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The Rise of the Chinese Techno-Security State¹

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Since coming to power at the 18th Chinese Communist Party Congress in 2012, Xi Jinping has significantly elevated the importance of national security concerns and technological innovation in the country's overall priorities (see the chapter by Whutnow in this volume). Xi has invested considerable time, effort and political capital to establish an expansive techno-security state based upon his strategic and ideological vision and under his close personal control through direct command of key institutions.

The techno-security state refers to an innovation-centred, security-maximising regime that prioritises the building of technological, defence and national security (covering matters such as intelligence, internal security, cyber and surveillance) capabilities to meet expansive national security requirements based on perceptions of heightened threats and on the powerful influence of domestic pro-security coalitions. This building of a techno-security state is being pursued through four major lines of effort:

1. A national security state that integrates the domestic and external security arenas and emphasises the development of internal security and information control capabilities across a wide array of domains under the watchful eye of the party-state;
2. An innovation-driven development strategy that represents a new comprehensive model of national economic development closely coordinated with military and security goals;
3. A comprehensive strategy for military strengthening designed to turn the People's Liberation Army (PLA) into a top-tier global military power by the

- mid-2030s capable of challenging competitors such as the United States for overall dominance by mid-century;
4. A military-civil fusion strategy that seeks to integrate the compartmentalised civilian and defence portions of the Chinese economy into a seamless, cohesive dual-use system better able to cater to the needs of the military and national security apparatuses.

The National Security State

Xi moved expeditiously after taking office in 2012 to engineer a far-reaching reframing of the country's national security approach. There was no single seminal shock that triggered this hard national security turn. For China's realist-minded security policymakers at the helm in the early 2010s, the country's national security situation was complicated but manageable. For Xi, however, these traditional realpolitik perspectives painted only a partial and far-too-rosy picture of China's actual security environment. He brought to office a very different set of assumptions and viewpoints as to what constituted the most worrying sources of danger to the Party and the country and how they should be addressed.

As a long-time provincial apparatchik, Xi's worldview was dominated by domestic and Party concerns. Xi was in particular haunted by the collapse of the Soviet Union two decades earlier. Xi was determined that the Chinese Communist Party should avoid the same fate, even though China in the 2010s bore little resemblance to the decrepit Soviet regime. Xi's answer was a hand-in-glove strategy of hard-hitting ideological renewal, political purification and comprehensive national security.

According to Xi, the most dangerous threats to national security are internal, non-traditional, political and emerging, rather than external, traditional, geo-strategic and imminent. On the issue of core national interests, the balance between development, security and sovereignty has also been revised under Xi's tenure. From Deng Xiaoping to Hu Jintao, development was by far the most important national priority, but Xi has elevated security to the same level, if not higher. "We not only emphasise development issues but also security issues", Xi said at the first meeting of the Central National Security Commission in April 2014 (Xinhua 2014).

According to Xi, national security and development are deeply intertwined: "security and development are two sides of the same issue, two wheels in the same driving mechanism. Security guarantees development, and development is the goal of security" (Xinhua 2015). China needs to pursue a more pro-active and assertive approach in shaping and protecting its security environment to promote development, rather than its previously more reactive and low-key posture.

Innovation-Driven Development Strategy

The Innovation-Driven Development Strategy (IDDS) represents the Xi administration's bold, overarching development strategy of realising China's long-term ambition of becoming a world power by mid-century. The strategy is state-directed but market-supported, globally engaged but framed by techno-nationalist motivations. It seeks a seamless integration of the civilian and military domains, and employs a selective authoritarian mobilisation approach targeted at core and emerging critical technologies.

The IDDS represents a whole-of-nation effort in the pursuit of technological innovation. This allows the authorities to have access to enormous institutional capabilities and material resources that can be applied to critical objectives. This selective authoritarian mobilisation model is what Xi calls the superiority of the socialist system and has been successfully used on a number of pivotal science and technology projects in the past.

A key measure of the authoritativeness and ability of the IDDS to guide China's development is the extent and long-term commitment of top-level leadership support. The IDDS is personally intertwined with Xi, who first put forward the concept and was intimately involved in its formulation, approval and rollout. In a political setting where power rests more in the person of Xi and less in institutions, the IDDS is likely to benefit from its tight association with Xi in at least two ways. First, Xi's strong commitment to the IDDS sends a clear signal to the bureaucracy that it should vigorously implement the strategy and associated policies and plans, or else suffer the consequences. Second, the lifting of term limits in 2018 on Xi's tenure in power means that the IDDS can expect to enjoy an extended shelf life, which is important because of its long-term focus.

A fundamental issue that will determine the overall effectiveness of the IDDS in driving China's long-term development is the evolving role of the state and its relationship with the market. The state remains of central importance in the IDDS umbrella, but its functions and responsibilities are being redrawn to handle a more complex and advanced innovation ecosystem.

