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The future development of REITs in China

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THE FUTURE DEVELOPMENT OF REITS IN CHINA

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Declaration

I hereby declare that this doctorate dissertation is my original work and it has been written by me in its entirety. I have duly acknowledged all the sources of information which have been used in this dissertation.

This doctorate dissertation has also not been submitted for any degree in any university previously.

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20 February 2020

The Future Development of REITs in China

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Abstract

Real Estate Investment Trust (REIT) is a type of trust fund or corporation that pools the funds of a large number of investors by issuing a certificate of income and invest the raised funds in real estate projects that are managed by a specialized investment institution. The real estate investment risk is moderate, and the rent is stable, but the capital threshold is high, and it is difficult for small and medium investors to enter the market. The invention of REITs aims to solve this problem, through the collection of funds, so that small and medium investors can enter the field of real estate investment. Specialized managers use the raised funds to build up real estate investment portfolios to diversify investment risks. The shares or units of REITs held by investors can be transferred in the open market with good liquidity.

As of 2018, there are about 39 countries around the world that have established REITs market. The total market value of global REITs is around $2 trillion. Most of these countries choose to launch REITs when their economic growth slows down, and the real estate market is sluggish. From a macro perspective, China's economy is facing downward pressure, and domestic housing prices are also strictly regulated by the government, showing a slowdown in growth. In general, the

domestic macroeconomic conditions and the real estate industry environment provide favorable conditions for the launch of REITs in China.

In recent years, Chinese investors have become increasingly demanding for investment and wealth management services. Based on the total size of investable assets, China has now become the world's second-largest investment market after the United States. However, domestic investors lack medium-risk, medium-income investment options, and there is an urgent need to fill this gap. The primary real estate holders in the country are also looking forward to the launch of REITs. Through launching REITs, developers expect to revitalize their real estate assets and accelerate their business transformation. The Chinese government hopes to dispose of some infrastructure assets by launching REITs, recover funds and reduce debt level of itself. From the perspective of supply and demand, the market conditions for the launch of REITs have gradually matured.

Although there are many favorable conditions, China has not launched public REITs yet. But, why? What obstacles does China face on the road to launching REITs? To launch REITs, what strategy should China adopt? How can the REITs market in China take off? To find the answers to these significant questions, I conduct a comparative study on the significant international REITs markets. Considering the current domestic policies and economic environment, I attempt to propose a practical and feasible strategy for China to launch and develop the REITs market.

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I am my beloveds' and my beloveds are mine. My wife, Yuchi Yuheng, and my families have been devoting their unconditional love and care. They are the sources of inspiration for this thesis. I feel deeply grateful and indebted to all of them.

The Future Development of REITs in China

1. Introduction

Commercial real estate asset securitization products mainly include two categories, i.e., CMBS and REITs. Commercial Mortgage-Backed Securities (CMBS) is a type of asset-backed securities that are secured by commercial real estate and repays principal and interest with future income from real estate projects. By pooling, segmenting, and packaging a large number of commercial mortgages, CMBS creates securities with different risk-return characteristics, which can satisfy investors with different risk preferences (please refer to the Appendix for a comprehensive description of the procedure of asset securitization). For financiers, since CMBS is a standardized product, the financing cost is lower than that of traditional financing methods. When certain conditions are met, off-balance-sheet financing can also be realized. For investors, CMBS has increased the depth of the bond market, giving investors more choices. At the same time, due to the strong liquidity of CMBS, the investment risk is also significantly reduced. At present, China's CMBS market has been liberalized, and the market scale has proliferated.

Real Estate Investment Trust (REIT) is a type of trust fund or corporation that pools the funds of a large number of investors by issuing a certificate of income and invest the raised funds in real estate projects that are managed by a specialized investment institution. The real estate investment risk is moderate, and the rent is stable, but the capital threshold is high, and it is difficult for small and medium investors to enter. The launch of REITs aims to solve this problem, through the "collection" of funds, so that small and medium investors can enter the field of real estate investment. Specialized managers use the raised funds to build up real estate investment portfolios to diversify investment risks. The shares or units of REITs held by investors can be transferred in the open market and have good liquidity.

The earliest REITs were born in the United States in 1960. As of 2018, there are about 39 countries around the world that have established REITs market. The total market value of global REITs is around $2 trillion. Most of these countries choose to launch REITs when their economic growth slows, and the real estate market is sluggish. From a macro perspective, China's economy is facing substantial downward pressure, and domestic housing prices are also strictly regulated by the government. The domestic macroeconomic conditions and the real estate industry environment provide favorable conditions for the launch of REITs.

In recent years, Chinese investors have become increasingly demanding for investment and wealth management. Based on the total size of investable assets, China has now become the world's second-largest investment market after the United States. However, domestic investors lack medium-risk, medium-income investment options, and there is an urgent need to fill this gap. The primary real estate asset holders in the country are also looking forward to REITs. Developers expect to revitalize their assets and support their transformation by issuing REITs. The Chinese government hopes to reinstate some public assets by issuing REITs, thus realizing the withdrawal of funds. From the perspective of supply and demand, the market conditions for the launch of equity of REITs have gradually matured.

Although there are many favorable conditions, China has not launched REITs yet. What obstacles does China face on the road to launching REITs? To launch the REITs market, what strategy should China adopt? How could the government support the REITs market in China to flourish? To find the answers to these questions, this dissertation conducts a comparative study on the significant international REITs markets. Considering the current domestic policies and economic environment, I attempt to propose a practical and feasible strategy for China to launch and develop the REITs market.

2. Research Methodology and Organization of the Thesis

In Chapter Three, I systematically review the relevant research papers and pointed out the shortcomings in the existing research. Also, I briefly analyzed the development status of the domestic real estate asset securitization market in China. Only when we understand the status quo can we better explore the future development of China's REITs market. In Chapter Four, I detailed the preconditions of financial innovation. In particular, I adopted the most commonly used “supply and demand” framework in economics research to describe how REITs meet the different needs of investors, developers, and governments. I used the econometric tool to unveil a positive correlation between the operating period and the investment return rate, and verify the core business logic of REITs. From the perspectives of the economic cycle and industry cycle, I analyze the macro conditions under which various countries choose to launch public REITs. I attempt to argue that China is in an important time window to develop its public REITs market. In Chapter Five, I use the "comparative studies" method to horizontally compare and analyze the basic concepts and policy frameworks adopted in the development of REITs in the most developed REITs market globally, and I describe the greatest obstacles that China faces at present. In Chapter Six, I listed different strategies to develop the public REITs market in China and discussed in detail the possible path for the transition from Quasi-REITs to public REITs. In Chapter Seven, I combined the interview method with econometric analysis to understand the basic characteristics of the institutional investors as the cornerstone investors of REITs. I attempted to explain the crucial role of cornerstone investors in terms of REIT pricing and market confidence. In Chapter Eight, I analyzed how to operate a public REIT successfully, from the perspectives of corporate governance, development strategy, asset management, asset acquisition, and property enhancement. In Chapter Nine, I conclude.

3. Background

For the financial crisis of 2007-2008, real estate asset-backed securities are mostly blamed by many investors and industry insiders. The investors believe that, without such products, the financial crisis will not break out. Some market participants even suggest that the government should close the real estate asset securitization market completely. The outbreak of the subprime mortgage crisis also hindered the implementation of the pilot work for REITs in China. Through reviewing the existing literature, I believe that the cause of the financial crisis is not the market itself, but the delinquency of the regulatory system. Due to the lack of supervision, banks have relaxed the standards of credit screening for subprime borrowers, so that the risk of default has accumulated. Yet, the US government fail to recognize and resolve the problem in time.

3.1 Real Estate Securitization and the Subprime Mortgage Crisis

Before the outbreak of the subprime mortgage crisis, the US government offered insufficient supervision over the bank's originate-to-distribution model (OTD model). Under this model, after the bank originates the mortgages, they could sell the mortgages to investors immediately. Since banks no longer bear the credit risk of the borrowers, they relaxed the credit screening for borrowers to seek for higher profits. The credit risk continuously accumulated within the financial system, and finally, the fall in the house price triggers a large number of subprime mortgage defaults.

Demyanyk and Van Hemert (2009) found that the quality of US home mortgages continued to deteriorate in the six years before the crisis. Longstaff (2010) pointed out that when the bank is convinced that the newly issued mortgage will be sold in the future, it will no longer comply with the strict credit screening criteria, which is most likely the reason for the overall decline in the quality of the mortgages. An, Deng, and Gabriel (2011) demonstrate that a similar moral hazard problem exists in the commercial mortgage securitization market. As the sponsors have a better understanding of the quality of the mortgages, they will choose commercial mortgages with higher credit risk, package them into CMBS and sell them to investors.

With a better understanding of the crisis, the US government made crucial adjustments to the market supervision system. In July 2010, the United States introduced the Dodd-Frank Act, which put forward more detailed requirements for sponsors and market participants. The bill requires sponsors to hold at least a certain percentage of issued securities to align the interests of the sponsors with that of investors.

To conclude, the lack of proper supervision over the market is the root cause of the subprime mortgage crisis. The government can fully ensure the healthy development of the real estate securitization market by improving the regulatory system.

3.2 Status of China's Real Estate Asset Securitization Market

3.2.1 Classification of Asset Securitization Products in China

The classification of asset securitization products in China is quite different from that in the United States. The US classification is based on the type of underlying assets. The asset securitization products based on mortgages are often referred to as Mortgage-backed Securities, which can be further subdivided into Residential Mortgage-backed Securities (RMBS) and Commercial Mortgage-backed Securities (CMBS), the rest is called Asset-backed Securities (ABS).

China's asset securitization products can be classified according to different regulatory authorities. Asset securitization products have only a few years of history in China, and they could be subdivided into four categories. The Credit Asset Securitization products are regulated by the Central Bank and the China Banking and Insurance Regulatory Commission (CBIRC). The Asset-backed Special Plans are under the supervision of the China Securities Regulatory Commission (CSRC). The Asset-backed Notes (ABN) are regulated by the Interbank Market Dealers Association. The Project Asset-backed Plans are under the governance of the CBIRC.

In the long term, conflicts of interest will inevitably arise between various regulatory authorities, hindering the deepening of the reforms in the financial market. The Credit Asset Securitization products supported by the CBRC and the Asset-backed Special Plans supported by the CSRC could serve many similar functions, including financing real estate projects. If the market demand for funding remains relatively constant, there must be competition between the political supporters of the two categories of products. To further explain how REITs in China are likely to build on the current market institutions, I first compare the four types of securitization products in the current market.

Table 1：Comparison of China's Asset Securitization Products

	Credit asset securitization	**Asset-backed special plan**	**ABN**	**Project asset-backed plan**
Authority of Supervision	The People’s Bank of China, China Banking and Insurance Regulatory Commission	China Securities Regulatory Commission	National Association of Financial Market Institutional Investors	China Banking and Insurance Regulatory Commission
Sponsor	Banks	Non-financial companies and some financial companies	Non-financial companies	-
SPV	Special purpose trust	Asset-backed special plan of security company or subsidiary of the fund management company	It is not mandatory to set up SPV	Asset-backed plan of insurance asset management company
Mode of Initiation	Public or private	Private	Private	Private
Types of Investors	Interbank bond market investors	Qualified investors, totaling no more than 200	Institutional investors	Insurance institutions and other qualified investors with risk identification and affordability
Underlying Assets	Credit assets	It may be real estate property or real estate income rights such as corporate receivables, leased bonds, credit assets, trust beneficiary rights, infrastructure, commercial properties, etc.	Compliance with laws and regulations, clear ownership, property, property rights, or a combination of both that can generate predictable cash flows	Property, property rights or a combination of both that are in compliance with laws and regulations and have clear ownership and can generate independent, sustainable cash flow
Trustee	Trust company	Securities company, fund management company subsidiary	Currently no trustee	Insurance asset management company

3.2.2 Status of Market Development of REITs

From the perspective of function and market positioning, domestic Quasi-REITs are comparable to foreign private-sector REITs and play a similar role: they are both project incubators. Compared with domestic Quasi-REITs and international private equity REITs, the former has apparent advantages. First, Quasi- REITs are standard products. The standardization process dramatically reduces transaction costs, and Quasi-REITs are more liquid than private equity REITs, which objectively reduces the sponsor's financing costs. Secondly, as long as the sponsors can reasonably design the transaction structure of the Quasi-REITs, the seamless integration with the REITs can be achieved in the future.

As of December 31, 2018, the Shanghai and Shenzhen Stock Exchanges and the interbank market have reviewed and approved 55 Quasi-REITs, with a total scale of 190.581 billion CNY, of which the issue size was 92.710 billion CNY. The underlying asset types underlying Quasi-REITs are more diversified, and the deadlines are mostly more than ten years. The primary asset types of currently issued products include office buildings, hotels, bookstores, logistics warehousing, rental housing, etc., covering a growing range of underlying assets. There are several significant differences between domestic Quasi-REITs and REITs.

Table 2：Compare REITs and Quasi-REITs

	REITs	Quasi-REITs
SPV	Closed-end public fund	ABS
Trading platform	Collective auction trading platform	Bulk trading platform
Number of investors	1000 individuals and above	200 individuals and below
Investors	Institutional and individual investors	Mainly institutional investors
Minimum investment	Less than 100,000 CNY	More than 1 million CNY
Structure	With no tranches	With tranches
Exit strategy	Sold REIT units	Disposing of properties

Due to the lack of legislation, REITs are temporarily unavailable in the country. However, the needs of developers and investors for REITs are there. As a result, more and more types of Quasi-REITs have adopted the innovative structural arrangements to bring the core features of Quasi-REITs closer to REITs. In 2014, CITIC launched its Quasi-REIT that became the first Quasi-REIT traded in a security exchange, marking the rising liquidity of Quasi-REIT. In 2015, Penghua-Qianhai-Vanke REIT was officially released, becoming the first to meet the public offering requirement. In August 2017, Letai REIT was released, becoming the first Quasi-REIT traded in a security exchange that does not rely on the credit records of the sponsor. In October of the same year, Poly Rental Apartment REIT was issued, becoming the first Quasi-REIT under the shelf registration system.

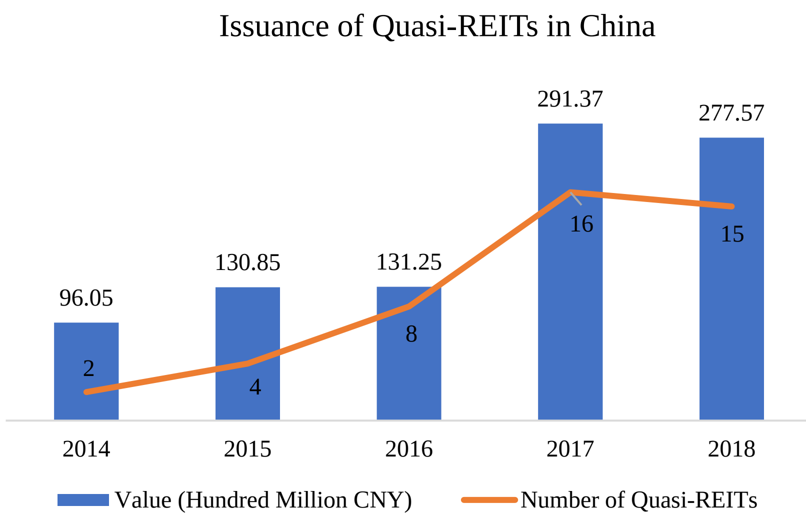

Figure 1：Issuance of Quasi-REITs in China

Source：GSUM

China's asset securitization market is still in its infancy, and the transaction structure of real estate asset securitization is greatly affected by the regulations from various authorities. Therefore, the type of sponsors and the type of underlying assets determine what type of SPV should be adopted.

As mentioned in the previous section, according to the Asset Securitization Regulations, the Asset-backed special plan can directly invest in private equity funds, trust, private project company or other underlying assets that meet the requirements. In the current market, private equity fund shares, trust beneficiary rights, and equity of unlisted project company can be used as the underlying assets of the asset-backed special plan. To avoid taxation, domestic Quasi-REITs currently barely hold any properties, but hold the equity of the project company.

Due to the current domestic policy environment, equity Quasi-REITs usually use the "private fund + asset-backed special plan" transaction structure. In this model, a private fund is set up by the fund manager, and units of the fund are sold to the original equity holders to obtain finance of the short term.

Subsequently, the fund transfers money to the project company to obtain the equity of the project company (for tax planning, the fund usually issues a loan to the project company at this stage). After the establishment of the asset-backed special plan, the plan will acquire all the units of the fund from the original unitholders. At this point, the original unitholders recovered all of the funds, and all the units of funds were transferred to the plan as its underlying assets. Also, some equity Quasi-REITs are based on the "trust + asset-backed special plan" structure. The main difference is that trust replaces the position of the fund. After the trust acquires the equity of the project company, the equity is packaged as trust beneficiary rights as the underlying assets of the asset-backed special plan.

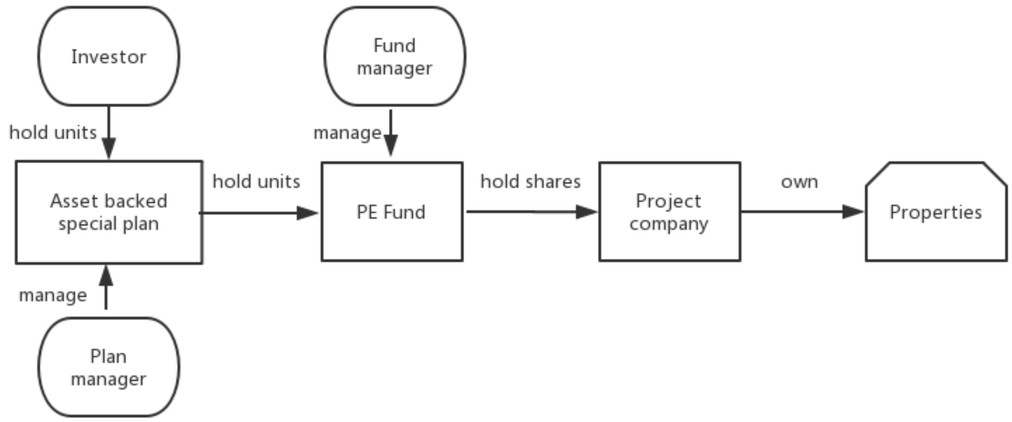

Figure 2： Combine PE Fund and Asset-backed Special Plan to Form Equity Quasi-REITs

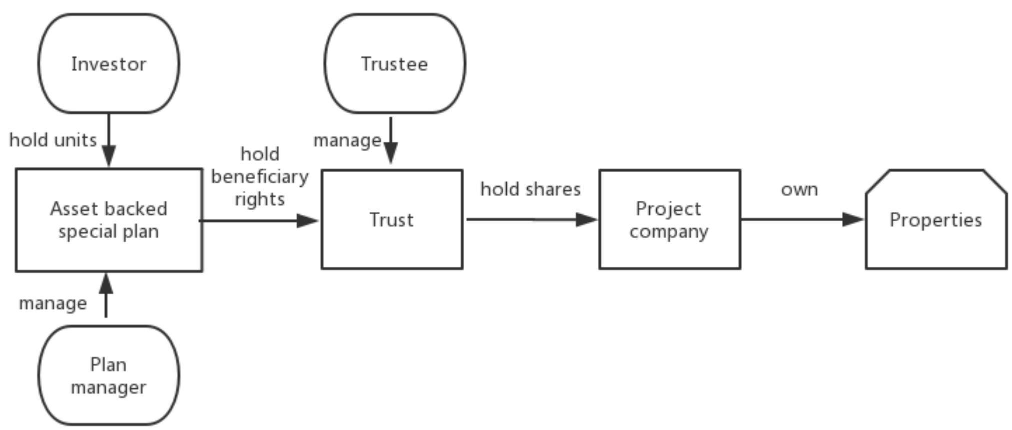

Figure 3：Combine Trust and Asset-backed Special Plan to Form Equity Quasi-REITs

Mortgage Quasi-REITs typically use the transaction structure of "trust + asset-backed special plan". In this model, the sponsor usually establishes a trust, and the trust will issue a loan to the project company. At the same time, the project company mortgages the project assets to the trust. The trust will package the creditor's rights and mortgage rights into the trust beneficiary rights. After the establishment of the special plan, the special plan will buy the trust beneficiary rights from the sponsor and indirectly obtains the creditor's rights and mortgage rights of the project company held by the trust.

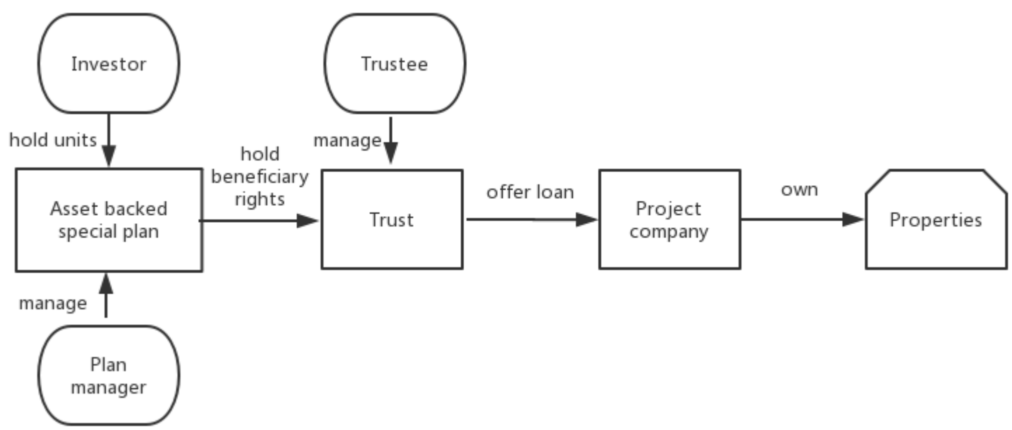

Figure 4：Combine Trust and Asset-backed Special Plan to Form Mortgage Quasi-REITs

At present, the transaction structure of the Quasi-REITs in China is a suboptimal response of the market to the weak legislation. So far, China has not yet enacted the legislation on the asset-backed special plan . The documents on which the asset-backed special plan is based are only the departmental regulations of the China Securities Regulatory Commission. The regulations have no legal effect and cannot offer the qualifications as a legal subject to the special plan. Since the asset-backed special plan itself does not have the legal subject status, it cannot guarantee the "bankruptcy isolation" between the original equity holder (sponsor) and the investors. Therefore, sponsors rarely use an asset-backed special plan as a unique SPV in practice. Instead, they always use a trust or PE fund as a complement to the asset-backed special plan.

Due to the imperfect legal system, the transaction structure of Quasi-REITs in practice is very complicated. From the investor to the properties, there are multiple levels, including asset-backed special plans, trusts or funds, and project companies. This greatly increases the difficulty of dividing the powers and responsibilities among the participants. Meanwhile, the complicated transaction structure also increases the complexity of supervision, making the information asymmetry more prominent that leads to a moral hazard problem. The dual-SPV structure is only a result of the compromise of all parties in the transaction. In the long run, it will do harms to the development of the real estate asset securitization market in China.

4. The Premises of Financial Innovation

As an essential means of securitizing real estate, REITs have grown and expanded in many countries and regions around the world since its birth in the United States in 1960, REITs grow into an essential class of assets in the global financial market.

As of March 2019, 39 countries and regions, including all G7 countries, have already enacted REITs. The total market capitalization of REITs is around US$2 trillion, accounting for more than 2% of global GDP.

China has not enacted public REITs yet. According to my study of international experience, the launch of REITs must satisfy the needs of asset suppliers, including developers and governments, as well as the needs of investors.

4.1 Supply-side Analysis

The main suppliers of REITs' underlying assets include real estate developers, governments and other institutions. The launch of public REITs in China can meet the needs of various types of institutions well.

4.1.1 Property Developers

In the past two decades, China has experienced a period of rapid economic growth. From 1997 to 2017, China's real GDP growth rate exceeded 10% (figure below). From 1997 to 2015, the disposable income of the urban population maintained double-digit growth, increasing from 5,100 CNY to nearly 32,000 CNY.

Figure 5：Year 1996-2017 Real GDP Growth for China

Source：CEIC

Urbanization and industrialization have accompanied the rapid growth of China's economy, which has given rise to strong demand for urban housing. As a large size of the agricultural population migrates to cities, more labor force participates in industrial production. The increasing number of workers in urban regions generates a huge demand for urban housing.

In 1998, China implemented the reform of urban housing system and realized the marketization, monetization, and commercialization of urban housing. The industry of real estate development in China has ushered in its golden age. However, after years of expansion, the risk of oversupply in the residential market has gradually increased. The number of housing properties per household in China reached a record high level of 1.13 in 2018, which has exceeded the internationally recognized ideal level of 1.1.

On the other hand, the development of China's population also indicates that the residential market will usher in a turning point shortly. Since 1986, China's population fertility rate has been declining year by year (figure below), and the population is aging (figure below). In 2016, China fully implemented the Two-child policy. The National Health and Family Planning Commission predicted that China will usher in a baby boom in 2018. But, it turned out that, China has already ushered in a baby boom in the year of policy implementation. After 2016, China's new birth population has continued to decline. On January 21, 2019, the National Bureau of Statistics announced that the birth population in 2018 was 15.23 million, a total of 2 million less than the previous year. At the beginning of the implementation of the Two-child policy, the National Health and Family Planning Commission predicted the high, medium and low births of 2018 to be 22.943 million, 21.886 million, and 20.824 million respectively; the predicted population born in 2018 under the assumption of the One-child policy is 17.248 million. The population born in 2018 is 15.23 million, which is 5.59 million less than the minimum forecast of the Health Planning Commission at that time, 2.18 million less than the predicted birth population without assuming the Two-child policy.

