

Research on the Mechanism of REITs on China's Infrastructure Construction Under the Background of High-Quality Development

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Abstract: The long-term and high-speed investment in infrastructure construction in China has brought some adverse effects, which are mainly reflected in the low input-output ratio efficiency, prominent financing channel problems and higher debt leverage ratio. It is obviously inconsistent with the high quality economic development proposed by Our country. This paper briefly introduces the basic concepts and characteristics of REITs, lists some traditional financing methods and their disadvantages in the field of infrastructure, and highlights the advantages of infrastructure REITs. In the empirical part, based on the case of Soochow Suzhou Industrial Park, the benefits of REITs are quantitatively analyzed to explore the role that REITs can play in the development of infrastructure construction industry under the background of high-quality development.

Keywords: REITs, High-quality development, Infrastructure construction, Soochow Suzhou Industrial Park.

1. The Introduction

Infrastructure REITs are internationally accepted allocation assets with high liquidity, relatively stable returns and strong security. They can effectively revitalize stock assets, fill in the gap of current financial products, broaden investment channels of social capital, increase the proportion of direct financing, and enhance the quality and efficiency of capital market in serving the real economy. In the short term, it is an effective policy tool for stabilizing investment and shoring up weak spots. In the long run, it will help improve the mechanism for converting savings into investment, reduce the leverage of the real economy, and promote market-oriented, standardized and healthy development of infrastructure investment and financing. Therefore, REITs should be guided to provide power in infrastructure construction and promote high-quality development of infrastructure construction. At present, the application of REITs in the field of infrastructure in China is still insufficient compared with foreign countries, and the standardized guidance for the development of REITs is still weak. With the continuous development of social and

economic situation, the research on the role of REITs in infrastructure becomes more and more important.

2. Definition of Infrastructure REITs

REITs (Real Estate Investment Trusts) are securitised industrial Investment funds. REITs is a standardized financial product that raises a certain amount of funds through the issuance of equity certificates, entrusts specialized investment institutions to conduct real estate investment management, is managed by professional fund custodian institutions, and distributes comprehensive investment income to investors in proportion. The underlying target assets of infrastructure REITs are mainly infrastructure such as intercity rail transit, warehousing and logistics, industrial parks and pollutant treatment centers.

3. Types of Infrastructure REITs

Infrastructure REITs can be divided into various types according to industry types. Domestic infrastructure often has some differences in ownership and development level.

Table 1. Classification and related information of infrastructure REITs

type	The ownership	Current situation of the development of
warehousing	Property rights	It is mainly owned by developers and e-commerce enterprises and is in a period of rapid development
The railway	Property rights	Mainly owned by state-owned railway groups, the development is more mature
highway	Franchise right	Local governments, private enterprises and so on can participate in the development of mature and still has potential
The subway	Property rights	The main owners are countries and concentrated in first-tier cities, and the profit model needs to be optimized
Industrial park	Property rights	Including government-led, enterprise-led, the combination of the two, is in the early stage to be further developed
Sewage treatment	Franchise right	It is mainly undertaken by local governments and state-owned assets platforms, and there is a situation of unbalanced development between regions

4. Advantages of Infrastructure REITs

4.1. Low Risk

First of all, the leverage ratio of REITs participating in the project is relatively low. Some data show that the leverage ratio of REITs in the United States is lower than 60%, and that of REITs in Singapore is lower than 40%. According to the static tradeoff theory, enterprises have the optimal debt-equity ratio, so maintaining a relatively low leverage ratio can not only help reduce risks, but also increase enterprise value and ensure the long-term development of enterprises. Secondly, the cash flow and income of the underlying assets of infrastructure are relatively stable, which can play a good defensive role.

4.2. Tax Incentives

According to the relevant regulations of the United States and other countries and regions, REITs have the characteristics of double tax avoidance. Individual investors can enjoy tax breaks for capital gains gained by holding REITs, and corporate dividend income tax can also be reduced, which not only attracts investors to accelerate financing efficiency, but also reduces financing costs.

4.3. Strong Liquidity

The liquidity of REITs is mainly used to revitalize existing assets. This point has also been emphasized in the pilot report of REITs issued by China's Development and Reform Commission, which uses capital market and securities trading to revitalize the underlying huge fixed assets and release liquidity for reinvestment in other high-quality projects.

