

Issue

Brief

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Sino Techno-Nationalism Powers Through With 'China Manufacturing 2025'

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Abstract

Despite being the 'factory of the world,' many of China's industrial sectors are energy-intensive and have low value-add. At the same time, global firms are increasingly moving towards sophisticated low-cost manufacturing techniques for higher productivity gains. As a result, the Chinese Communist Party is keen to upgrade the country's industrial base to compete in the more advanced segments, such as information technology, through the 'China Manufacturing 2025' initiative. This paper evaluates China's industrial ambitions, factors that have contributed to it, and the drivers of Sino techno-nationalism.

The Chinese Communist Party (CCP), which has a substantial record of economic development, derives its authority from performance legitimacy,¹ and has advanced the notion that it holds on to power to deliver a strong and powerful nation. Since assuming office, President Xi Jinping has pushed the ‘China Dream’ plan as an ideal that envisions improving its comprehensive national power by reducing its technological dependence on foreign companies.² Under the ‘China Manufacturing 2025’ (CM2025) strategy, the country is endeavouring to achieve self-sufficiency in a phased manner in the “priority sectors” of information technology, robotics, and the manufacturing of sophisticated equipment used in areas like railways and medicine. The initiative includes phases of indigenising technologies to substitute foreign know-how to increase the domestic content of products in these industries.³ CM2025 will help meet the CCP’s goals of improving China’s market share in developing countries and pitting Chinese brands against Western ones. The CCP also hopes the initiative will help it address the structural issues related to the Chinese economic model, such as debt-driven growth and the changing demography.^{4,5} China’s population is ageing, and its birth rate is slowing, which in turn is resulting in declining workforce numbers. According to the 2020 Census, China’s population rose 1.412 from 1.4 billion in 2019; the fertility rate was 1.3 children per woman, well below the ‘replacement level’ of 2.1 required for a stable population.⁶ A declining labour force will harm the country’s long-term growth.⁷

Over the years, other developing nations have tried to emulate China’s manufacturing paradigm, which has become a cause for worry for the regime.⁸ Since opening up in the late 1970s, China has emerged as a manufacturing and export hub, rising to become the second-largest economy globally, even as income equality and regional imbalances have surfaced that could have a bearing on domestic stability. Amid domestic pressure to address the income inequity,⁹ the CCP pledged to spread prosperity more evenly by 2021.¹⁰ The CM2025 initiative is a way to address this concern; graduating from manufacturing to more lucrative areas like product innovation, design and branding, which are part of the CM2025 plan, will impact incomes and help upgrade the industrial base.

The realisation in the US that China could get an edge over it in biotechnology, nanotechnology, and cloud computing led to targeting the Chinese high-technology sector via tariffs. The US cutting off China's access to vital technology has shown the extent of Beijing's reliance on foreign technology and led to some toning down in Xi's domestic rhetoric of the country's return as a world power.¹¹ Widening income disparity has also driven the apparent climbdown from the triumphant narrative of China being a superpower.¹² In October 2020, the CCP plenum decided to prioritise income distribution and improve the quality of life in China under its new economic strategy to make its domestic market a key driver of economic growth.¹³ This indicates that the superpower narrative is being put on the backburner in favour of a more people-focused approach. At the same time, the essence of the CM2025 plan lives on; the Central Policy Research Office (CPRO), the CCP's think tank, has proposed a greater synergy between the state and the private sector to become more self-reliant in science and technology.¹⁴

“The ‘China Manufacturing 2025’ initiative is geared to achieve technology self-sufficiency in sectors like IT and robotics to reduce the dependence on foreign know-how.”

Brief History of China's Techno-Nationalism

Techno-nationalism links a nation's technological foundation and its capacity for innovation to its economic wellbeing and how it perceives itself. Academic Steven Feldstein argues that techno-nationalism is a key factor of a country's power internally and externally, with authoritarian regimes using the digital sphere to enhance their power domestically.¹⁵ Robert Reich defined techno-nationalism as strategies that favour a nation and its innovative capabilities and technological autonomy, while Jakob Edler and Patries Boekholt characterise it as a nation's initiative to enhance innovation and competitiveness in industries.¹⁶