At the end of 2018, the total population in mainland China was 139.538 million, of which 248.6 million people are aged 0-15 years, 89.97 million people aged 16-59 years old, 249.49 million people aged 60 years and over. For the first time, the population aged 60 and over in China has exceeded the population of 0-15 years old. Considering the demographic transition, the market for residential properties is not able to maintain rapid growth in the next decades.

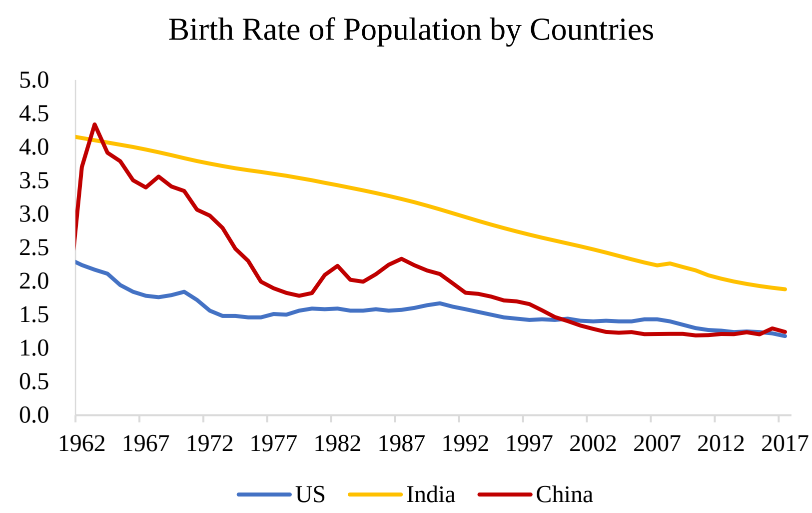

Figure 6：Birth Rate of the Population by Countries

Source：CEIC

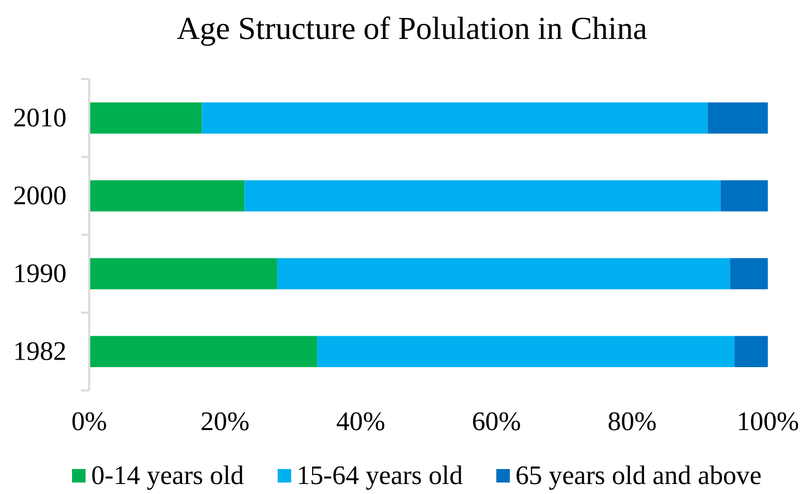

Figure 7：Age Structure of Population in China

Source：CEIC

Table 3： 2016 Forecast of the Birth Population by the National Health and Family Planning Commission (10,000 people)

Year	Under the One-child Policy	Relax the One-child Policy			
		Lower bound	Median	Upper bound	Actual
2016	1767	1767	1767	1767	1786
2017	1770	2023	2110	2195	1723
2018	1725	2082	2189	2294	1523
2019	1675	1982	2077	2173	-
2020	1583	1846	1936	2036	-

Source: National Health and Family Planning Commission

When the housing market condition is getting more and more severe, how to realize the transformation of traditional real estate development is not only relevant to the survival of the enterprise itself, but also the sustainable and healthy development of the national economy. In the past decade, China's economy has gradually shifted from an investment-driven to a consumption-driven model. The transition of China's economic structure has provided new opportunities for the transformation of developers. The Chinese economy has relied heavily on investment for the past 20 years, but this trend has begun to reverse in recent years. Since 2011, the share of investment in GDP has gradually declined, and the share of consumption in GDP has continued to rise. With the accumulation of national wealth, the Chinese people will have more disposable income available for consumption after meeting their basic living needs.

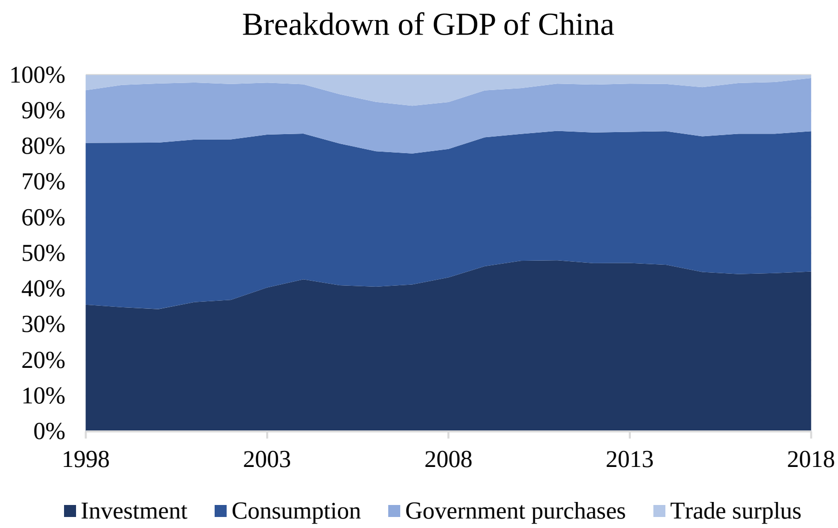

Figure 8：Breakdown of GDP of China (1998-2018)

Source: Statistical Yearbook of China

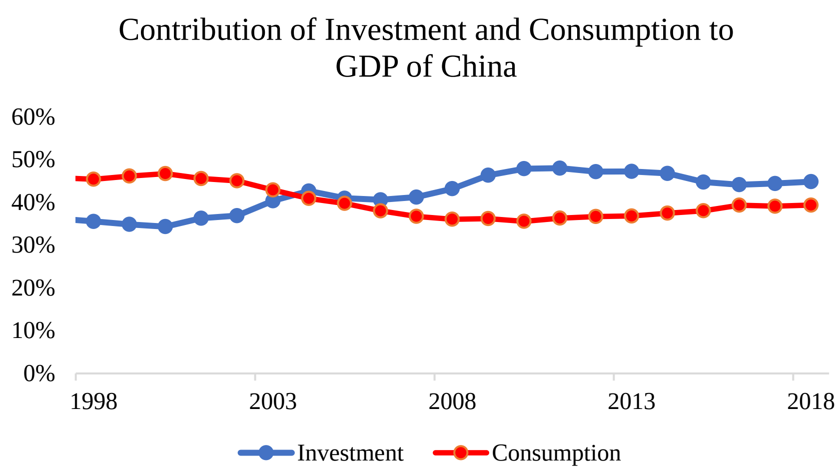

Figure 9：Contribution of Investment and Consumption to GDP of China

Source: Statistical Yearbook of China

In this historical stage, many domestic developers begin to vigorously develop shopping malls, logistics warehouses, resorts, and hotels to meet Chinese people's consumption needs. The scale of investment properties held by several major domestic developers has achieved rapid growth over recent years, with a compound annual growth rate ranging from 22% to 177%. As of the second quarter of 2018, the total stock of office buildings in Beijing has reached 10.43 million square meters. The total stock of Grade A office buildings in Shanghai has reached 10.76 million square meters. The total stock of Grade A office buildings in Guangzhou is 4.67 million square meters. The total stock of Grade A office buildings in Shenzhen is 4.4 million square meters. As of the third quarter of 2017, the total area of prime retail stores in China's first-tier cities has reached 26.66 million square meters. According to internal data from JP Morgan Chase, there are more than 5,600 shopping malls with more than 30,000 square meters in the country. The stock of retail properties in the top 20 cities is about 162 million square meters.

Table 4： Value of Investment Properties Held by Major Developers in China

（Hundred Million CNY）

	2018	**2017**	**2016**	**2015**	**2014**	**2013**	**Annual Growth**
Vanke Group	541	288	219	108	80	117	36%
China Resources Land	1269	992	851	740	594	469	22%
Longfor Group	844	681	490	434	334	238	29%

Evergrande Group	1623	1520	1320	971	619	360	35%
China Poly Group	199	165	114	94	70	47	33%
Country Garden	164	83	98	87	70	1	177%

Source: financial reports of companies

Although the total stock of commercial real estate is enormous, the proportion of the assets that are securitized is still low. The GSUM estimates that the total market value of China's commercial real estate has reached 44 trillion US dollars. The value of the investable assets is about 22 trillion US dollars. The value of the assets that can be securitized is about 1 trillion, while the value of the assets that have already been securitized is about 100 billion (figure below). Therefore, the potential of China's real estate securitization market is huge.

The Scale of Investment Properties in China

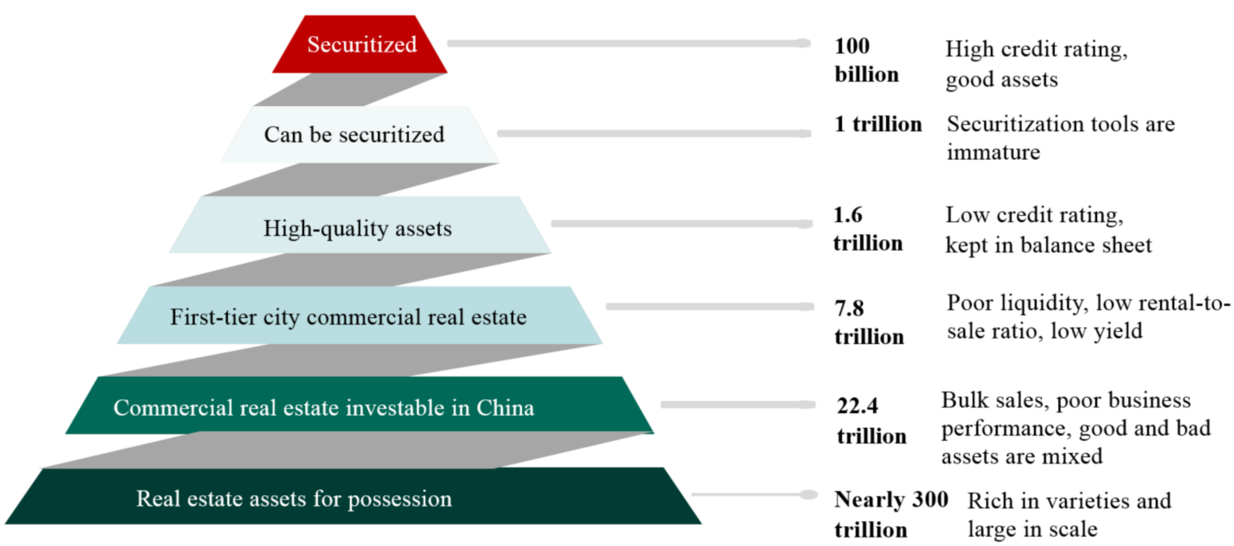

Figure 10：Scale of Investment Properties in China

Source: GSUM

In the current context, the timely launch of REITs can actively support the transformation of real estate developers. First, developers can initiate REITs, revitalize high-quality commercial real estate assets, and quickly realize the value of assets. Second, through the issuance of REITs, developers could dispose of held assets, thereby improving their profile of financial statements. Third, in the detailed design of the REITs mechanism, the developer could not only keep the assets out of the balance sheet but also maintain the control rights of the assets, benefiting from the appreciation of the assets. Fourth, developers can obtain a highly duplicable and efficient channel for financing by launching REITs.

REITs are asset IPO platforms that have differentiated value from corporate IPOs. The REITs, as an equity instrument for secondary securitization of listed companies, reduces the debt ratio and promote the separation of light and heavy assets of listed companies. Using REITs, developers can flexibly and reasonably segment asset operating income between listed companies' light asset management fees and REITs' investor dividends based on the overall strategic considerations of the group, and better manage the market value of listed companies. On the other hand, REITs simplify the complicated procedures of related party transactions and voting avoidance involved in the process of injecting large shareholders' assets into listed companies.

How REITs Work

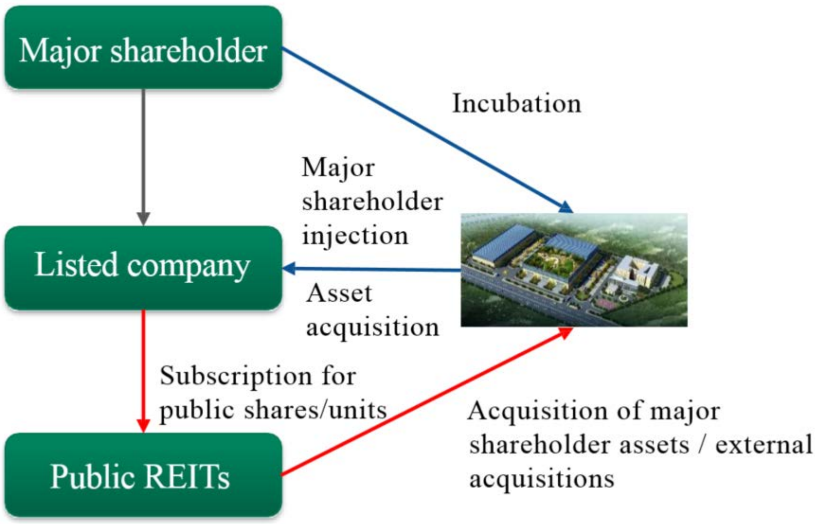

Figure 11：How REITs work

As the last link of the real estate securitization chain, REITs can further accelerate the circulation of capital by allowing the owners to dispose of their properties. According to different maturity and outlook for appreciation, REITs can connect different types of REITs such as Pre-REITs, Quasi-REITs, and other REITs to strike the best balance between recycling investment, maintaining control, and optimizing the capital structure of the companies.

The function of REITs in Real Estate Securitization

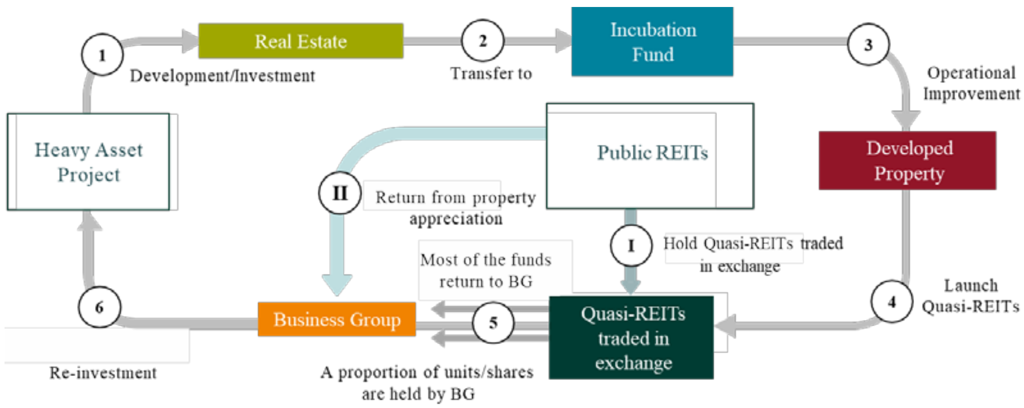

Figure 12：Function of REITs in real estate securitization

By issuing REITs, companies could effectively relieve the burden of heavy assets. As Asia's largest multinational real estate company, CapitaLand relies on RETs to establish a light-asset strategy. First, the company develops new properties, hold the projects until they enter a stabilized period. The rental of the properties in the stabilized period is stable. Then the company delivers mature properties to REITs and recovers funds. After that, the company uses recovered funds to cultivate new properties, hence, eventually form a closed loop of operations. In the process of continuously developing and managing new projects, the company has accumulated experience in property planning, updating, and operating capabilities, and finally cultivates an experienced business team.

Role of REITs in Light Asset Strategy

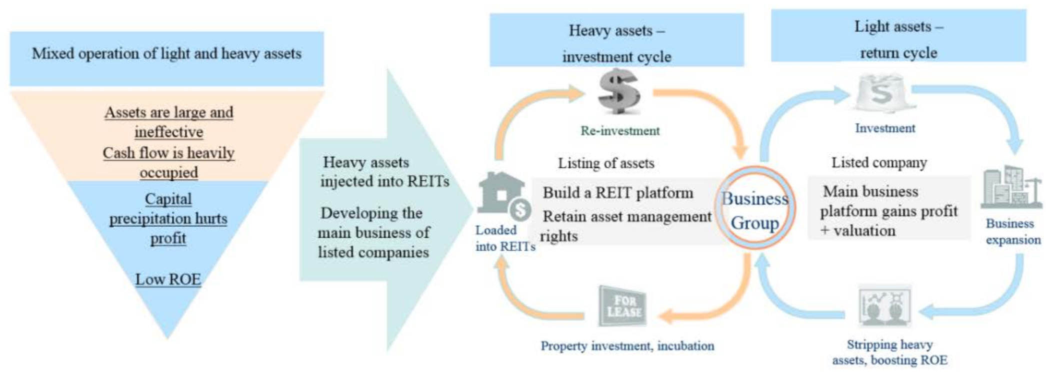

Figure 13：Role of REITs in Asset-Light Strategy

4.1.2 Investment Return of Properties

The investment return of the property is another critical determinant of the successful launch of REITs in China. I collected the operating data of commercial real estate properties from a large real estate developer in China. My dataset covers the year 2018. The types of properties covered by the dataset include shopping centers, hotels, office buildings, industrial parks, logistics warehouses, long-term rental apartments. All 253 heavy asset projects spread across over 50 major cities in China.

The dataset includes information on the net operating income (NOI) and the original investment for each project. Using this information, I calculated the NOI rate for each project. The NOI rate of properties, defined as the ratio of the net operating income to the original investment, is an essential indicator for the return on investment of commercial real estate,

$$\text{NOI rate} = \text{NOI}/\text{Investment}$$

To analyze the factors that affect the NOI rate of the project, I used a linear regression model. I first analyze the relationship between the year of continuous operation and the NOI rate of the project. I use the OLS method to estimate the regression equation as follows:

$$\text{NOI rate} = \alpha + \beta * \text{years of operation} + \varepsilon$$

The regression results show that the project's NOI rate is significantly positively correlated with the duration of the operation. For each year of continuous operation, the NOI rate increased by an average of approximately 0.4%. The regression results directly confirm that commercial real estate is different from traditional residential development in business logic. The asset manager must enhance the performance of the properties through continuous and efficient management, to improve the investment return.

Table 5： NOI Rate and Years of Operation

Independent variable	**Coefficients**
Intercept	0.03247^{***}
Years of operation	0.00401^{***}
Number of Observations	253

Note: The results of this table are based on OLS regression. The dependent variable is the NOI rate of 253 properties and the independent variable is the years of operation. Data is collected from a top-rank real estate developer in China. The period of the data is the year 2018. Significance: *** corresponds to p <0.001.

4.1.3 Government

International experience shows that REITs can provide an important path for the government to dispose of public assets and supplement fiscal revenue. As the Asian Financial Crisis occurred, the Hong Kong Government suffered from a shortage of public finance. In 2002, as the founder of the REIT, the Hong Kong government packaged and privatized 29 independent parking lots and 149 neighborhood shopping malls with a total transaction amount of HK$25 billion.

The Hong Kong government's strategy provides an important reference for local governments in mainland China. After decades of development, the Chinese government has a large number of infrastructure assets in its hands. According to the Guanghua School of Management of Peking University, the scale of China's stock infrastructure has exceeded 100 trillion. By 2018, the total number of high-speed railways in China has reached 25,000 kilometers, accounting for 66.3% of the world total. The mileage of China's highways has exceeded 140,000 kilometers, making it the most extensive highway system in the world. The rapid growth of the total value of China's infrastructure assets requires continual investment, hence, the government is burdened with heavy debt. According to a study by the Chinese

Academy of Social Sciences, the overall debt of China's government sector accounted for about 67% of GDP in 2017, exceeding the internationally recognized alert level of 60%. Nationwide, 15 provinces and cities have a debt ratio of over 60%, including 11 western provinces, 2 eastern provinces and 2 northeastern provinces. The high level of government debt will bring huge risks to China's economic development. In this context, the Chinese government has a strong incentive to privatize a proportion of its public assets by launching REITs.

Concerning overseas experience, governments of various countries regard infrastructure investment as an essential means of stimulating domestic economic growth, and REITs have become an important financing channel for infrastructure projects. The Great Depression of 1929 led to a sharp decline in the US and the global economy. To revive the domestic economy, Roosevelt signed the National Industrial Renewal Act in 1933, the important content of which is the government's investment in infrastructure. In the 1950s, during the tenure of Eisenhower, the US government successfully introduced private capital into the public investment of infrastructure. As a result, public investment accounted for 7% of GDP, and the federal government debt ratio continued to decline. After the 2008 financial crisis, President Obama enacted the US Recovery and Reinvestment Act of 2009, proposing to stimulate economic growth through investment infrastructure. President Trump also proposed a similar "long-term infrastructure investment plan." As of November 2018, the US NAREIT's equity REITs composite index has seven infrastructure REITs, with a total market capitalization of US$137.331

billion, nearly double the scale in 2016 and accounts for 13.36% of the overall market capitalization. Australia is the second-largest REIT market in the world. There are currently more than 20 listed infrastructure REITs. The underlying assets of Australian REITs include toll roads, airports, radio and television towers, seaports, railways, etc.

Table 6：Market Cap of US Equity REITs by Property Type

	Market Cap（billion USD）	Number of REITs
Retailing	168	36
Rental apartment	146	22
Infrastructure	137	7
Medical	98	18
Office	94	24
Industrial	82	13
Datacenter	62	5
Logistics	58	6
Hotel	56	21
Mixed	55	18
Others	44	12
Timberland	27	5
Total	**1027**	**187**

Source: NAREIT, date：2018/11/20

4.2 Demand-side Analysis

With the rapid development of China’s economy over the past two decades, Chinese investors are increasingly demanding investment opportunities. Paradoxically, China currently faces a severe shortage of assets and lacks investment products with moderate risks and stable returns. The introduction of public REITs can adequately compensate for this market defect.

According to the 2019 China Private Wealth Report jointly issued by China Merchants Bank and Bain & Company, in 2018, the total size of investable assets held by individuals in China has reached 190 trillion CNY in 2018. From 2006 to 2018, the compound annual growth rate of investment assets reached 18%. They estimated that the total size of investable assets will reach 200 trillion CNY by the end of 2019. Based on the overall size of investable assets, China has now become the world's second-largest investment market after the United States.

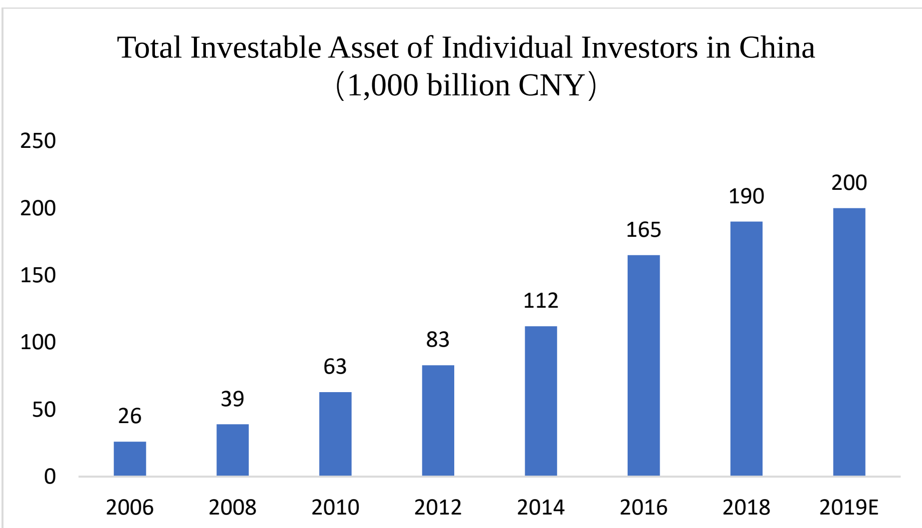

Figure 14：Total Investable Asset of Individual Investors in China

Source: CMS and Bain & Company

Although Chinese investors have strong investment needs, they always lack investment options with moderate risks and stable returns. The spectrum of asset classes in China is not continuous in the risk-return dimension: the risk and return of debt products are too low, while the risk and return of small and medium-sized board and GEM stocks are too high, and there is a lack of medium-income and medium-risk asset class in the market. In this context, China can provide investors with important investment opportunities through the launch of the REITs market. US experience shows that the risks and returns of REITs are between stock products and debt products. The reason is that the underlying assets of REITs are mainly real properties such as shopping malls, office buildings, hotels, and rental apartments. The dividends of REITs mostly come from the rental income of the underlying assets and remain stable for a long time.

From the perspective of asset allocation, the inclusion of REITs in the portfolio can help investors better hedge their risks and smooth their returns. I collected the US REITs market data from 1980 to 2016 and selected the equity REITs as the research objects. The REITs are grouped according to the type of underlying properties, the market value of each REIT is used as weights to calculate the monthly rate of return for each type of REITs. As for the return of the market portfolio, I use the data released by Kenneth R. French on his academic website. The return of the 10-year US government bond is used as the risk-free rate. Then I use the OLS method to estimate the correlation between the return of a various group of REITs and return of the market portfolio, based on the following regression,

$$R_{REITs} - r_f = \alpha + \beta * (R_M - r_f) + \varepsilon$$

The results show that, except for hotel-type REITs, there is a weak correlation between other types of REITs and the market portfolio. Among them, medical, self-storage and rental apartment REITs have the lowest correlation with the market return. The services provided by the underlying assets of these three types of REITs are all necessities, and their demand is less affected by economic fluctuations. Empirical evidence shows that REITs provide investors with the tools to effectively hedge the downside risks of the economy.

