For most of the past 70 years, the theory and reality of China’s national development has consisted of a curious mix of revolutionary eschatology, command-and-control planning, neo-liberalism, more recently, techno-utopianism.

Planning, guiding, steering, and coercing the country’s direction has always been in the CCP’s political DNA, even as the enthusiasm for and effectiveness of these efforts has waxed and waned. Since the early efforts at socialist construction in the 1950s through today, political leaders and regulatory bureaucracies have pumped out a steady stream of public exhortations and planning documents that sought to control and channel the nation’s resources towards the achievement of pre-defined outcomes or end-states, be they revolutionary, technological, political, economic, military, or societal. This teleological impulse was highly visible in the Mao era, especially during the Land Reform Movement, the Great Leap Forward, the Third Front Movement, and during the Cultural Revolution.

For much of the post-Mao “Reform and Opening” period, planning gave way to authoritarian neo-liberalism, with high degrees of local-level autonomy (and disobedience) helping put China on its explosive growth trajectory. From Beijing’s perspective, so long as China’s underlying material foundation continued to deepen and widen, the CCP leadership was (largely) content. After all, until the mid-1990s, the CCP’s grand strategy was to “get rich,” and this necessitated a good deal of ignorance or indifference as to how wealth was being created and unevenly distributed. Regular interventions to centralize macro-control notwithstanding (such as the 1994 tax reforms or the creation of the National Development and Reform Commission), sub-national cadres could well imagine that they would be largely left alone to manage their affairs – and rent seek – as they saw fit, so long as their local economy continued to grow.

Under the leadership of CCP General Secretary Xi Jinping, there is a renewed emphasis on planning, driven by Beijing’s view that mounting domestic challenges and international threats require a more activist and interventionist approach, including the creation of new mechanisms and levers to channel resources towards strategic end-states. Yet at the same time, and as a practical matter, China remains one of the least effectively regulated of the world’s major economies, with significantly more space for actions that would be considered unsafe, fraudulent, or wasteful by many other political and regulatory systems. This is both a combination of benign and strategic neglect, but also a reflection of governance practicalities and limitations, as well as national security priorities. As a result, perplexing and seemingly contradictory outcomes are commonly seen. For example, Beijing can create thoroughgoing coercive dragnets of incredible scale and sophistication where it feels its core security interests are threatened, such as in the Xinjiang Uygur Autonomous Region or in response to the Covid-
19 outbreak, while at the same time Wuhan Hongxin Semiconductor Manufacturing (HSMC) can perpetrate a massive fraud in an area of core strategic importance to the Xi administration.¹

In the new Xi paradigm, market forces, which have demonstrated unrivaled ability to direct capital towards their efficient uses, are seen by Beijing as unreliable and unpredictable mechanisms for ensuring specific companies dominate domestic and international markets, and that key national security concerns are satisfactorily addressed. But whereas Beijing’s prior command-and-control approach to planning stood in tension with market forces, Xi is attempting to update Deng Xiaoping’s fusionist “market socialist” paradigm to meet the exigencies and necessities of 21st century governance. Here, markets, when sufficiently controlled, are seen as important subcomponents, or adjuncts, to the broader planned approach to national development. Under Xi, it’s not a case of planning versus markets, but rather planning and markets.

Consider the case of government guidance funds (政府引导基金). These investment entities leverage both state and private capital for the purpose of developing technologies and industries of strategic importance to Beijing, including semiconductors and Artificial Intelligence. While the management quality and investment track record of the estimated 1,800 funds is spotty, at best, they are emblematic of the Xi administration’s fusionist approach to combining markets and the state to create new hybrid entities that defy traditional demarcations between “government” and “private sector.”²

This fusionist approach is also shaping the trajectory of China’s private and state-owned sectors, with Beijing pushing a blended approach that sees public and private capital cohabitating key markets, sectors, industries, and technologies. New approaches and policies, including “mixed-ownership reform”, “managed capital”, and the collection of policies and institutions collectively known as “Military-Civil Fusion” are driving novel amalgamations of public and private capital and ownership that further complicate neater de jure and de facto distinctions between the two.

While state capital has distinct ideological and ethical considerations for the CCP, owing to its socialist roots, the normative considerations that constrain how it uses market forces are far less potent, which gives Beijing new freedoms to innovate and adapt where and how it leverages the private sector. This development was captured well by State-owned Assets

Supervision and Administration Commission (SASAC) Party Secretary Hao Peng in a 2020 interview: “Regardless of whether state-owned or private enterprises, they are all Chinese enterprises. [We] will firmly promote the upstream and downstream integration of firms of various ownership structures, the integration of large, medium, and small, and the coordinated and innovative development of various market entities to jointly build a group of world-class enterprises.”