Nationalism is a key factor in understanding China's political and economic posturing. Since the nineteenth century, nation-building was premised upon equating Chinese identity with modernity.¹⁷ For instance, the Qing dynasty (1644-1912) used the slogan 'learn the barbarian's superior technology to control him' to justify the introduction of Western learning and technology for national revival.¹⁸

Since the establishment of the People's Republic of China in 1949, practically every generation of leadership has sought to surpass—or at least be on par with—the West in terms of technology. The motivation to outshine the West has been justified by the construct of 'social Darwinism,'¹⁹ or the survival of the ablest race. Former President Mao Zedong sought China's rapid industrialisation and viewed steel as an important component of this transformation. In 1958, he launched the 'Great Leap Forward' to outstrip the UK's production capacities within a decade in a bid to dominate the West. Major investments in larger state enterprises were made; 4,700 enterprises started between 1958 and 1960, and backyard steel furnaces were set up in rural commune and urban communities. However, the campaign to augment industrial production made industry a captive of the state's production quotas, which were monitored by CCP cadres. The apparatchiks in charge of state enterprises borrowed to finance expansion plans, splurged on "vanity" buildings and imported equipment. As a result, nearly 80 percent of all the steel produced in China was substandard or completely defective.²⁰ A "culture of waste" developed with no checks on these excesses as market mechanisms to gauge response had been eliminated.²¹ This experiment to catch up with the West's industrial base was unsuccessful as it was poorly planned, eliminated market mechanism, and lacked economic incentives for workers who were the implementors. While China begun building semiconductors in the 1950s, its progress in the field was disrupted by the turmoil of the Cultural Revolution era, which impacted engineers, researchers and students.

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China's 1978 reforms were premised on the modernisation of the economy through science and technology, industry, agriculture and national defence. Former Paramount Leader Deng Xiaoping's strategy was to use elements of market economics to promote growth in the Chinese economy. His broad aims were to use foreign investment and increase the productivity of the Chinese economy while retaining the CCP's communist ideology and its hold on power.

Economist Friedrich List's theorised that powerful militaries do not guarantee the survival of nations and cited domestic manufacturing capability as having a bearing on national security.²² East Asian economic thinking on technology and innovation is thus consonant with List's writings on mercantilism. For instance, for nearly eight decades until 1945, Japan concentrated on the development of technology to enhance national security, using the slogan 'Rich Nation, Strong Army'.²³ The key principles of Japanese industrial policy²⁴ were: identifying new technologies; achieving self-sufficiency through technological indigenisation; and determination to diffuse know-how through the economy. A policy of "production promotion" was put in place to achieve national wealth,²⁵ with three broad pillars—protecting industries, providing subsidies, and greater synergy between the state and private enterprise. However, ambitious defence outlay and a bellicose foreign policy ultimately drove the nation to ruin in the Second World War. Japan adopted the rallying cry from the teachings of a Shang Yang, Qin dynasty functionary, who wrote: "A ruler should govern a nation by enriching it and strengthening the defence forces."²⁶

“Since 1949, practically every generation of China's leadership has sought to surpass—or be on par with—the West in terms of technology.”

Xi's first pronouncement after taking over as CCP general secretary in 2012 was to enunciate his dream for a strong nation by 2049, the centenary of the Communist Revolution and the founding of the People's Republic of China.²⁷ According to Xi, the way to national rejuvenation was the ability of the Chinese people to acquire advanced know-how and managerial practices, and by involving overseas Chinese in the effort to drive innovation.²⁸

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Over the past few decades, Beijing's Tsinghua University has become a training school for the CCP elite; Xi, his predecessor Hu Jintao, and former Premier Wen Jiabao are products of the university, and so Tsinghua's teaching faculty have some bearing on the debates within the CCP. In 2013, Tsinghua professor Hu Angang argued that the CCP's governance mechanism was more suited to China's national conditions and was better than Western-style democracy.²⁹ Hu asserted that China had risen to the position of global supremacy. Two events appear to vindicate Hu's proposition—China surpassing Japan to become the world's second-largest economy, and the 2008 global financial crisis that affected the West's banking system. This led to a surge in confidence among the CCP leadership, resulting in Xi positioning China as being at the cusp of a great era and a development prototype for other nations³⁰ and showcasing CM2025 as a path for global domination.