Table 7：Correlation between Equity REITs and Market Portfolio

REITs by Property Type	Beta Estimates
Medical	0.52^{***} (17.37)
Industrial	0.61^{***} (27.43)
Hotel	1.07^{***} (28.05)
Rental apartment	0.56^{***} (23.06)

Retail	0.58^{***} (34.14)
Self-storage	0.47^{***} (12.46)

Note: The results of this table are based on OLS regression. The dependent variable is the excess return of each REIT portfolio by the underlying asset class and the independent variable is the excess return of the market portfolio. REIT data is collected from the CRSP / Ziman Real Estate Data Center of the Chicago Business School. The data of the market portfolio is collected from the data regularly published by Kenneth R. French on its academic website. Historical data on 10-year Treasury yields is collected from the official Fed website. The period of the data is from 1980 to 2016. The number in parentheses below each estimate is its corresponding t-value. Significance: *** corresponds to $p < 0.001$.

Also, the launch of REITs can better meet the needs of investors in small and medium-sized cities. In the past few years, the scale of high-net-worth people in non-first-tier cities in China has grown rapidly. As of 2018, 23 provinces and cities have more than 20,000 high net worth individuals. In small and medium-sized cities, investors must spend the higher cost of collecting information. How to meet the investment needs of high-net-worth individuals in small and medium-sized cities is an important issue that China's asset management industry needs to think about. I believe that because the business logic of public REITs is straightforward, the business performance is transparent, and information disclosure is complete, the asset class is a suitable option for investors in small and medium-sized cities.

4.3 The Timing of the Launch of REITs Market

Throughout the history of global REITs, the timing of the launch of REITs in various countries and regions is often inextricably linked to economic cycles. Most countries and regions often face economic recession or slowdown of economic growth, when they introduce laws and regulations related to REITs.

By sorting out the profile of the economic development of various countries and regions before REITs were launched, I summarize the countries and regions into three types.

The first type is the developed countries and regions that introduced REITs during the long-term economic downturn. Before the introduction of REITs in 1994, Canada experienced a four-year economic downturn since 1990; Japan's economy fell into recession before the introduction of REITs in the late 1990s; France, Germany, Italy, and Israel experienced the sluggish cycle of the economy in the early 21st century before the introduction of REITs; after the financial crisis in 2008, Hungary and Ireland also experienced a long-term economic recession, followed by the introduction of REITs regulations.

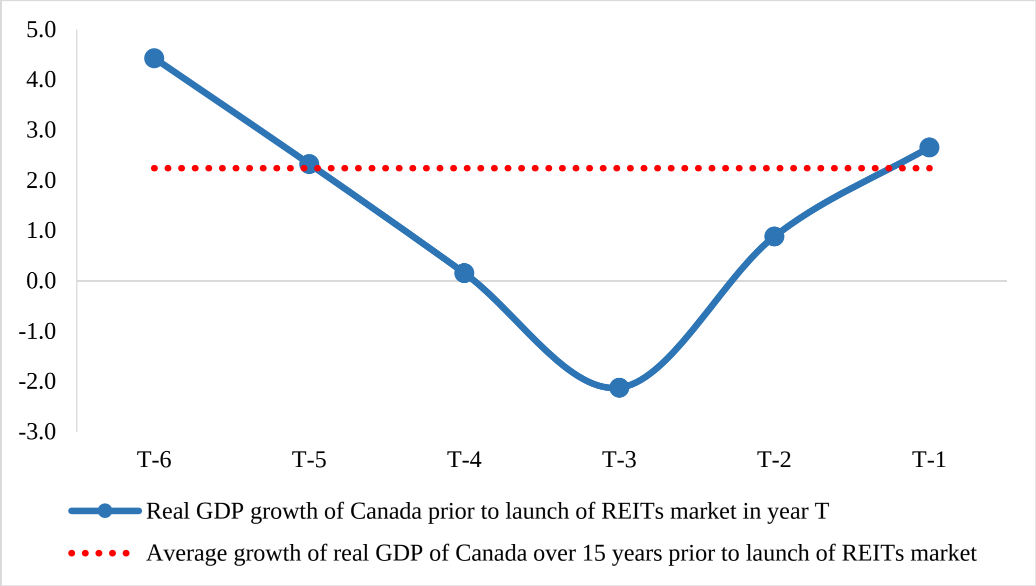

Figure 15： GDP Growth before REITs are Launched in Canada

Source: CEIC

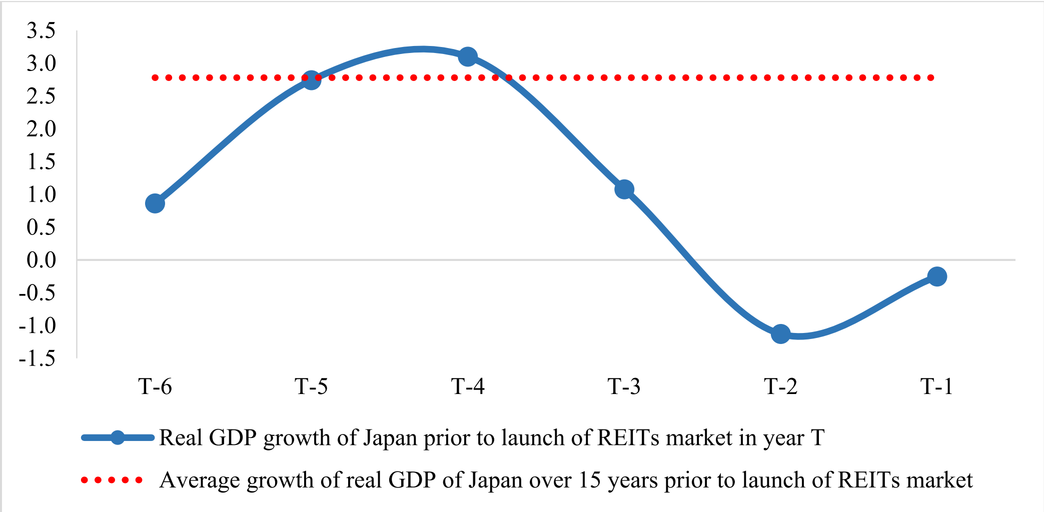

Figure 16：GDP Growth before REITs are Launched in Japan

Source: CEIC

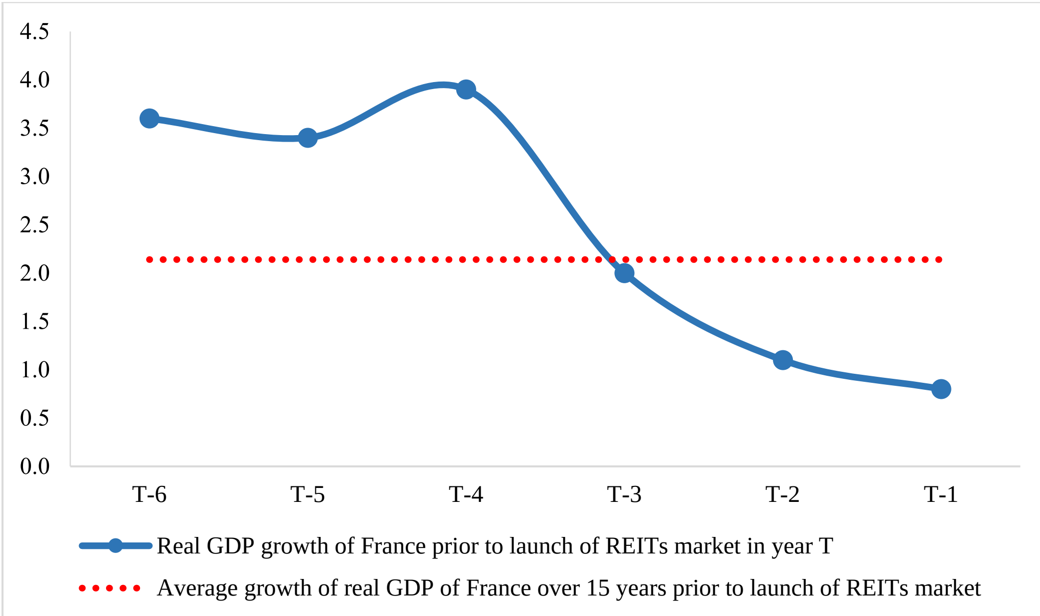

Figure 17：GDP Growth before REITs are Launched in France

Source: CEIC

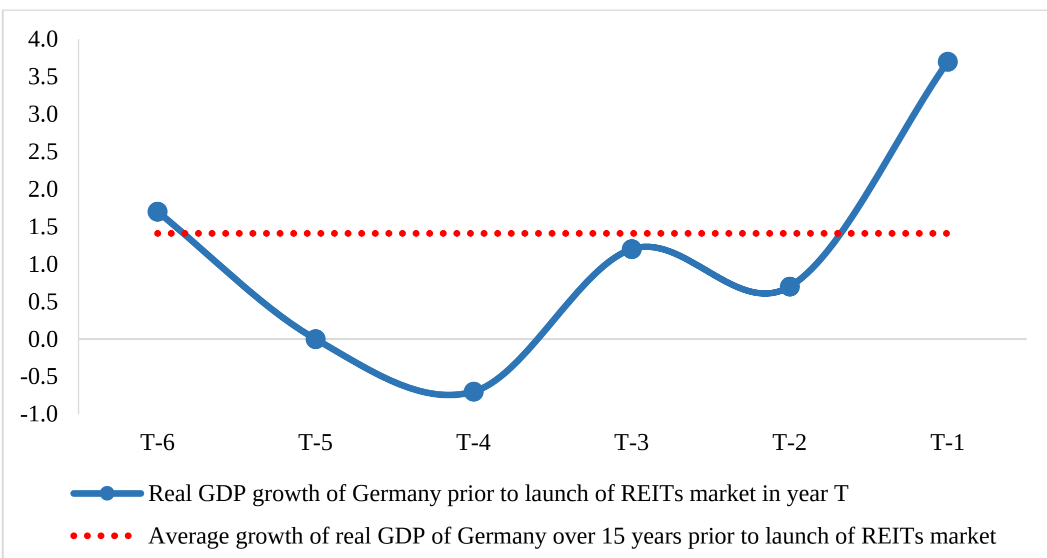

Figure 18：GDP Growth before REITs are Launched in Germany

Source: CEIC

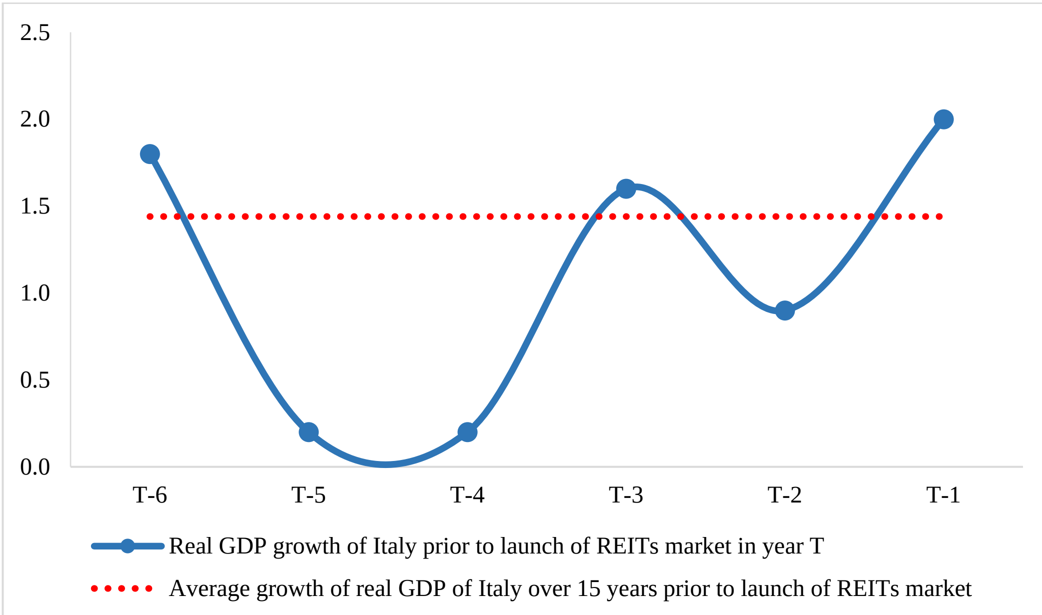

Figure 19：GDP Growth before REITs are Launched in Italy

Source: CEIC

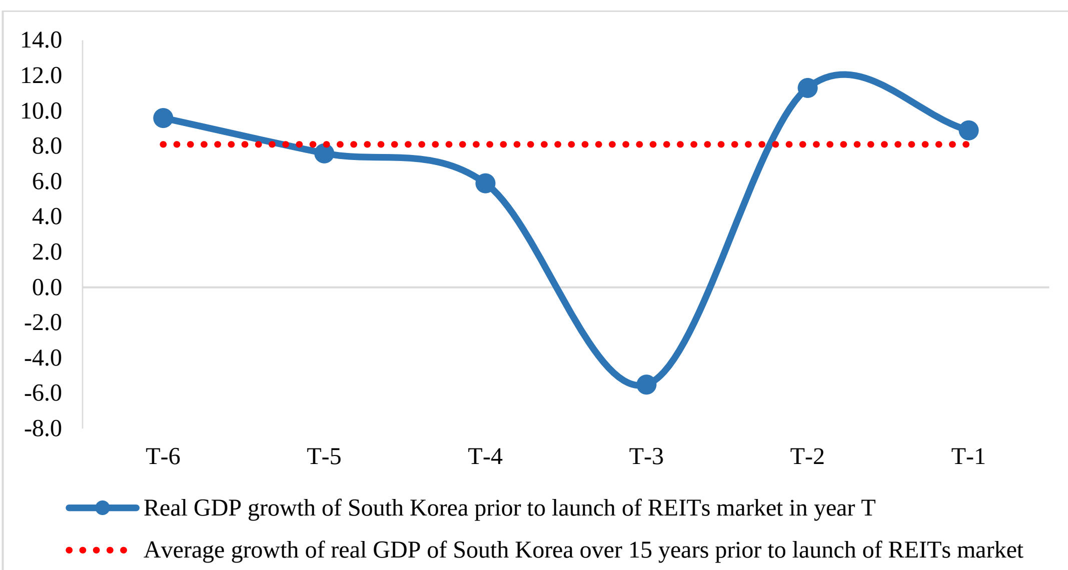

Figure 20：GDP Growth before REITs are Launched in South Korea

Source: CEIC

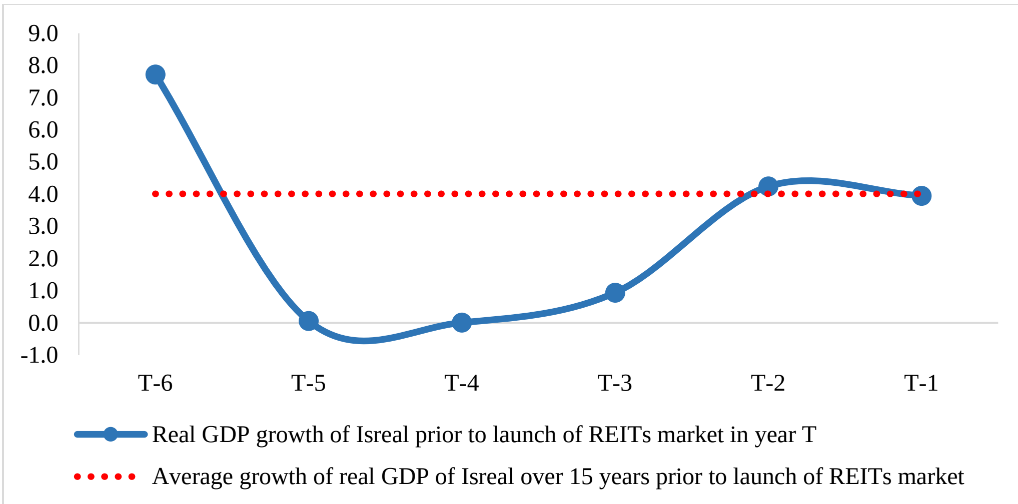

Figure 21：GDP Growth before REITs are Launched in Israel

Source: CEIC

The second type is the fast-growing economies that introduced REITs in the face of a sudden economic crisis. These countries went through a strong and rapid economic recession, and usually, the GDP growth rate has fallen sharply within one year. Such as the 1990 economic crisis in Brazil, the Asian economic crisis in 1998, and the global economic crisis in 2008. Many countries launched REITs after the crisis, including Brazil in 1993, Singapore, South Korea, Hong Kong after the Asian financial crisis, and Spain, Finland, Costa Rica, Ireland and Hungary after the 2008 global economic crisis.

