future-oriented sectors and dominate global exports. For the moment, China cannot achieve this on its own and needs the technology transfers that come from joint ventures with advanced economy firms, especially from Europe (and the US). In Beijing's blueprint, advanced European markets will in the future be major buyers of Chinese exports in these sectors. Without bringing Europe into the Chinese economic orbit, MIC 2025 cannot succeed.

Protecting Europe's Vulnerable Technology

The problem is that the EU does not have decisive and coordinated approaches to preventing the protecting the "leakage" of dual-use or critical technologies to countries such as China or encouraging indigenous research and development of such technologies.¹⁰³ Part of the problem is the prevailing mindset, which is not to confront China, even though there are concerns, including about industrial cyber-theft. This is despite one highly credible study suggesting that cyber espionage (mainly, but not exclusively, by China) cost European economies up to \$70 billion in losses in 2018.¹⁰⁴ Another study suggests that Germany (and South Korea) will be the countries most affected by MIC 2025.¹⁰⁵

There are also institutional difficulties, in that EU positions on industrial and security policies are effectively left to individual members to implement. For example, the EU's Digital Single Market Strategy and the 2013 Cybersecurity Strategy leave implementation to individual states, so there is no consistent approach. This means that regulations and laws within individual countries are not coordinated, which results in various levels of robustness and compliance. Even where there is growing consensus, such as for an EU-wide mechanism to deal with considerable increases in Chinese investment in advanced EU firms since 2015, the lowest-common-denominator approach prevails. This means there is more progress in information sharing than there is in specific and decisive policies to deal with the issue.

In this sense, the EU has been referred to as a "technology piggybank" by some commentators.¹⁰⁶ Chinese investment in Europe increased tenfold from 2009-15 and another 76 percent in 2016. Chinese investment in Germany alone was up tenfold in 2016 from the previous year.¹⁰⁷ Chinese firms have bought leading European companies engaged in areas such as robotics, AI, advanced materials, cutting-edge engineering, and semiconductors. It has only been in the past couple of years that countries such as Germany have started blocking, on national security grounds, applications by Chinese firms to purchase local firms. Even then, the monitoring and review role of national European entities that are equivalent to the CFIUS in the US is relatively ad hoc, piecemeal, and inadequate. The existence of formal export controls on strategic and/or dualuse technologies (e.g., the 1998 EU Code of Conduct on Arms and 2009 European Communities regime) has not prevented significant leakages of important technologies to China. As has been observed, the controls are interpreted and implemented differently by different states.¹⁰⁸ Countries like the Netherlands and France, for example, have tended to interpret them more strictly than Germany in recent times.

Collaborations between European and Chinese entities have also been problematic. European entities have entered into agreements with Chinese entities with little due diligence and unwittingly contributed to the production of systems that have subsequently been used by the PLA. A commonly cited case is the cooperation between the Austrian Academy of Sciences and Chinese counterparts, which contributed significantly to China's quantum satellite launch in 2016.¹⁰⁹

China's divide-and-rule approach to Europe is also evident in Beijing's using the lure of enormous infrastructure investments, such as the development of Greek ports, as a gateway to the Balkans. The main mechanism is the China-initiated 16+1 group, which includes sixteen Central and Eastern European states plus China. Eleven countries in this group are also EU members.

In late 2016, China announced it had established an \$11.1 billion Central and Eastern European (CEE) Fund to finance projects in the group-of-sixteen economies to support the BRI. An ulterior motive is to create an economic investment zone that will decide on investments according to China's rules and processes, rather than by the EU standards preferred by most Western European states. For example, Slovenia was promised a \$1.5 billion financing package for a railway in exchange for a ninety-nine-year lease of the Port of Koper. In 2018, despite raised eyebrows by Western EU countries, China and Slovenia signed a memorandum of understanding on cooperation in transport and infrastructure, which focused on integrating sea transport with the development of railways, motorways, and logistics as part of the BRI concept. This includes a cooperative agreement between the Port of Koper and China's Port of Ningbo-Zhoushan to increase trade between China and the CEE economies.

Although the CEE Fund remains underwhelming due to lack of confirmed funding and agreed projects, it indicates China's intention to circumvent EU rules and standards, or undermine broad support for them, by getting potentially recalcitrant EU members like Greece and Hungary on its side. Serbia, a likely future EU member, has accepted large amounts of Chinese capital, and in return is supportive of China's stance on issues such as Taiwan, the South China Sea, and human rights in Tibet and Xinjiang. Once again, and in this context, it is not the investment in port or other facilities per se that is of concern, but China's use of big spending promises to alter established EU norms and commercial standards for investment (including in critical technology sectors).

Given the different roles played by the US, the EU, and EU member states in the global order and economic system, it is unrealistic to expect the EU to agree to an approach to China that is as confrontational as that of the US. However, the US needs Europe as an economic and technological partner, and to help Washington prevent China from realizing its technological and related strategic objectives. More than that, China needs Europe to remain a weak link in its quest for technological superiority and high-tech export dominance. In that sense, the EU and its member states cannot avoid being part of either the problem or the solution.

It is important for the EU to update and enhance its own technological base to ensure it remains competitive in the future. Concerning China, there are two related aspects when it comes to critical technologies: collaboration/cooperation in terms of national capabilities and preventing or slowing down Beijing's efforts to achieve dominance through illegitimate or covert means.

It makes eminent sense for countries with similar interests, values, and economic systems to encourage enlargement of a technological ecosystem where the rules of collaboration *and competition* are agreed upon and defined. This would not apply to all sectors, but only those deemed to be of critical or strategic importance. It would be useful to begin identifying them on the basis of those mentioned in the MIC 2025 document. The 2018 FIRRMA legislation already identifies a list of critical technologies that are essential to future "US technological superiority" and requires US firms in these sectors to declare all relevant transactions.¹¹⁰ It would be helpful for firms in the US, EU, Japan, several Southeast Asian states, and India to come to general agreement on these technologies and to achieve some consistency in

regulating the activity of firms engaged in these areas within their jurisdictions.

The flip side is that these countries need to coordinate laws and regulations on issues such as export controls—including on dual-use technologies—foreign investment rules, and merger and acquisition rules and processes. They also need to coordinate on treatment of firms from like-minded countries, and treatment of firms from non-market economies or firms used by governments to advance national objectives inconsistent with those of liberal democracies.

The EU and other liberal democracies need not perfectly replicate US laws. The primary objective is to prevent technological leakage to Chinese firms. Additionally, future laws and regulations need only be more permissive about collaboration between firms in these sectors from like-minded countries than collaboration with firms outside the grouping of like-minded countries. This will help them compete against Chinese firms benefitting from state subsidies and other unique advantages. Finally, the EU may never resolve the problems of division and lack of coordination between states, since members will not delegate industrial policy to a genuinely supranational entity. The key is that industrial and technological leaders such as Germany, France, Italy, and the Netherlands must agree on domestic laws and policies and ensure these principles and rules are reflected in EU policies.¹¹¹ These policies should then be used to persuade other member states to implement them in their own jurisdictions.

If a working and beneficial technological ecosystem is established between countries of similar interests, values, and laws, this will enhance the incentive for EU members and other states to implement those policies.

The Importance of International Institutions

The key to the US leading an effective coalition to address some of the challenges of China is to recognize that it is the *only* genuine
superpower in the world and as such, has unmatched ability either to compel or deter other states through threats and punishments.

While other countries tend to pursue a course of persuasion before considering alternatives, the US is willing to take confrontational positions toward China, such as the Trump administration's ongoing efforts to force Beijing to agree to economic and trade concessions.

These tendencies can also be seen in the American willingness to contemplate swift and profound shifts in policy toward other great powers. This is in contrast to the preference of US allies for an incremental approach, which allows them to gauge the commitment of Washington to new policy initiatives and assess the response from Beijing. With an increasingly assertive US policy toward China, all US allies will likely seek more explicit guarantees of cover and more reassurance from senior US policymakers.

