

CHINA'S EVOLVING APPROACH TO TECHNOLOGY

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Executive Summary

1. The US fear of losing its technological edge to China is on the rise. The Trump administration has come to see China's techno-industrial plans and policies as a national security threat.
2. China has come a long way to this point. After the mid-19th century, the Chinese has begun to see modern technology as a key determinant of national power. Nevertheless, technology catch-up took China a longer time than what it did for its East Asian neighbours.
3. After the Chinese Communist Party (CCP) took power in 1949, China depended on the former Soviet Union for industrial and military technologies. The 1950s witnessed the largest technology transfer in world history.
4. The Sino-Soviet split in the late 1950s cut China off from its major technology patron, turning it to autarky or self-reliance in the 1960s and 1970s. China's "Two Bombs, One Satellite" project might have succeeded, but in reality, its technological gap with the industrial West has widened.
5. In the 1980s, China tried centralised, massive purchasing of foreign technologies, but had to abandon this expensive approach due to budget shortfalls. China also directly negotiated with multinational corporations. The "market for technology" approach only achieved limited success.
6. After Deng Xiaoping's 1992 southern tour, China was much more open to foreign direct investment. The new approach, termed as pragmatic or open techno-nationalism, worked better and helped knit China into the global production networks.
7. However, China's policymakers were not satisfied. To move up the global value chains, they shifted to emphasising "indigenous technologies" in 2006 and rolled out its first techno-industrial policy thereafter.

8. Under the current Xi Jinping leadership, the government has become more ambitious. Techno-industrial initiatives have proliferated, backed by massive government funding. In particular, Made in China 2025 aims to leapfrog development from “industry 2.0” to “industry 4.0”.
9. The US fear of losing dominance in technology prompts the Trump administration to take preemptive measures against China. The growing US hostility is unlikely to stop China from pursuing frontier technologies, however.
10. The question for China is not whether it will back down, but whether it will become more inward looking and embrace autarky or self-reliant techno-nationalism, or adopt open techno-nationalism and actively seek non-US partners. So far, Xi’s rhetoric is that China should “discard illusions, rely on ourselves”.