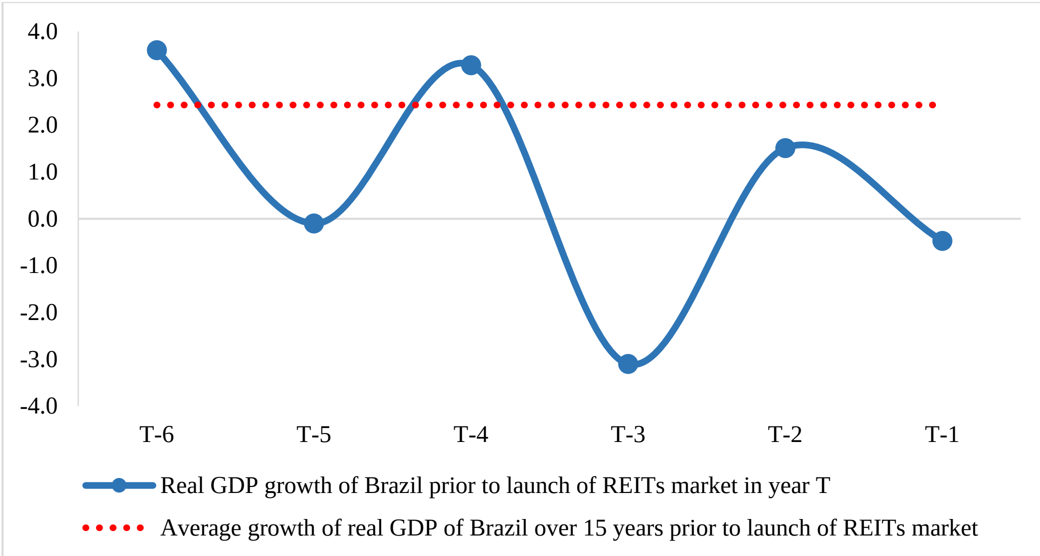

Figure 22：GDP Growth before REITs are Launched in Brazil

Source: CEIC

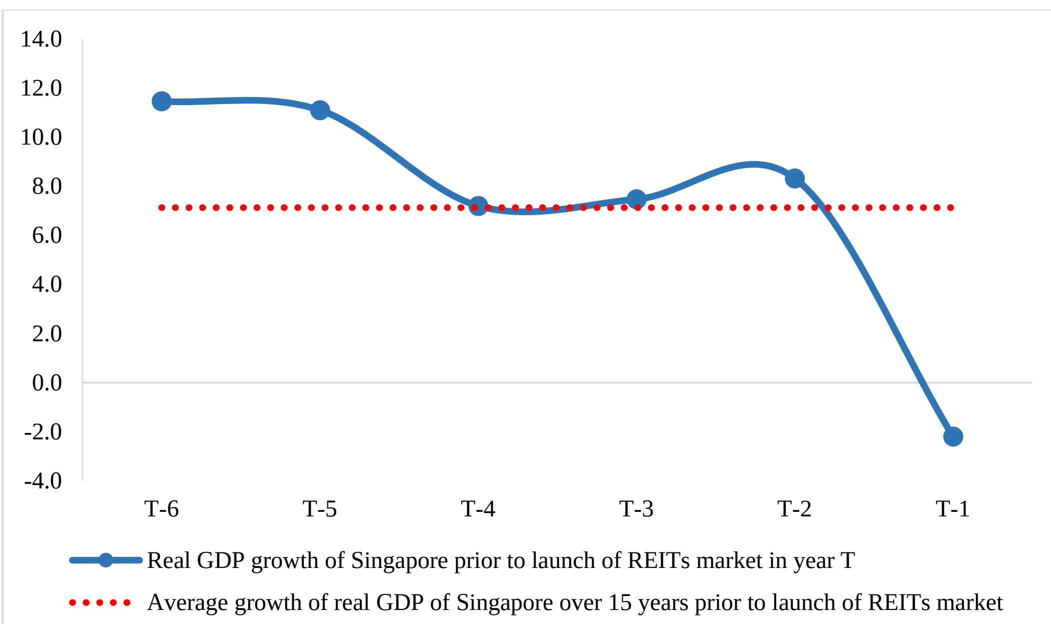

Figure 23：GDP Growth before REITs are Launched in Singapore

Source: CEIC

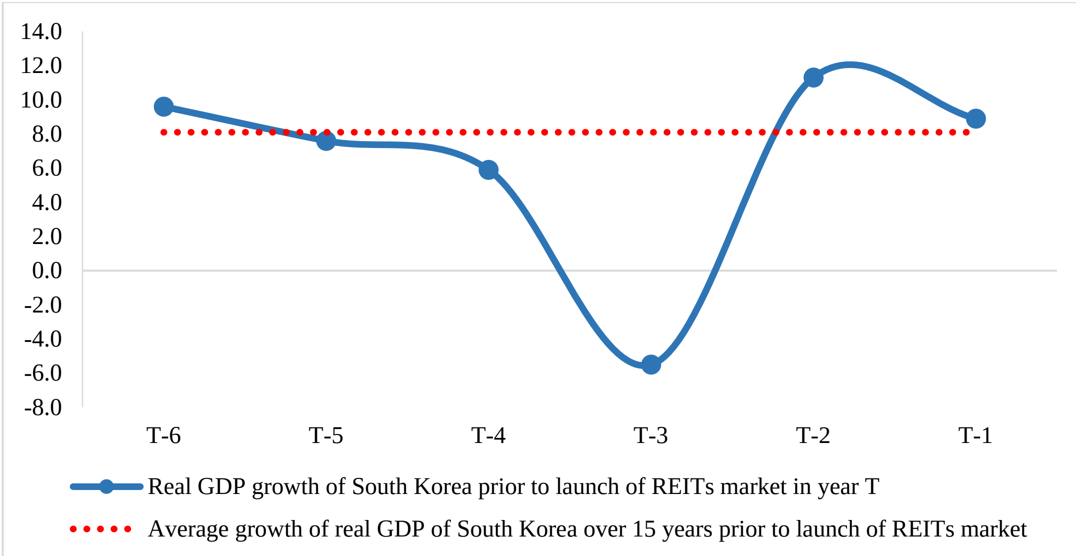

Figure 24：GDP Growth before REITs are Launched in South Korea

Source: CEIC

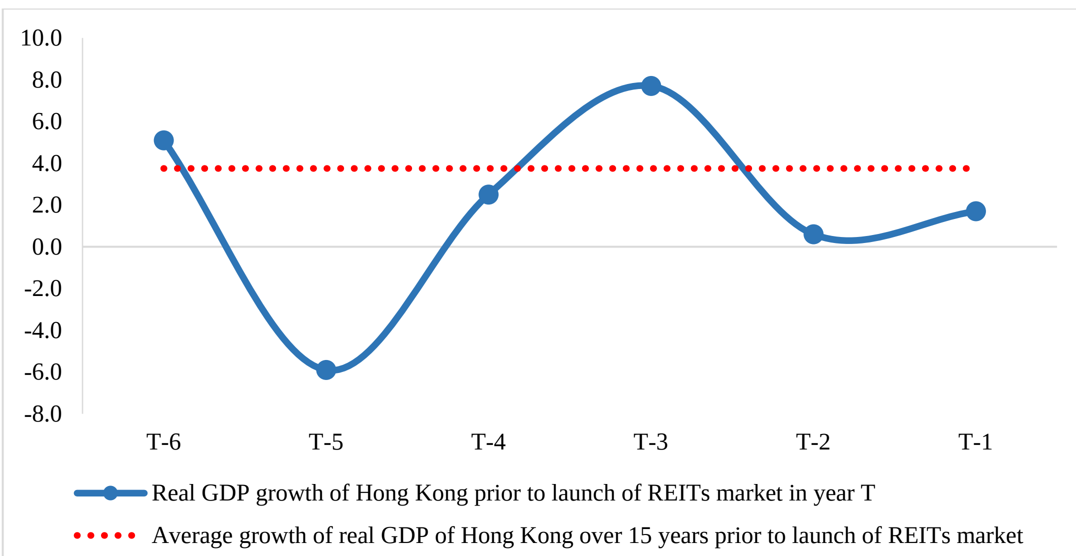

Figure 25：GDP Growth before REITs are Launched in Hong Kong

Source: CEIC

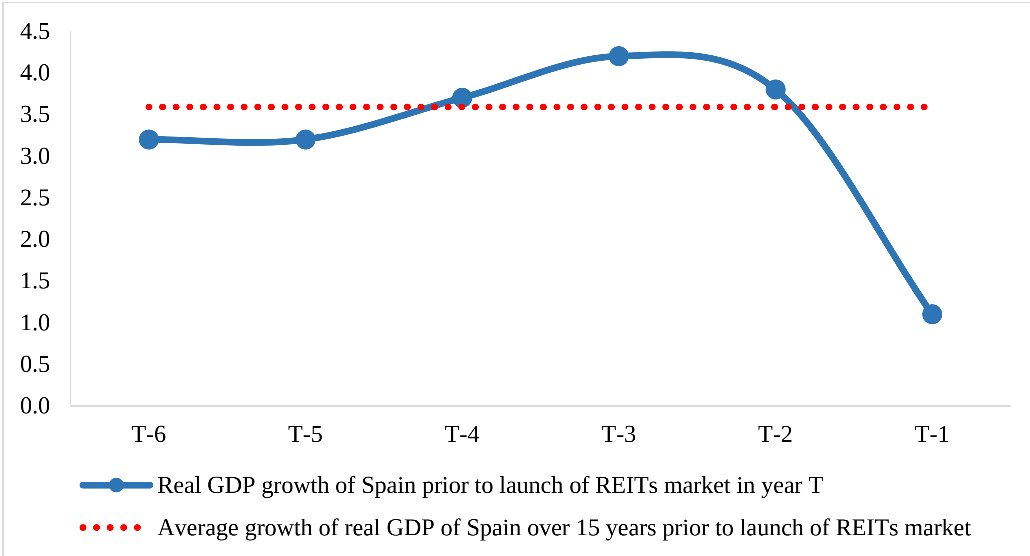

Figure 26：GDP Growth before REITs are Launched in Spain

Source: CEIC

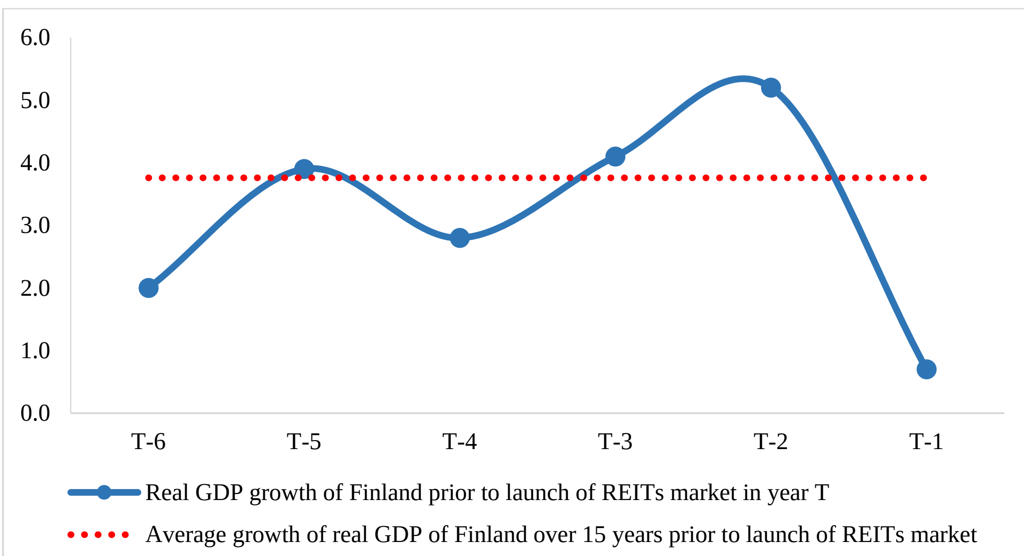

Figure 27：GDP Growth before REITs are Launched in Finland

Source: CEIC

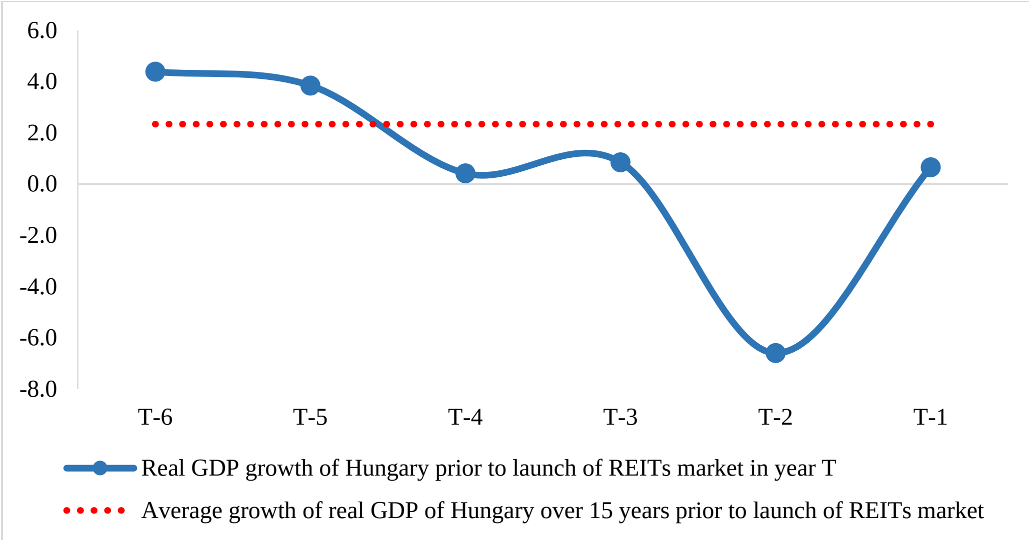

Figure 28：GDP Growth before REITs are Launched in Hungary

Source: CEIC

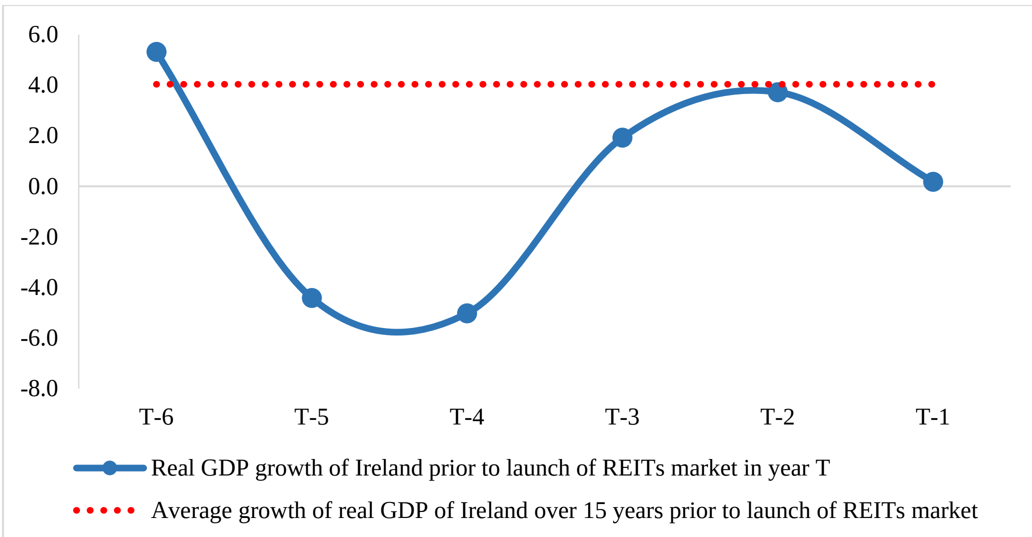

Figure 29：GDP Growth before REITs are Launched in Ireland

Source: CEIC

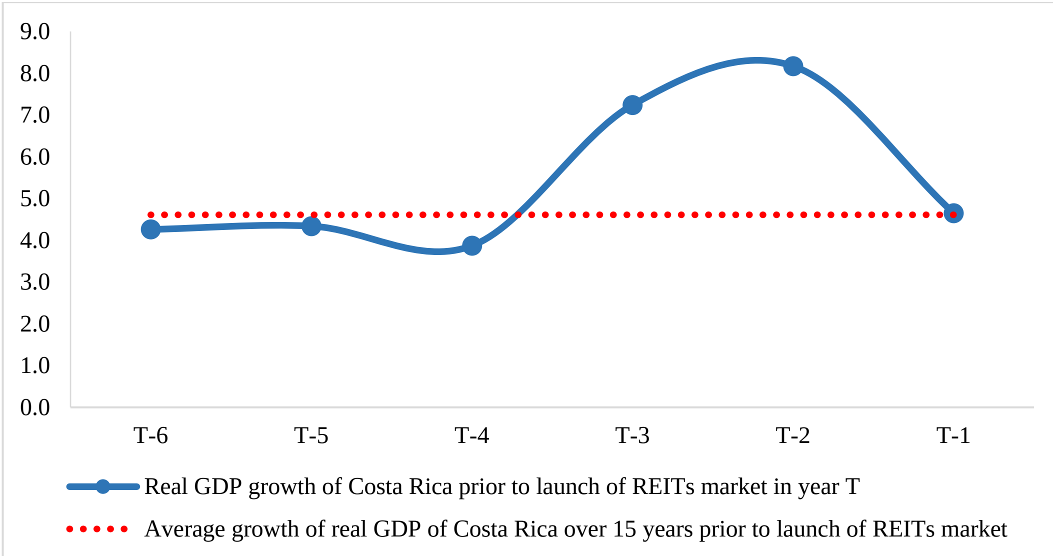

Figure 30：GDP Growth before REITs are Launched in Costa Rica

Source: CEIC

The third type is the developing countries with high economic growth that introduced REITs when the growth rate slowed down from a high level. These developing countries have maintained good economic growth before the introduction of REITs, but economic growth gradually slowed down. These countries have introduced REITs to provide new kinetic energy for the sustainability of economic growth and help further economic transformation and upgrading. Typical countries include developing countries such as Thailand, Kenya, and India that are developing rapidly.

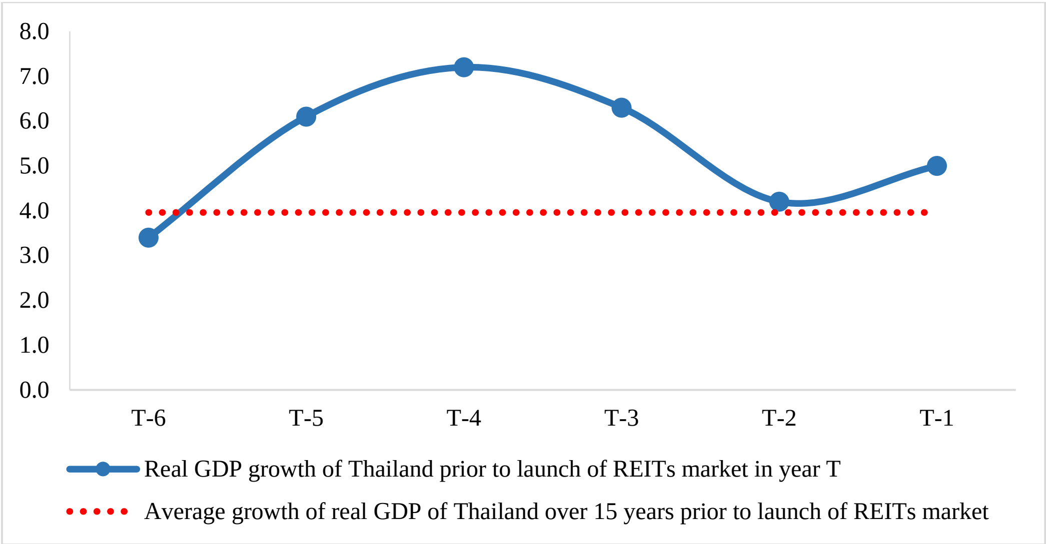

Figure 31：GDP Growth before REITs are Launched in Thailand

Source: CEIC

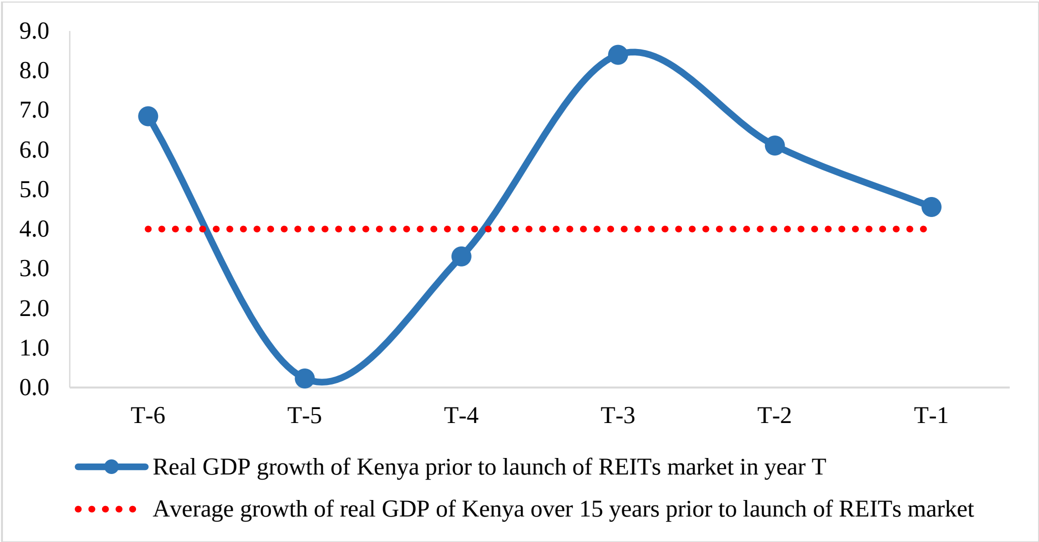

Figure 32：GDP Growth before REITs are Launched in Kenya

Source: CEIC

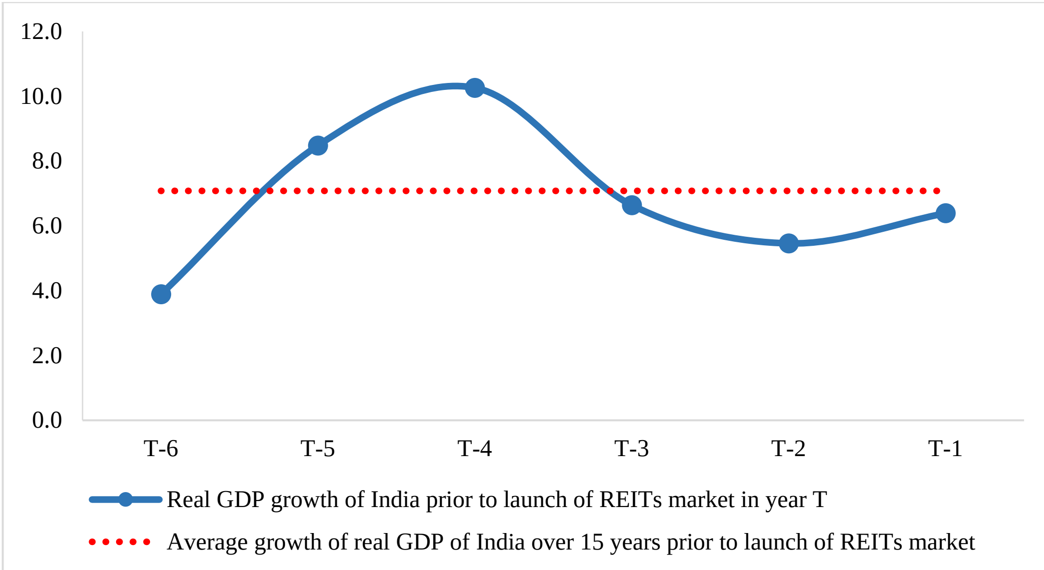

Figure 33：GDP Growth before REITs are Launched in India

Source: CEIC

Historical experience shows that the economic development of countries and regions is an important consideration for policymakers to decide whether to introduce REITs. Therefore, the timing of the launch of REITs is often closely related to the economic development of various countries and regions. When a country's economy is in a downturn, facing an economic crisis or need new kinetic energy to support sustainable growth, the country often has a strong incentive to introduce REITs, to help the country to recover from the crisis and improve economic development.

The timing of countries launching REITs is not only related to the economic cycle but also related to the industry cycle. I used real growth of the housing price as an indicator to reflect the status of the real estate market. The development of the real estate market in 18 countries and regions in the 6 years before the introduction of REITs is shown in the following figures. Among them, only four countries including France, Japan, Belgium, and Thailand have launched REITs in the period of rising house prices, and other countries and regions have introduced REITs regulations during the period of downturn or decline of the real estate industry. The reason is that as house price growth slows down, investors gradually revert to rationality. At this stage, the impetuous attitude of investors has been precipitated, and it is easier to accept the core concepts conveyed by REITs: owned the underlying properties for the long term, and earned stable rental income. Therefore, the downturn in the traditional housing industry is the time window for the development of public REITs.

Figure 34：Growth Rate of Housing Price before REITs are Launched in the US

Source: CEIC

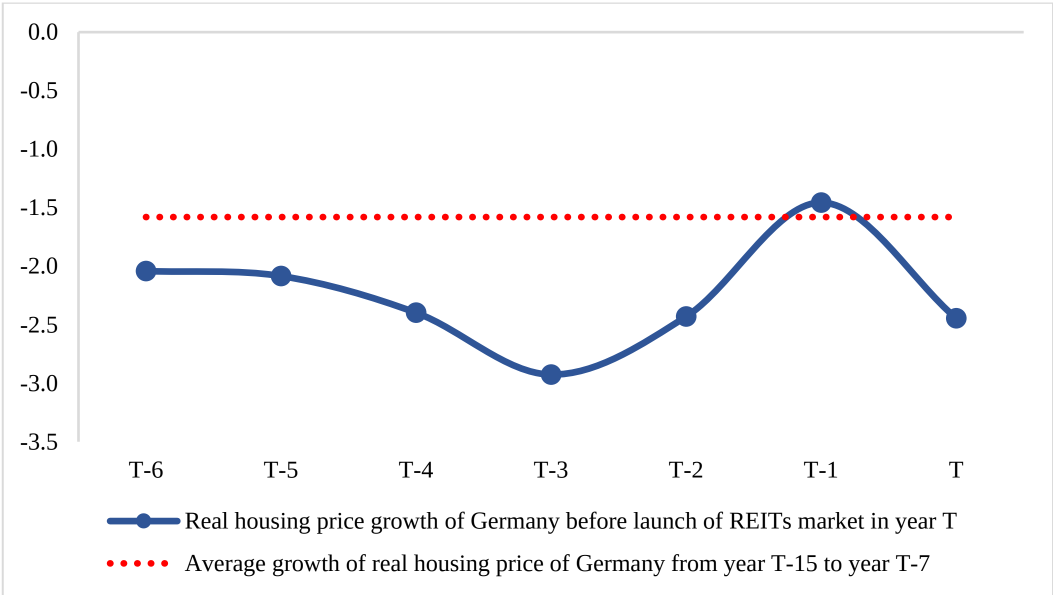

Figure 35：Growth Rate of Housing Price before REITs are Launched in Germany

Source: CEIC

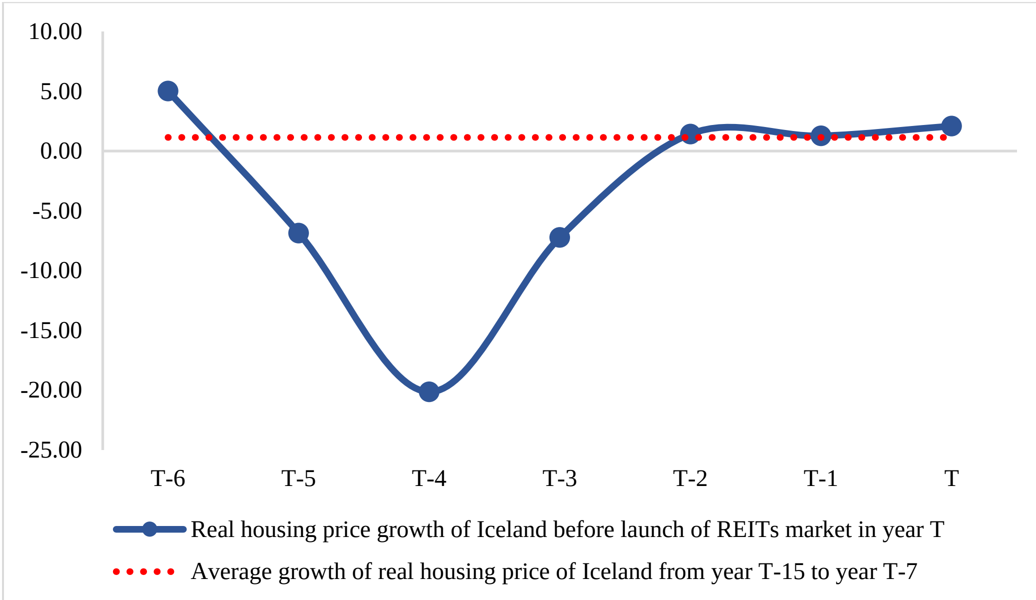

Figure 36：Growth Rate of Housing Price before REITs are Launched in Iceland

Source: CEIC

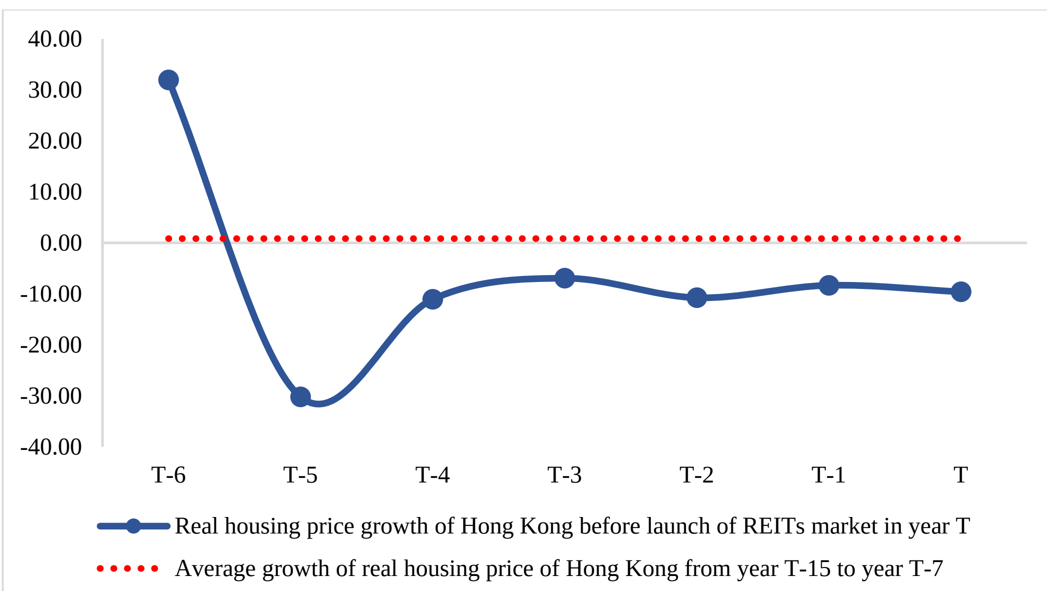

Figure 37：Growth Rate of Housing Price before REITs are Launched in Hong Kong SAR