On the economic front, all countries apart from the US are wary of supporting an overt economic offensive against China, even when they acknowledge the systemic threats to the global economic order from Chinese policies. This is why US allies and partners are concerned about the outcome of US-China trade deals. Without more information about what sort of deal might be reached, or the ability to provide input on its terms, it is difficult for other countries to calculate the effect any deal would have on them. Furthermore, while the relative size and importance of the US economy would likely limit retaliatory actions by Beijing, other economies would feel disproportionate economic pain from such retaliation—although China's unilateral capacity to inflict prohibitive economic costs on any major economy without suffering significant economic losses itself may well be overestimated.¹¹²

In the arena of existing international institutions, most countries are more concerned about preserving them, even if they are seriously flawed, than is the US, given its size. For example, even though many US allies in Europe and Asia recognize the flaws of the World Trade Organization (WTO), they will nevertheless seek to preserve its relevance and integrity because of the benefit it offers smaller economies. In contrast, the Trump administration's frustrations with the WTO's fundamental inability to address Chinese economic practices has led Washington to downgrade its importance and attempt a bilateral reordering of the economic relationship instead.¹¹³

To bring allies and partners along, the US needs to formulate, sell, and strive for a vision of what an acceptable institutional outcome might be. This could be a model of reform of the WTO or, given the enormous institutional and political difficulties with comprehensive reform—a parallel legal and regulatory regime that sits outside the formal WTO framework and addresses issues such as IP violations and industrial subsidies. The US and other countries must at least agree on what aspects of the WTO can be reformed and which new regimes should be created to make up for the organization's shortfalls.

China is unlikely to be persuaded to enter into such an arrangement, but the point is to create an alternative set of institutions (and related economic benefits) for other economies prepared to abide by acceptable rules. If China continues to remain outside these other institutions, it should at least endure the costs and/or opportunity costs of doing so.

Reforming or creating new institutions is particularly important when it comes to technological issues. The protection of patents and trademarks, protocols for non-military cybersecurity and rights, hard standards in increasingly automated sectors, and soft (digital) standards for enabling technologies such as 5G and ecommerce, require formalization of technical and legal agreements. Details for those agreements need to be worked out with the full cooperation of the private sectors in the US and other like-minded countries. If these countries fail to entrench their preferred standards through institutional means (and industrial presence and practice), then China will fill that space.

Matching China's Competitive Approach

In April 2018, when the Trump administration banned the sale of US-made components to ZTE, China's second-largest ICT firm, the company's operations ground to a halt. The ban included Google's Android software, used in many ZTE phones, and parts from companies like Qualcomm and Intel. The basis for the ban was that ZTE sold equipment to North Korea and Iran in violation of international sanctions, then lied about having done so. In May 2019, Huawei's inclusion on a list of firms that pose a national security threat to the US placed restrictions and conditions on American firms doing business with it and other listed firms. This led to Google blocking Huawei from future access to Android updates (which were allowed only after a conditional reprieve), and UK-based chip company ARM ceasing all activities with Huawei.

These restrictions pose serious technical and commercial problems for Chinese companies¹¹⁴ and serve to remind us that China has not achieved technological independence or dominance in the sectors it has identified as being critical in

the future. Although companies like Huawei boast that they will produce their own chips in the future,¹¹⁵ that future will be far more uncertain and precarious if they are forced to do so.

More broadly, China has been able to devote relatively few resources to basic R&D (in relying on illegitimate and/or illegal practices such as forced transfers and IP theft) and direct enormous resources to incremental improvements and commercialization of established technologies in the attempt to dominate markets in selected sectors. That has also helped it define the standards for those industries through sheer presence.

The technological battle is far from lost. China only seems to be "winning" because the US and others have been cooperating while China has been competing. Much optimism and purpose should be gained from the fact that MIC 2025 and other blueprints are being put forward by China mainly to address weaknesses rather than entrench already established strengths.



IV. CONCLUSION

The Chinese economy is growing at only 6 percent or less per annum, but that is still double the growth rate of the US, which leads to the widespread assumption that time is on China's side. This needs to be challenged—perhaps it is China treading water rather than the US and its allies.

This monograph was written to contest the argument that China's higher rate of economic growth is as decisive or daunting a factor as is widely held, and that its economic slowdown—even if it is structural—is not significant. It is not the actual rate at which China is growing that matters but what that slowdown indicates. There is a strong case to be made that time is not on China's side, and Beijing relies much more on poor policy and lack of resolve from the US and others than is commonly appreciated.

To be sure, the CCP's genius is that it has been able to manipulate grand narratives in such a way that it conditions other

countries to accept Beijing's policies no matter how unsettling or unfair they are. One of the most effective narratives China has promulgated is that it is fundamentally undeterrable once it has made up its mind. This is augmented by the assertion that its authoritarian political economy gives it an enormous advantage over chaotic and indecisive democracies. The rapid growth of its economy is held up as evidence of that advantage. Once the CCP sets course, there is no turning back, and Beijing is prepared to pay any cost to achieve its goals.

Photo Caption: Trade union members burn products that are made in China to protest China's United Nations Security Council move on Jaish-e-Mohammed chief Masood Azhar at Sadar Bazaar in New Delhi, India on March 19, 2019. China for the fourth time blocked a bid in the UNSC to designate the Pakistan-based chief of Jaish-e-Mohammed as a "global terrorist" by putting a technical hold on the proposal. (Sanchit Khanna/Hindustan Times via Getty Images) The benefit of this argument for China is that once we accept that as a given—which many elected officials, policy elites, and influencers do—then the only reasonable action is for others to compromise and alter their objectives if they seek to avoid instability, economic disaster, or even war. The onus shifts to the US, as the most powerful nation, to change Beijing's policies or accept the blame for all that is troubling the world.

This narrative played out particularly well for Beijing in the South China Sea. It is strange that outside of Tokyo and Canberra, the US is often publicly cast as the provocateur when it conducts freedom of navigation operations, even though it does so to reaffirm principles and rights under international law. That perverse attribution of fault is based on this flawed and selfdefeating logic: if China cannot be deterred, what is the point of escalation to oppose its illegal actions?

That same narrative was evident when Trump first began his economic offensive against China. Many inside and outside China confidently predicted that America's soft and divided democratic society would never allow a president to erect tariffs for too long, and they believed that China's authoritarian political economy was far more resilient and resourceful. That this would end in an embarrassing capitulation by the White House was the common wisdom among most experts at the time.

Furthermore, the assumption that Beijing would never change course meant Trump, and not Chinese president Xi Jinping, was condemned as the primary threat to the global economy. Because Beijing has always engaged in these illegitimate practices and will continue to do so, Trump was cast as the culprit for seeking to reframe the US economic relationship with China, even though there was widespread acknowledgment that Chinese protectionist and mercantilist policies are so deep and so broad that they pose a systemic threat to the global economic system.

Strong evidence that Beijing holds a weaker hand than it has been letting on should help redirect focus and put the ball in China's

court. Its economy is growing significantly less than official figures suggest, and even the official figure for 2019 is the lowest since 1992. Its firms are severely overleveraged, and corporate debt is the highest in the world in absolute and relative terms. Xi, having centralized power for himself, is under enormous pressure, as voices inside the party openly accuse him of economic overreach and mismanaging the relationship with the US.

Xi is on the defensive over growing US and global criticism of the BRI and MIC 2025 plans. China has yet to offer substantial concessions even if the Phase One Deal with the US signed in January is a start. But Xi is at least forced to consider growing resolve against his strategic and economic policies and recalculating the national and personal benefits and costs of his actions. The groundwork for most of China's policies was established before Xi took power, but he has demonstrated a greater tolerance for risk in return for the prospect of greater reward than his predecessors. Xi must own all China's failures and take responsibility for resistance against Chinese actions. Just as he seeks to claim credit for the country's achievements and use that to strengthen his personal standing and the narrative of inevitable Chinese dominance, he must accept responsibility for overreaching. Damaging Xi's veneer of political and policy omnipotence and creating room for other senior Chinese leaders to question Beijing's current course is important. Similarly, it is critical that Chinese cheating, aggression, overreach, dysfunction, and incompetence be called out when appropriate. Beijing's governance model leads to profound domestic economic and social imbalances, and the perceived attractiveness of the Chinese approach must be disputed.

Even if Beijing's favored narrative that it can absorb any punishment is diminished, it will want to ensure that resolve against it remains fragmented. China knows that the great error in Trump's approach is that he has given little incentive for other economies, such as Japan and those in the EU and Southeast Asia, to join this conversation. This is the essential missing piece. Where does the US want to land, and what is in it for others? Rather than focus on trade deficits, a common stance must be presented to China on what reform of global economic institutions, standards, practices, and enforcement mechanisms should look like. Only then can there be an enduring resolution based on "free and fair" trade, rather than a never-ending economic war.

Finally, in wisely responding to China's strengths and weaknesses, the US can learn lessons from several of China's neighbors. The first is from Malaysia's prime minister, Tun Dr. Mahathir Mohamad.

In his first meeting with Chinese premier Li Keqiang, Dr. Mahathir stressed the benefits of increased engagement with China. However, he warned against a new version of colonialism by richer and more powerful countries against smaller economies and spoke about unfair infrastructure deals inked by his predecessor and the debt burdens these might create for Malaysia. When asked by Li whether he believed in free trade, Mahathir replied bluntly that he believed in "free and fair" trade.