China Manufacturing 2025 and Drivers of Techno-Nationalism

In recent years, China has been trying to draw ideas from its Confucian past to bolster its legitimacy in the eyes of the public. School textbooks extol the ancient Chinese civilisation for being the source of the “four greatest inventions”—paper, printing, gunpowder, and the magnetic compass. The CCP has pushed the notion that these discoveries also caused the progress of Western civilisation. The party has also rued that China did not make good use of these discoveries, while the West was better at adapting the compass and gunpowder.³¹ Of particular interest is the lionisation of Zheng He, a Ming dynasty (1368-1644) mariner. In the post-Mao era, the fifteenth-century seafarer, whose armada explored lands in Southeast Asia, West Asia and Africa, has been idolised to signal that his quest for exploration brought glory to China.³² At the same time, while the discovery of gunpowder helped China improve fireworks, it also helped the West develop armaments that allowed China to be enfeebled in the nineteenth century.³³

The CCP acknowledges that its innovative spirit seems to have evaporated in recent times. “The foundation of our scientific and technological innovation is not solid enough...our independent innovation ability, especially in the area of original creativity is not strong...we must catch up and then try to surpass others,” Xi has said.³⁴ Hence, the party believes that the development of technology is a race, and innovation is the key to its future. What is unstated is that “if China could play a pioneering role in scientific discoveries in the past, then it can certainly do it now.”³⁵

In 2016, China announced a national research and development programme to support fields like big data, clean energy, quantum communications and computation. In his 2016 address to the National People’s Congress, Premier Li Keqiang mentioned “innovation” about 61 times, more than twice the number of times he had the previous year.³⁶ Speaking at the Chinese Academy of Sciences and Academy of Engineering in 2015, Xi mentioned the need to “address the technology deficit” and to nurture talent. He also warned against “decorating (China’s) tomorrows with others’ yesterdays”.³⁷ This indicated Xi’s eagerness to push more homegrown innovation and reduce the reliance on imported technologies without sufficient attention to “assimilation, absorption, and re-innovation”. Under Xi, the thrust on innovation has led to efforts to lure back Chinese scholars by upscaling existing programmes like the ‘1,000 Global Talents,’ which seeks to attract talent with incentives like preferential treatment in housing and financial support for research.³⁸

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Beijing is aware that for those returning it may not all be smooth sailing. Liu Guofu of the Beijing Institute of Technology has said that students may enjoy better conditions abroad than in China, and that retaining such talent may depend more on the work environment and less on perks offered.³⁹ Since the late 1980s, only around 55 percent of those who went abroad for their studies have returned to China.⁴⁰ The CCP's focus on assimilation meant that instead of allowing the entry of 'Big Tech' like Google, Twitter and Facebook, the 'BAT' trinity (Baidu, Alibaba and Tencent) were allowed to establish themselves as 'national champions'. The people behind the BAT trinity became influencers for development of artificial intelligence (AI). Baidu co-founder Ming Lei, who mentors tech entrepreneurs, sponsors research and teaches an AI course at Peking University, did his graduate studies in business administration at Stanford University in the US but returned to China despite being offered lucrative positions at American Big Tech firms. Ming, who helmed the team that developed Baidu's search engine (China's equivalent of Google), is a posterchild for Chinese techno-nationalism and routinely makes it known that he could have worked for a US corporation but chose to work for the development of AI in China.⁴¹

China has for years been trying to upgrade its semiconductor industry to eliminate dependence on foreign technology and has been locked in serious competition with Taiwan, a leading semiconductor manufacturer. China considers Taiwan a breakaway province, and relations across the Taiwan straits have soured following the Sino-American tech disputes.⁴² Taiwan's semiconductor industry ranks second only to the US, and China fears that the US and Taiwan could team up to impede its advancement. Zhang Rujing, who founded the Semiconductor Manufacturing International Corporation (SMIC), is a key influencer in China's efforts to attain self-reliance in this key sphere. Beijing plays up the narrative that Zhang, who is widely known as the "father of the Chinese semiconductor," relocated to the mainland from Taiwan to fulfil his "patriotic" dream of establishing world-class chip production facilities in China.⁴³ Zhang is said to have drawn employees from the Taiwan Semiconductor Manufacturing Corp (TSMC) to SMIC. TSMC had filed a suit against SMIC in a California court for theft of trade secrets and patent infringement in 2003. Recently, Taiwan notified that recruitment companies advertising for jobs located on the mainland, especially in critical industries such as integrated circuits and semiconductors, could face penalties.⁴⁴ Efforts are also on to facilitate academia-industry linkages to achieve self-sufficiency in semiconductor manufacturing. Campuses will soon become incubators for capacity development. Tsinghua