Source: CEIC

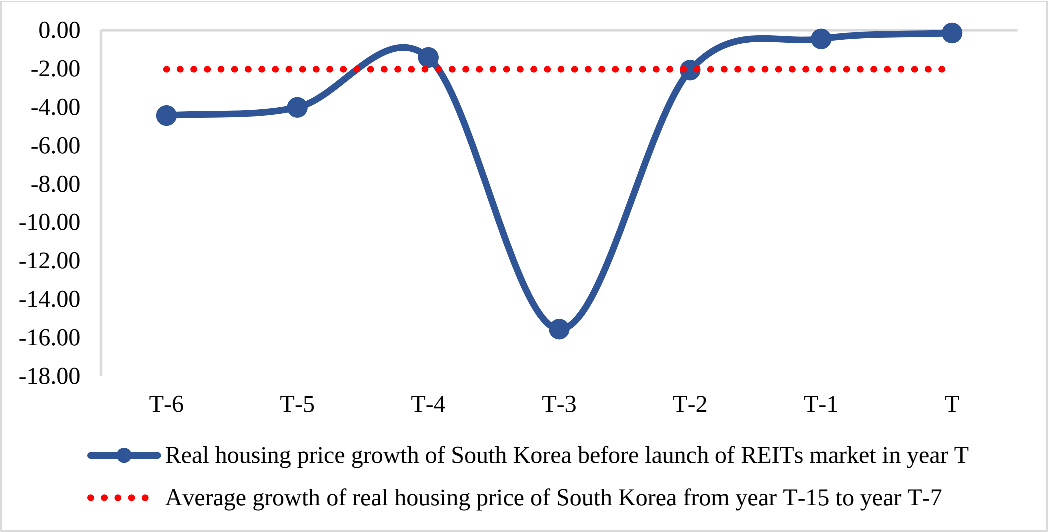

Figure 38：Growth Rate of Housing Price before REITs are Launched in South Korea

Source: CEIC

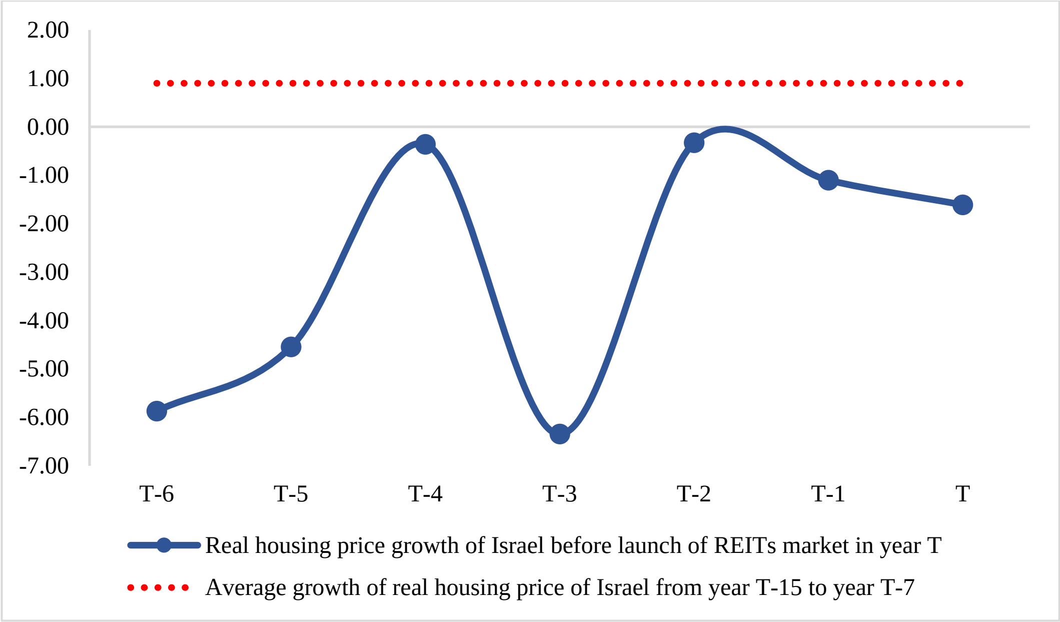

Figure 39：Growth Rate of Housing Price before REITs are Launched in Israel

Source: CEIC

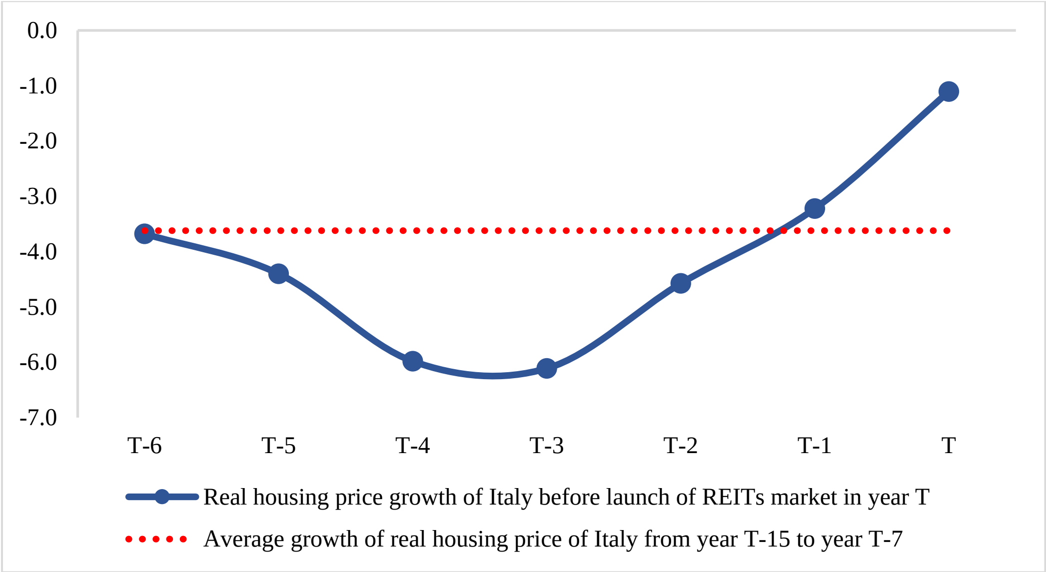

Figure 40：Growth Rate of Housing Price before REITs are Launched in Italy

Source: CEIC

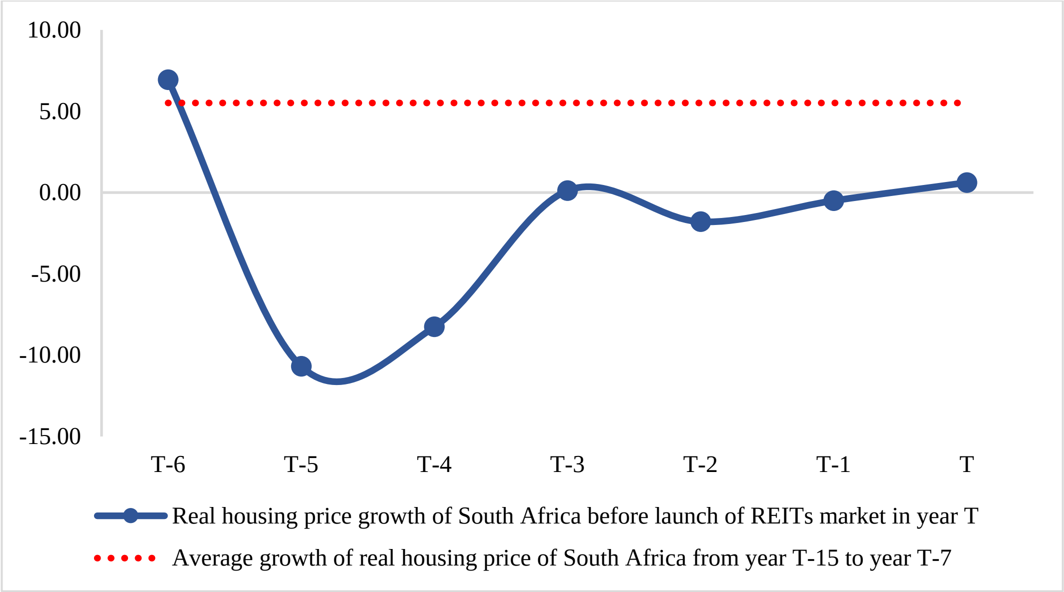

Figure 41：Growth Rate of Housing Price before REITs are Launched in South Africa

Source: CEIC

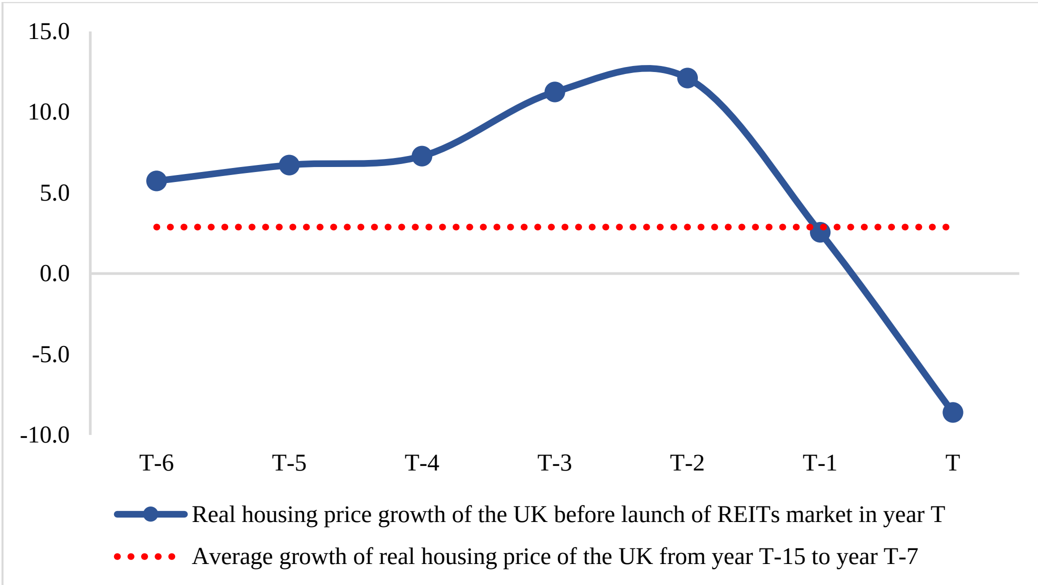

Figure 42：Growth Rate of Housing Price before REITs are Launched in the UK

Source: CEIC

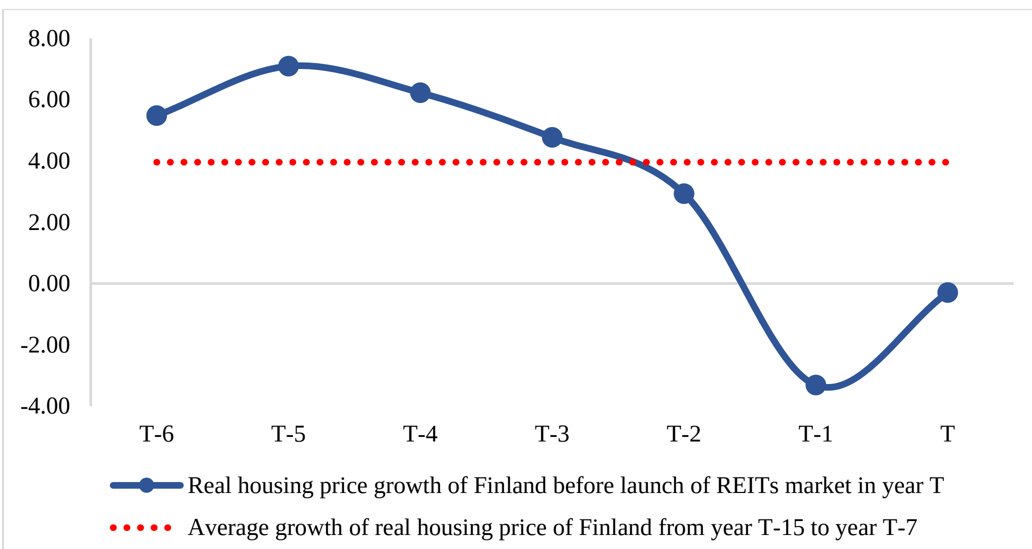

Figure 43：Growth Rate of Housing Price before REITs are Launched in Finland

Source: CEIC

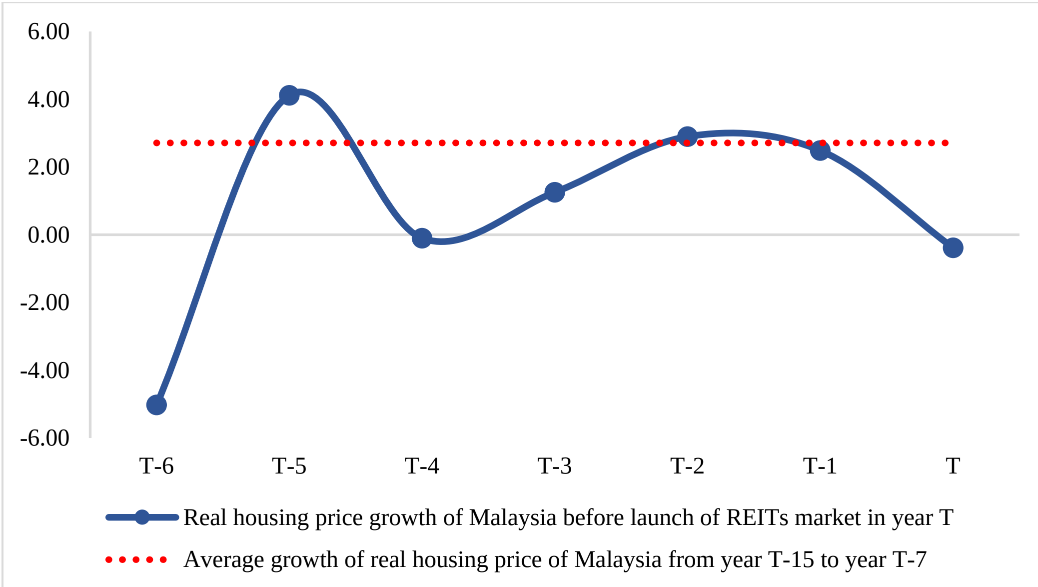

Figure 44：Growth Rate of Housing Price before REITs are Launched in Malaysia

Source: CEIC

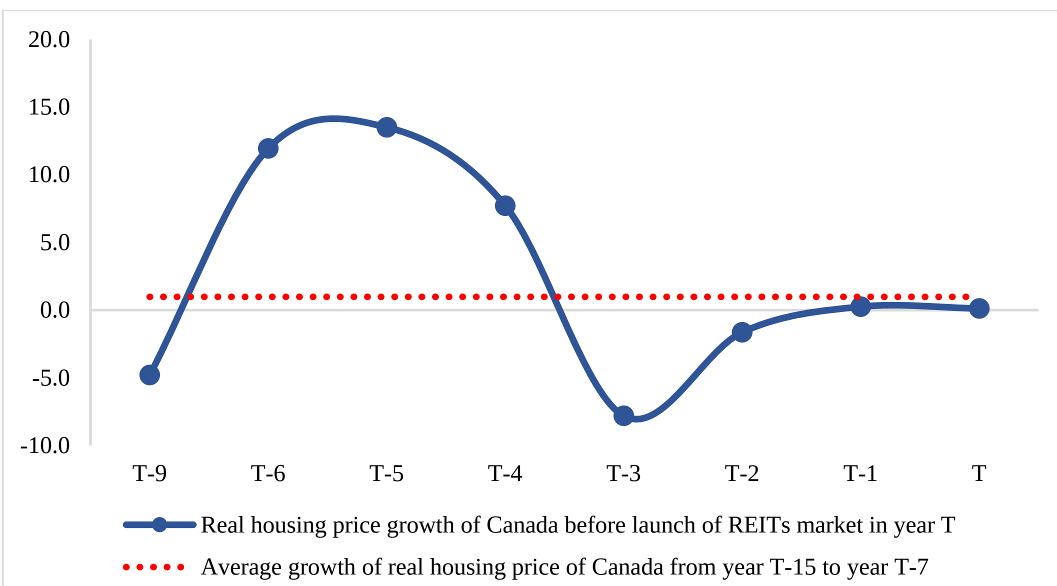

Figure 45：Growth Rate of Housing Price before REITs are Launched in Canada

Source: CEIC

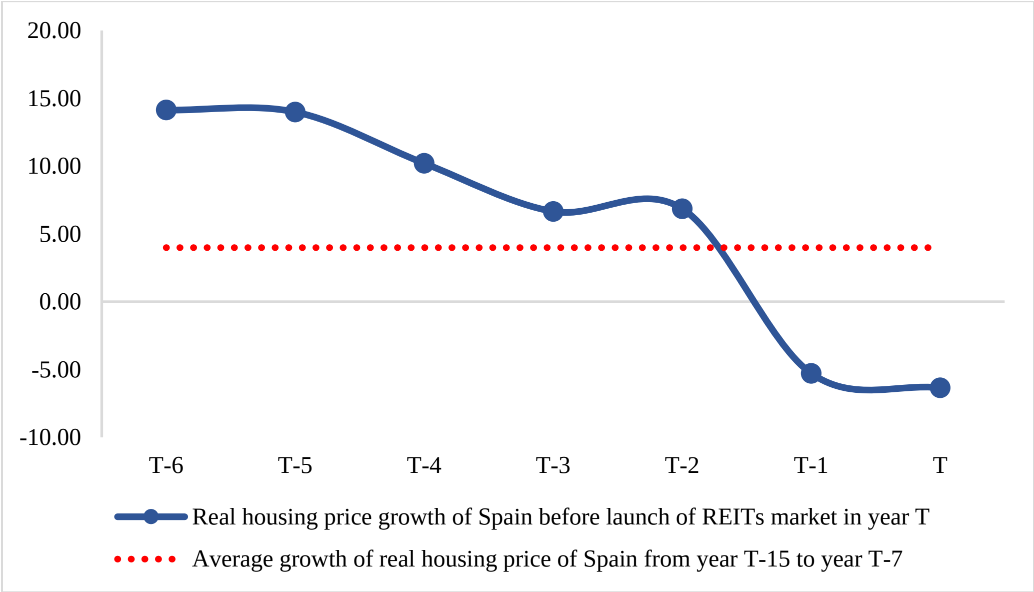

Figure 46：Growth Rate of Housing Price before REITs are Launched in Spain

Source: CEIC

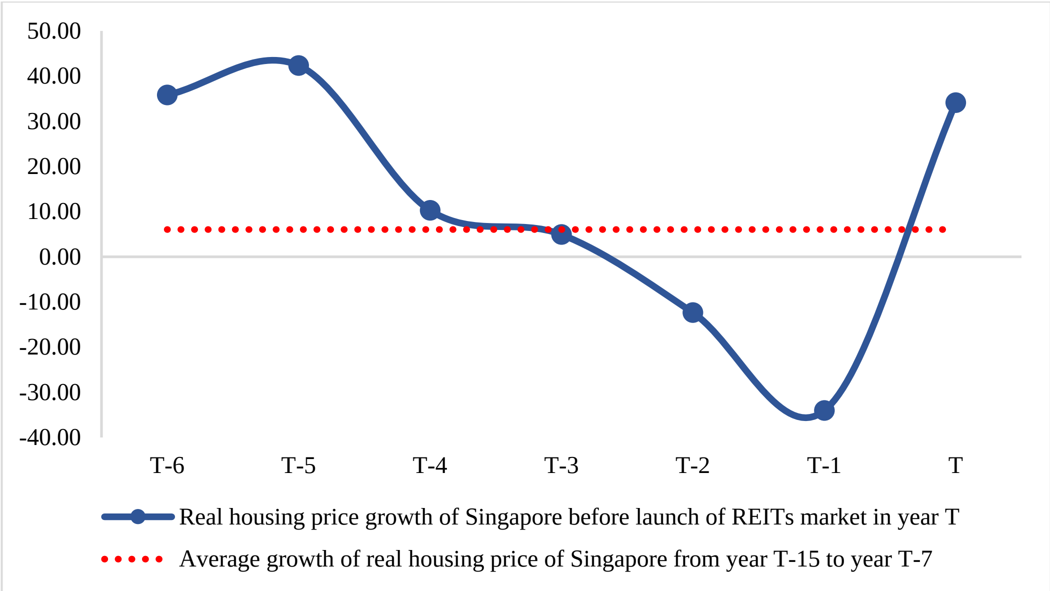

Figure 47：Growth Rate of Housing Price before REITs are Launched in Singapore

Source: CEIC

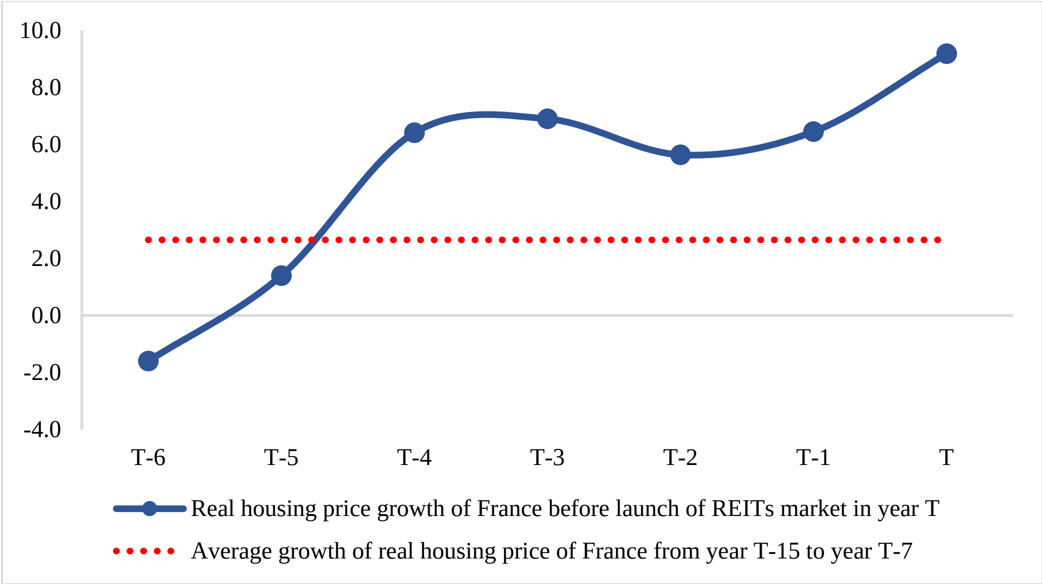

Figure 48：Growth Rate of Housing Price before REITs are Launched in France

Source: CEIC

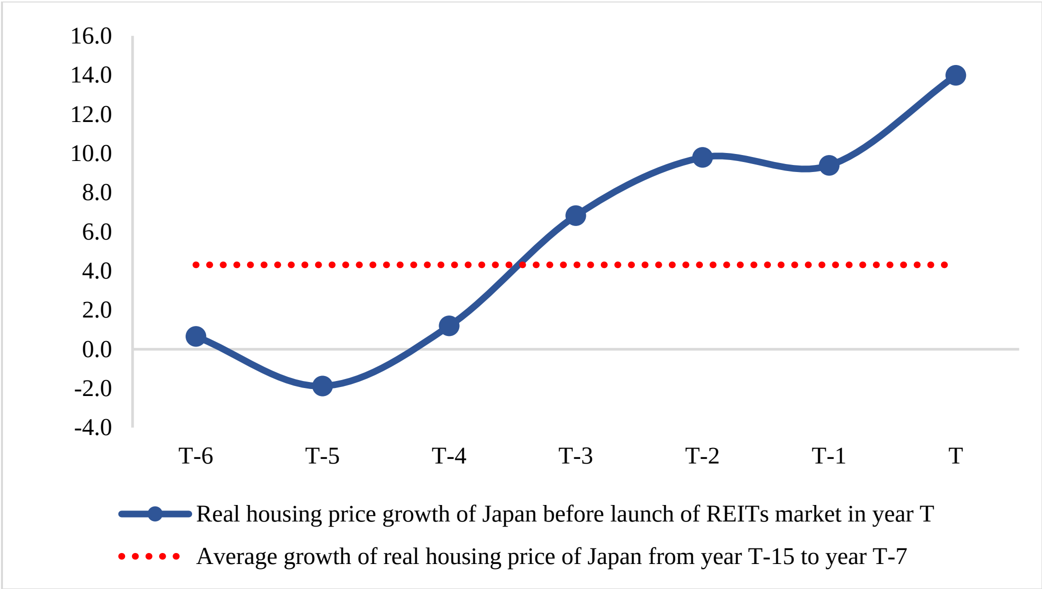

Figure 49：Growth Rate of Housing Price before REITs are Launched in Japan

Source: CEIC

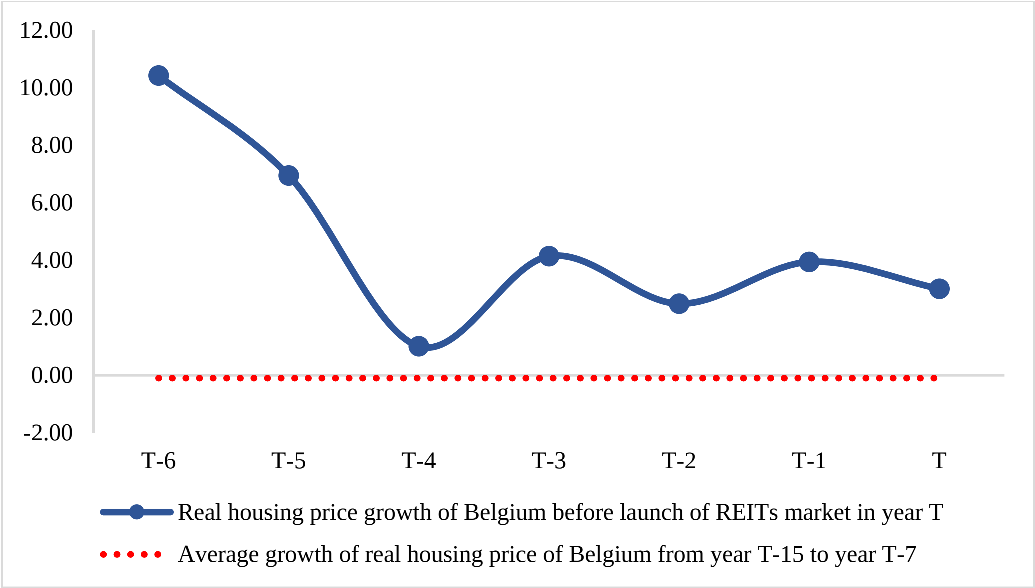

Figure 50：Growth Rate of Housing Price before REITs are Launched in Belgium

Source: CEIC

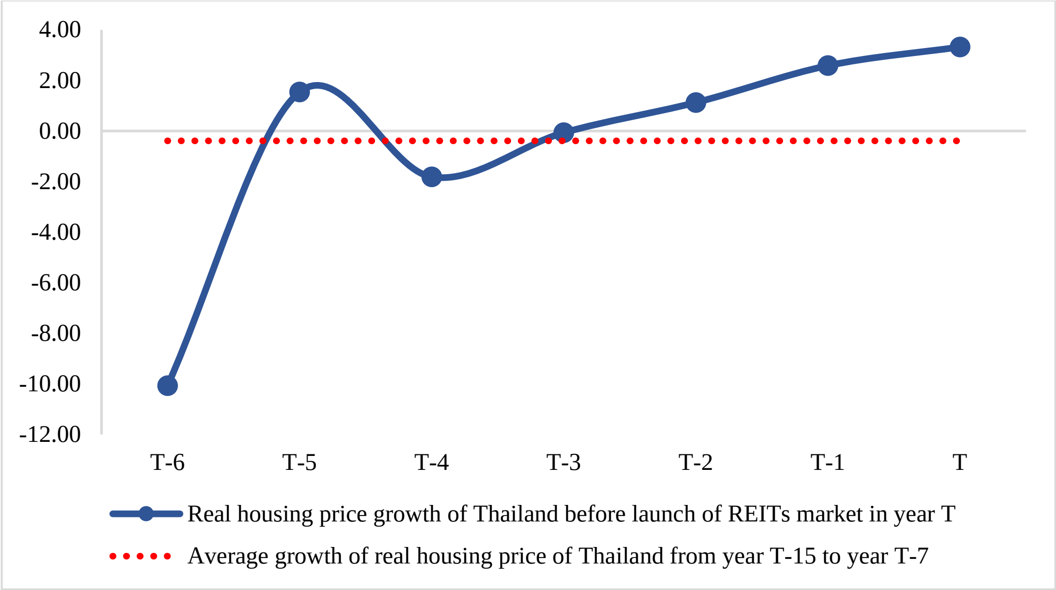

Figure 51：Growth Rate of Housing Price before REITs are Launched in Thailand

Source: CEIC

Referring to the experience when countries launched REITs, I believe it is the right time for China to launch public REITs. First of all, from the perspective of the macroeconomy, the supply-side reforms in China continue to be promoted, industry concentration is increasing, and the economic cycle is in the second half of the long-term downswing process. Secondly, at the industrial level, “diversification” and “transformation” are the most frequently mentioned keywords in the real estate market in recent years. The domestic real estate industry is shifting from a “develop-to-sale” model that relies on a high turnover rate and use of debt to a “hold-and-operate” model that focuses on the efficiency of operation. Compared with residential development, the business logic of operating commercial properties is very different. The completion of developing a commercial property is not the end, but the beginning of the business. Continuous management, transformation, and upgrading are the most important ingredients of success and require the persistent endeavor of a large number of professionals with rich experience.