Beijing and the world were taken by surprise by his directness. Even so, it was excellent statesmanship. The Malaysian leader was setting his clear anchor point for engagement with an important economic partner. He showed Malaysians and others that it remains permissible to say "no" to great powers.

Two other case studies emphasize the point. In 2013, Prime Minister Shinzo Abe announced Japan's desire to make a "proactive contribution to peace." He subsequently reinterpreted sections of the constitution to allow Japan the right of "collective self-defense," opening up the possibility for Tokyo to join in military actions with allies to protect the Japanese people and their interests. Naval port visits to Southeast Asian claimant states take place regularly as does Japan's relationship with Taiwan. As recently as September 2019, for the first time, a Japanese submarine participated in war games in the South China Sea. Japan and Australia are putting the finishing touches to a Reciprocal Access Agreement, which will allow troops from one country to be based on the sovereign territory of the other. This is a complement to the 2017 Acquisition and Cross-Servicing Agreement between the two, which provides for greater cooperation on military logistics, ammunition, and other forms of collaboration.

Abe has done more to complicate Xi's plans to secure political, strategic, and diplomatic obeisance from Asian powers than any other leader. Tokyo pursues its interests whether or not there is Chinese approval or even understanding. Japan endured years of Chinese criticism and condemnation before the recent diplomatic rapprochement, in which Xi and Abe met in Beijing in late 2018 to herald a new era of friendship and cooperation. Consistency and the diminishing of expectations that one can be easily seduced, intimidated, or deceived is the art of good diplomacy and policy.

The contrasting case is South Korea. When Park Geun-hye became president in 2013, she immediately signaled a move from the previous administration's pro-American stance toward one more equidistant between the United States and China. She described her first state visit to Beijing in June 2013 as a "trip of heart and trust."

In the subsequent two years, South Korea basked in a diplomatic reawakening with China, widely described by observers as the most intimate and warmest for a generation, and the economic relationship was as strong as ever. The culmination was Park's attending the Chinese military parade on September 3, 2015, to mark the seventieth anniversary of the end of World War II and being given pride of place, even as the US, Japan, the EU, and every democratic country in Asia issued apologies to China.

Reality hit when North Korea conducted its fourth nuclear test on January 6, 2016. Park's decision to deploy the US Terminal High Altitude Area Defense anti-ballistic missile system—a completely reasonable response—enraged Beijing. In 2017, it was estimated that unofficial but real Chinese sanctions against South Korea cost its economy almost \$10 billion.¹¹⁶

Beijing's kinder face reappeared only when Park's successor, Moon Jae-in, agreed to the "three noes": no further US antiballistic missile systems, no integration into a region-wide US missile defense system, and no trilateral military alliance with the US and Japan. These are decisions that should never be subject to the agreement of another country.

Finally, to appropriate two well-known Chinese aphorisms, one should always "seek truth from facts," and "if you know your enemy and know yourself, you need not fear the result of one hundred battles."

Responses to China are often based on the assumption that Beijing's strengths are almost insuperable and growing, and its authoritarian political economy gives it a powerful advantage regardless of how unpalatable this might be. That would be a mistake. China is an economic giant, but it would be implausible to argue that China is in a stronger economic position than the US. Its paranoia and unrelentless pushing and probing of existing rules, laws, and conventions is evidence of that.

The US and its allies and partners must take the formidable challenge of China seriously but should do so with optimism and resolve, rather than with the fear and despair that it is all too late.

APPENDIX A: UNDERSTANDING MADE IN CHINA 2025

This text is excerpted from part one of John Lee's report, China's Economic Slowdown: Root Causes, Beijing's Response and Strategic Implications for the US and Allies.

In May 2015, the State Council launched MIC 2025 to guide the upgrading of Chinese industry, production, and innovation over the next ten years. MIC 2025 did not arise in a vacuum. In 2006, the Hu Jintao regime issued a Fifteen Year Plan to enhance "indigenous innovation" and subsequently identified seven strategic emerging industries (SEI) that were essential for China if it was to evolve into an "advanced economy." That plan set a target for SEI-related industries to account for 8 percent of the economy by 2015 and 15 percent by 2020.

MIC 2025 pursues the same central planning and target-setting approach in seeking to implement an industrial policy that improves capital allocation, policy coordination, and innovation throughout the entire political economy and in accordance with strategic objectives. The MIC 2025 blueprint is also largely driven by China's desire to avoid the so-called middle-income trap. This occurs when rising but still developing economies lose their competitive advantage due to factors such as rising wages, a declining supply of cheap labor, and less favorable demographics, and are unable to compete with more innovative and productive advanced economies.

However, MIC 2025 is far more extensive and significant for several important reasons. First, the program seeks control over, and dominance of, entire manufacturing processes, supply chains, and associated services for the sectors identified in the MIC 2025 plan. These markets include high-energy vehicles, hightech ship components, new and renewable energy equipment, high-performance medical devices, industrial robots, agricultural equipment, mobile phone chips and wide-body aircraft.

MIC 2025 specifies targets for the domestic content of core components and materials: 40 percent by 2020 and 70 percent by 2025 (a violation of World Trade Organization rules). It makes

explicit reference to how much of China's technology markets in various sectors should be controlled by Chinese companies and how many component parts in various relevant products need to be "Made in China." It sets out industry-specific and techspecific targets in detail. These include market share targets for Chinese technology, quotas for smart machinery use, targets for the number of patents per RMB 100 million in revenue, and details about the development of world-class brands in these selected industries.

Moreover, while the state and state-controlled sectors will still lead, MIC 2025 will co-opt and use indigenous private firms to ensure that value creation is created in and retained within China. All state-controlled and private indigenous firms are potential partners and participants in MIC 2025, and those advancing the blueprint's objectives will be offered financial, commercial, regulatory, legal, and political support and assistance.

Additionally, MIC 2025 reads like a comprehensive blueprint for domestic reform to "upgrade" the entire Chinese economy. For example, its stated goals are linked, and one follows from the other: improving manufacturing innovation, integrating information technology and industry, bolstering the industrial base, fostering world-class Chinese brands, enforcing green technologies, promoting breakthroughs in ten key sectors, restructuring the country's entire manufacturing base, promoting service-oriented manufacturing, and having Chinese firms globalize manufacturing.

In this sense, it is a whole-of-government and whole-ofeconomy plan intended not just to reform and enhance China's capabilities in these vital sectors, but to hit defined benchmarks indicating ultimate success. It is a far more elaborate blueprint to update "capitalism with Chinese characteristics" for the first half of this century.

Finally, MIC 2025 is much more ambitious and muscular in its outward-focused end goals than previous blueprints. Its

objective is not simply to ensure China becomes an advanced and competitive economy; the internal measures are explicitly designed to create the foundation for Chinese firms to dominate these sectors in global markets. China is also to become a global hub for firms in these sectors. This will allow its economy to host, absorb, and localize entire supply chains, intellectual property, and related services.

The public pronouncements and implementation of MIC 2025 gathered pace from about 2017 onward due to the urgency to combat China's structural slowdown. Increasingly, Beijing put MIC 2025 forward as an industrial plan that would help China escape from the "middle-income trap," and party officials and the state-sanctioned press even linked it to Xi's "great rejuvenation" or "China dream." Although in recent times China has downplayed MIC 2025 to remove it as a lightning rod and appease the Trump administration, it remains a primary industrial blueprint for Beijing.

Indeed, by the end of 2018, the government had issued around 450 authoritative documents detailing MIC 2025 implementation measures. In that year, the Ministry of Industry and Information Technology identified five focal points: establishing indigenous specialization in MIC 2025 national demonstration zones; establishing world-class industry clusters in industrial internet and emerging industries; introducing innovations in basic general technologies; establishing manufacturing innovation centers; and reorganizing fiscal support frameworks to advance these objectives. Of the approximately 4,000 projects linked to MIC 2025, around 3,600 were announced from 2017 onward. At least thirty MIC 2025 pilot cities have been established, and each is tasked with developing specific MIC 2025 sectors. These comprise over 50 sub-industries and 115 industrial sub-fields.

Importantly, indigenous private firms, motivated by a lighter regulatory touch and commercial and other incentives, have been strong supporters of MIC 2025. This is evident in fields such as artificial intelligence, electric vehicles, facial recognition technology, big data, 5G, and advanced communication systems. At the same time, state-controlled firms continue to play an outsized role in the manufacturing component of these sectors, complementing the strength of private firms in driving commercialization and service-related aspects. Given this dynamic, Beijing is increasingly looking to fuse statecontrolled and private firms through PPPs, or else mergers and acquisitions.