5. Traditional Infrastructure Financing Mode and Its Disadvantages

5.1. Financial Expenditure

Fiscal expenditure, as the main way of infrastructure financing in China in the early years, has been unable to meet part of large-scale infrastructure projects as the deficit of local governments increases year by year and the debt ratio is too high. At present, local fiscal expenditure is mainly used for infrastructure construction in combination with other financing methods to reduce financial pressure.

5.2. BOT Financing

BOT financing is a way to build and operate public infrastructure with social capital. The project company will operate it within a certain period of time to recover the investment and obtain reasonable profits, and the project will be handed over to the government free of charge after the expiration. Although this approach solves the problem of heavy burden on local governments, the project bearers need to face a series of risks in the early stage, such as interest rate risk, moral risk, operational risk and so on. Meanwhile, social capital is not subject to strict supervision like financial institutions, so safety should be paid attention to.

5.3. Bank Lending

Infrastructure construction is for the public, so it is inherently stable. For banks, lending and review of such assets is a priority. In spite of this, infrastructure projects with large capital scale still need to bear higher loan interest rates.

For projects with traffic attributes such as toll highways, stable cash flow can be generated in the early stage to repay interest. However, some other projects with unstable income may have the problem that cash flow cannot cover the financing cost, thus causing bad debts of banks and hindering the efficient turnover of financial economy.

5.4. Bond Financing

Bond financing is to raise funds by issuing corporate bonds and repay principal and interest as agreed. The advantage of bond financing is that its cost is lower than bank loan, and bond is the most common financing method in the financial market, and the issuance process of bond is relatively simple. But there are few related products, because bond financing generally has a short maturity, while the return cycle of infrastructure construction is relatively long, the two do not fit well.

6. Risk and Benefit Analysis of Infrastructure Reits -- A Case Study of Sooyuan Industrial Reits In Soochow

6.1. Qualitative Analysis of Risk

(1) Concentration of investment risks

While ordinary public funds tend to adopt a diversified investment approach to reduce non-systemic risk, infrastructure REITs mainly invest in and own equity in a single type of infrastructure asset-backed securities. Therefore, infrastructure REITs have high risk of concentrated investment.

(2) Policy risks

Policy risks mainly include taxation, industry and land. First of all, infrastructure REITs are innovative products, and a series of tax policies are relatively to be improved. If the national tax policies are adjusted at this time, investment returns will be affected. Secondly, infrastructure REITs all involve specific industries. Relevant government departments will formulate industrial development strategies and preferential subsidies for some industries, and the adjustment of industrial policies will affect the operation status of infrastructure. Finally, land policy is the local government's policy on land development and management, land use and other aspects. Major changes of this policy will adversely affect the operation of infrastructure REITs.

(3) Risk management

The income level of REITs cannot be separated from the management means of the fund manager. If the manager misjudges the current market and economic situation, the income level of the fund will be affected.

(4) Business risks

REITs funds rely on revenue from infrastructure projects. Infrastructure projects may suffer from declining rental prices and occupancy rates due to industry cycles and market competition. These uncertainties will make the expected cash flow of infrastructure projects unstable in the future and the return of investment dividends low, causing certain risks to investors.

6.2. Yield Analysis

According to all closing price data of Soochow Suyuan Industrial REITs since its listing, its yield series are obtained,

and its yield data are analyzed with the help of EViews.

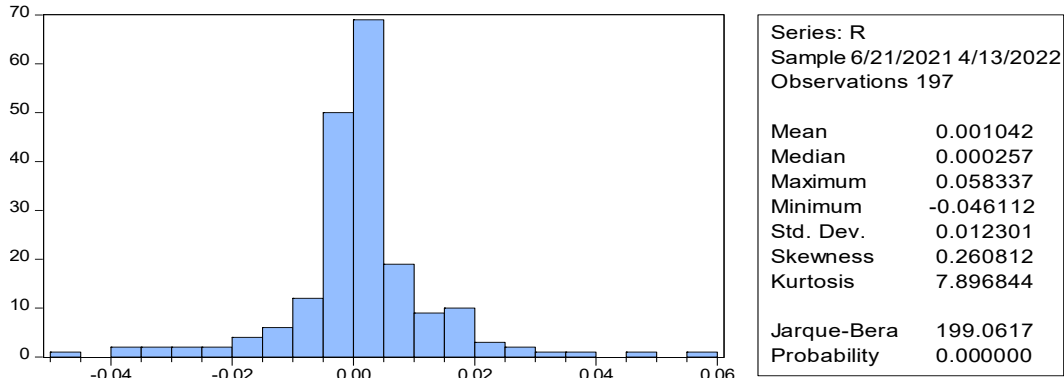


Figure 2. Normal distribution of return rate

From the normal distribution of return rate of Soochow Suyuan Industrial REITs, its average return rate can reach 1.04%, and its peak return rate is nearly 6%, which is not bad for the underlying assets that have been listed for less than

one year. In terms of characteristics, it does not conform to normal distribution. Kurtosis is positive, showing the characteristic of sharp peak and thick tail of typical yield distribution.

