Research on the Implementation of PPP Mode under the Background of New Infrastructure

-- A Case Study of Anhui Province

Jie Bai^{1,*}, Di Chen², Qing Bao³

¹School of Finance and public administration, Anhui University of Finance and Economics, Anhui, China

²School of business administration, Anhui University of Finance and Economics, Anhui, China

³School of management science and engineering, Anhui University of Finance and Economics, Anhui. China

Abstract

The Internet continues to expand new frontiers, which has had a profound impact on industrial development, economic structure, social life and international pattern. New infrastructure has become an important part of China's development in the new era. For Anhui Province, in the era of digital economy, if we can seize the opportunity to promote technological innovation and accelerate industrial transformation through new infrastructure, we will build a smart Province The province of innovation has laid a solid foundation. Infrastructure has always been the main promotion field of PPP. If PPP mode is implemented in the field of new infrastructure, it can effectively solve the technical problems of the government and reduce the financial pressure of enterprises. Combined with the current economic situation and the dilemma of PPP implementation in Anhui Province, this paper explores the implementation of PPP model in the field of new infrastructure, and gives corresponding countermeasures and suggestions.

Keywords

New Infrastructure; PPP; Anhui Province.

1. Introduction

New infrastructure is an important strategic deployment to realize the transformation and upgrading of traditional infrastructure and improve the quality and efficiency of public services through new technologies such as the Internet. New infrastructure construction, such as artificial intelligence, intelligent transportation infrastructure and cloud computing, mainly includes seven fields: 5g base station construction, UHV, intercity high-speed railway and urban rail transit, new energy vehicle charging pile, big data center, artificial intelligence and industrial Internet.

Liu He, vice premier of the State Council of China, pointed out at the Wuzhen summit of the 2021 World Internet Conference that the Internet continues to expand new frontiers, which has had a profound impact on industrial development, economic structure, social life and international pattern. At present, the development of the Internet has leapt to a new stage of full penetration and cross-border integration. Digital technology has deeply transformed the production function and constantly created new business forms, bringing new development opportunities to all countries. In the written speech to the 2021 China 5g + industrial Internet Conference, he suggested that ,Xi Jinping ,the president of China,attaches great importance to the construction of a new generation of information infrastructure,and He stressed the need to

promote the integrated development of digital economy and real economy. The new infrastructure has become an important link in the development of China's new era.

In order to actively respond to national policies, Anhui Province has incorporated the new infrastructure into the 14th five year plan, including the implementation of "new infrastructure" + action, accelerating the construction of supercomputing centers and urban brains, and promoting the construction of international dedicated channels for the Internet. Anhui Province is located in the Yangtze River Delta, adjacent to Shanghai, Jiangsu and Zhejiang provinces in the East, but it is far from these developed provinces in terms of economy. In the era of digital economy, if Anhui Province can seize the opportunity to promote technological innovation and accelerate industrial transformation through new infrastructure, it will lay a solid foundation for building a smart and innovative province.

Infrastructure has always been the main promotion area of PPP. Zhao Guohua, vice president of the general design and Research Institute of Shanghai Jiaotong University and President of the comprehensive design and Research Institute of urban development, believes that the new infrastructure is essentially a supply side structural reform, focusing on making up for the shortcomings of infrastructure in the field of scientific and technological innovation. The biggest difference between new infrastructure construction and traditional infrastructure construction is that new infrastructure construction relies more on new technologies such as digitization, which is not the core competence of the government. At present, only a small number of new infrastructure projects can be constructed and operated by the government alone, and a large part of new infrastructure depends on market-oriented investment, If the PPP model is implemented in the field of new infrastructure, it can effectively solve the technical problems of the government and reduce the financial pressure of enterprises. This paper explores the implementation of PPP model in the field of new infrastructure, and gives corresponding countermeasures and suggestions.