One critical area this adaptive market-planning apparatus has been most concretely deployed is in the domain of critical and emerging technologies, with Beijing’s focus on innovation deriving from two primary assessments.

First, following in the footsteps of past leaders, Xi Jinping views technology as a key component of geopolitical rivalry with the United States. As he and other senior-officials and high-level strategies and plans have confirmed on multiple occasions, China’s technological ambitions are directly tied to its evolving view of the international environment, which Beijing has assessed will become more hostile to its political and development interests. Indeed, Xi began expressing this view early in his tenure as General Secretary, well before the bilateral relationship with the U.S. entered the Trump-era downturn. As he put it in remarks made in 2014, “In today's world, whoever holds the ‘nose of the ox’ of science and technology innovation, whoever takes the first move of science and technology innovation, will be able to seize the first opportunity to gain the first-mover advantage.” For Xi, using the entire state capitalist toolkit to obtain early successes in developing and controlling critical and emerging technologies, as well as asserting leadership in standards and rules setting bodies, positions China on the geostrategic and competitive high ground. By way of comparison, this is a path many Silicon Valley start-ups also follow, including now-dominant companies like Amazon. As Lina Khan wrote in an influential law review article, “Although Amazon has clocked staggering growth, it generates meager profits, choosing to price below-cost and expand widely instead. Through this strategy, the company has positioned itself at the center of e-commerce and now serves as essential infrastructure for a host of other businesses that depend upon it.” Reid Hoffman and Chris Yeh call this “blitzscaling,” which they describe as “a strategy and set of techniques for driving and managing extremely rapid growth that prioritizes speed over efficiency in an environment of uncertainty.”

Second, Xi’s determination to boost China’s innovation capacity stands at the center of his approach to solving the country’s domestic challenges, including low levels of productivity, demographic head winds, and environmental challenges. While many observers, both internal and external, expected that the Xi administration would turn to painful structural reforms to

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6 https://www.yalelawjournal.org/note/amazons-antitrust-paradox
7 See Blitzscaling: The Lightning-Fast Path to Building Massively Valuable Companies, Currency, 2018
address these issues, it’s clear that Xi’s fixation on technology stems from his view that it is a universal salve for all of China’s domestic ills. Indeed, as Xi stated in that same 2014 speech, “Whether we can stiffen our back in the international arena and cross the ‘middle-income trap’ depends to a large extent on the improvement of science and technology innovation capability.” This often leaves Xi looking for a technological fix in lieu of an institutional one.

Understanding that the Xi administration’s focus on technology is driven by both geopolitical and domestic imperatives helps explain Beijing’s manifest sense of urgency in developing domestic technological capacities, securing and protecting supply chains, establishing new global rules and standards, and building capacity in critical new global chokepoints. The resolute focus on S&T stems from the scale and scope of the challenges China faces in the coming decade, both from international scrutiny and from domestic obstacles, combined with Xi’s techno-solutionist worldview and Beijing’s assessments that U.S. power is derived in large part from its innovation dominance.

Given that many of the above-mentioned challenges are now emerging, some of which threaten to derail China’s development path and global ambitions, it’s clear that Beijing is engaged in a decade-long sprint, not a hundred-year marathon. This view is reinforced by the rising primacy of the now-numerous 2035 deadlines, which have produced far greater emphasis and focus than the 2049 markers for “rejuvenation” that Xi laid down at the 19th Party Congress in 2017. If, by 2035, China is still a dominant global power and significant geopolitical competitor to the United States, then the Xi model of policy and governance will have found a way to surmount or circumvent the growing number of challenges and obstacles.

But even if China has the advantage of focus, the future is far from certain. To quote Barry Naughton:

“In essence, China is engaging in an unprecedented gamble. If it succeeds in steering its economy to a high-tech future, China’s already large economy will achieve a sort of global dominance (perhaps shared with the United States, or perhaps not). If it fails, China will be condemned to awkward second-tier status as it grapples with difficult economic problems while unpleasant demographic realities start to kick in.”

Yet robots won’t solve China’s critical institutional and policy shortcomings, even if they can be a part of the solution. The more entrenched Xi’s views on technology, the more inpatient he becomes to solve domestic challenges and assert dominance internationally, the more China’s increasingly scarce capital will be channeled into securing technological “victories.” Some of these will succeed and yield important technologies that can materially impact China’s growth prospects. If recent history is a guide, this campaign-style push will produce enormous amounts

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8 This quote can be found among a collection of Xi’s S&T related comments found in “Excerpts from Xi Jinping’s Discussions about Scientific and Technical Innovation” (“习近平关于科技创新论述摘编”)
of waste, white elephants, overcapacity, and a string of broken promises. Beijing’s approach to innovation is as much shotgun as scalpel, and in the future, larger amounts of capital will be thrown at increasingly risky or unlikely breakthroughs.