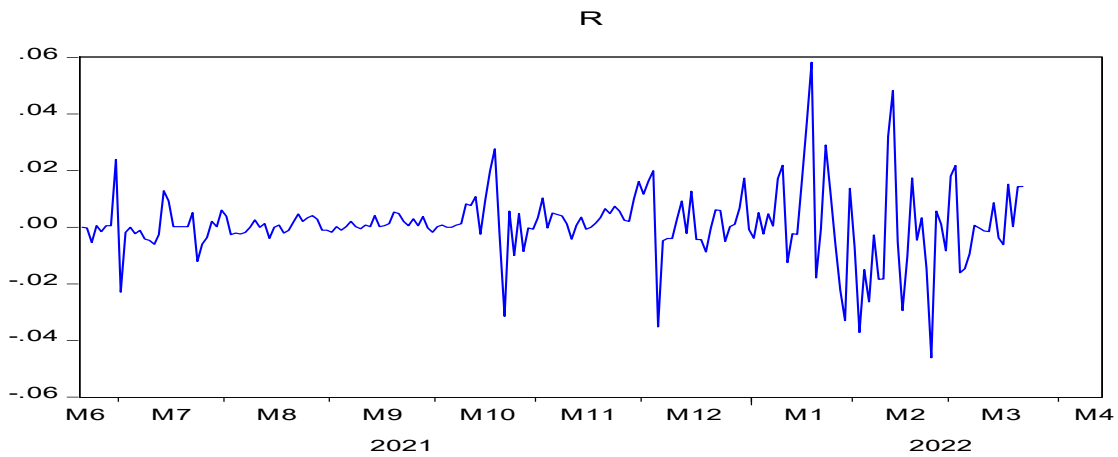


Figure 3. Linear distribution of return rate

From the perspective of linear rate of return, the rate of return series of Soochow Suyuan Industrial REITs fluctuates around zero, and the middle of the former is relatively stable, while the latter fluctuates greatly. The absolute value of the sequence is less than 0.06. Overall, the infrastructure REITs in the case have performed well, with high gains to date. Although the return rate fluctuates strongly in the future due to the impact of the international epidemic, the risk prediction model is still able to control the risk well and stabilize the return performance.

7. The Significance of Guiding Reits In Infrastructure Construction for High-quality Development

(1) Expand financing channels for infrastructure

REITs can lower the investment threshold of infrastructure projects. Publicly offered infrastructure REITs "break" infrastructure projects with an investment amount of more than 100 million yuan into small pieces and sell them to the public, so that ordinary investors can also participate in large-scale infrastructure projects with less capital and share the project operating income and asset appreciation income. Ordinary small and medium investors can invest in REITs in the exchange and over-the-counter markets, and the investment share can be 100 or 1000 shares, and the

investment of a small share of capital can also get the right to dividend. REITs can also fill investment gaps. A very big feature of REITs is the high dividend, accounting for more than 90% of the income, which is very attractive to both institutional investors who occupy a dominant position in the financial market and ordinary small and medium investors. Therefore, it can alleviate the problem of infrastructure funding sources and broaden the financing channels of infrastructure.

(2) Revitalize underlying infrastructure assets

REITs are asset securitization funds, and from the nature of infrastructure public REITs, most of them are equity types. This equity financial product can realize the share of infrastructure projects and has high liquidity in transactions due to its stable cash flow, so it can achieve our goal of revitalizing the stock assets. Enterprises exit the high-quality assets held by them through REITs, and the revitalized funds can be put into new high-quality assets with development potential. This process realizes the profit model transformation from "heavy asset holding" to "high turnover" and "periodic turnover".

(3) Reduce infrastructure financing risks

The leverage ratio of infrastructure projects is low. In the case, the leverage ratio of industrial parks is lower than 65%, and the minimum is no more than 15%. Under normal operation conditions, the low debt will not have the risk of

bankruptcy and liquidation. Secondly, the stable cash flow brought by the later stage of infrastructure can also enable the project to bear certain market risks.

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