2. Development Status of PPP Mode under the Current New Infrastructure Environment

During the "13th five year plan" period, the rapid development of high-tech and new industries in Anhui Province laid a good foundation for new infrastructure. Hefei, as a leading role, ranked among the first batch of national strategic emerging industry clusters in terms of integrated circuits and artificial intelligence, and attracted high-tech enterprises such as iFLYTEK, BOE, Weilai automobile. MediaTek and Lixun. The main difference between new infrastructure construction and traditional infrastructure construction is that new infrastructure construction relies more on digital technology, and such high-tech enterprises are the main force to promote China's technological upgrading and industrial transformation. From this point of view, Anhui Province has full advantages in the promotion of PPP mode of new infrastructure construction. China has explored and practiced the PPP model for more than 6 years. After years of exploration and experience accumulation, China's PPP model has moved towards standardized and high-quality development, gradually realizing standardized project implementation, project information transparency and performance appraisal system. Due to its public attribute and paying attention to the complete cycle of project construction, PPP mode has effectively assisted the construction of infrastructure projects in China. In the field of new infrastructure, a few governments with abundant funds can complete the rapid layout directly by investing in some projects, but for most regions, the financial support is limited, and the new infrastructure needs to introduce the power of social capital through the market-oriented model to a great extent. Therefore, for Anhui Province, PPP mode is a good development path in the field of new infrastructure. It separates the navigator from the helmsman and gives the project the right development direction and driving force.

According to the data of the Basic Information Bulletin of the Management Section Project of Anhui PPP Comprehensive Information Platform in the Third Ouarter of 2021, by the end of September 2022, 489 PPP projects had been included in the management library in Anhui Province, with an investment of 550.1 billion yuan. Among them, the top three landing projects are 55 in Fuyang City, 44 in Anging city and 36 in Lu'an City, accounting for 30.8% of the total number of landing projects: The top three projects with investment amount are Fuyang City with 62.3 billion yuan, Hefei city with 49 billion yuan and Anging city with 42.8 billion yuan, accounting for 32.3% of the total investment amount. Anhui new Infrastructure PPP project includes charging pile, smart city, information network construction, etc. By the end of September 2021, there were 9 new infrastructure projects in the library, with an investment of 6.04 billion yuan, accounting for 1.8% and 1.1% of all the projects in the library respectively; Among them, there are 8 signed projects with an investment of 6.01 billion yuan. In terms of total number and percentage, there is still a certain gap with traditional construction projects such as transportation and urban comprehensive development. Although the popularity of new infrastructure has continued to rise since 2020, its implementation mode and capital flow have not been standardized, and a mature model has not been formed. It is not the main investment object of PPP projects in Anhui Province. Although the new Infrastructure PPP model in Anhui Province can be expected in the future, there are still problems in its implementation.

3. Analysis on the Promotion of New Infrastructure PPP Model in Anhui Province

3.1. The System Design of PPP Project is not Perfect, and the Model Still Needs to be Standardized

At present, the promotion of PPP projects in Anhui Province is mainly guided by the documents issued by the State Council and the Ministry of finance. These policies are relatively general to the whole country and are not specific enough to be applied to a specific region. At present, Anhui Province has not issued laws and regulations on PPP projects against the background of local economic and social environment, When there are policy contradictions during the implementation of PPP project, there are no corresponding laws and regulations to provide effective emergency guidance.

Moreover, due to the imperfect design of the project system, the market still has many unclear issues related to the return on investment in new infrastructure and the withdrawal of investors. From a national perspective, the main force of private enterprises in the new infrastructure market is mainly commercial giants such as Huawei, ZTE and Baidu, and they are mainly distributed in first tier cities such as Shenzhen, Beijing and Shanghai, For other small and medium-sized private enterprises, there is no solid foundation in terms of technology or capital, and they dare not rashly participate in new infrastructure projects. Without the guidance of large enterprises and the participation of small and medium-sized enterprises, it is difficult to build new infrastructure completely relying on government financial funds. For Anhui Province, facing the problem of large demand for new infrastructure projects and most enterprises still hold a wait-and-see attitude, the implementation of PPP mode is blocked.