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University has set up the School of Integrated Circuits to tide over the shortage of human capital in semiconductor production.⁴⁵ State media has classified semiconductor manufacturing as a “bottleneck,” and has said that attaining self-sufficiency in the sphere will effectively foil the US’s efforts to browbeat Chinese tech firms.⁴⁶

The CCP recognises that China’s economic competitiveness and national security depend on an advanced manufacturing base. A 2015 government assessment of the manufacturing sector found that even though it was the largest globally, it was anaemic in terms of core technology and innovation.⁴⁷

The CM2025 initiative is a bid to rectify this gap by upgrading China’s industrial foundations. Planners identified several sectors to target as part of the initiative—next generation information technology; high-end numerical control machinery and robotics; aerospace and aviation equipment; maritime engineering equipment and high-tech maritime vessel manufacturing; sophisticated rail equipment; energy-saving vehicles; electrical equipment; agricultural machinery and equipment; new materials; and biopharmaceuticals and high-performance medical devices. By 2020, China planned to achieve domestic manufacturing of nearly 40 percent of basic components and basic materials in the identified sectors and reduce operating costs, production cycles, and product defect rates. By 2025, China hopes to indigenise the production of 70 percent of components domestically.⁴⁸

In response to worries that China’s domestic manufacturing plan will mean foreign companies could be elbowed out of the lucrative Chinese market and face stiff competition in the markets of developing nations, the country toned down references to the plan. For instance, Xi made no mention of the CM2025 initiative during the Central Economic Work Conference in 2019,⁴⁹ nor was it referenced in Premier Li’s 2019 ‘Government Work Report’⁵⁰ at the annual National People’s Congress—two important congregations that Chinese leaders traditionally use to outline strategic goals.

However, since embarking on the CM2025 initiative, China has increased its market share in several segments. China is advancing rapidly in the electric vehicle sector, currently accounting for 33 percent of the global e-vehicle market, and Chinese firm BYD is the world’s second-largest electric car manufacturer after Tesla.⁵¹ Additionally, ZTE (the world’s leading company in designing and manufacturing network operator equipment, nodes and elements) ranks first globally in ‘internet of things’ patents, followed by Huawei at tenth.⁵²

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Besides developing advanced technologies, China also appears to be using the CM2025 initiative to tackle some of the challenges that have emerged in its economic model.

Economic Factors

In the late 1970s, China had a miniscule share in global industrial production and accounted for less than 1 percent of global trade. Currently, it is the leading manufacturer and largest exporter, accounting for 18 percent of manufactured exports.⁵³ The key factor that led to this growth is the political resolve that translated into Deng's 'reform and opening up' strategy in the post-Mao phase, which meant an openness to trade and investment, dismantling the command economy structure, and kickstarting special economic zones. Investments in building good motorways, power stations, port networks and telecommunications meant that exporters could harness low labour costs coupled with infrastructure on par with the developed world, creating a unique launchpad for export-oriented development.

China also benefited from its geographic location. The proximity to Japan and South Korea, both of which have seen success due to export-driven policies, weighed heavily on the minds of China's planners.⁵⁴ Factors like access to Hong Kong's world-class port and facilities (for instance, the modern judicial system and financial services) ensured that Chinese businesspeople could connect with global trade routes,⁵⁵ and the country also benefitted immensely when Taiwan's high-tech electronics industry moved to the mainland in the late 1990s.⁵⁶

Experts have argued that economic growth and dynamism has become the core of the CCP's function.⁵⁷ From 1979 onwards, China's GDP grew at an annual rate of nearly 10 percent, before beginning a downward trend in 2012, growing at less than 7 percent in 2015. China's top leaders took note and mooted a course correction; Xi called for "modest growth coupled with more efficiency,"⁵⁸ while Li batted for "structural changes for continuing modernisation of the Chinese economic model".⁵⁹

However, in recent years, challenges have emerged in the Chinese economic model. Economists say that borrowing more is proving to be counterproductive. In 2005, borrowing RMB 1 of credit created RMB 1 of GDP, but in 2015, RMB 1 of credit produced only RMB 0.4 RMB of GDP.⁶⁰ This could mean future generations will be saddled with large sums of debt.