Further, owing to new demographic realities, China’s coming retirement boom will see tens if not hundreds of millions of individuals exit the workforce, and only a significant technological leap will prevent this labor shortage from putting significant downward pressure on the economy. But at the same time, if the transition to an automated future is overly successful, this will potentially threaten hundreds of millions of blue-collar industrial manufacturing and logistics jobs, at a time when the country still has a huge undereducated lower-income workforce.

Xi’s great and grand vision will need to wrestle with these tradeoffs.

Again, there’s no doubt that this model will produce technological innovations, many of which pose military, economic, and moral challenges for the U.S. But at the same time, Xi’s state-driven economic model already has the proven capacity to lead to “Soviet-style outcome[s] in which the occasional Sputnik illuminates galaxies of mediocrity,” in the memorable words of Loren Brandt and Thomas Rawsky.10

Uncertainties about China’s future do not obviate the challenge to the U.S. As one China-based executive for a European company told me years, “I know that none of my local competitors will still be in business in five years. The problem is, I need to compete against them for the next five years.” China has defied easy predictions of collapse and decay for decades. While the coming ten years poses heretofore unseen and uniquely complicated problems for the CCP, the U.S. can’t count Beijing out of the race. Far from it.

Recommendations

There are many verbal shortcuts to sounding smart in Washington DC. Here is one of them: “We need a long-term strategy on China.”

In truth, however, we don’t need a “long-term” strategy. In fact, quite the opposite. What the United States needs is, like China, a ten-year sprint strategy. Or, reworded to match the undulations of an electoral democracy, we need a two presidential-term approach. By focusing on a vague and indeterminate timeline, our fixation with finding a “long-term” strategy clouds our judgement over what to prioritize (over a long-enough time horizon, everything can conceivably be important). It also has the practical effect of allowing current political leaders to procrastinate or to focus on the trivial, thus kicking the can to future leaders. If, instead, the framing was, “we’ve got ten years to get our house in order and to set the course of our relationship with China for the coming two to three decades,” the sense of urgency and focus

would be manifest. This would position the United States for a proactive focus on U.S. goals along U.S.-established time horizons. As I alluded to above, Beijing understands that in ten years, the competition will be largely decided, even if the game has three more quarters to play.

If we’re in a decade-long sprint and not a hundred-year marathon, what should the U.S. prioritize? Limiting myself to the domestic side of the economic and technological competition, I would start with the Five I’s:

**Infrastructure.** So long as the infrastructure underpinning of the American economy remains under-invested and/or decaying, there is an artificial ceiling on future prosperity for American citizens, our funding of next-generation technological breakthroughs, and our ability to ensure military preeminence.

**Immigration.** Openness to human capital from around the world is America’s greatest strategic asset and the most visible manifestation of our core values. Any national security concerns related to our openness must be weighed against the overwhelming benefits the U.S. gains from welcoming new members to our community, regardless of ethnicity, race, or sexual orientation. Our complex, unwelcoming, and malfunctioning immigration system essentially hangs a placard that reads: “You’re not welcome here.” It will be a tragedy if we do not address this to make the US once more a magnet for individuals from around the world who seek a better life and new opportunities.

**Institutions.** In the wake of WWII, the United States helped build and sustain new institutional architecture that promoted global peace and prosperity, however imperfect. But institutions have shelf-lives, and as new challenges arise, we need new mechanisms, bodies, and rules to address them. China understands this truth, yet its solutions are often at odds with our own values and those of a large proportion of our allies and partners. Here, the U.S. is in a unique position, yet again, to help build a new global order, one that aims not to maintain U.S. primacy per se, but rather to leverages our leadership to address existing and emergent global challenges.

**Industrial Policy.** Or call it an innovation strategy, if that’s more politically palatable. Regardless, the U.S. government has a long and deep experience with making targeted investments in industries and sectors that are under-invested and under-prioritized. This doesn’t require Washington DC to start setting the price for pig iron or for companies to seek permission from Gosplan to build factories. If our capitalist economy survived ARPANET, it can survive future such initiatives.

**Investment.** The U.S. should establish a sovereign wealth fund (SWF). This is not a case of emulating China’s approach. Norway has a SWF. So does Australia, Japan, France, South Korea, and Singapore. In fact, several U.S. states have them, including the Alaska Permanent Fund, which uses its revenue to make direct payments to Alaskan citizens. A newly established SWF
could help both companies and citizens in down times, but also make strategic investments in firms and technologies that are under-funded.