3.2. Due to the Economic Downturn, the Government Finance can not Support the Later Construction of the Project

Zhang Shuibo and Zheng Xiaodan analyzed and compared the economic development speed and the number of infrastructure construction in the BRICs countries, and found that the number of infrastructure construction projects is directly proportional to the economic development speed, that is, the faster the national economic development speed, the more infrastructure construction projects. There are similar effects among provinces in China. Cities

with higher economic level can provide a more stable and sustainable external environment for the operation of PPP projects, while cities with lower economic level are likely to have mode distortion when running PPP projects, which is not conducive to the sustainable development of the projects.

Now, it is a good development opportunity for Anhui Province to build regional economic integration in the Yangtze River Delta. After joining the Yangtze River Delta, Anhui Province has made great progress in economic development. On January 30, 2022, Anhui Provincial Bureau of statistics officially released the economic situation of the province in 2021, in which the total GDP reached 4295.92 billion yuan, with an actual growth rate of 8.3%, but it still did not rank among the top 10 in the national ranking, In 2021, the general public budget revenue was 349.8 billion, accounting for 8.14% of GDP. However, in terms of GDP and government revenue, Anhui Province is far behind the neighboring Shanghai, Jiangsu and Zhejiang provinces. Due to the continuous expansion of fiscal expenditure and the serious problem of insufficient financing capacity, the new infrastructure relies on a large amount of government financial output, the insufficient government funds and the accumulated debt will greatly reduce the government's support for the new infrastructure field, the government is even difficult to support the later construction of the project.

3.3. Financial Products Need to be Innovated, and it is Difficult for Small and Medium-sized Enterprises to Finance

In the traditional PPP mode, the government is more willing to cooperate with the abundant state-owned enterprises, and even raise the threshold for private enterprises, so as to prevent them from being marked. However, private enterprises play an important role in China's technological innovation and industrial upgrading. Compared with state-owned enterprises in traditional industries, many private enterprises have more advantages in emerging science and technology. Therefore, the cooperation between digital new infrastructure and private enterprises with strong technical capital is inevitable. However, according to the current situation, Private enterprises do not actively participate in the new infrastructure, largely because of financing problems. New infrastructure needs a large amount of capital and a long cycle, and many enterprises can only participate through financing. However, there are not many fixed assets of new infrastructure high-tech enterprises, and their core competitiveness comes from intangible assets. It is difficult to carry out credit due to the lack of collateral. Moreover, the credit investigation system of many high-tech enterprises is not perfect, and it is difficult for commercial banks to use effective information to make credit decisions. This has brought financial problems to small and medium-sized high-tech enterprises. On the one hand, the main body of the new infrastructure is difficult to access PPP projects due to problems such as loan financing. On the other hand, due to the lack of sufficient financial support, it is difficult for enterprises to make breakthroughs in the research and development of key technologies and major technologies, which increases the difficulty of the development process of the new infrastructure.

3.4. Insufficient Support from Financial Institutions

China's financial system prefers large state-owned enterprises in terms of loans. Although the new infrastructure projects are hot, there are few specific landing projects in Anhui Province. For risk considerations, financial institutions are very cautious about new infrastructure loans and more strict in lending to private enterprises. In addition, there are few financial products related to new infrastructure, which is less comprehensive and innovative. If the traditional infrastructure construction is imitated and the government comes forward and adopts the BOT mode, although it provides great guarantee for the investment return of financial institutions, it greatly affects the scale and cycle of PPP mode and limits the long-term development of PPP mode.

4. Countermeasures and Suggestions on the Implementation of PPP Model in the Field of New Infrastructure in Anhui Province

4.1. Improve Relevant Policies

Learn from the legal provisions of countries with successful PPP operation, improve relevant laws and regulations, take the local environment as the characteristics, consider the particularity of the new infrastructure field, reasonably and clearly set up the entry, cooperation and exit mechanism of social capital, and improve the detailed rules of relevant links, so as to make the market have a clearer understanding of PPP projects in the new infrastructure field and have legal guarantee, Relevant enterprises will also participate more actively. At the same time, clarify the responsibilities of various government departments in the PPP project, and make clear provisions on the rights, responsibilities and interests of various departments, so as to prevent the phenomenon of prevarication in case of problems. In order to improve the operation efficiency of PPP project and ensure the high-quality completion of the project, we should also improve the public participation, give the public the right of supervision, and let every link operate in the sun.