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Over the years, several other countries have tried to emulate China by promoting industry. For example, the ‘Brasil Maior’ (Bigger Brazil) industrial plan announced in 2011 envisaged tax sops and easy access to credit for Brazilian manufacturers. The Brazilian government hoped to remove the fiscal, legal, financial, and infrastructural hurdles that have dented the competitiveness of Brazilian firms within the domestic market, and the competence of importers and exporters to tackle global competition.⁶¹ India is also taking steps to improve its manufacturing sector and promote itself as a favourable investment destination. The National Manufacturing Policy was announced in 2011 to raise manufacturing’s share of GDP to 25 percent by 2025 and create 100 million new jobs.⁶² Manufacturing contributes approximately 15 percent to India’s total GDP. Given the rising wage costs due to higher living standards in China, some industries may find it worthwhile to relocate elsewhere. China’s industry and information technology ministry expressed apprehension that while advanced nations like the US and Germany had promulgated policy frameworks to improve manufacturing, developing nations like India and Brazil were catching up with their own advantages.⁶³

Additionally, if China sticks to its ‘factory of the world’ economic model, it runs the risk of being unable to shed its ‘upper-middle-income nation’ tag. China’s planners are aware that of the 101 countries that achieved middle-income status in 1960, only 13 have attained high-income status, with the others stagnating after failing to spearhead institutional reforms needed to take growth to the next level.⁶⁴ If China is to achieve high-income status, it must climb higher on Stan Shih’s ‘smile curve’, which determines the correlation between the value-added and profitability quotients.⁶⁵ Pure manufacturing adds value but is relatively less remunerative than product design, branding, or even research and development. Breaking into high-profitability sectors like product innovation, distribution, marketing and sales will result in net gains for China.

Another facet that must be examined is demography. A falling birth rate means the eligible workforce in China—categorised as those in the 18-59-years age bracket—is contracting; the number of births was 17.86 million in 2016, falling to 10.79 million in 2020,⁶⁶ meaning there may not be enough youth to support China’s aged population in the future.

The diminishing marginal value of debt, competition from other countries, declining growth, and a looming demographic drag, has forced China’s planners to turn to innovation as a propeller of development. But the impacts of the move to alter its economic model have been felt beyond its borders as well.

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Sino-American Tensions

A 2017 report by the US-China Economic and Security Review Commission detailing China's scientific advancements set alarm bells ringing in the US. The findings revealed that China has achieved parity with the US in key sectors like AI and would soon surpass the country in quantum information science, biotechnology, nanotechnology and cloud computing.⁶⁷ The report red-flagged the edge that Beijing was acquiring in AI and biotechnology due to Chinese government-funded research facilities on US soil, hiring local engineers, or leveraging international partnerships. For instance, in 2017, Chinese firms Baidu and Tencent established facilities for AI research in Silicon Valley and Seattle, respectively;^{68,69} and the Beijing Genomics Institute secured access to the data of American citizens after obtaining accreditation from the College of American Pathologists in 2015.⁷⁰ In 2016, China ranked among the world's top 25 economies in technological innovation, becoming the first middle-income country to do so.⁷¹

A 2017 US government investigation claimed that China was pursuing forceful technology transfers, acquiring foreign companies and commercial cyber espionage to make technological advancements in some sectors.⁷² In June 2018, the US government imposed higher tariffs on Chinese goods—particularly those under the purview of the CM2025 plan like information technology, aerospace and robotics industries—leading to tensions between the two countries.⁷³ China was forced to pledge to better legal protections for copyrights, patents and trademarks, including improved criminal and civil procedures to tackle online infringement and pirated and counterfeit merchandise. In November 2020, the National People's Congress voted to give more teeth to copyright protection, raising the ceiling of statutory damages from RMB 500,000 (approximately US\$75,500) to RMB 5 million (US\$7,84,732). The new rules will come into effect in June 2021.⁷⁴

