© ChinaFotoPress via Getty Images

Critical issues in the next decade of China's infrastructure effort

More sustainable financing, higher quality in urban projects, and new markets to soak up construction overcapacity will determine how the country writes the next chapter of its remarkable story.

Zuo Kun, executive vice president, China Development Bank Capital

Over the past 30 years, China has become the world's largest infrastructure market, thanks to its economic reforms and burgeoning urbanization effort. As positive and dramatic as this evolution has been, it is now possible to identify several critical issues that will bear heavily on the direction and shape of China's infrastructure planning and its construction sector. In brief, the single-source financing model that underpins government-led infrastructure development is not sustainable, the quality of urban infrastructure is poor, and despite the vigor of China's infrastructure-building efforts, infrastructure companies now face overcapacity challenges similar to those in developed economies.

To understand where China's remarkable infrastructure story goes next, it is valuable to explore these developments and anticipate ways to address these critical issues.

Building a new finance model upon private infrastructure investment

Government-led infrastructure development's heavy dependence on a single source of financing has increased government debt significantly. The model is not sustainable. For a long time, China's infrastructure financing mainly came from government lending and land-transfer revenues. As revenues have diminished, solvency pressures and risks for local governments have risen to high levels. To address the issue, the central government has made it an economic priority to control and reduce local-government debt risk this year by reducing the amount of credit banks provide to local governments and by increasing the level of audit and transparency of local-government accounts.

In light of these circumstances, a better infrastructure-development model would shift away from dependence on government to greater reliance on market finance. The central government is advocating the idea of diversified ownership by encouraging social investment in infrastructure operations through franchises, equity investment, and public–private partnerships (PPPs).

China's ministry of finance is working to promote the PPP model in infrastructure projects by identifying the respective rights, obligations, risks, and revenues of both public- and private-sector partners. In this way, the government hopes to build complementary and mutually beneficial partnerships with the private sector on public projects. For example, Zhongtian Urban Development Group worked out such a deal with the government of Yunyan District in Guiyang to take charge of primary land development, road construction, river improvement, and other projects. The company and local government will work together to balance out development costs and land-transfer fees. Private investment in joint ownership of projects helps reduce government debt, solve financing issues, and improve operational efficiency and revenues at the same time.

Improving the quality of new urban infrastructure

The quality and operational efficiency of urban infrastructure, especially of new urban projects, is poor. Recently, the Chinese government issued a national urbanization plan that extends to 2020; this sets the tone for its "new urbanization" effort, which calls for significant infrastructure creation. At the same time, however, more and more attention is focused on the fact that so much new infrastructure is of low quality. Moreover, inadequate urban infrastructure, low standards for construction practices, and operational management of projects contribute to a failure to meet the infrastructure needs of China's cities.

To solve the issue, the central government is determined to improve urban infrastructure in four areas:

- urban transit, including subway, light rail, and bus rapid transit
- city pipe networks, including water supply, rainwater, fuel gas, heat supply, telecommunication, power grid, drainage and waterlogging prevention, flood control, and utility tunnels
- sewage treatment and garbage disposal
- eco-gardens

President Xi Jinping recently announced plans to improve urban infrastructure quality and build an advanced, interconnected functional system to meet future demands. The fundamental idea is to create world-scale transport capacity linked to mixed-use development and district energy infrastructure. A good example is the Hongqiao Hub, a combined system with high-speed-rail service, an airport terminal, and metro connection in one location that also includes a district energy system. In short, future urbanization and infrastructure construction will have to meet higher quality requirements, which imply bigger development potential.

After years of tremendous demand for infrastructure projects and construction services, infrastructure companies now face overcapacity pressures, as well as problems related to a shrinking construction market that many developed economies have experienced.

Globalizing 'made in China'

After years of tremendous demand for infrastructure projects and construction services, infrastructure companies now face overcapacity pressures, as well as problems related to a shrinking construction market that many developed economies have experienced. China's urbanization and infrastructure development has transitioned from rapid growth to stable development. Therefore, initiatives to boost domestic demand, such as the new-urbanization effort, will have limited impact on domestic infrastructure-market expansion. Within ten years, significant demand will fade for the construction of highways, high-speed-rail systems, ports, and airports, bringing the overcapacity issue in construction to the fore.

In the meantime, however, China's construction industry still enjoys comparative cost advantages globally. That makes tapping overseas infrastructure demand a strategic priority. At present, developing countries in Asia, Africa, and Latin America are still in the early stages of industrialization and urbanization, which is driving substantial demand for infrastructure. Simultaneously, developed economies—including the United States and European nations—are renovating and upgrading infrastructure on a large scale, which will also provide overseas opportunities for Chinese construction companies.

China's government is pushing construction companies to go global. For example, on his recent visit to Southeast Asia and Central and Eastern Europe, Chinese Premier Li Keqiang promoted Chinese transportation-equipment manufacturing in sectors including high-speed trains. The Chinese government has also put forward plans for a "Silk Road Economic Belt" with Asia and Europe and a "Maritime Silk Route" with Southeast Asian neighbors to encourage cooperation and trade. As these connections would rely on interconnecting highways, railways, air routes, and other networks, the government anticipates that they will provide significant strategic opportunities for Chinese construction companies to go global and strengthen international cooperation.

Zuo Kun is the executive vice president of China Development Bank Capital.