4.4 Summary

Learning from international experience, I find that the development of the REITs market is more driven by market demand. Previous experience shows that, only when the real estate market entered a downturn, do most countries start to develop the REITs market. Because, during a market downturn, revised property prices and reasonable investment returns tend to stimulate demand for real estate investments including REITs. Therefore, we believe that China's public REITs market will develop on the premise that the domestic real estate market has experienced a sharp correction in price and that return on investment has met investors' expectations.

5. Institutions

The successful launch of REITs requires strong support from policymakers in three dimensions: legal system, taxation, and trading mechanisms. The state's development of relevant laws and regulations is a prerequisite for the launch of a new type of financial product, such as REITs. The successful operation of REITs relies on a well-designed tax system that avoids double taxation. The REITs market will benefit from a well-designed trading system that provides an effective path for small and medium investors to participate in real estate investment.

5.1 Policy Environment

Over the past decade or so, various ministries and commissions of the Chinese government have proposed a series of related policies that demonstrate China's determination to develop the REITs market. In January 2004, the State Council issued the "Several Opinions of the State Council on Promoting the Reform, Opening, and Stable Development of the Capital Market" and encourage market players to explore the asset securitization business. In December 2008, the "Opinions of the General Office of the State Council on How Financial System Promotes Economic Development" proposed to carry out pilot projects for real estate trust investment funds and broaden the financing channels for real estate enterprises. In January 2009, the China Banking Regulatory Commission issued the "Notice on the Current Adjustment of Credit Supervision Policies to Promote Sound Economic Development", and actively promoted trust companies to carry out innovations in direct-financing businesses such as real estate trust investment funds and asset-backed trusts. In April 2009, the central bank joined the China Banking Regulatory Commission, the China Securities Regulatory Commission and other departments to establish the “REITs Pilot Management Coordination Group” and in November to formulate the “Management Guidelines for the Issuance of Real Estate Trusts in the Inter-bank Bond Market”. The development of the REITs market in China entered a stage of substantive advancement. In May 2014, the “Several Opinions of the State Council on Further Promoting the Healthy Development of the Capital Market” proposed to promote the development of eligible asset securitization. In September 2014, the People's Bank of China and the China Banking Regulatory Commission jointly issued the “Notice on Further Improving Housing Financial Services”, and steadily carried out pilot projects on real estate investment trusts (REITs).

Although China has made certain useful explorations on the road of developing REITs, it has not yet completed legislation for REITs. International trust-type REITs are similar to the current form of collective fund trusts in China. The Collective Trust applies to the “Administrative Guidelines for Collective Trust Scheme” promulgated in 2007, but this bill does not break through the positioning of collective trusts as private equity tools. First of all, the “number of individual investors in a single trust cannot exceed 50, the number of qualified institutional investors is not limited”, and the concept of “qualified investors” is proposed. There are restrictions on the maximum number of individual investors that could participate in and each of individual investors have to make a minimum amount of investment, which leads to the threshold of REITs being too high to be a public investment product. The bill also stipulates that when a trust is set up, it cannot be publicly marketed by a non-financial institution. This regulation increases the transfer cost of the trust units, hinders its circulation, and increases the liquidity risk for investors. If you want to set up company-type REITs, you need to meet the relevant regulations of China's Securities Law, and China's Securities Law has high requirements for stock listing and trading. According to this requirement, company-type REITs can only be listed after three years of establishment, and the transactions of shares are also highly regulated, which will hinder the development of the REITs market.

In contrast, countries and regions with better development of REITs market, such as the United States, Japan, Singapore, and Hong Kong, have adopted legislation as a prerequisite for the development of the markets. The key to REITs legislation is to protect the legitimate rights and interests of investors and to provide a moderate regulatory environment for the development of REITs according to the characteristics of different historical periods.

5.1.1 Review: US REITs Legislative Development

The development of the US REITs has gone through the following five phases: the initial phase (1960-1973), the recession phase (1974-1975), the adjustment phase (1976-1985), the recovery phase (1986-1990), and modern phase (1991 to present).

In 1960, the US Congress enacted the 1960 Domestic Tax Code, which officially allowed the establishment of REITs. Initially, US law allowed only the establishment of equity REITs, and REITs were not allowed to manage and operate real estate themselves, and other forms of organization (such as limited liability partnerships) were more tax-efficient than REITs, so by 1967, there were only 38 equity REITs. In 1967, the US government began to allow the establishment of mortgage REITs, which led to a nearly 20-fold increase in REITs assets from 1968 to 1973. The assets of mortgage-REITs exceeded 50%, mainly in construction loans.

The key idea of the 1960 Domestic Tax Code (the Code) is to provide the public with a “passive” real estate investment vehicle. The Code requires REITs to generate passive income from real estate investments rather than actively participating in real estate business operations. Also, any REIT that engages in active business operations should continue to pay corporate taxes. Thus, Congress requires REITs to be subject to strict organizational and operational principles to ensure that REITs are a passive entity: on the one hand, a REIT is not actively managed by the shareholders who set up the REIT (the purpose of which is simply to evade double taxation); on the other hand, it prevents active real estate operating companies from making full use of these special tax incentives to protect small investors of REITs from the risks of active business activities.

From 1974 to 1975, the US economy experienced a recession. As interest rates rise, the financing cost of REITs and bad debt ratio also rises. The average debt ratio of REITs has exceeded 70%. The market capitalization of REITs dropped from $20 billion in 1974 to $12 billion in 1975.

The sharp decline in the REITs market is determined by the economic environment and operating characteristics of REITs. The US real estate market experienced a period of prosperity after the war. Due to the serious shortage of domestic housing supply during the Second World War, the national housing needs could not be effectively met. After the end of World War II, the supply of housing expanded rapidly. When the real estate market enters a rising period, REITs continue to increase their leverage to earn higher profits. However, with the end of the US real estate market boom in 1975, interest rates began to rise, and the financing costs of REITs continued to rise, eventually leading to the failure of REITs to cover their financing costs, and many REITs went bankrupt.

After the recession of REITs, the US government realized that there are many problems in the REITs market, such as the high leverage ratio in the industry, low efficiency of investment decisions, conflicts of interest between the stakeholders of REITs and investment advisors, and restrictions on the transactions of REITs assets that limit the ability of REITs to diversify their portfolios.

Faced with a series of issues, the US Congress passed the 1976 Tax Reform Act, which significantly adjusted the tax provisions applicable to REITs. Major adjustments include increasing dividend payout ratio from 90% of income to 95% and allowing REITs to hold properties for resale purposes. The 1976 Tax Reform Act changes the tax provisions affecting REITs to effectively reduce the risks associated with the entire securities market. Also, the REITs industry is aware of the problems associated with its excessive lending and excessive use of financial leverage.

The 1976 Tax Reform Act has not been effective in boosting the US REITs market for two reasons. First, the laws of the early period prohibit REITs from actively managing or operating their properties. At the time, the law required that REITs managers must be third parties. Hence, there is a large conflict of interests between managers and stakeholders of REITs, which seriously affects the effective investment decisions of REITs. Second, the US government fails to position REITs clearly, and other real estate investment vehicles have greater tax advantages than REITs. For example, RELPs can not only provide investors with taxation benefits but also transfer losses of the entities to investors, so that the investors could pay less income tax. Another example is that MLPs are similar to REITs in investment concepts, but they could offer the investors more tax benefits as traditional limited partnership companies. At that time, the law granted tax benefits to the investors of RELPs and MLPs, which greatly reduced the attractiveness of REITs.

The US Congress passed the Tax Reform Act in 1986 (the Act), enabled the main body of REITs to have more operational autonomy, and greatly improved the efficiency of REITs' business decision-making. First, the rules for independent contractors have been revised to increase the flexibility of REITs management, allowing REITs to offer certain general services to tenants without the use of independent contractors. Second, the Act allowed REITs to make larger investment decisions through internal rather than external experts, allowing REITs to be actively managed internally. Third, it effectively cuts the tax benefits enjoyed by most RELPs and MLPs. The RELPs and MLPs are not allowed to use the loss from passive investments to offset the taxable income from the active operation. Fourth, the Act also allows those properties that are not eligible for real estate tax benefits to enjoy tax benefits after a one-year investment by REITs.

In 1991, Kimco Realty Corporation’s IPO marks the arrival of the "modern REITs era." The Taxpayer Relief Act of 1997 and the REIT Modernization Act, enacted in 1999 and came into effect in 2001, enabled the full development of the U.S. Real Estate Investment Trust.

From 1960 to 1976, REITs are required to distribute at least 90% of its taxable income as dividends to be eligible for tax benefits. In 1976, to make REITs adapt to the market environment during the recession, the US Congress increased the required ratio of income distribution to 95% through the 1976 Tax Reform Act. More than two decades later, with the recovery and development of the US economy, the excessive allocation of income and the small percentage of retention failed to support the rapid development of REITs. To offer REITs more flexibility to dispose of their profits, the REIT Modernization Act decreased the required ratio of income distribution from 95% to 90%.

The Tax Reform Act of 1986 imposes a series of strict restrictions on the scope of business of taxable REIT subsidiaries, including a taxable REIT subsidiary may not provide "irregular services" to a tenant of its REIT, and REIT could only provide real estate-related services to third parties through taxable subsidiaries. For example, a REIT manages long-rent apartment assets and is a major shareholder of an excellent property company. Under the then regulations, REIT-controlled property companies were unable to provide services to their long-term rental apartments. In the long run, these regulations are not beneficial for REIT to improve the quality of service. The REIT Modernization Act has made significant improvements to allow taxable subsidiaries to provide both conventional services and unconventional services to tenants of their REITs, but not to offer concession services such as hotels and health care. The REIT Modernization Act gives REITs more operational flexibility and promotes division of labor and cooperation among organizations within REIT to create synergies.

5.1.2 Review: Hong Kong REITs Legislative Development

With the launch of REITs in Japan, Singapore, South Korea, and other Asian markets, the Securities and Futures Commission (SFC) of Hong Kong planned to launch REITs in the Hong Kong market. To this end, SFC has studied the development of REITs in overseas markets in detail and has drawn up the Code on Real Estate Investment Trusts (the "Code"). First of all, the "Code" stipulates the organizational form of the Hong Kong version of REITs. All REITs must be organized as trusts to ensure that the assets in the relevant funds can be separated. Secondly, the "Code" clearly defines the responsibilities and qualifications of REITs management companies, trustees and valuers. Also, the "Code" makes corresponding provisions on the investment scope of REITs, corporate governance mechanisms, information disclosure of listing arrangements, and specific content of financial reports.

The SFC released the draft code to the public in July 2003 and sought extensive comments. Based on public opinion, the Hong Kong Securities and Futures Commission finalized the details of the code. Regarding the management model, the SFC allows fund companies to choose to manage REITs internally or externally according to their investment objectives and constraints. The SFC believes that the management team of newly established REITs may be composed of senior experts and therefore possess strong professional capabilities. Therefore, the SFC decided to set a flexible framework of management for REITs to improve their operational efficiency. In terms of investments, the SFC allows REITs to invest in real estate projects through owned special purpose companies ("SPVs"). Therefore, REITs can trade properties by trading the equity of SPVs.

On the contrary, the SFC has imposed strict restrictions on the scope of investment of REITs. For example, the code states that REITs are forbidden to invest more than 10% of their net assets in vacant or large-scale development properties. At the same time, the SFC prohibits REITs from investing in assets other than real estate and cash. Also, Hong Kong-listed REITs can only invest in Hong Kong's local real estate assets and cannot invest in overseas assets. During the early stages of the REITs market development, the SFC believes that market participants lacked the necessary experience to make sound decisions on investing overseas. Therefore, the SFC must ensure that the REITs are based on the local property market. Also, the SFC clarifies that these restrictions are not permanent. The SFC will closely monitor the development of the Hong Kong REITs market and set up a special group to review when it is appropriate to relax these restrictions.

As the Hong Kong REITs market has gradually matured, the SFC has gradually relaxed restrictions on the scope of investment of REITs. In 2005, the SFC relaxed restrictions on overseas investments for REITs and draft relevant guidelines. The guidelines require REITs management companies that invest in overseas properties must demonstrate enough experience and capabilities. In January 2014, the SFC relaxed restrictions on the participation of REITs in real estate development but stipulated that the total amount of investment in vacant or large-scale development, reconstruction or repair of buildings cannot exceed 10% of the total assets of REITs. Also, to encourage REITs to manage cash efficiently, the SFC allows REITs to invest in securities issued in Hong Kong or other recognized regions, but stipulating the value of single securities held by REITs must not exceed 5% of the total assets of REITs, and 75% of the total assets of REITs must be invested in real estate projects that generate rental income.

5.1.3 Comparison of policies in major REITs market

Based on a review of the history of REITs in the United States and Hong Kong, I can find some general logic behind the evolution of legislation. After the launch of REITs, the government still needs to revise the relevant legislation of REITs according to the economic environment and historical environment of each period, so that REITs can meet the needs of market participants in different periods. In general, the policy environment of REITs in various countries and regions has undergone a process of deregulations. In the early days of the market, the government's attitude was usually more cautious and more restrictive to market participants. After all parties in the market have accumulated enough professional knowledge and understood the general rules of the market, the government should gradually relax the supervision of the market and give REITs managers and investors more flexibility to promote the prosperity of the market.

Most of the early US REITs were structured as trusts that were externally managed. In 1976, the US government issued the REITs Simplification Amendment, allowing REITs to be established as a company based on existing commercial trusts. The US Tax Reform Act of 1986 enabled REITs not only to own real estate but also to manage real estate under certain conditions. Since then, corporate REITs that rely on internal management have gradually become the mainstream of the US market. The organizational structure of REITs in Hong Kong and Singapore adopted the trust-type model as the US REITs in the early era. In the table below, I compare the REITs regulations in the US, Singapore, and Hong Kong.

Table 8： Comparison of REITs in the United States, Singapore, and Hong Kong

Regions	**United States**	**Singapore**	**Hong Kong**
Codes	Internal Revenue Code / Real Estate Investment Trust Act; Modernization Act; REIT Improvement Act-1, Act-2	Companies Act; Business Trusts Act; SGX-ST Listing Rules; Property Fund Guidelines; Securities and Futures Act; Trustees Act	Code on Real Estate Investment Trusts; Securities and Futures Ordinance; Banking Ordinance;

Establishment	The organizational form of REITs can be a corporation trust or other organization. The number of shareholders should be more than 100, and the equity held by the top five shareholders should not exceed 50%. The manager of REITs is the board of directors or a fund custodian.	REITs must be structured as unit trusts or mutual funds. The minimum contribution of REITs is SG$20 million, at least 25% of which should be held by public unitholders and the minimum number of unitholders is 500. REITs are required to appoint trustees and managers when they are established and register under the name of laws and regulations. Managers need to have at least 5 years of operational experience.	REITs must be established as trust. A trustee approved by the SFC shall be appointed. The trustee shall be a banking institution or trust approved by the SFC.
Investment	REITs assets should have at least 75% of their assets like real estate, cash, cash equivalents, and government bonds. Debt financing instruments for securities or other publicly issued REITs may not exceed 25% of total assets. The securities of a sponsor held by the REIT must not exceed 5% of the assets of the REIT.	75% of REITs' assets must be invested in real estate projects that generate income; whether the investment is diversified or reasonable should be specified in the prospectus for listing. REITs must not engage in real estate development unless they plan to hold the property until the end of development. REITs are not allowed to invest in vacant land and issue mortgages. REITs can invest in real estate projects built on vacant land, but such investments must not exceed 10% of total assets. Singapore-listed REITs must not invest more than 30% of their total assets in private securities.	REITs must invest at least 75% of their assets in real estate projects that generate regular rental income. If REITs purchase vacant projects, unfinished projects that do not generate revenue or projects undergoing large-scale development, the cumulative value of these projects must not exceed 10% of the total net asset value of REITs.

Source of Revenue	95% of total income should be from real estate rental, mortgage interests, profits from transactions of other real estate rights, or dividends of stocks and bonds, or income from disposal of these stocks and bonds. At least 75% of the total income should be related to real estate.	Except for rental income. interests, dividend income, and other permitted investment income, other income may not exceed 10% of its total income.	Most of the income must be derived from the rental income of real estate projects.
Use of Debt	No restrictions	The maximum ratio of debt to the total assets shall not exceed 45%.	The total amount of borrowings must not exceed 45% of the total assets of the REITs.
Policies of Dividend	The distribution of dividends to the net income after tax is not less than 90%.	The distribution of dividends to the net income after tax is not less than 90%.	The distribution of dividends to the net income after tax is not less than 90%.

Through the above comparison, we found that the main REITs markets have certain commons in REITs regulations: First, the equity of REITs should not be too concentrated, and a sufficient proportion of the equity should be held by public investors. This provision is consistent with the original intention of the establishment of REITs, i.e., providing the public with investment tools to share the returns of the real estate market. Second, the REITs should focus on investing in real estate. Third, the income of REITs should be mainly derived from investment related to real estate, most of which comes from “passive income” such as rent and interests. Fourth, the use of debt by REITs is often regulated. Fifth, most of the net income of REITs should be distributed to investors as dividends.

Although the major REITs markets have a lot in common on the standards for recognizing REITs, regulators in different countries will make some special requirements according to the specific conditions of local markets. For example, as a city with very limited land resources, Singapore has strict regulations on the scope of business operations of REITs. Singapore's regulatory authorities require REITs not to engage in real estate development projects unless they plan to hold the real estate until the end of development; REITs are not allowed to invest in vacant land; REITs are prohibited from participating in speculation such as holding vacant land; REITs are not allowed to issue mortgages. The ability of REITs to finance real estate development is weakened. Under these regulations, the Singapore version of REITs is more focused on providing long-term equity financing for operating real estate properties. As a city with limited land resources, Hong Kong has a clear constraint on the types of investment assets of REITs to prevent REITs from participating in real estate speculation. Hong Kong regulators require REITs to accumulate no more than 10% of the total net asset of REITs if they purchase vacant projects, projects with no rental income, or projects undergoing large-scale development. At present, the speculation of Chinese investors in the real estate market is severe, which leads to the deviation of residential prices from rational levels. Many market participants are worried that the launch of the Chinese version of REITs will aggravate this trend. I believe that China can learn from the regulatory experience of Hong Kong and Singapore and make reasonable restrictions on the scope of business of Chinese versions of REITs. As long as the supervision is in place, the launch of the Chinese version of REITs will not hinder the regulation of the residential market.

5.2 System of Taxation

The 19th National Congress of the Communist Party pointed out that "the insistence that the house is used for living, not for speculation, speeding up the establishment of multi-channel housing supply, meeting people’s residential needs." The China Securities Regulatory Commission and the Ministry of Housing and Urban-Rural Development issued the Notice on Promoting the Securitization of Rental Housing Properties to support the development of specialized housing leasing enterprises and encourage the issuance of assets backed securitization products based on rental apartments. At present, companies with rental apartments are facing substantial financial and business pressure, and they look forward to the introduction of REITs tax incentives.

The core reason for the rapid development of foreign REITs is tax incentives. On the one hand, the dividend that REITs allocated to investors is exempted from corporate income tax. Hence, it solves the problem of double taxation. On the other hand, REITs can pay low taxes when they set up. In China, real estate operators are not only subject to corporate income tax, but also have to pay high property tax. When the company is set up, it has to pay VAT, land value increment tax, deed tax, corporate income tax, and so on. The tax burden has severely affected the enthusiasm of enterprises and investors and increased the cost of real estate transactions and operations

Table 9：Taxes on Property Transfer and Operation in Main Countries

		Tax on property transfer						Tax on operation		
		VAT	**Additional tax**	**Stamp tax**	**land value increment tax**	**Enterprise income tax**	**Deed tax**	**Property tax**	**VAT**	**Enterprise income tax**
China	Tax base	Value-added from the sale of real estate	VAT paid	Amounts recorded on documents of transfer of property title	Real estate transfer income - deductions	Profit before tax	The price of transferring real estate	70%-90% Property original value / rent	Value added by the sale of goods or services	Profit before tax
	Tax rate	Simple taxation：5%	Urban maintenance and construction tax：1%/5%/7% Education supplementary tax：3% Local education supplementary tax：2%	0.5‰（parties to the transaction）	30-60% progressive tax rate	25%	3%-5%（Transferee）	1.2%/12%	Modern service industry, life service industry：6%	25%
		General taxation：9%				Exemption from dividends among resident companies			Real estate leasing, sales of real estate：9%	Exemption from dividends among resident companies
	REITs			-	-	-	-	-	-	-
Hong Kong	Tax base			Trading price		Capital gains				Profit before tax
	Tax rate			Purchase equity：0.2%		17%				16.50%
				Purchase property：3.75%						
	REITs			-		Yes				Exempt
Singapore	Tax base			Trading price		Capital gains				Profit before tax
	Tax rate			3.00%		18%				18.00%
	REITs			Exempt		Exempt				Profit as a dividend can be exempted
United States	Tax base	Trading price				Capital gains		Asset valuation		Profit before tax
	Tax rate	Depends on states：0.01-2%				15-30%		1-3%		15%-33%

	REITs	-				Exemption from dividends		-		Rental income as dividends can be exempted

I use a simplified case to illustrate the tax that may occur during the establishment and operation of REITs. When selecting relevant parameters, I referred to a logistics warehousing project held by a large real estate developer in China. Assume that the original construction cost of the project is 3 billion CNY, the transaction price is 4 billion CNY, the annual rental income is 325 million CNY, and the operating expenses (excluding tax) account for 20% of the rental income. The project uses a straight-line depreciation method with a depreciation period of 40 years. In the process of setting up the REIT, the taxes and fees to be paid are as shown in the table, and the taxes and fees to be paid account for about 17% of the transfer price.

Transaction process	**Taxable person**	**Taxable behavior**	**Type of tax**	**Tax calculation**	**Tax payable （100 million）**	**The ratio of tax to sale price**
The sponsor transfers the property to the SPV	Seller of property （Sponsor）	Sell properties	Land value increment tax	(40-30)*30%	3.00	7.50%
			VAT	(40-30)*9%	0.90	2.25%
			Additional tax	0.9*12%	0.11	0.27%
			Stamp duty	40*0.05%	0.02	0.05%
			Corporate income tax	(40-30-3-0.108-0.02)*25%	1.72	4.30%
		Subtotal			**5.75**	**14.37%**
	Buyer of property	Buy property	Stamp duty	40*0.05%	0.02	0.05%

	（SPV）		Deed tax	40*3%	1.20	3.00%
		Subtotal			**1.22**	**3.05%**
The sponsor transfers equity of the SPV to REIT	Seller of equity （Sponsor）	Sell equity	Corporate income tax	(40-40)*25%	0.00	0.00%
			Stamp duty	40*0.05%	0.02	0.05%
		Subtotal			**0.02**	**0.05%**
	Buyer of equity （REIT）	Buy equity	Stamp duty	40*0.05%	0.02	0.05%
		Subtotal			**0.02**	**0.05%**
Total					**7.01**	**17.52%**

If the tax is included, the total cost of acquiring the property is about 4.7 billion CNY. In the daily operation process, the tax paid by institutional investors accounts for 43.4% of the annual rental income. Institutional investors receive an after-tax dividend income of about 180 million CNY per year, and the return on investment is about 3.9%.

Transaction process	**Taxable person**	**Taxable behavior**	**Type of tax**	**Calculate tax payable**	**Tax payable （100 billion）**	**The ratio of tax to the rental**
Operate the property	Project company	Rent the property	VAT (average）	(3.25*40-30)*9%/40	0.225	6.92%
		Rent the property	Additional tax	0.225*12%	0.027	0.83%
		Rent the property	Stamp duty	3.25*0.1%	0.003	0.10%
		Own the property	Property tax	3.25*12%	0.390	12.00%
		Rent the property	Corporate income tax	（3.25-0.027-0.003-0.390-40/40-3.25*20%)*25%	0.295	9.08%

		Subtotal			0.940	28.93%
Distribute dividend	Institutional investors	Receive dividend	Corporate income tax	（3.25*0.8-(0.94-0.225)）*25%	0.471	17.77%
Total					1.411	43.43%

Based on the current domestic tax environment, I propose the following suggestions to support the prosperity of REITs. First, in the asset divestment process, the sponsors divest the assets to the project company only to meet the requirements of the issuance of the asset management products, so I suggest an exemption for the VAT. Also, the project company should be exempted from the deed tax. The deed tax could be deferred to the third party when the property is transferred in the future. In the asset divestiture, to assure the property is isolated from bankruptcy risk of the sponsor, the sponsor needs to divest the property to an SPV. According to the current regulations, the sponsor needs to pay VAT on the sale of the property. The sponsor's divestiture action is not a typical production and operation activity, but to meet the formal requirements of the issuance of asset management products.

Secondly, securitization of assets held by real estate development enterprises, whether in the form of direct asset divestiture or through transfer and separation, is subject to high land value increment tax. I suggest that the real estate development enterprise (as the sponsor) that divest the assets to the project company should be exempted from the land value increment tax, or the tax could be deferred until the property is transferred to a third party. In the case of asset securitization, the assets need to be divested into the project company. The real estate developer needs to pay the land value-added tax according to the existing policies. Therefore, the land value-added tax is an additional burden and is recommended to be exempted according to the tax neutral principle.

Third, regarding the rental properties held by REITs, I suggest that the property tax should be exempt.

Fourth, I suggest that the institutional investors should be exempt from corporate income tax, regarding the proceeds they received from investing in REITs.

The Corporate Income Tax Law stipulates that dividends earned by a resident enterprise by investing directly in other resident enterprises are exempt from corporate income tax.