Assertions by theoreticians like Liu Mingfu that a power shift was imminent in the twenty-first century⁷⁵ led Xi to position China as a role model for the world.⁷⁶ However, being compelled to conciliate in the trade war with the US has exposed China's dependence in the realm of technology. The trade war also cast a shadow on China's trajectory under Xi, and some intellectuals began voicing apprehensions. Academic Xu Zhangrun argued that the backlash caused by China's lunge for global ambitions has “exposed pre-existing disadvantages of the system”.⁷⁷ He also posited that the CCP's move away from pursuing tangible

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economic growth to chase “this or that dream” (an oblique reference to Xi’s China Dream) and compete with the US was threatening China’s social stability as the focus was on “vanity accomplishments”.

The inking of the ‘Phase One’ trade deal in 2020 may have papered over the cracks in the US-China economic relationship, but ties between the two countries remain vulnerable.

The Chinese leadership sees the US as being intolerant of its rise compared to the ascent of Japan and Germany, with the last flourishing under the US security umbrella.⁷⁸ In 2020, the pandemic underscored the perils of depending on China for manufactured products, with disruptions in the China-dominated global supply chains jolting the US economy. A more distributed production network was mooted as an alternative. The CCP perceives supply chains as a global public good and attempts to remove global industrial supply chains from China as politicisation and weaponisation of that public good.⁷⁹ The CCP sees the US’s efforts on this front as proof of that country’s aim to cripple China’s economic and technological development.

“In addition to developing advanced technologies, China is using the ‘China Manufacturing 2025’ initiative to tackle challenges in its economic model, such as debt-driven growth and the pressures of a changing demography.”

Changing Priorities: Hubris to Strategic Asymmetry

Since the outbreak of the COVID-19 pandemic, policy debates within the CCP have shifted from striving for “intangible” achievements to more concrete ones like improving income disparity. Li commended the efforts of small-time vendors to hawk goods on handcarts to tide over the job losses due to the pandemic during a visit to Shandong in June 2020.⁸⁰ He also emphasised the employment-generation potential of street stalls and endorsed Shandong’s “local experiment” during a National People’s Congress event.⁸¹ This marked a change from the approach of the *chengguan* (the agency that executes local/municipal government bylaws) that frequently cracked down on hawkers. For instance, the *chengguan* in Shijiazhuang, the capital of Hebei province, began relaxing rules to accommodate the “stall economy,” which became a popular catchphrase.⁸²

A comparison of phrases used in the 2015 and 2020 plenums (the annual conclave of CCP’s top decision-makers) reveals changes in Xi’s imperatives and the CCP’s changed priorities (see Table 1). While acknowledging that there were “difficult domestic challenges,” the phrase “complex international conditions” found more mentions in 2020, pointing to deteriorating Sino-US relations. Such “challenges” seem to have forced the CCP to focus more on fine-tuning the domestic economic model and delivering “high-quality development”.

Table 1:
Key Phrases Related to CCP’s Priorities
Mentioned in Plenum Communiqués

Phrases	2020 Plenum Document	2015 Plenum Document
Pandemic	4	0
Difficult domestic challenges	1	1
Complex international conditions	3	1
High-quality development	16	5
Refining the economic system	6	2

Source: U.S.-China Economic and Security Review Commission⁸³

Changing Priorities: Hubris to Strategic Asymmetry

The 2020 plenum report stated: “China faces an acute problem of inequality... innovation capacity does not measure up to the needs of high-quality development. The foundation of agriculture is not robust, and there exists a large rural-urban divide.”⁸⁴ According to Li, nearly 40 percent of China’s population received wages of around RMB 1,000 (US\$141) every month.⁸⁵ Xi’s report to the CCP stated that development is the party’s primary priority as China remains a developing nation.⁸⁶ These statements signal the CCP’s aim to downplay the narrative of the nation’s ascent as a superpower and instead focus on people’s livelihood. As a result, in 2021, China is hedging on a new economic strategy that seeks to improve incomes and livelihoods through “high-quality development” and give more credence to domestic consumption⁸⁷ through huge investments in AI, big data and 5G.