The United States and other advanced economies are deeply concerned about several aspects of the purposes and implementation of MIC 2025.

The plan represents a considerable evolution in the rise of "China Inc.," or the Chinese corporate state under Communist Party direction. Beijing is producing state-directed economic goals and blueprints for both the private and state-controlled sectors in industries and sectors that will create and store an increasingly large proportion of economic value into the future. This is a strong signal of its intention to strengthen its grip on the political economy rather than loosen it.

Moreover, this is occurring at a time when repression, surveillance, and coercion in China are gathering pace, when Xi is centralizing power for himself and reviving the cult of personality—all aided by the use of advanced technology. For example, the so-called Integrated Joint Operations Platform is being used for mass surveillance in Xinjiang, tracking people's movement by monitoring their phones, vehicles, and identification cards. When "irregular" movements are detected or they are outside police-designated areas, police and/or security forces are immediately alerted, and an investigation is launched.

China's use of technology for repression is being complemented by advances in big-data gathering and analysis and facial and speech recognition applications—all relevant to MIC 2025. Beijing appears to be creating and advancing

a "Leninist technonationalism" in which economic entities and technological progress are deployed to enhance the coercive, repressive, and surveillance capabilities of the state, and therefore the uncontested power of the party. The evolving "social credit" system is perhaps the manifestation of the "brave new world" that China envisages under Communist Party rule. This system uses various technological advances to monitor, rate, and regulate the financial, social, moral, and political behavior of China's citizens and companies. It achieves this through a system of punishments and rewards seeking to "provide the trustworthy with benefits and discipline the untrustworthy."

From a global economic point of view, Chinese approaches inherently undermine what globalization and interdependence are designed to facilitate and enhance: the maximization of efficiency and creation of new opportunity for participants based on market forces. China's approach in the global economy reflects its own political-economic setup, which is designed to ensure that the party retains the levers of economic power and relevance. While all governments intervene in the domestic and global economy to some degree, the nature, scale, and extent of intervention by the party and Chinese state mean that authoritarian China plays a vastly different game from other major economies in the global system.

This is the paradox of MIC 2025 and the Xi era more generally. Domestic weaknesses and vulnerabilities have caused Xi to increase his outward ambitions. MIC 2025 is both the product of domestic Chinese economic and technological vulnerability and the expression of an aspiration to future economic dominance.

APPENDIX B: UNDERSTANDING THE BELT AND ROAD INITIATIVE

This text is excerpted from part one of John Lee's report, China's Economic Slowdown: Root Causes, Beijing's Response and Strategic Implications for the US and Allies.

The Belt and Road Initiative is accurately and widely described as President Xi Jinping's flagship policy and even China's most ambitious comprehensive strategic and economic strategy since the Deng Xiaoping period, which began in 1979. Some commentators have even called it China's version of the post– World War Two Marshall Plan for Eurasia and the Indo-Pacific.

Promoted to the world in economic rather than strategic terms, and formally introduced by Xi in 2013, the BRI encompasses the "Silk Road Economic Belt" through the Eurasian continent and the "Twenty-first Century Maritime Silk Road," which links China with Southeast Asia, Oceania, the Indian Ocean rim, Africa, and the Mediterranean. With respect to Europe, the plan is to link China with railways that go through Central Asia, Russia, Eastern Europe, and Spain. The Maritime Silk Road extends from China to Southeast Asia, the Indian Ocean, the east coast of Africa, through the Suez Canal, and into the East Mediterranean Sea.

In a March 2015 Chinese white paper, "Vision and Actions on Jointly Building Silk Road Economic Belt and 21st Century Maritime Silk Road," the most comprehensive official document issued on the BRI, Beijing described the plan's five goals as policy coordination, facilities connectivity, unimpeded trade, financial integration, and people-to-people connections.

In practice, the BRI has no formal institutional structure or set of guidelines. In contrast to the situation with the Asian Infrastructure Investment Bank, a multilateral entity with established rules and processes, with the BRI, terms for countries and individual firms are negotiated directedly with the Chinese government, state-owned firms, or state-sanctioned firms. Memoranda of understanding between China and other countries and commercial terms between firms under the BRI banner are not generally available to the public. Moreover, many projects involving Chinese firms in the sixtyfive or more countries within the geography of the BRI are counted as BRI projects even if they were not conceived with the BRI in mind or preceded the BRI's formal announcement. Claims that the project could be a \$4 trillion scheme should be understood with the previous caveat in mind. Banks such as Morgan Stanley believe the BRI is so far a \$200 billion initiative and is likely to entail investment of \$1.2–\$1.3 trillion by 2027. If we count all known projects that appear to be part of the BRI the figure could be above \$600 billion. In this sense, the BRI is both a hugely ambitious and consequential concept but a significantly inflated one.

Even so, an investment gaining designation as a BRI project can be meaningful. The Chinese government has established funding mechanisms for BRI projects, including the Asian Infrastructure Investment Bank and the \$40 billion New Silk Road Fund. Joint ventures with Chinese firms under the BRI banner can open up funding from Chinese financial entities such as the China Development Bank, the New Development Bank, the Export-Import Bank of China, and the China Investment Corporation sovereign wealth fund. Funding from these sources for BRI projects is frequently less restrictive in initial phases of investment and is given on non-commercial terms. Chinese firms can also gain fast-tracked financial and regulatory approvals from domestic authorities when partnering with foreign firms on BRI-designated projects.

For our purposes, it is important to recognize that the BRI began as a way for China to find solutions for many of the economic problems described in the first volume of this report. From that attempt to address vulnerabilities, the BRI has morphed into a grand strategic plan, but one that seeks to make a virtue out of necessity. The initiative is ambitious but also dangerously optimistic, based on domestic weaknesses and limitations that are severely underappreciated by outsiders, and perhaps by many Chinese officials as well. From this perspective, we should not be blown away or dismissive of the BRI. The point is that China needed a new model for export-led growth to drive industrial activity and growth that was not based on comparatively low labor costs. MIC 2025 identifies the highvalue industries that will become more important in the future. BRI complements this by providing the infrastructure, finance, logistics, and agreements required between China and regional trading partners to lay the foundations for industrial activity and a new era of export-led growth.

Note that China was already capturing a significant share of regional supply chains in the production of exported goods. The case of electronics, the single biggest category in regional trade, is instructive. By 2015, the value of Chinese electronics output was over \$700 billion, about 38 percent of global output. Beijing's aim is to extend its dominance at medium- and high-value-added levels in the supply chain of exported goods, from contemporary electronics to the MIC 2025 industries.

While the BRI does not include the United States, it does extend as far as Europe. Beijing intends to create and capture dominant shares of the export markets in low-, medium-, and highvalue-added export sectors based on the economic needs of countries along the BRI: from developing economies in Central and Southeast Asia and Africa to the advanced economies in Western Europe.

The financing of BRI projects also allows China to oversee the gradual internationalization of its financial sector and the RMB without excessive exposure to open financial and currency markets that could create the instability and unpredictability it loathes. Beijing rejects the model that its financial institutions ought to participate in the global economy as independent entities impartially chasing more profits and better returns. Instead, it believes that Chinese financial institutions ought to advance national objectives even as they seek out opportunities. The BRI allows these institutions to offer development finance options that are negotiated with individual BRI countries and participating firms. From that perspective, Beijing retains a

degree of control even as Chinese financial institutions gradually creep outwards into foreign markets.

The contemporary roots of the BRI can be traced to a September 2013 speech by Xi delivered at Nazarbayev University in Astana, Kazakhstan. In that speech, Xi mentioned the "ancient Silk Road" and the singular importance of Central Asian countries to China, arguing that China and these countries, to lay the foundations for a "new golden age," should "take an innovative approach and jointly build an 'economic belt along the Silk Road.'" This entailed improving road connections to create a "major transportation route connecting the Pacific and the Baltic Sea"; investing in cross-border transportation infrastructure and a transportation network connecting East Asia, West Asia, and South Asia; and promoting "unimpeded trade" by removing trade barriers and reducing the costs of inter-border trade.

The issue is the persistent disparity in wealth (absolute and per capita) between the eastern coastal provinces and the central, southwestern, and western regions. Beijing has had a "western development strategy" since 1999, aimed at invigorating the economies in the dozen or so provinces that did not benefit from the era of opening up and export-oriented growth and have been left behind economically. Despite massive injections of funds into the fiscal budgets of these regions' provincial governments, enormous capital made available to mainly state-controlled entities in these regions, and other preferential tax and regulatory policies, the results have been disappointing. In fact, these state-directed policies have tended to crowd out the private sector even more than in other parts of China, with Xinjiang, Tibet, Qinghai, and Gansu scoring particularly poorly on measures of private sector activity.