Although institutional investors purchase REITs instead of directly investing in resident enterprises, essentially they invest in the equity of project companies through owning the equity of REITs. The institutional investors have a claim to the after-tax income of the project company. Hence, I suggest that REITs should be regarded as a transparent entity under the principle of substantive taxation. The government should exempt institutional investors from paying corporate income tax on the income from investing in REITs.

Suppose that the above suggestions are adopted, the return on investment of REITs will increase significantly. Excluding the price appreciation of the project, the return on investment earned by institutional investors will rise from 3.9% to 6.2%.

5.3 Financing Tools

Whether domestic REITs can grow and develop depends on the availability of financing tools that eases the financing procedure for REITs. At the beginning of the establishment of REITs, there are usually no credit records for the new entities, and it is difficult to finance through traditional channels such as bank loans. Thus, it is necessary to develop financing tools that are independent of the credit records of sponsors. CMBS does not rely on credit records of sponsors. Instead, it emphasizes the importance of asset quality and will become an ideal financing tool for REITs. At the same time, as a direct financing tool, CMBS can reduce the financing costs of REITs, thereby decreasing the valuation pressure on REITs. Concerning the mature experience of overseas developed markets, REITs have become the main sponsors of CMBS.

Table 10： CMBS Issuance in the US since 2010

Institutes	**Issued CMBS (100 billion USD)**
GGP (Mall REIT)	106

Blackstone	78
Simon (Mall REIT)	58
Vornado (Office REIT）	49
Macerich (Mall REIT)	29
SL Green (Office REIT)	27
Paulson (Hedge Fund）	26
ADIA (Sovereign fund）	24
Starwood (PE）	23
Centerbridge (PE）	21

Source：Go High Capital

5.4 Human Capital

Most of the funds of US REITs come from institutional investors, and only institutional investors can guarantee a stable market demand side. Cultivating mature market participants is the driving force behind the development of REITs. Among the investors in China's real estate trusts, institutional investors only account for a small proportion. The country is gradually liberalizing the investment scope of the national social security fund and insurance funds, but still does not allow funds to flow to the real estate industry. Compared with individual investors, institutional investors are well-informed, highly specialized, and should be able to provide a stable source of funding for REITs. Thus, the absence of institutional investors in China's market is very unfavorable for the development of REITs.

From the lessons of the developed markets, fund managers, accountants, lawyers, real estate brokers, real estate consulting agencies, and real estate appraisers are all indispensable for the development of REITs. As a complex financial product, REITs require the market players to have various categories of knowledge to succeed, including real estate, finance, and law. There are few composite talents with cross-disciplinary professional skills in China. Many fund managers are unfamiliar with the relevant regulations and are not sure about the direction of the real estate market, so they are likely to make mistakes in the decision-making process. Besides, operations of real estate agents are highly unregulated, and there are often violations of laws and regulations, which will also harm the stable development of REITs. Domestic insurance companies need to provide insurance services for REITs development projects. But in the first place, they need real estate appraisers and securities rating agencies to provide them with various investment services such as credit rating for REITs.

6. Discussion on the Future Development Model of Domestic REITs

6.1 Legal Obstacles to the Launch of REITs

According to the provisions of the Securities Law: "In the territory of the People's Republic of China, the Securities Law applies to the issuance and trade of shares, corporate bonds and other securities recognized by the State Council according to the law", "No institutions or individuals are allowed to issue securities publicly without legal approval". "Under the current legal system, asset-backed special plans, REITs or Quasi-REITs have not been included in the securities category. Therefore, the Securities Law does not apply to such products, and the listing of REITs lacks a legal basis".

If China chooses to structure REITs as corporates, it may lead to double taxation of REITs at the SPV and investor level. If China chooses to form the REITs as public funds, the public funds must be allowed to invest in equity of private project companies that operate properties. However, "equity of unlisted companies" does not belong to "shares, bonds, other securities and derivatives prescribed by the securities regulatory authority under the State Council" that could be investment targets for public funds, under the Securities Investment Fund Law.

If China plans to adopt a similar model of REITs as overseas markets, that is, the shares of REITs could be directly issued to more than 200 of any unspecified investors, and the REITs directly hold the target properties through an SPV, the current legal provisions need to be appropriately modified.

First, China needs to amend the current Securities Law to include Quasi-REITs and other REITs products in the scope of application of the Securities Law, and on this basis, formulate the issuance and listing rules for REITs.

Second, China needs to make a breakthrough in existing legal provisions and to incorporate REITs into the framework of existing publicly issued securities.

In the future, there are four modes to launch REITs in China - either create a new variety of security, structure REITs as corporates, structure REITs as public funds, or combine a public fund with an asset-backed special plan to form REITs. I will discuss in detail the legal constraints and feasibility of these four modes.

6.2 Creating a New Variety of Securities

According to the relevant provisions of the Securities Law, if China chooses to introduce REITs as a new variety of security, new laws and regulations must be introduced, or REITs products should be included in the applicable scope of the Securities Law.

At present, the underlying legal relationship of the asset-backed special plan model commonly used in the Chinese market belongs to the trust relationship. Under the existing legal system, trusts, private funds, and other asset management products could only be issued in private placements. Therefore, if China plans to introduce REITs as a new variety of securities, the country could consider allowing asset-backed special plans or other asset management products to be issued in a public offering.

Also, according to the provisions of the Securities Law: "The public issuance of securities must meet the conditions stipulated by laws and administrative regulations, and be reported to the securities regulatory authority under the State Council or other department authorized by the State Council for approval; without approval, any entity or individual is not allowed to issue securities in public offering". Therefore, the public issuance of REITs under this model must be reported to the CSRC for approval.

6.3 REITs Structured as Corporations

Under the existing legal system in China, public investors have a good knowledge of investing in stocks. They are familiar with the public securities that are issued by listed companies. If China refers to the model of the US REITs and determines the SPV of REITs as listed companies, the REITs in China will be issued to investors as the stocks of the listed companies.

Under the corporate model, REITs are companies that invest and operate specific real estate projects for business purposes. The shareholders of REITs are composed of a group of investors with a common investment philosophy. Corporate REITs are established by the sponsors by the "Company Law". REITs raise funds by issuing shares and is an economic entity with independent legal personality. Investors become shareholders of the company by purchasing shares in REITs, and the shareholders elect the board to take charge of the company's operations. The relationship between the investors and REITs is determined by the Company Law and the Articles of Association. The board of directors is the permanent management organization of REITs, responsible for the management of the company, such as formulating the company's investment strategy, investment objectives, and appointing managers. REITs can also hire a professional management company to manage the property held by the REITs as needed. REITs allocate the proceeds of the investment to investors in the form of dividends. At the current stage, the biggest challenge facing the launch of corporate REITs is double taxation. REITs can hold the property directly, or they could hold the properties indirectly by investing in the equity of the project company. However, REITs are subject to corporate income tax regardless of how the property is held. In summary, the feasibility of structuring REITs as listed companies mainly relies on whether the problem of double taxation could be solved.

6.4 REITs Structured as Public Funds

According to the Securities Investment Fund Law, public funds belong to publicly issued securities under the current legal system. In the scenario that REITs are structured as public funds, the fund manager must establish a public fund and sells the units of the fund in the open market. The underlying assets of the units are the equity of the real estate project company held by the public fund.

Under the current legislative framework, "equity of unlisted companies" has not been categorized into the "shares, bonds, other securities, and derivatives prescribed by the securities regulatory authority under the State Council" as stipulated in the Securities Investment Fund Law. To structure REITs as public funds, it is necessary to modify the following regulations.

First, if China structures REITs as public funds in the future, the CSRC must prescribe that "equity of project companies that meet the prescribed conditions" belongs to "other securities and derivatives" that the public fund can invest in, or amend the Securities Investment Fund Law to allow public funds to invest in the equity of project companies.

Second, China needs to make appropriate amendments to the "Double Ten Limits" in the "Administrative Guidelines for the Operation of Public Securities Investment Funds" (the Guideline). The Guideline stipulates that "the fund manager that invests in securities, shall not reach following limits: one fund holds securities issued by one company, and its market value exceeds 10% of the net asset value of the fund; all funds managed by the same fund manager hold the security issued by a company that exceeds 10% of the total number of the security." This restriction mainly reflects the requirements of the CSRC for fund managers to diversify their investment portfolios to protect their investors. If China determines to launch REITs as public funds, the CSRC must revise the Guideline to stipulate that public funds that meet certain conditions can be exempt from the "Double Ten Limits" and allow a single public fund to invest in a single SPV or project company.

6.5 A Public Fund Combined with an Asset-backed Special Plan

6.5.1 Legislative Breakthrough

To adopt the REITs structure mentioned above, the government must make a significant modification to the current legislative system. Alternatively, the government could choose to combine a public fund with an asset-backed special plan to structure a public REIT. First, the plan manager will set up an asset-backed special plan, based on the equity of the project company. Then, the fund manager will launch a public fund to invest in the asset-backed special plan.

Because the investment target of the public fund is asset-backed securities, it belongs to the “other securities and derivative products prescribed by the securities regulatory authority under the State Council” as described in the Securities Investment Fund Law. Therefore, this transaction structure does not violate relevant regulations that stipulate the scope of investment of public funds.

Nevertheless, the transaction structure violates the "Double Ten Limits," so it needs further support from the CSRC. Since the public fund needs to invest in a single asset-backed special plan, it violates the “Double Ten Limits.” Thus, when the public funds registered with the CSRC, it needs to obtain special approval from the CSRC. For example, Penghua-Qianhai-Vanke REIT obtained special approval from the CSRC at the time of registration, allowing such the public fund to invest 50% of its funds in the equity of a specified, single unlisted company. Also, the public fund is allowed to invest 50% of the funds in “fixed-income assets (specifically: treasury bonds, financial bonds, corporate bonds, subordinated bonds, convertible bonds (including separate transactions convertible bonds), central bank bills, short financing bills, ultra-short financing bills, medium-term notes, asset-backed securities, securities repurchases, bank deposits), cash and other financial instruments that the CSRC allows the fund to invest in. The fund can invest in equity assets such as stocks and warrants."

Considering that the launch of REITs based on the structure of “public fund + asset-backed special plan” needs fewer modifications to the existent legal system, it is likely that the CSRC will choose this path. However, the transaction structure is still too complicated. Thus, the transaction cost is very high. As the market develops further, it is also possible for China to create a new variety of securities through the revision of the Securities Law, or develop contractual REITs, referring to the experience of Hong Kong and Singapore.

Structure of C-REITs（Proposed Plan）

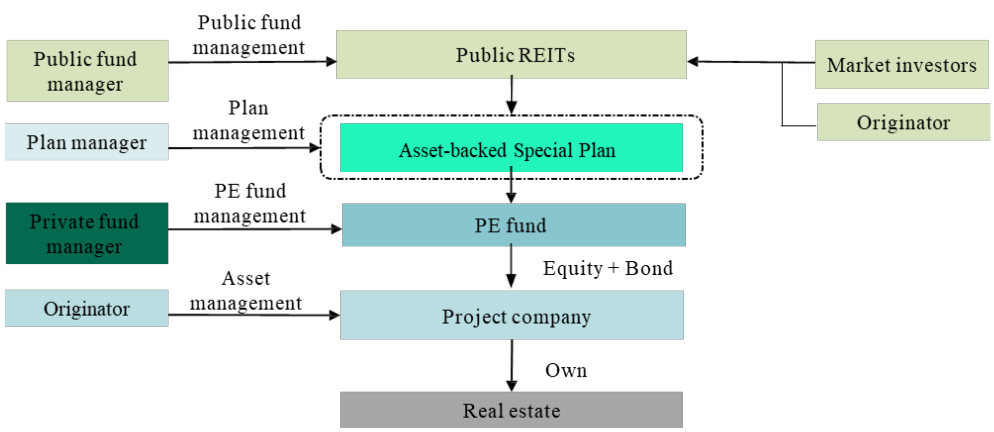

Figure 52：Structure of REITs in China (Proposed Plan)

6.5.2 Transaction Design

When designing the structure of a Quasi-REIT, the sponsor should pay attention to the following key points. First of all, the sponsor should effectively balance the interests of different investment entities. For the Quasi-REIT, the balance of interests between the investors of senior tranches and the investors of junior tranches must be realized; for the public funds, the balance of interests between the sponsor and investors must be realized. Second, the sponsor should weaken the role of the credit enhancement and emphasize the value of asset quality.

The dividend received by the investor is effectively covered by the income from properties operation. At the level of public funds, the sponsor and other investors share equal rights. When negotiating over the financing costs, the participants do not rely on the sponsor's previous credit records but account for properties performance, valuation, and risk management quality. In the process of designing Quasi-REITs, the sponsor must take effective ways to enhance the ability of the products to survive. Specifically, the sponsor should reasonably set the term of the Quasi-REITs to match the long horizon of REITs and broaden the exit mode to ensure the investors of senior tranches to exit smoothly and enhance the stability of the REITs.

When setting the terms of the Quasi-REIT, the sponsor should always keep in mind that the Quasi-REIT will be linked to a public fund in the future. Thus, the sponsor needs to make full preparation for the issuance of REITs when designing Quasi-REIT. First, the credit enhancement arrangements for Quasi-REITs should meet both current issuance requirements and future demand for Quasi-REITs to connect with public funds. In a REIT, the external equity investors and the sponsor share equal rights, so the sponsor should not continue to bear excessive obligations. Therefore, when designing the Quasi-REIT, the sponsor must assure that it can freely remove the credit enhancement arrangements when the Quasi-REIT is connected to a public fund.

Secondly, the sponsor should design the structure of tranches properly, so that the REIT could still use the leverage reasonably when it goes public. The senior tranches of the Quasi-REIT should be divided into at least two grades: A1 tranche accounts for about 40% of the total amount of finance, which should match the acceptable leverage ratio of the future REIT. After the credit enhancement arrangement of Quasi-REIT is removed, the public fund only acquires the A2 tranche.

The connection between quasi-REITs and public REITs

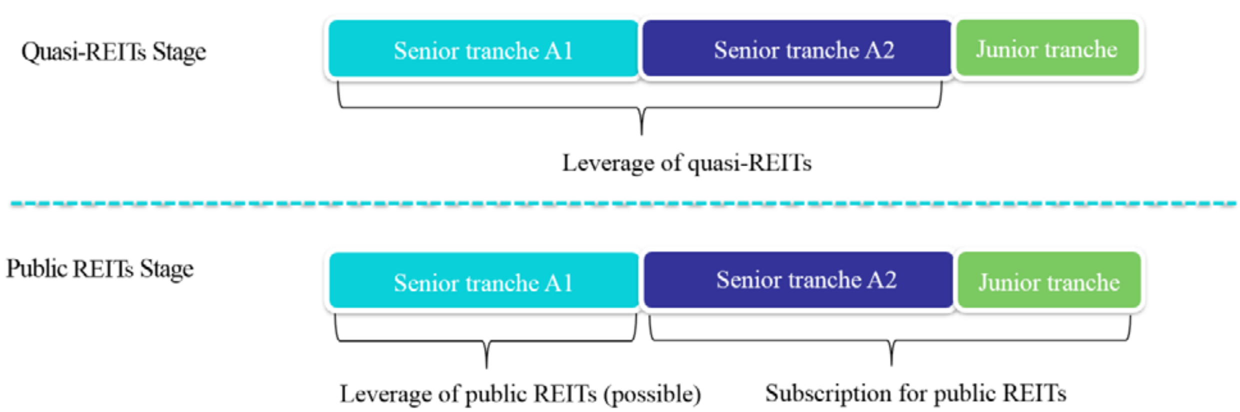

Figure 53：Connection between quasi-REITs and public REITs

The rational use of leverage is essential for the prosperity of the REITs market. International experience shows that when a country relaxes the restrictions on the use of leverage by REITs, it often promotes the growth of the REITs market, e.g., Singapore and Hong Kong. Under current law, public funds cannot be financed by debt. The senior tranche of Quasi-REITs is essentially a fixed-income product and belongs to the debt. If the public fund acquires all the senior tranches of the Quasi-REIT, it is equivalent to that the REIT uses no leverage. At this time, the REIT is financed solely by equity. When the public fund only acquires a proportion of senior tranches of the Quasi-REIT, it is equivalent to that the REIT uses both equity and debt as financial tools. The highest leverage ratio that REIT can achieve is constrained by the leverage ratio of the Quasi-REIT.

Third, Quai-REITs are investment entities with a limited horizon, and REITs are perpetual investment entities, and their durations are inconsistent. The sponsors of the Quasi-REITs should communicate with the investors in advance to determine the holding period of senior tranches and the way of exit. Otherwise, there will be a problem of duration mismatch when Quasi-REITs are connected to REITs. I suggest removing the sponsor's obligation to provide liquidity for the investors of senior tranches during the open period of the Quasi-REIT, and correspondingly making an arrangement for disposal period, for example, setting the open period every three years. At the end of the open period, if the investors of senior tranches do not withdraw their investments, it will trigger a disposal period of no more than two years.

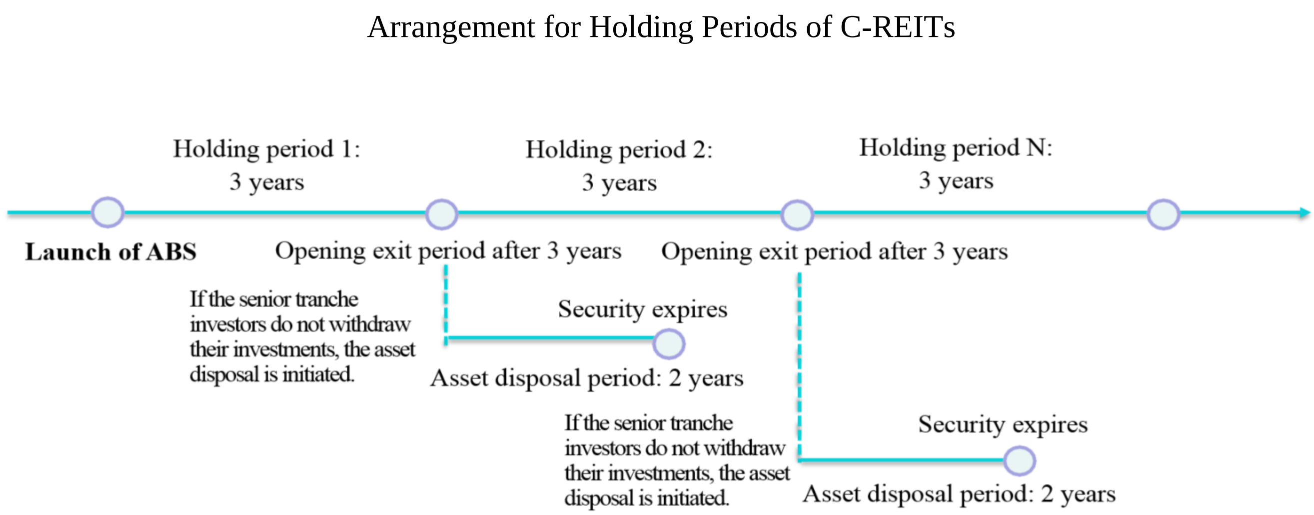

Figure 54：Arrangement for holding periods of C-REITs

After the sponsors repurchase the project or the senior tranches of the Quasi-REITs, they can start a public fund by using the junior tranches and repurchased senior tranches as the underlying assets. To avoid conflicts of interest, the sponsors must hold a certain share of the equity of REITs.

6.5.3 Public REITs Pricing and Market Confidence: The Role of Cornerstone Investors

In the early stage of a public offering of REITs, how should sponsors help the market to build confidence? How should REITs be reasonably priced? I interviewed several famous real estate asset management companies in China. Many industry professionals have suggested that the Chinese REITs market should learn from the US market and introduce a cornerstone investor mechanism. In the US REITs market, the role of the cornerstone investor is usually played by a large institutional investor who has excellent research capabilities in the real estate industry and is well versed in the pricing of REITs. By introducing cornerstone investors early in the establishment of REITs, sponsors can better convince small and medium investors that the underlying assets of REITs are of high quality and encourage individual investors to invest in REITs. Also, the price paid by the cornerstone investors to purchase the units of the fund could provide useful information with individual investors.

By studying the historical data of the US REITs market, I found that the proportion of shares (or units) of REITs held by cornerstone investors is usually very stable. The proportion will not significantly decrease as the REIT operates. Thus, the cornerstone investors of REITs play a good ballast effect. With REITs continue to operate, market confidence will gradually build-up, and a growing number of small and medium investors will join the investment activities. Based on the US REITs market data from 1980 to 2016, I used the Herfindahl-Hirschman Index (HHI) to measure the dispersion of REITs' share among investors. The lower is the HHI, the more dispersed is the distribution of REITs equity among investors. In addition to the number of years that REITs operate, I also added the fixed year effect and the fixed effect of the underlying asset class to the regression equation. The regression results show that the longer the REITs operate, the more dispersed is the distribution of REITs equity among investors.

Table 11：HHI of Share Distribution and Years of Operation

Independent variable	**Coefficient Estimates**
Intercept	0.5670***
	(12.431)
Medical	-0.4934***
	(-10.745)
Industrial and office	-0.4927***
	(-10.927)
Hotel and resort	-0.4923***
	(-10.864)
Rental apartment	-0.4839***
	(-10.729)
Retail	-0.4948***
	(-10.852)
Self-storage	-0.49750***
	(-10.153)
Years of operation	-0.00101**
	(-1.652)
Number of Observations	738

Note: The results of this table are based on OLS regression. The dependent variable is the dispersion of the distribution of REIT equity among investors (measured by the Herfindahl-Hirschman index). The independent variables include the dummy variable of the underlying asset type of REIT and the number of years of continuous operation of REIT and fixed effect of each year. The table omits the estimated results for the yearly fixed effect. I collect data from the CRSP / Ziman Real Estate Data Center of the Chicago Business School and Thomson Reuter. The data spanned from 1980 to 2016. The number in parentheses below each estimate is its corresponding t-value. Significance: *** corresponds to $p < 0.001$, ** corresponds to $p < 0.01$.

Why does the distribution of REITs equity become more dispersed with operating years? Is that because the large institutional investors voluntarily withdraw their investments? Using the regression model, I analyzed the relationship between the proportion of equity held by the top five institutional investors of a single REIT and the operating years of the REIT. The results show that there is no significant relationship between them. To do a robustness check, I also regress the proportion of equity held by the top ten institutional investors of a single REIT on the operating years of the REIT, and the conclusion is still valid. Thus, I conclude that the share of REITs equity held by cornerstone investors is very stable in the long run. Although the dispersion of equity distribution increased as REITs operate, it is not due to the withdrawal of investments of major institutional investors. I further analyze the relationship between the total number of institutional investors and the operating years of REITs, and the regression results show that there is a significant positive correlation between them. As REITs survive for extra years, the market confidence will gradually build up, and a growing number of small- and medium-sized institutional investors will gradually become the shareholders of the REITs.

Table 12：Equity Held by the Top Five Institutional Investors (%) and Years of Operation

Independent variable	Coefficient Estimate
Intercept	0.1440***
	(2.591)
Medical	0.1865***
	(3.272)
Industrial and office	0.2410***
	(4.306)
Hotel and resort	0.2403***
	(4.273)
Rental apartment	0.1916***
	(3.423)
Retail	0.2090***
	(3.694)
Self-storage	0.2581***
	(4.244)
Years of operation	0.0001
	(0.077)
Number of Observations	738

Note: The results of this table are based on OLS regression. The dependent variable is the aggregate proportion of REIT equity held by the top five institutional investors in a single REIT. The independent variables include the dummy variable of the underlying asset type of

REIT, the number of years of continuous operation of REIT and the yearly fixed effects. The table omits the estimated results for yearly fixed effects. The data were collected from the CRSP / Ziman Real Estate Data Center of the Chicago Business School and Thomson Reuter. The data spanned from 1980 to 2016. The number in parentheses below each estimate is its corresponding t value. Significance: *** corresponds to p <0.001

Table 13：Number of Institutional Investors and Years of Operation

Independent variable	Coefficient Estimate
Intercept	97.8990*** (12.888)
Medical	0.0287*** (21.626)
Industrial and office	-0.0266*** (-17.747)
Hotel and resort	6.2954*** (14.052)
Number of observations	738

Note: The results of this table are based on OLS regression. The dependent variable is the total number of individual REIT institutional investors. The independent variables include total assets, total liabilities, years of continuous operation of REIT and yearly fixed effects. The table omits the estimated results for yearly fixed effects. The data were collected from the CRSP / Ziman Real Estate Data Center of the Chicago Business School and Thomson Reuter. The data spanned from 1980 to 2016. The number in parentheses below each estimate is its corresponding t value. Significance: *** corresponds to p <0.001.

The above analysis confirms the important role that cornerstone investors play in the public offering of REITs. Cornerstone investors tend to hold the equity of

REITs in the long term and help to build up the confidence in the market. When large institutional investors hold a stable share of REITs equity, small- and medium-sized institutional investors will participate, and the market liquidity of REITs will be strengthened.

7. Operation of REITs: Success Story of Link REIT

After the listing, managers need to continuously invest time and energy to conduct stable and efficient operations on REITs. I attempt to summarize the key skills in managing public REITs by learning a success story.

The Link Real Estate Investment Trust was established in November 2005 and publicly listed on the Hong Kong Stock Exchange. It is the first REIT listed in Hong Kong and the largest REIT in market capitalization in the Asian market. The REIT currently has a market capitalization of approximately HK$160.405 billion. The assets of Link REIT are mainly concentrated in Hong Kong and the REIT entered the Chinese mainland market in 2015. As of March 2018, the REITs held and managed 141 assets in Hong Kong, Beijing, Shanghai, and Guangzhou, including 138 in Hong Kong and 3 in the mainland of China, with a total management area of over 900,000 square meters. In the 2017/18 financial year, the property occupancy rate was 97.0% in Hong Kong and 99.4% in mainland China.

Since its listing, Link REIT has earned the trust of investors with its mature model of capital cycle, solid financial arrangements, and sustained performance growth.