The IDDS mentions building a modern innovation governance system, which would replace the existing rigid top-down, monolithic, bureaucrat-driven and administratively micromanaged model. Replacing it would come a pluralistic, decentralised, streamlined, expert-informed and enterprise-focused system which takes an indirect governance approach with a clearer division of labour between the state and market. In this reconfiguration of the state's guiding hand, some functions and responsibilities are being enhanced, while others are being curtailed or eliminated. Areas being strengthened include strategic planning,

policy formulation, supervision and evaluation, the implementation of major and strategic tasks, and supporting fundamental research (Guowuyuan 2016).

The indigenous development of strategic and core technologies is one of the foremost priorities of the IDDS and its associated plans. Strategic and core technologies refer to capabilities that are crucial for national security and long-term national competitiveness. The IDDS puts forward a two-step development approach with the first near-to-medium stage to 2020 and the second long-term stage to 2030 (since extended to 2035). In the first step, the focus was on accelerating the implementation of megaprojects already underway under the 2006–2020 Medium and Long-Term Science and Technology Development Plan (MLP) (Guowuyuan 2006). These projects included new generation nuclear reactors and mid-sized passenger aircraft, and most were completed by the time this MLP ended in 2020. A successor MLP covering the period from 2021 to 2035 covers the second stage of the IDDS.

Military Strengthening

The possession of a strong, vibrant and technologically advanced military and defence apparatus is pivotal to forging a potent techno-security state. Xi's thinking on the building of China's military power is formally known as "Military Strengthening in the New Era", shorthand for his grand goal of transforming the PLA and the defence science, technology and industrial apparatus from being big to being strong.

Achieving this goal rests on a three-pronged strategy of reform, innovation and modernisation. Reform refers to undertaking a concerted restructuring of the existing defence establishment to improve its readiness and ability to fight and win future wars as well as to ensure its political reliability for the CPC. Innovation concerns the development of novel ways and means of strengthening China's military power and influence through hard (material, technological, industrial) and soft (normative, strategy and tactics, processes) factors. Modernisation is the result of the implementation of reforms and innovation in the development of defence capabilities.

Although reform, innovation and modernisation are coordinated, there are different timeframes set for them. Xi declared at the 19th Party Congress in 2017 that the bulk of structural reforms will be accomplished by the beginning of the 2020s, while overall defence modernisation will be only "basically completed" by 2035 (Xinhua 2017). Achieving the ultimate goal of becoming a world-class defence innovation power on a par with the United States is envisioned for the middle of this century.

Reform and modernisation have been at the top of the defence establishment's policy agenda going back to the 1970s, but innovation came to the fore only after the beginning of the 21st century. Xi's predecessors Jiang Zemin and Hu Jintao emphasised the importance of innovation, especially related to technological development, during their tenures. However, Xi has elevated innovation to a core priority and extended its application to far more military areas than his predecessors did.

Military-Civil Fusion

At the heart of the Chinese techno-security state is the grandiose idea of a strategic economy that seamlessly serves civilian and military needs. This is a daunting challenge because of the long-standing and deeply entrenched separation between the civilian and defence sectors.

The means to achieve this integrated national strategic system is through military-civil fusion (MCF). Before Xi took office, military-civil fusion was a mid-level policy priority that vied for attention with other issues, but Xi elevated MCF to a national-level priority in 2015 (Jiefangjun bao 2015).

The formulation of the MCF development strategy took more than five years and steadily grew bolder and bigger over time. This can be largely attributed to Xi's increasing interest and involvement in MCF-related matters. At the beginning of his tenure, Xi was keenly interested and engaged in military modernisation, national security, and science, technology and innovation. As he intensively worked on these domains during his first several years in power, he came to appreciate the role that MCF could play as a crucial link between these topics. This experience led Xi to become more actively involved in MCF policymaking and strategic thinking from the mid-2010s onwards. This is most evident in the creation of the Central Military-Civil Fusion Development Commission that was established in January 2017 to manage the MCF effort, and which is headed by Xi himself.

The MCF development strategy was formally approved in March 2018 and is officially known as the "Military-Civil Fusion Development Strategy Outline" (Qiushi 2018). The MCF development strategy represents a crucial link in Xi's efforts to coordinate between national security, economic development and technological innovation. The strategy is the last piece in the jigsaw puzzle of national strategies that Xi has drawn up spanning from the IDDS to the holistic national security strategy.

Conclusions

China is making steady progress in its efforts to build a world-class techno-security state, but faces stiff challenges ahead. Externally, the United States is stirring to thwart China's techno-security rise while endeavouring to preserve its own long-cherished dominance. Moreover, the far-reaching geo-strategic fallout from Russia's 2022 invasion of Ukraine that has plunged the world into a fully-fledged Cold War is further deepening the rift between China and the West. Domestically, the Chinese techno-security state along with the rest of the country is scrambling to turn from being a dependent follower into an advanced and self-reliant science, technology and innovation power. But the prolonged pandemic lockdown and abrupt regulatory and political crackdowns against big tech companies and the private sector threaten to disrupt this transformation.

Note

¹ This commentary is derived from a longer study of the Chinese techno-security state (Cheung 2022).

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