In this context, the BRI was initially seen as one way to create bourgeoning, self-sustaining opportunities for these provinces through economic partnerships with countries in Central and Southeast Asia. The idea was to build platforms, regimes, and infrastructure that will facilitate trade, investment, and other economically beneficial exchanges between the poorer Chinese provinces and countries such as Kazakhstan, Pakistan, and Myanmar.

With respect to BRI activities in Europe, it is clear that the MIC 2025 blueprint (and other industrial policies) are fundamentally mercantilist, designed to enhance Chinese self-sufficiency in important strategic sectors and secure Chinese export dominance in international markets in these sectors. BRI corridors and networks promise to enhance the flow of goods, services, and information between China and BRI countries and in doing so, facilitate Chinese economic and industrial dominance. It is significant that China is promoting increased connectivity without undertaking significant domestic measures to remove what the EU terms "significant market distortions." This includes CCP control over the financial system and policies offering preferential treatment for domestic companies. Chinese businesses in BRI-related sectors receive land at artificially low prices, access to cheap energy, preferential access to capital, suppressed borrowing costs, and beneficial pricing for raw materials and commodities.

Foreign investment in the most important and lucrative sectors of the Chinese economy is heavily restricted, and entry is via joint ventures—which leads to the new problem of largescale, state-sponsored theft of intellectual property and trade secrets. In addition to China's still-closed capital account and discriminatory regulatory and antitrust laws, it is extremely difficult for foreign firms to gain permanent and meaningful footholds to thrive in Chinese industrial and consumption sectors—while China is laying the groundwork for even greater access to European markets.

Indeed, Beijing has not made a convincing case that improved networks throughout Eurasia exist to spread the opportunity of globalization and share the spoils of greater economic integration evenly. The BRI and Beijing's interest in assets such as ports remain China-centric. China is paving the way to sell and buy what it wants according to economic and strategic policies produced by the CCP. When Chinese firms negotiate opaque deals with Asian, African, and European countries, they begin with the largesse and non-commercial advantages that come from state assistance. In other words, the exchange is rigged from the start.

Europe is also instructive in that China has used the lure of enormous infrastructure investments, including development of Greek ports, as an economic development gateway into the Balkans to divide and conquer the EU. The main mechanism is the China-initiated 16+1 grouping, which includes sixteen Central and Eastern European states, eleven of which are EU members, plus China. In late 2016, China announced it had established a \$11.1 billion Central and Eastern European (CEE) Fund to finance projects in the group-of-sixteen economics to support the BRI. An ulterior motive is to create an economic investment zone that will decide on investments according to China's rules and processes, rather than the more stringent and transparent EU standards preferred by Western European states such as France and Germany.

Consider the case of Slovenia, which was promised a \$1.5 billion financing package for a railway in exchange for a ninety-nine-year lease of the Port of Koper. In 2018, in spite of raised eyebrows in Western European countries, China and Slovenia signed a memorandum of understanding on cooperation in transport and infrastructure that focused on integrating sea transport with the development of railways, motorways, and logistics as part of the BRI concept. This includes a cooperative agreement between the Port of Koper and China's Port of Ningbo-Zhoushan to increase trade between China and the CEE economies.

Although the CEE Fund is underperforming because of a lack of confirmed funding and agreed projects, it indicates China's intention to circumvent EU rules and standards or undermine broad support for these rules and standards by getting potentially recalcitrant EU members such as Greece and Hungary on side. Serbia, a likely future EU member, has accepted large amounts of Chinese capital, and in return is supportive of China's stance on issues such as Taiwan, the South China Sea, and human rights in Tibet and Xinjiang. Once again, in this context, it is not the investment in port or other facilities per se that is of concern, but China's use of big spending promises to alter established EU norms and commercial standards for investment.

GLOSSARY

AIIB	Asian Infrastructure Investment Bank
BRI	Belt and Road Initiative
BUILD	Better Utilization of Investment Leading to Development Act
CBD	China Development Bank
CCP	Chinese Communist Party
CEE FUND	Central and Eastern European Fund
CFIUS	Committee on Foreign Investment in the United States
CIC	China Investment Corporation
EUR	euro
FDI	foreign direct investment
FIRRMA	Foreign Investment Risk Review Modernization Act
FOIP	Free and open Indo-Pacific
GBP	British pound
ICBC	Industrial and Commercial Bank of China
ICT	Information and communication technology
JPY	Japanese yen
M2	broad money supply
MIC 2025	Made in China 2025
ODA	official development assistance
PLA	People's Liberation Army
PPP	Public-private partnership
PPP	public-private partnership
ROI	on return on investment
TPP	Trans-Pacific Partnership
USD	US dollar
₩ТО	World Trade Organization

ENDNOTES

- 1 Grant Clark, "What Is Intellectual Property and Does China Steal It?," *Washington Post*, 21 January 2019, https://www.washing-tonpost.com/.
- 2 Walter Russell Mead, "Mike Pence Announced Cold War II," Wall Street Journal, 8 October 2018, https://www.wsj.com/articles/ mike-pence-announces-cold-war-ii-1539039480.
- 3 "Vice President Mike Pence's Remarks on the Administration's Policy Towards China at the Hudson Institute," 4 October 2018, https://www.hudson.org/events/1610-vice-president-mikepence-s-remarks-on-the-administration-s-policy-towards-china102018.
- 4 For example, John Hurley, Scott Morris, and Gailyn Portelance, *Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective*, Center for Global Development, Policy Paper 121, March 2018, https://www.cgdev.org/sites/default/ files/examining-debt-implications-belt-and-road-initiative-policy-perspective.pdf.
- 5 John Lee, "The End of Chimerica: The Passing of Global Economic Consensus and the Rise of US-China Technological Competition," *ASPI/USSC Strategic Insight*, May 2019, https:// s3-ap-southeast-2.amazonaws.com/ad-aspi/2019-04/SI%20 136%20The%20end%20of%20Chimerica.pdf?zquA2PovEXIFcl6_E30FH9PuLVx7PMHM.
- 6 Prime Minister of Australia, "Joint Statement of the Governments of Australia, Japan, and the United States of America on the Trilateral Partnership for Infrastructure Investment in the Indo-Pacific," https://www.pm.gov.au/media/joint-statement-governments-australia-japan-and-united-states
- 7 https://www.opic.gov/build-act/faqs-build-act-implementation.
- 8 John Lee, The Use of Aid to Counter China's "Djibouti Strategy" in the South Pacific, Hudson Institute, March 2019, https:// s3.amazonaws.com/media.hudson.org/Hudson%20Djibouti%20 Report2_Web%20%281%29.pdf.
- 9 Australian Government, Department of Foreign Affairs and Trade, "Pacific Regional-Australian Infrastructure Financing Facility for the Pacific: Stepping-up Australia's Pacific Engagement, https:// dfat.gov.au/geo/pacific/development-assistance/Pages/australian-infrastructure-financing-facility-for-the-pacific.aspx.
- 10 John Lee, "Russian Air Clash is a Wake-up Call for South Korea," *Nikkei Asia Review*, 25 July 2019, https://asia.nikkei.com/Opinion/Russian-air-clash-is-a-wake-up-call-for-South-Korea.
- 11 Kyle Springer, ed., Implementing the Indo-Pacific: Japan's Region Building Initiatives (Perth: Perth USAsia Centre, 2019), https://perthusasia.edu.au/events/past-conferences/defence-forum-2019/2019-indo-pacific-defence-conference-videos/keynotes-and-feature-presentations/pu-134-japan-book-web.aspx; John Lee, "The 'Free and Open Indo-Pacific' and Implications for ASEAN," ISEAS Trends in Southeast Asia, no. 13 (2018), https:// www.iseas.edu.sg/images/pdf/TRS13_18.pdf.