The growth of domestic consumption will make investment in Chinese consumer merchandise and technology companies more lucrative. China has pledged to make it easier for foreign firms to invest in the country’s securities sector. Initial public offerings on the mainland and Hong Kong bourses saw a record US\$119 billion raised, which is around half the global total.⁸⁸ Foreign direct investment (FDI) inflows to China increased by 4 percent to US\$163 billion, making it the world’s largest FDI recipient in 2020.⁸⁹ In December 2020, the Central Economic Work Conference, an annual conclave of top policymakers that sets the national agenda for the Chinese economy, outlined a “people first” approach to economic decision-making. The CCP plans to promote scientific and technological innovation, expedite economic restructuring, and rebalance income distribution. Thus, China’s efforts to upgrade its industrial base are now being wrapped around the need to boost its economic security in the face of “severe challenges,” hinting at strained Sino-US relations, protectionist industrial policies and unilateralism.⁹⁰

The US curbs on exports of semiconductor chips to China has deepened the technology conflict between the world’s top two economies. The CPRO, the CCP’s think tank tasked with offering policy recommendations to the leadership, has termed inadequacies in China’s scientific and technological arena as the “chokepoint problem” that will hinder its progression to high-end industry.⁹¹ CPRO director Jiang Jinqun has mooted that China tide the US-imposed technology blockade by similar means used during Japan’s Meiji Restoration. Jiang wants national teams to direct research and ensure that the gap between “invention” and “application” is narrowed. He wants state support for private firms to conduct research and development of emerging technologies, and a policy to “purchase breakthroughs” to encourage the private sector.⁹²

Changing Priorities: Hubris to Strategic Asymmetry

The CCP's ambitions regarding technological dominance are tied to the changing international environment, which it perceives as being hostile to its development interests. Hence, its resolve to establish self-sufficiency in core know-how is directed at an "technology asymmetry" in which China shakes off its dependence on industrialised nations for sophisticated imports while making those countries reliant on its supplies. It also plans to leverage sourcing its raw material to ensure that this asymmetry can be used to further its interests, a strategy recently used against Australia. In retaliation to the Australian government's suggestion that the World Health Organization probe the origins of the COVID-19 pandemic, the CCP started restricting imports of Australia coal, meat and farm products. This punitive measure was followed by the CCP sending a list of "grievances" to the Australian government, which included making concessions to China's claims in the South China Sea, restraining Australian media outlets from publishing developments critical of the CCP's interests, and annulling legislation aimed at countering China's "influence" operations.⁹³ This highlights the CCP's focus on technology is determined by external and internal imperatives, which explain its resolve in developing domestic technological capacities and chokepoints to leverage its power.

“China is hedging on a new economic strategy that seeks to improve incomes and livelihoods through “high-quality development” and give more credence to domestic consumption through considerable investments in AI, big data and 5G.”


Conclusion

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Narratives have played a major role in ensuring the CCP's continuity, and developmentalism has been used as a source of regime legitimacy in the one-party state. Each generation of the CCP leadership has tried to establish a legacy of presenting a grand strategy for global domination, which has continued with Xi's China Dream.

The CCP appears to want to follow Japan's rapid industrialisation strategy that led to its rise in Asia. As China's innovative capacity increases, worries remain over its willingness to use this technological edge to achieve geopolitical goals. For instance, the October 2020 power outage in Mumbai, India, that crippled the local stock market and transport was seen by some as the handiwork of Chinese malware in the electricity grid.⁹⁴

China's manufacturing boom ahead of Xi's ascent to power saw it overtake Japan as the second-largest economy globally, even as Western economies were reeling from the aftereffects of the global financial crisis. The CCP viewed these developments as a vindication of the efficacy of its governance system and began to position the country as a superpower through initiatives like CM2025. But the backlash from the West through the targeting of China's high-tech sector has led to criticism of the country's trajectory under Xi. This has led the CCP to downplay its triumphalism and push a people-centric programme to boost incomes under a new developmental pattern to strengthen the domestic market.

Nevertheless, the spirit of the CM2025 lives on. The CCP now hopes to rope in the domestic private sector in a big way to improve innovation. Government interference may impact this as the private sector needs a free hand to get things done. Differences over how much leeway to give to the market while maintaining the CCP's upper hand in the decision-making process may impede China's push to achieve technology self-sufficiency. 

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