

China's Plans for the Future

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Two Main Points

1. Chinese policy is to maintain, and intensify, the technological competition with the United States.
 - a) Everything is security. Let's be realistic, let's not delude ourselves.
 - b) 14th Five Year Plan keeps all the things we don't like, and intensifies them.
 - c) Current policy is to “stabilize the relationship,” in order to reduce friction and damage to China, in order to best position China for long-run competition.
2. Having said that, are there any areas of potential cooperation?
 - a) After all, it is in our interest to “stabilize the relationship” as well.
 - b) China now explicitly advocates maintaining openness in order to increase the degree of dependence of foreign businesses and companies on China.
 - c) Modest shift toward basic research might expand scope of win/win science collaboration.

1. 14th Five Year Plan

14th Five Year Plan Outline was officially approved by the National People's Congress in March.

- That plan is the apex of a pyramid of regional and sectoral plans;
- These are being fleshed out now;
- Each of these is more detailed and concrete than the national Outline.

The Plan is in some respects a public relations document; in some respects a consensus document; and in some ways a real guide to expected policy over the 2021-2025 period.

- There are many contradictions, read it with care.
- The plan also intertwines with the "new development pattern" (新发展格局), "new development concept" (新发展理念).
- It is also designed to implement "dual circulation"
- "Security is the proper meaning and inherent requirement of the new development concept."

Techno-Industrial Policy: Stay the Course.

- A. Intensity of industrial policy growing, with intensified focus on management of production chains (or “value chains”).
 - “Made in China 2025” and “Military-Civilian Fusion” are not named, but their content is repeated and re-emphasized. (Similar to “Thousand Talents” Program). Still exist, no longer spoken.
 - Strategic Emerging Industries are strongly re-affirmed.
 - Echoes the 13th FYP in organization and content. There are parallel chapters to each of the earlier controversial chapters.
- B. Highly significant: “make scientific and technological self-reliance (自立自強) the strategic prop of national development.”
- C. Infrastructure investment and “New Urbanization” are now included as subsets of industrial policy.
 - “New infrastructure” for “Smart Cities.” Building urban clusters.
- D. More types of overlapping plans will require the government to exercise more comprehensive planning. The plan is explicit about the greater need to exercise unified coordination of local land-use, infrastructure, and techno-industrial plans.

Supply Chain Auditing

- Systematic and recurrent evaluation of all important supply chains (供应链安全监测评估).
 - Led by Ministry of Industry and Information Technology
 - Joint with Localities. (Coordination mechanism not known.)
- Investment in all stages of the value chain, particularly including the weak and missing links.
 - “Carry out the action of strengthening the manufacturing chain and making up for gaps, selecting weak links in the industry and organizing coordinated research.” (MIIT)
- Generally done by using new and existing industrial parks and zones to create missing production stages; while strengthening “lead firms” to be national champions.
- For example, Shanghai just announced a new batch of FOURTEEN specialized semiconductor parks.
 - Some are for core functions, such as Pujiang Chip Innovation City.
 - Others designed to support chip design, equipment, and packaging clustering around fabs.
 - Others are for products that China currently doesn’t provide, e.g., chemicals for photoresists, designed to improve sustainability. Filling in gaps.
- “Dual circulation” proposes to combine supply-side policies (i.e., substituting for upstream inputs) with demand-side policies (i.e., creating demand for new domestic products).

2. Belief in Synthesis between Government Guidance and Market Economy

- A. Further opening of economy is strongly advocated.
 - Foreign investment in China is encouraged; Chinese investment abroad should be facilitated.
 - Fostering dependence of outsiders on China's manufacturing prowess and large market is explicitly advocated.
- B. "Domestic circulation" (of "dual circulation") includes lowering transactions and logistics costs, making markets work more efficiently.
- C. The Plan emphasizes things the government plans and budgets can achieve directly, and has fewer "indicative" targets.
 - Partly because those indicative targets were not very accurate in the previous plan.
- D. Chinese policymakers genuinely believe they are developing a new type of market economy with state guidance, and that there is no fundamental contradiction between these two things.

Increased emphasis on basic research

- Scientific research contains rare explicit target, basic research to 8% of total S&T outlays.
 - Still far below advanced economies like the United States (19 percent), Japan (13 percent) or South Korea (16 percent).
 - China's basic research share has been inching upward, 6 percent in 2019, so 8 percent by 2025 is not a huge change.
 - But it implies basic research outlays will have nearly doubled by 2025.
- Priority areas are:
 1. Artificial intelligence;
 2. Quantum computing and communications;
 3. Integrated circuits
 4. Brain science, genetic and biotechnology;
 5. Clinical medicine;
 6. Earth & space exploration.
- There are 19 lists in the 14th FYP containing mostly large-scale engineering and construction projects.
- This is positive, since basic science knowledge tends to spread quickly beyond the original discoverers. Science is a global endeavor, and scientific knowledge is part of the world's common wealth.
 - We may see enhanced opportunities for collaboration and a greater contribution from China's scientists.

Conclusions

1. Overall, Chinese policy tilts further towards self-reliance, government steerage, and government investment planning than at any time since 1978.
2. This goes along with a commitment to continued openness, seen as a part of a “government-steered market economy.”
 - This involves significant contradictions (in the view of many, including myself).
 - It certainly means that “openness” is to take place under closer government control and, in many cases, under Chinese government-dictated conditions.
3. China continues to be ‘open for business’ in the desire to stabilize conditions as much as possible and prepare for long-term competition (perceiving a long-run advantage in this competition).
4. Science, technology, and business still present extensive areas of cooperation, albeit under increasingly difficult conditions that are unlikely to change for a significant length of time.