- 12 Shiko Ueda, "Japan's MUFG Bank to Set Up \$925 Million Fund for Overseas Infrastructure," *Nikkei Asia Review*, 6 June 2019, https://asia.nikkei.com/Business/Companies/Japan-s-MUFG-Bank-to-set-up-925m-fund-for-overseas-infrastructure.
- 13 Japan Ministry of Economy, Trade, and Industry, "The 'Expanded Partnership for Quality Infrastructure' Initiative Directed toward the G7 Ise-Shima Summit Meeting Announced," https://www.meti. go.jp/english/press/2016/0523_01.html.
- 14 Michelle Jamrisko, "China No Match for Japan in Southeast Asia Infrastructure Race," Bloomberg, 23 June 2019, https://www. bloomberg.com/news/articles/2019-06-23/china-no-match-forjapan-in-southeast-asia-infrastructure-race.
- 15 Belt and Road Initiative, "Cooperation Agreements and MoUs under the Belt and Road Initiative," https://www.beltroad-initiative. com/memorundum-of-understanding-belt-and-road-initiative/.
- 16 Evelyn Cheng, "China's Xi: 'No Force Can Stop the Chinese People and the Chinese Nation," CNBC, 30 September 2019, https://www.cnbc.com/2019/10/01/china-70th-anniversary-xisays-no-force-can-stop-the-chinese-people.html.
- 17 Zheping Huang, "Your Five-minute Summary of Xi Jinping's Three-hour Communist Party Congress Speech," Quartz, 18 October 2017, https://qz.com/1105337/chinas-19th-partycongress-your-five-minute-summary-of-xi-jinpings-three-hourspeech.
- 18 "China Slams Western Democracy as Flawed," Bloomberg, 23 January 2017, https://www.bloomberg.com/news/articles/2017-01-22/china-slams-western-democracy-as-flawedas-trump-takes-office; also Ben Blanchard, "'Crises and Chaos': China State Media Slams Western Democracy ahead of Communist Party Congress," Reuters, 17 October 2017, http:// www.businessinsider.com/r-china-state-media-attacks-westerndemocracy-ahead-of-congress-2017-10?IR=T.
- 19 "China State Media Slams Western Democracy," Reuters, http:// www.businessinsider.com/r-china-state-media-attacks-westerndemocracy-ahead-of-congress-2017-10?IR=T.
- 20 Stephan Ortmann and Mark R. Thompson, "China and the 'Singapore Model," *Journal of Democracy* 27, no. 1 (January 2016): 39–48.
- 21 "China Focus: Principle Contradiction Facing Chinese Society has Evolved in New Era: Xi," *Xinhua*, 18 October 2017, http://www. xinhuanet.com/english/2017-10/18/c_136688643.htm.
- 22 David Dollar, *China's Rebalancing: Lessons from East Asian Economic History*, John L. Thornton China Center at Brookings Institution, October 2013, https://www.brookings.edu/wp-content/uploads/2016/06/china-economic-rebalancing-dollar.pdf.
- 23 OECD, Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation (Paris: OECD Publishing, 2018), https://www.oecd.org/dev/SAEO2018_Preliminary_version.pdf.

- 24 Martin Gainsborough, "Elites vs. Reform in Laos, Cambodia, and Vietnam," *Journal of Democracy* 23, no. 2 (April 2012): 34–46.
- 25 John Lee, "Authoritarian Resilience and Autocracy Promotion in Asia," *Asia Policy* 13, no. 4 (October 2018).
- 26 China's Belt and Road Initiative in the Global Trade, Investment and Finance Landscape (Paris: OECD 2018), https://www.oecd. org/finance/Chinas-Belt-and-Road-Initiative-in-the-global-tradeinvestment-and-finance-landscape.pdf
- 27 Belt and Road Economics: Opportunities and Risks of Transport Corridors (Washington, DC: World Bank Group, 2019), 3–8, https://openknowledge.worldbank.org/bitstream/handle/10986/31878/9781464813924.pdf.
- 28 China's Belt and Road at Five: A Progress Report, Citi GPS: Global Perspectives & Solutions, December 2018, https://www. citibank.com/commercialbank/insights/assets/docs/2018/Chinas_Belt_and_road_at_five.pdf.
- 29 Belt and Road Economics, 20–21.
- 30 Procuring Infrastructure Public-Private Partnerships Report: Assessing Government Capability to Prepare, Procure, and Manage PPPs (Washington, DC: World Bank, 2018), http://pubdocs.worldbank.org/en/256451522692645967/PIP3-2018.pdf.
- 31 Meeting Asia's Infrastructure Needs (Manila: Asian Development Bank, 2017), https://www.adb.org/sites/default/files/publication/227496/special-report-infrastructure.pdf.
- 32 "Embracing the BRI Ecosystem in 2018," *Deloitte Insights* 2018, https://www2.deloitte.com/content/dam/insights/us/articles/4406_Belt-and-road-initiative/4406_Embracing-the-BRI-ecosystem.pdf.
- 33 Luca Bandiera and Vasileios Tsiropoulos, A Framework to Address Debt Sustainability and Fiscal Risks under the Belt and Road Initiative, World Bank, June 2019, http://documents. worldbank.org/curated/en/723671560782662349/pdf/A-Framework-to-Assess-Debt-Sustainability-and-Fiscal-Risks-under-the-Belt-and-Road-Initiative.pdf.
- 34 Belt and Road Economics, 6–7.
- 35 Bandiera and Tsiropoulos, A Framework to Address Debt Sustainability.
- 36 Jonathan Hillman, "China's Belt and Road: Five Years Later," Statement Before the U.S.-China Economic and Security Review Commission, 25 January 2018, https://www.csis.org/analysis/ chinas-belt-and-road-initiative-five-years-later-0.
- 37 John Lee, "ASEAN Must Choose: America or China?," National Interest (Jan./Feb. 2019), https://nationalinterest.org/feature/asean-must-choose-america-or-china-39067; John Lee, "The Free and Open Indo-Pacific and Implications for ASEAN," Trends in Southeast Asia, no. 13 (2018), https://www.iseas.edu.sg/images/ pdf/TRS13_18.pdf.

- 38 Daniel Kliman, "Addressing China's Influence in Southeast Asia: America's Approach and the Role of Congress," Statement before the U.S. House of Representatives Committee on Foreign Affairs Subcommittee on Asia, the Pacific, and Nonproliferation, 8 May 2019, https://docs.house.gov/meetings/ FA/FA05/20190508/109458/HHRG-116-FA05-Wstate-KlimanD-20190508.pdf; John Lee, "Better Balancing: Securing a Free and Open Indo-Pacific," in *After American Primacy: Imagining the Future of Australia's Defence*, eds. Peter J. Dean, Stephan Fruhling, and Brendan Taylor (Melbourne: Melbourne University Press 2019), 77–95.
- 39 Lavina Lee, *Democracy Promotion: ANZUS and the Free and Open Indo-Pacific Strategy*, United States Studies Centre, 9 July 2019, https://www.ussc.edu.au/analysis/democracy-promotion-a nzus-and-the-free-and-open-indo-pacific-strategy.
- 40 ASEAN Investment Report 2018, Foreign Direct Investment and the Digital Economy in ASEAN (Jakarta: ASEAN Secretariat, 2018), https://unctad.org/en/PublicationsLibrary/unctad_asean_air2018d1.pdf; Suvir Varma and Alex Boulton, Investing in Southeast Asia: What's Behind the Boom?, Bain and Company, 2018, https://www.bain.com/contentassets/c0e1de61f6b84cbd-8853440daefcc212/bain_brief_investing_in_southeast_asia_ whats_behind_the_boom.pdf.
- 41 Brian Harding, "China's Digital Silk Road and Southeast Asia," Center for Strategic and International Studies, 15 February 2019, https://www.csis.org/analysis/chinas-digital-silk-road-and-southeast-asia.
- 42 "Embracing the BRI Ecosystem in 2018," Deloitte Insights 2018.
- 43 OECD Investment Policy Reviews: Southeast Asia (Paris: OECD, 2019), https://www.oecd.org/daf/inv/investment-policy/South-east-Asia-Investment-Policy-Review-2019.pdf.
- 44 "ASEAN Connectivity," https://connectivity.asean.org/.
- 45 Lee, "End of Chimerica, https://s3-ap-southeast-2.amazonaws. com/ad-aspi/2019-04/SI%20136%20The%20end%20of%20 Chimerica.pdf?zquA2PovEXIFcI6_E30FH9PuLVx7PMHM.
- 46 Belt and Road Economics, 106.
- 47 Tania Ghossein, Bernard Hoekman, and Anirudh Shingal, Public Procurement in the Belt and Road Initiative, World Bank Group, 2018, 5–7, http://documents.worldbank.org/curated/ en/143241544213097139/pdf/132786-MTI-Discussion-Paper-10-Final.pdf.
- 48 China's Belt and Road at Five, 10–11.
- 49 Michal Makocki, "China's Road: Into Eastern Europe," European Union Institute for Security Studies Issue Brief, no. 4 (2017), https://www.iss.europa.eu/sites/default/files/EUISSFiles/Brief_4_ China_Eastern_Europe_0.pdf.
- 50 Andrew Nachemson, "'This is My Land': Cambodian Villages Slam Chinese Mega-project," *Al Jazeera*, 21 September 2018,

https://www.aljazeera.com/indepth/features/land-cambodian-villagers-slam-chinese-mega-project-180920150810557.html.

