

Relax, America: state policies like ‘Made in China 2025’ aren’t drivers of China’s progress in technology

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Washington’s aggressive trade offensives against Beijing are, to a large extent, prompted by the fear that China is emerging as a serious rival to the United States in tech supremacy. American critics accuse China of a long list of misconduct, ranging from intellectual property theft and forced technology transfers via joint ventures to state subsidies of Chinese tech firms.

“Made in China 2025”, a policy paper unveiled by China’s State Council in 2015, has stoked most of the anger and fear among the Washington hawks.

In truth, Made in China 2025 is a sensible document spelling out the country’s policy goals. The Chinese government candidly admits that, despite the size of China’s manufacturing sector, it suffers from a host of problems such as a lack of protection of intellectual property rights, scarcity of global brand names, weak innovation capabilities and dire environmental consequences of the country's low-end industries.

The government aims to correct such deficiencies in the coming years and build an advanced manufacturing economy through significant investment in research and development. China has identified clean tech, 3D printing, robotics, the internet of things and artificial intelligence as “strategic”, and aspires to be a global leader in these emerging fields.

The only viable path for China to escape the “middle-income trap” and make the transition to a high-income country is sustained productivity growth via technological progress. Thus, it is a legitimate policy goal for China to move up the industrial value chain and upgrade its economy, just as its East Asian neighbours, such as Japan and South Korea, have accomplished before, and indeed America itself has done in the late 19th century in its own catch-up with Britain. Both America and East Asia relied on technological imitation and, sometimes, piracy during the catch-up phase of their economic development.

As long as China refrains from protectionist measures that may restrict trade and put foreign companies at a disadvantage, Washington has no reason to fear China’s emergence as a successful innovator. Unfortunately, American trade officials have misunderstood and overreacted to Made in China 2025.

In singling out Made in China 2025 for strident criticism, Washington may have given too much credit to state power in driving technological progress. If industrial policy has ever succeeded in China, it is in the public infrastructure arena, notably, the vast network of high-speed railways. Elsewhere, there is precious little to show.



A high-speed train travels on a bridge in Nanning, Guangxi, in June. The one area where industrial policy has succeeded in China is in public infrastructure – namely, the country’s vast and growing network of high-speed railways. Photo: Xinhua

When I was an engineering student at Tsinghua University in the early 1980s, I attended a speech by Jiang Zemin, then the minister of electronics industry and who later became China’s president. In that speech, Jiang laid out China’s ambition to become a powerhouse in semiconductors, computer hardware and software, rightly identified by the government as a strategic sector. Nearly four decades later, China remains, overall, a laggard in the sector.

A string of state-backed semiconductor ventures has failed, dashing the high hopes of China’s policy planners. China continues to import virtually all its semiconductors and most of its computer software, predominantly from the US.

China’s penchant for drawing up industrial policies is real. After all, the country has struggled to shed its legacy of central planning. But mounting evidence suggests that, contrary to proponents’ claims, its industrial policies have hardly had any significant impact on the efficiencies and international competitiveness of the Chinese economy overall.

Industries and companies that have been heavily influenced by industrial policies remain the most inefficient – think of China’s state-owned coal mines or steel mills – while those globally competitive manufacturers and exporters in China are mostly private or foreign-invested enterprises. Overcapacity in steel and aluminum is precisely an outcome of incompetent industrial planning.



A worker dismantles facilities at a steel plant that has stopped production in Tangshan city, Hebei province, on July 12. Industries and companies that have been heavily influenced by industrial policies remain the most inefficient – think of China’s state-owned coal mines or steel mills. Photo: Xinhua

If American trade warriors harbour fears about China’s awesome state power, they should ask why the country’s state-owned sector, despite various attempts of restructuring over many years, continues to be inefficient and debt-ridden. If state planning and industrial policies had worked, their impact would have been the most significant in the state sector over which the government has the most leverage – direct command and control, preferential allocation of capital, tax credit, subsidies and, above all, patronage and political support.

If industrial policy has failed to work its magic for the state-owned sector, how could it have possibly worked for the private sector?

Nonetheless, most economists, including myself and those at the International Monetary Fund and World Bank, view China’s state sector as the weakest link in the otherwise healthy Chinese economy, a serious drag on productivity growth, and a threat to the stability of China’s financial system.

If industrial policy has failed to work its magic for the state-owned sector, how could it have possibly worked for the private sector? Not a chance. While the threat of tighter regulations or a tax audit might easily kill off a unicorn, no industrial policy, however intelligently designed, has ever created a true national champion.

True, China has made strides in technological innovation over the past decade, slowly shedding its long-standing image of a copycat. But it is far-fetched to attribute the country’s recent technological progress to the Chinese state’s magical power.

China’s tech leaders, such as Baidu, Alibaba, Tencent (the so-called BAT companies), NetEase, Lenovo, Xiaomi, Didi, Meituan, Toutiao and Lufax, are in fact all private enterprises founded by visionary entrepreneurs who have more in common with the Silicon Valley tech entrepreneurs than the policy mandarins in Beijing.

Their risk-taking spirit, aggressiveness in seizing opportunities, and ability to bounce back from failure and setbacks underpin their successes.

But these companies also share a salient feature – their chosen business lines were non-existent prior to their launch, that is, no state-owned companies stood in the way as the powerful incumbent, nor were there existing archaic regulations and policies erecting formidable entry barriers facing the start-ups.

China's tech entrepreneurs had the freedom to build from scratch a new economy spanning from web search to e-commerce. Otherwise, the tentacles of the giant state sector would have choked the start-ups to death long before they had a chance to become unicorns.

In the current trade negotiations, the US (and China) would be better off addressing legitimate concerns over barriers to market access and structural problems that discriminate against private enterprises and foreign companies. Washington's obsession with China's industrial policy is an unproductive distraction, to say the least, and will do little to put the bilateral economic relationship back on the right track.

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