4.2. Reduce the Financing Cost of Enterprises and Reduce the Difficulty of Participation of Private Enterprises

Encourage financial institutions to strengthen their adaptability to the new infrastructure field, improve their innovation ability and derive relevant financial products. Secondly, improve the evaluation ability of intangible assets, build a new infrastructure financial system, give small and medium-sized high-tech enterprises a solid foundation for loans and financing, and inject vitality into the capital chain of high-tech enterprises. The government should actively explore a reasonable risk sharing mechanism, dispel the doubts of financial institutions about the investment return of PPP projects, and break the constraints of the financial system on the development of PPP projects. At the same time, for new infrastructure enterprises that have been listed, the government should also actively encourage enterprises to open up personalized financing platforms, enrich enterprise financing products, broaden the cooperation mode between the government and enterprises, and make up for the defects of enterprise financing.

4.3. The Government Gives Policy Guidance to Improve the Participation Enthusiasm of Private Enterprises

Anhui Province has long had the problem of uncoordinated regional economic development. Compared with the rapid development of Southern Anhui, the economic development of Northern Anhui cities led by Huaibei lags behind due to the difficulties of industrial transformation. Therefore, there is also the problem of uneven development of new infrastructure industry in Anhui Province. Most enterprises and new infrastructure projects are concentrated in Hefei, Hefei's IC output alone accounts for 97.5% of the total scale of Anhui Province. Therefore, in order to promote the development of PPP model in the field of new infrastructure in Anhui Province, the government should strengthen publicity, encourage private enterprises to actively participate, introduce corresponding policies for different regions, use fiscal policies to guide social funds, provide fiscal and tax support to cooperative enterprises, such as reducing taxes and fees, and increase support to some regions and industries within the scope of financial acceptability, Help relevant enterprises overcome the R & D of key and core technologies, help enterprises overcome financial difficulties, speed up technology R & D, and help the all-round and multi regional development of the industry.

References

- [1] Li Ming, long Xiaoyan China's new infrastructure investment and financing path choice from the perspective of the relationship between government and market [J] Research on local finance, 2021 (12): 67-75.
- [2] Anhui Provincial Department of finance Basic information bulletin of Anhui PPP comprehensive information platform management database project in third quarter of 2021[EB/OL](2021-11-09)[2022-2-14]. http://czt.ah.gov.cn/zdzt/ahszfhshzbhzzt/gzdt/14619370.html.
- [3] Zhang Shuibo, Zheng Xiaodan Impact of economic development and PPP system on Infrastructure PPP projects in developing countries [J] Soft science, 2015,29 (07): 25-29 DOI:10.13956/j.ss. 1001-8409.2015.07.06.
- [4] Wang Huang Thoughts and suggestions on accelerating the development of new infrastructure in Anhui Province []] Anhui Science and technology, 2021 (02): 18-20.
- [5] Hu Qiliang, Su Bowen Current situation analysis and Countermeasures of PPP project implementation in Anhui Province [J] Journal of Anhui Agricultural University (SOCIAL SCIENCE EDITION), 2019,28 (02): 84-87 + 121 DOI:10.19747/j.cnki. 1009-2463.2019.02.013.
- [6] Zhang Yuxin "New infrastructure + PPP" coincides with the time, and the future can be expected [n] China financial news, 2021-12-07 (006) DOI:10.28053/n.cnki. nccjb. 2021.002998.
- [7] Wang Yuchen Research on infrastructure supply mode from the perspective of "new infrastructure construction" [J] Economic system reform, 2021 (05): 194-200.