- 51 "Where Does Malaysia's Renegotiated ECRL Deal Leave China and Its Belt and Road Initiative?," ASEAN Today, 30 September 2019, https://www.aseantoday.com/2019/04/where-does-malaysias-renegotiated-ecrl-deal-leave-china-and-its-belt-and-roadinitiative/.
- 52 John Lee, "Party the Root Cause of the Trade War," *Australian Financial Review*, 29 August 2019, https://www.afr.com/policy/ foreign-affairs/party-the-root-cause-of-the-trade-war-20190828-p52lj0.
- 53 "The Belt and Road Initiative Six Years On," *Moody's Analytics*, June 2019, https://www.moodysanalytics.com/-/media/article/2019/belt-and-road-initiative.pdf.
- 54 Alex He, The Belt and Road Initiative: Motivations, Financing, Expansion and Challenges of Xi's Ever-Expanding Strategy, Centre for International Governance Innovation, September 2019, https://www.cigionline.org/sites/default/files/documents/no.225. pdf.
- 55 Li Xiaojun and Zeng Ka, "To Join or Not to Join? How Chinese Firms View the Belt and Road Initiative," *Pacific Affairs* 92, no. 1 (2019), 5–26.
- 56 Jonathan Hillman, "China's Belt and Road Is Full of Holes," Center for Strategic and International Studies, September 2018, https:// www.csis.org/analysis/chinas-belt-and-road-full-holes.
- 57 Ryan Manuel, "Twists in the Belt and Road," *China Leadership Monitor*, 1 September 2019, https://docs.wixstatic.com/ug-d/10535f_60ed8e44eba14dffb628131596fdd408.pdf.
- 58 Jie Yu, "The Belt and Road Initiative: Domestic Interests, Bureaucratic Politics, and the EU-China Relations," *Asia Europe Journal*, 28 March 2018, http://eprints.lse.ac.uk/87500/1/Yu_Belt%20 and%20Road.pdf.
- 59 Sun Wenguang, "Chufang buyao dasabi" [Do not throw money around during official visits], 20 July 2018, https://canyuwang. blogspot.com/2018/07/8.html.
- 60 He, Belt and Road Initiative, 21.
- 61 Zhou Xin, "China Gives Up Two of Its Best-Kept Forex Reserve Secrets," *South China Morning Post*, 29 July 2019, https://www. scmp.com/economy/china-economy/article/3020410/howmuch-chinas-forex-reserves-us-dollars-beijing-gives-two.
- 62 US Department of the Treasury, "Major Foreign Holders of Treasury Securities (in Billions of Dollars), Holdings 1/ at End of Period," https://ticdata.treasury.gov/Publish/mfh.txt.
- 63 International Monetary Fund, "Assessing Reserve Adequacy," https://www.imf.org/external/np/spr/ara/.
- 64 Salvatore Babones, "China is Sitting on \$3 Trillion in Curren-

cy Reserves, but Is That Enough?," *Forbes*, 24 May 2018, https://www.forbes.com/sites/salvatorebabones/2018/05/24/ china-is-sitting-on-3-trillion-in-currency-reserves-but-is-thatenough/#724a186d5fce.

- 65 Stephen Joske, "China's Coming Financial Crisis and the National Security Connection," *War on the Rocks*, 23 October 2018, https://warontherocks.com/2018/10/chinas-coming-financial-crisis-and-the-national-security-connection/.
- 66 "China's BRI Report Card: Deeper Linkages, Greater Caution," Moody's Investor Services Report, 29 January 2019.
- 67 "The Belt and Road Initiative Six Years On," 6.
- Will Doig, "The Belt and Road Initiative Is a Corruption Bonanza," Foreign Policy, 15 January 2019, https://foreignpolicy. com/2019/01/15/the-belt-and-road-initiative-is-a-corruptionbonanza/; Jonathan Hillman, "1MDB Probe Shines Light on China's Belt and Road," Nikkei Asia Review, 18 January 2019, https://asia.nikkei.com/Opinion/1MDB-probe-shines-uncomfortable-light-on-China-s-Belt-and-Road; Yew Chiew Ping, "Shady Practices and Soiled Hands — Can Corruption along the Belt and Road Be Stemmed?," Channel News Asia, 13 April 2019, https://www.channelnewsasia.com/news/commentary/ commentary-shady-practices-and-soiled-hands-can-corruptionalong-11414874.
- 69 For example, Belt and Road Economics, 110-22.
- 70 Lee, Democracy Promotion.
- 71 "President Xi Delivers Keynote Speech at 2nd Belt and Road Forum for International Cooperation," *Xinhua*, 26 April 2019, http:// www.xinhuanet.com/english/2019-04/26/c_138008377.htm.
- 72 "Full Text of President Xi's Speech at Opening of Belt and Road Forum, *Xinhua*, 14 May 2017, http://www.xinhuanet.com/english/2017-05/14/c_136282982.htm.
- 73 Tang Siew Mun et al., *The State of Southeast Asia: 2019 Survey Report*, ASEAN Studies Centre at ISEAS-Yusof Ishak Institute, 2019, https://www.iseas.edu.sg/images/pdf/TheStateofSEASurveyReport_2019.pdf.
- 74 Are Patents Indicative of Chinese Power?, Center for Strategic and International Studies China Power Project, https://chinapower.csis.org/patents/.
- 75 Katherine Koleski, *The 13th Five Year Plan*, U.S.-China Economic and Security Review Commission, 14 February 2017, https:// www.uscc.gov/sites/default/files/Research/The%2013th%20Five-Year%20Plan_Final_2.14.17_Updated%20%28002%29.pdf.
- 76 Meia Nouwens and Helena Legarda, China's Pursuit of Advanced Dual-Use Technologies, International Institute for Strategic Studies, 18 December 2018, https://www.iiss.org/blogs/research-paper/2018/12/emerging-technology-dominance.
- 77 "Testimony of Robert D. Atkinson, President, Information

Technology and Innovation Foundation, before the House Committee on Oversight and Government Reform Subcommittee on Information Technology," 26 September 2018, http://www2.itif.org/2018-testimony-atkinson-countering-china.pdf?_ga=2.198592231.958288066.1571105709-837678545.1571105709.

- 78 Geoff Colvin, "It's China's World," *Fortune*, 22 July 2019, https:// fortune.com/longform/fortune-global-500-china-companies/.
- 79 Xiaojing Long, "Comparative Study on the Fortune Global 500 Basing on the 2005–2015 Ranking," Open Journal of Business and Management 4 (2016), 763–77, https://www.scirp.org/pdf/ OJBM_2016102815211024.pdf.
- 80 Jonathan Woetzel et al., China and the World: Inside the Dynamics of a Changing Relationship, McKinsey Global Institute, July 2019, https://www.mckinsey.com/~/media/mckinsey/featured%20insights/china/china%20and%20the%20world%2.0inside%20the%20dynamics%20of%20a%20changing%20relationship/mgi-china-and-the-world-full-report-june-2019-vf.ashx.
- 81 Jonathan Woetzel et al., *China and the World: Inside the Dynamics of a Changing Relationship*, McKinsey Global Institute, 12.
- 82 Dennis Normile, "China Narrows U.S. Lead in R&D Spending," *Science* 362, no. 6412 (19 October 2018).
- 83 Is China a Global Leader in Research and Development?, Center for Strategic and International Studies, https://chinapower.csis. org/china-research-and-development-rnd/.
- 84 Erik Roth, Jeongmin Seong, and Jonathan Woetzel, Gauging the Strength of Chinese Innovation, McKinsey Global Institute, October 2015, https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/gauging-the-strength-of-chinese-innovation.
- 85 Update to the IP Commission Report, The Theft of American Intellectual Property: Reassessments of the Challenge and United States Policy, National Bureau of Asian Research, February 2017, http://ipcommission.org/report/IP_Commission_Report_Update_2017.pdf.
- 86 Foreign Economic Espionage in Cyberspace 2018, National Counterintelligence and Security Center, 5, https://www.dni. gov/files/NCSC/documents/news/20180724-economic-espionage-pub.pdf.
- 87 John Lee, "China's Corporate Leninism," American Interest, March/April 2012, https://www.the-american-interest. com/2012/04/10/chinas-corporate-leninism/; "Party the Root Cause of the Trade War," Australian Financial Review, 29 August 2019, https://www.afr.com/policy/foreign-affairs/party-the-rootcause-of-the-trade-war-20190828-p52lj0.
- 88 Aaron Friedberg, "Competing with China," Survival 60, no. 3 (2018), 7–64, https://www.tandfonline.com/doi/pdf/10.1080/003 96338.2018.1470755?needAccess=true.

- 89 "Testimony of Robert D. Atkinson."
- 90 "CFIUS Reform: Foreign Investment National Security Reviews," Congressional Research Service, 3 October 2019, https://fas.org/ sgp/crs/natsec/IF10952.pdf.
- 91 Charles W. Boustany Jr. and Aaron Friedberg, Answering China's Economic Challenge: Preserving Power, Enhancing Prosperity, National Bureau of Asian Research, February 2019, 20, https:// www.nbr.org/wp-content/uploads/pdfs/publications/special_report_76_answering_chinas_economic_challenge.pdf.
- 92 Kenneth Rapoza, "China Trade War Update: China Global Supply Chains Shifting, but Asia Not Easy Winner," Forbes, 27 June 2019, https://www.forbes.com/sites/kenrapoza/2019/06/27/ china-trade-war-update-global-supply-chains-shifting-but-asianot-easy-winner/#694386a2df56; Austen Hufford and Bob Tita, "Manufacturers Move Supply Chains Out of China," *Wall Street Journal*, 14 July 2019, https://www.wsj.com/articles/manufacturers-move-supply-chains-out-of-china-11563096601; Anna-Katrina Shedletsky, "The 7 Problems Manufacturers Will Need to Solve to Move Their Supply Chains Out of China," *Forbes*, 2 July 2019, https://www.forbes.com/sites/annashedletsky/2019/07/02/ the-7-problems-manufacturers-will-need-to-solve-to-move-theirsupply-chains-out-of-china/#313c98475a13.
- 93 Finbarr Bermingham, "Trade War Forcing 93 Percent of Chinese Companies to Transform Supply Chains, Survey Shows," *South China Morning Post*, 23 April 2019, https://www.scmp.com/ economy/china-economy/article/3007334/trade-war-forcing-93cent-chinese-companies-transform-supply.
- 94 Mary E. Lovely and Yang Liang, "Trump Tariffs Primarily Hit Multinational Supply Chains, Harm US Technology Competitiveness," in US–China Economic Relations: From Conflict to Solutions, eds. Ha Jiming and Adam Posen, Peterson Institute for International Economics, June 2018, 4–5, https://www.piie.com/publications/piie-briefings/us-china-economic-relations-conflict-solutions-part-i.
- 95 Analysis in Lovely and Liang, "Trump Tariffs," 4-5.
- 96 Analysis in Lovely and Liang, "Trump Tariffs," 4–5.
- 97 For example, Melanie Hart and Kelly Magsamen, *Limit, Leverage, and Compete: A New Strategy on China*, Center for American Progress, April 2019, https://www.americanprogress.org/issues/security/reports/2019/04/03/468136/limit-leverage-compete-new-strategy-china/.
- 98 European Commission, "Joint Statement on Trilateral Meeting of the Trade Ministers of the United States, Japan, and the European Union," 26 September 2018, https://europa.eu/rapid/press-release_STATEMENT-18-5915_en.htm.
- 99 European Commission and High Representative of the Union for Foreign Affairs and Security Policy, *Joint Communication to the European Parliament, the European Council and the Council: EU-China — A Strategic Outlook*, 12 March 2019, 1, https://

ec.europa.eu/commission/sites/beta-political/files/communication-eu-china-a-strategic-outlook.pdf.

- 100 Adam P. Liff, "Japan's Security Policy in the 'Abe Era': Radical Transformation or Evolutionary Shift?," *Texas National Security Review* 1, no. 3, May 2018, 8–34, https://2llqix3cnhb21kcxpr2u9o1k-wpengine.netdna-ssl.com/wp-content/uploads/2018/05/ TNSR-Vol-1-Iss-3_Liff.pdf; John Lee, *Strategic Possibilities and Limitations for Abe's Japan in Southeast Asia* (Singapore: ISEA -Yusof Ishak Institute, 2015); John Lee, "Tokyo Ascending: Abe's New Defense Strategy," *World Affairs* 178, no. 2 (2015).
- 101 Lee, "Russian Air Clash." Nikkei Asia Review, 25 July 2019, https://asia.nikkei.com/Opinion/Russian-air-clash-is-a-wake-upcall-for-South-Korea.
- 102 https://reconasia-production.s3.amazonaws.com/media/filer_public/e0/22/e0228017-7463-46fc-9094-0465a6f1ca23/ vision_and_actions_on_jointly_building_silk_road_economic_belt_ and_21st-century_maritime_silk_road.pdf
- 103 Nouwens and Legarda, China's Pursuit of Advanced Dual-Use Technologies.
- 104 PwC and European Commission, Study on the Scale and Impact of Industrial Espionage and Theft of Trade Secrets through Cyber 2018, https://g8fip1kplyr33r3krz5b97d1-wpengine.netdna-ssl. com/wp-content/uploads/2018/10/POLITICO-commission-pwc-scale-and-impact-of-industrial-espionage.pdf.
- 105 Jost Wübbeke et al., Made in China 2025: The Making of a High Tech Superpower and Consequences for Industrial Countries, Mercator Institute for China Studies, 2016, https://www.merics. org/sites/default/files/2017-09/MPOC_No.2_MadeinChina2025. pdf.
- 106 Nouwens and Legarda, China's Pursuit of Advanced Dual-Use Technologies.
- 107 Figures cited in Thomas J. Duesterberg, Chinese Economic and Trade Challenges to the West: Prospects and Consequences from a U.S.-German Perspective, Hudson Institute, 6 February 2018, https://s3.amazonaws.com/media.hudson.org/files/publications/ChineseTradeFINAL.pdf.
- 108 Figures cited in Thomas J. Duesterberg, *Chinese Economic and Trade Challenges to the West: Prospects and Consequences from a U.S.-German Perspective.*
- 109 Martin Giles, "The Man Turning China into a Quantum Super-

power," *MIT Technology Review*, 19 December 2018, https:// www.technologyreview.com/s/612596/the-man-turning-china-into-a-quantum-superpower/.

- 110 "CFIUS: FIRRMA Pilot Program Mandates Notification for Certain Critical Technology Transactions," White & Case, 13 October 2018, https://www.whitecase.com/publications/alert/cfius-firrma-pilot-program-mandates-notification-certain-critical-technology.
- 111 Duesterberg, Chinese Economic and Trade Challenges to the West on the primary importance of Germany in this context.
- 112 Rory Medcalf, ed., "China's Economic Leverage: Perception and Reality," National Security College, March 2017, https://nsc. crawford.anu.edu.au/sites/default/files/publication/nsc_crawford_anu_edu_au/2017-05/policy_papers.pdf.
- 113 Mark Wu, "The 'China, Inc.' Challenge to Global Trade Governance," Harvard International Law Journal 57: 1001-63; "Testimony of Professor Jennifer Hillman before the US-China Economic and Review Security Commission," 8 June 2018, https:// www.uscc.gov/sites/default/files/Hillman%20Testimony%20 US%20China%20Comm%20w%20Appendix%20A.pdf; Derek Scissors, "Testimony before the Senate Committee on Banking, Housing and Urban Affairs Subcommittee on Economic Policy," 11 December 2013, http://www.aei.org/publication/the-importance-of-chinese-subsidies/; Lilly Fang et al., "Corruption, Government Subsidies, and Innovation: Evidence from China," Harvard Business School Working Paper 19-031, 2018, https:// www.hbs.edu/faculty/Publication%20Files/19-031_e00c9459f8a5-462b-8527-60f816aefe4c.pdf; James McGregor, China's Drive for "Indigenous Innovation": A Web of Industrial Policies, US Chamber of Commerce, https://www.uschamber.com/sites/ default/files/documents/files/100728chinareport_0_0.pdf.
- 114 Brian Barrett, "If Huawei Loses ARM's Chip Designs, It's Toast," *Wired*, 22 May 2019, https://www.wired.com/story/huawei-losesarm-chip-design/.
- 115 Elisabeth Schulze, "Huawei Unveils New Chip for Flagship Phone It Hopes Will Compete with Apple," CNBC, 6 September 2019, https://www.cnbc.com/2019/09/06/huawei-unveils-kirin-990-5gchip-for-mate-30-smartphone.html.
- 116 Joyce Huang, "South Korea, China Make Amends, but THAAD Dispute Lingers, *Voice of America News*, 15 December 2017, https://www.voanews.com/east-asia-pacific/south-korea-chinamake-amends-thaad-dispute-lingers.

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