In the 2017/18 fiscal year, the total revenue of Link REIT was 10.023 billion CNY, an increase of nearly 8.3% over the previous fiscal year; the compound growth rate in the past ten years was 9.1%. The net income of the property was 7.663 billion, an increase of nearly 9.6% over the previous fiscal year; the compound growth rate in the past ten years was 11.7%. Link REIT insists on paying 100% of their taxable income to investors as dividends. In the 2017/18 fiscal year, the dividends paid by the REITs per unit were 2.4978 HKD, up 9.4% from the previous fiscal year, and the compound growth rate in the past decade was about 8.1%.

7.1 Background of Establishment

In the 1950s, the Hong Kong government established a sound public housing system to provide local families with housing and surrounding facilities that can meet basic residential needs. In 1997, the outbreak of the Asian financial crisis had a strong impact on the Hong Kong economy. The public finance resource of the Hong Kong government began to tighten. In 2003, the Hong Kong Housing Authority approved a plan to divest its retail properties and parking lots to raise funds for the construction of public housing. There are 180 property assets in the divested property portfolio, including 149 integrated retail properties with parking lots, 2 independent retail properties and 29 independent car parks. The portfolio includes approximately 960,000 square meters of retail space, accounting for 9.1% of the total retail space in Hong Kong at the time, with more than 79,000 parking spaces being privatized. Link REIT acquired all divested assets, and the transaction structure is as follows.

Structure of Link REIT

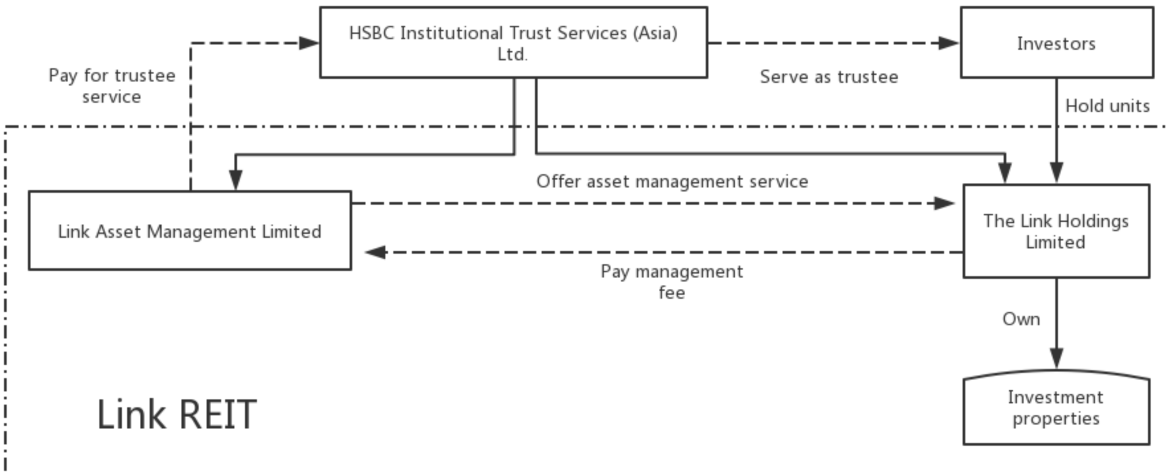

Figure 55：Structure of Link REIT

Source：Link REIT official website

7.2 Corporate Governance

Currently, among all REITs listed in Hong Kong and Singapore, Link REIT is the only one that is managed internally. The management company of Link REIT is Link Asset Management Co., Ltd. Its main responsibilities include formulating investment and financing strategies, designing property improvement plans, presiding over asset acquisition and disposal, and conducting daily property management. Link REIT adopts an internal management model, and the REIT owns 100% of the equity of its management company. In developing the incentive scheme for the management company, Link REIT has taken a series of methods to consciously avoid conflicts of interest between the management company and the investors. The asset managers cannot get any compensation for buying or selling properties. Also, the management fee is not conditional on the AUM. Link REIT effectively avoided the wasteful transactions and invalid expansion, hence, successfully reducing the overall management costs of the REIT. By comparing various REITs listed in Hong Kong, I find that Link REIT has the lowest ratio of the management fee to net income.

The Ratio of Management Fee to AUM and to the Net Rental of HK REITs

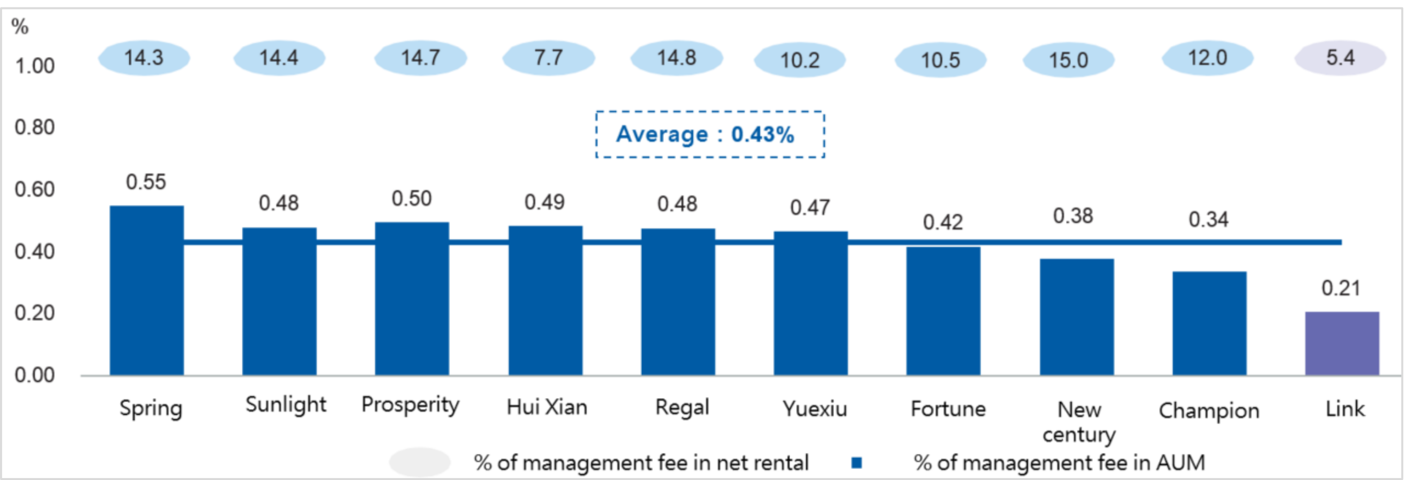

Figure 56：Ratio of the Management Fee to AUM and to the Net Rental of HK REITs

Source：Annual reports of REITs

At the early stage of development, Link REIT lacked management experience, hence, actively learn from other investment institutions with an enriched experience. At the beginning of the establishment, Link REIT built a partnership with CapitaLand Limited in Singapore. Before the listing of Link REIT, CapitalMall Trust (CMT) of the CapitaLand Group was successfully listed in July

2002 and became the first REIT listed on the Singapore Stock Exchange. In May 2004, the CapitaCommercial Trust (CCT) of the CapitaLand Group was successfully listed and became the first commercial real estate investment fund listed in Singapore. As one of the largest property operators and investors in Asia, CapitaLand has accumulated rich experience in the listing and management of REITs. From 2004 to 2009, CapitaLand was responsible for providing management consulting services for Link REIT, including portfolio management, property management, corporate governance, internal audit, and capital management, etc. During the public offering phase of Link REIT, CapitaLand subscribed for fund units valued at US$120 million. Hence, the partnership between the two institutions was greatly enhanced, and the potential conflicts of interests were resolved.

Link REIT uses the equity incentive plan to attract talents, and unify the interests of the company and the employees. In September 2012, Link REIT began to implement the Employee Unit Purchase Plan (EUPP) for employees within the company. The intention of setting up the plan is to encourage employees to actively purchase the units of REIT, and cultivate the sense of ownership of employees. According to the plan, employees who meet certain conditions can get the company's subsidy when they buy the units of REIT. The maximum subsidy amount can reach 20% of the market price of the units. The company will determine the specific amount of subsidy based on the employee's age, performance, and other factors. As of 2015, more than 70% of internal employees have invested in REIT through EUPP. EUPP plays an important role in keeping talented employees from resigning. As a result, the turnover rate of high-performance employees is close to zero.

7.3 Strategic Planning

Link REIT abandoned the short-sighted development strategy and established a long-term strategic planning system. To underscore the importance of developing a long-term strategy, Link REIT management has extended the budget cycle from one year to three years. In every fiscal year, the company insists on making predictions on the market situation in the next ten years to guide employees to make long-term plans for future business development. In 2010, Link REIT established the vision of the institution, “Becoming a world-class real estate investor and manager, serving the public and improving people's quality of life”. Also, to maintain sustainable performance growth, Link REIT set up a clear strategy. First, the company will attempt to increase investment returns through asset management and property improvement. Second, the company will optimize its investment portfolio by acquiring the properties with good potential and disposing of the underperforming properties. Third, the company will actively manage and optimize its capital structure.

7.4 Asset Management

In asset management, Link REIT is committed to building a portfolio of high-quality tenants that could generate stable rental income even facing economic fluctuations. Among all categories of tenants, the tenants selling daily necessary goods make the greatest contribution to the total rental income. This category of tenants is less sensitive to the economic cycle, hence Link REIT can gain stable rental income even in case of an economic downturn.

In the 2017/18 fiscal year, the rental contribution of “catering”, “supermarket and food”, and “market / cooked food stalls” exceeded 70% in total. And the pattern of rental contribution remains relatively stable during the past four years.

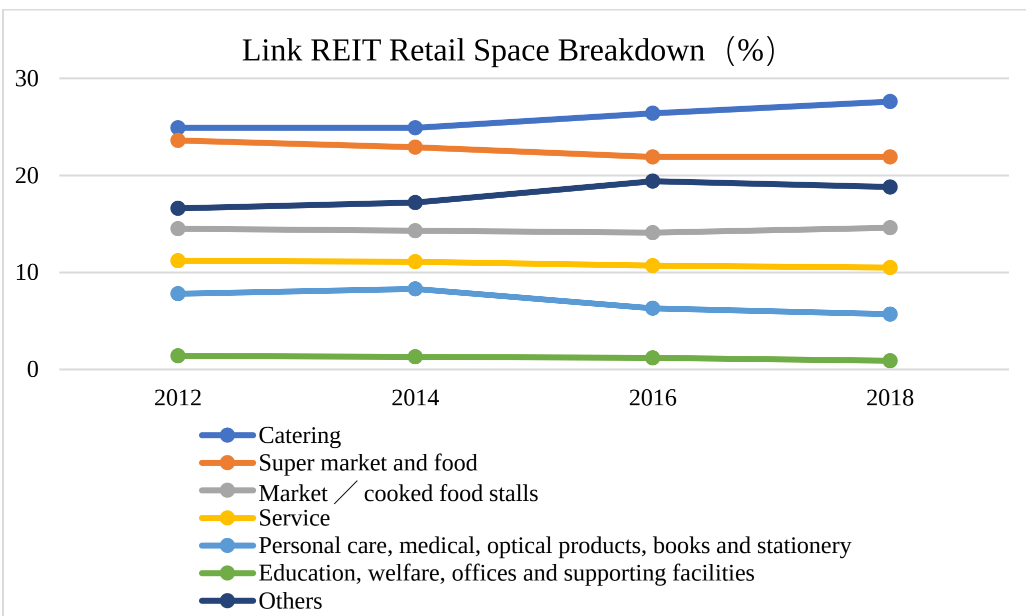

Figure 57：Link REIT Retail Space Breakdown (%)

Source: Annual reports of Link REIT

To improve management efficiency, Link REIT will classify and manage the property assets held. In FY 2015/16, REIT conducted a detailed study of its property portfolio and divided the Hong Kong shopping malls into three types according to their regional influence and scale, i.e., “destination”, “community” and “neighborhood”. According to the characteristics of tenants and customers served by each type, the company has formulated management and marketing policies, which greatly improved the management efficiency. In the 2017/18 financial year, the overall occupancy rate of retail properties held by Link REIT is 97%, which is nearly 1% higher than the previous fiscal year. The rental income per unit of area for various types of shopping centers also achieved a growth of 7%-12%.

Table 14：Retail Portfolio Breakdown of Link REIT (2017/18)

	No. of properties	Retail properties valuation	Retail rentals	Average monthly unit rent[(1)]		Occupancy rate	
Properties		**As at 31 March 2018 HK$'M**	**Year ended 31 March 2018 HK$'M**	**As at 31 March 2018 HK$ psf**	As at 31 March 2017 HK$ psf	**As at 31 March 2018 %**	As at 31 March 2017 %
Destination	6	**30,604**	**1,117**	**83.0**	76.0	**96.3**	96.9
Community	33	**74,273**	**3,358**	**70.6**	65.9	**97.7**	96.8
Neighbourhood	70	**36,636**	**1,670**	**44.9**	40.3	**96.4**	94.8
Properties divested[(2)]	–	**N.A.**	**546**	**N.A.**	41.6	**N.A.**	96.4
Total	109	**141,513**	**6,691**	**62.4**	55.3	**97.0**	96.1

Source：Strategy report of Link REIT

7.5 Acquisition of Properties

When Link REIT selected the acquisition target, it summed up the following four main principles. First, the region in which the asset is located must have certain advantages, such as a sound infrastructure, a good demographic structure, or a large population base. Second, the targeted properties must have the potential for rising rents and capital appreciation, which can strengthen the investment portfolio. Third, there is room for improvement in the occupancy rate, tenants mix or spatial layout of the acquired properties. Fourth, it can produce synergies with other existing projects.

Link REIT expects to diversify risk by investing in different regions and holding different types of properties. At the beginning of its establishment, the properties held by Link REIT were all located in Hong Kong and included only two types of assets, i.e., retail property and parking lots. In January 2015, the joint venture company of Link & Nanfeng Development invested in Kwun Tong commercial land and plans to develop it into a Grade A office commercial complex project, which is the first office property project of Link REIT. In March 2015, the REIT acquired the ECMall in Beijing for $305 million, initiating its expansion in the mainland of China. In August 2015, the company acquired “Enterprise Tiandi No.1” and “Corporate Tiandi No.2” in Shanghai for RMB 6.637 billion, becoming the first mainland office property investment of the Expo. By expanding into different regions and different fields, Link REIT is gradually diversifying its portfolio to reduce investment risks and ensure stable rental income.

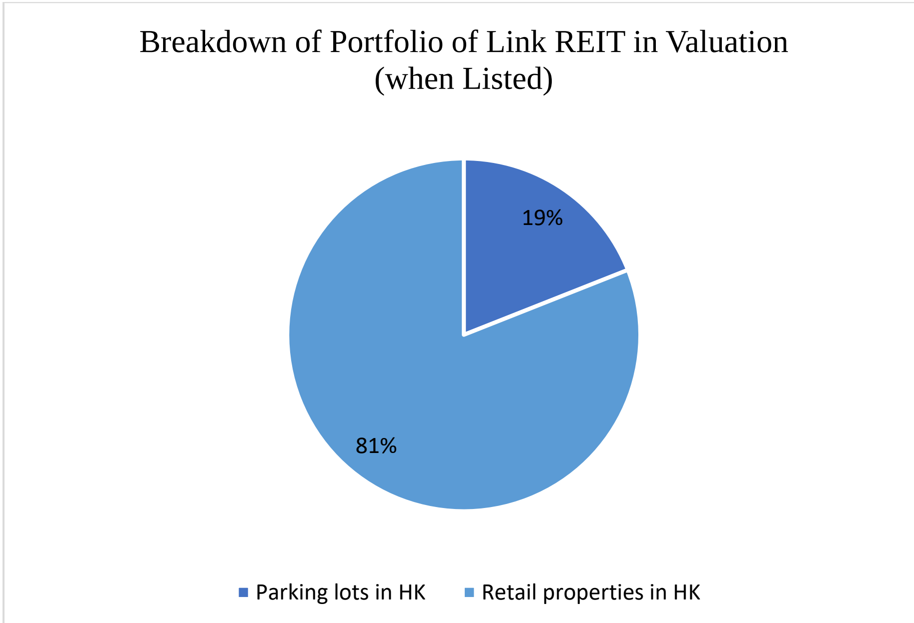

Figure 58：Breakdown of Portfolio of Link REIT in Valuation (when Listed)

Source：Link REIT Presentation

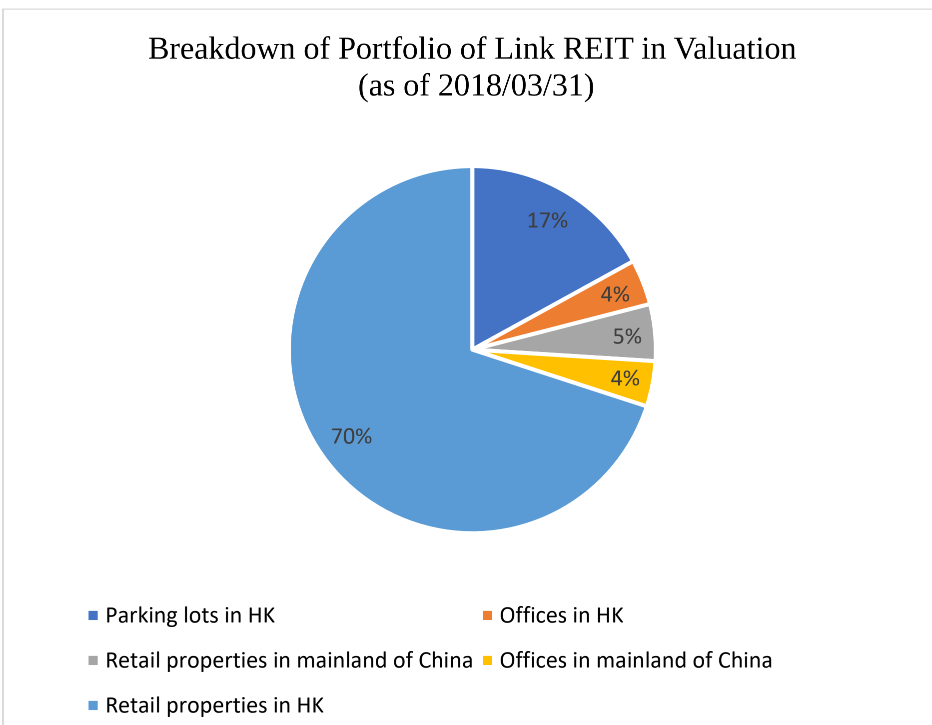

Figure 59：Breakdown of Portfolio of Link REIT in Valuation (as of 2018/03/31)

Source：Link REIT Presentation

7.6 Improvement of Properties

By improving the old properties with high potential, Link REIT can often achieve higher investment returns. Since its listing, Link REIT has completed about 60 property improvement projects, with an average annual capital expenditure of 600-700 million HK$. Between 2008 and 2015, the Link REIT upgraded five to seven projects on average, while the number of projects updated in the last two years has increased significantly. In the 2017/18 financial year, Link REIT has completed fourteen property improvement projects with a total investment of 1.044 billion HK$, and the expected return on investment is 15% - 40%.

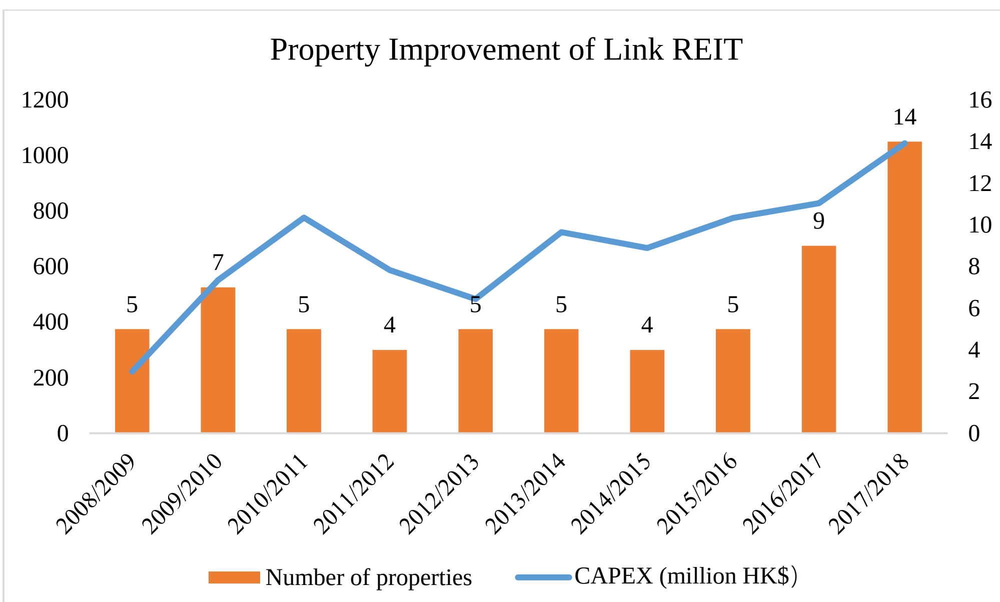

Figure 60：Property Improvement of Link REIT

Source：Annual reports of Link REIT

Table 15：Property Improvement of Link REIT（2017/18）

Property Name	**CAPEX （million HK$）**	**Expected Return (%)**
Lung Hang Shopping Centre	58	21.4
T Town	260	19.1
Cheung Wah Shopping Centre	101	17.6
Kwong Fuk Commercial Centre	31	20.4
Fu-Tung Plaza	29	25.9
Tin Tsz Shopping Centre	38	37.7
Temple Mall South	151	30.7
Siu Sai Wan Plaza	56	25.0
Lok Wah Shopping Centre	46	15.3
Tsz Wan Shan Shopping Centre – Retail	70	24.8
Tsui Ping Commercial Complex	37	30.1
TKO Market	91	15.3
Hin Keng Shopping Centre	35	40.4
Tin Chak Shopping Centre	41	15.2

Source：Annual reports of Link REIT

Link REIT recognizes property enhancement as an important means of building a flagship project. Among the “destination” shopping malls held by Link REIT, Wong Tai Sin Centre and Hing Fat Shopping Centre (H.A.N.D.S) were merged and upgraded from two old shopping malls respectively. In the early days of the establishment of Link REIT, its portfolio mainly consists of the shopping malls around public housing. These shopping malls have been in operation for 30 to 40 years, and the initial scale is usually small. With the increase in population and income of residents, it is difficult for old shopping centers to meet the customers' new desires. Through the analysis of the changes in the characteristics of the customers around the property, REIT has merged, transformed and upgraded the property at an appropriate time to upgrade the original "community" and "neighborhood" shopping centers to the "destination" shopping centers. Through property improvement, Link REIT not only satisfies the new needs of customers around the property but also released the potential value of the old properties.

Take Ai Ding Shopping Mall (H.A.N.D.S) as an example. The "destination" shopping centers were formerly known as Anding Shopping Mall and Friendship Shopping Mall. The two malls have a history of nearly 30 years and are located in the Tuen Mun District in the northwest of Hong Kong. They are independent but close to each other. As Tuen Mun District is far from the Hong Kong CBD, low rents have attracted a large number of young residents. Link REIT conducted a detailed analysis of the demographic characteristics of the customers and eventually positioned the mall as a shopping destination for young people in Hong Kong. The mall was also renamed "H.A.N.D.S". H.A.N.D.S is the abbreviation of "Have a nice day of shopping". Link REIT connected two dilapidated malls with corridors to integrate the two, redesigned the interior layout of the mall, removed duplicate storefronts, introduced new tenants, and increased the diversity of merchandise. The property improvement project costed a total of 477 million HK$. After the renovation, there are more than 160 shops in the mall, and the occupancy rate is over 90%. In 2017, Link REIT decided to sell “H.A.N.D.S” to a consortium led by Gem Capital for HK$2,708.2 million with a valuation premium of 66.5%.

Location of Tuen Mun District

7.7 Disposal of Properties

For small and medium-sized shopping malls with potential for improvement, Link REIT will give priority to upgrading them to flagship shopping malls. For the non-core assets that lack potential and perform poorly, the company will package them for sale. Properly disposing of the non-core properties, Link REIT was able to increase the cash inflow and achieve capital circulation. Link REIT will use the recovered funds to acquire assets, repay loans, and repurchasing REIT units.

Table 16： Retail Portfolio Breakdown of Link REIT (2017/16)

	No. of properties	Retail properties valuation	Retail rentals	Average monthly unit rent[1]		Occupancy rate	
Properties		**As at 31 March 2017 HK$'M**	**Year ended 31 March 2017 HK$'M**	**As at 31 March 2017 HK$ psf**	As at 31 March 2016 HK$ psf	**As at 31 March 2017 %**	As at 31 March 2016 %
Destination	6	**22,320**	**1,073**	**74.0**	70.8	**96.7**	97.3
Community	38	**62,504**	**3,307**	**65.0**	60.8	**96.9**	97.0
Neighbourhood	81	**33,797**	**1,832**	**39.0**	36.3	**95.1**	95.1
700 Nathan Road[2]	1	**6,118**	**17**	**–**	N.A.	**–**	N.A.
14 Properties Disposed[3]	–	**N.A.**	**123**	**N.A.**	26.9	**N.A.**	93.4
Total	126	**124,739**	**6,352**	**55.3**	50.0	**96.1**	96.0

Source：Strategy report of Link REIT

In recent years, the properties disposed of by Link REIT are mainly community shopping centers and neighborhood shopping centers, which are small in size and lack the potential for improvement. In the 2015/16 financial year, the company held 38 community shopping centers and 95 neighborhood shopping centers. As of the 2017/18 fiscal year, the number of neighborhood shopping centers has decreased by 25 and the number of community shopping centers has decreased by 5. In most of the property disposals, Link REIT was able to achieve high investment returns. The premium paid by property buyers is 20% -55%. On the property level, the internal rate of return (IRR) can reach 15% and above.

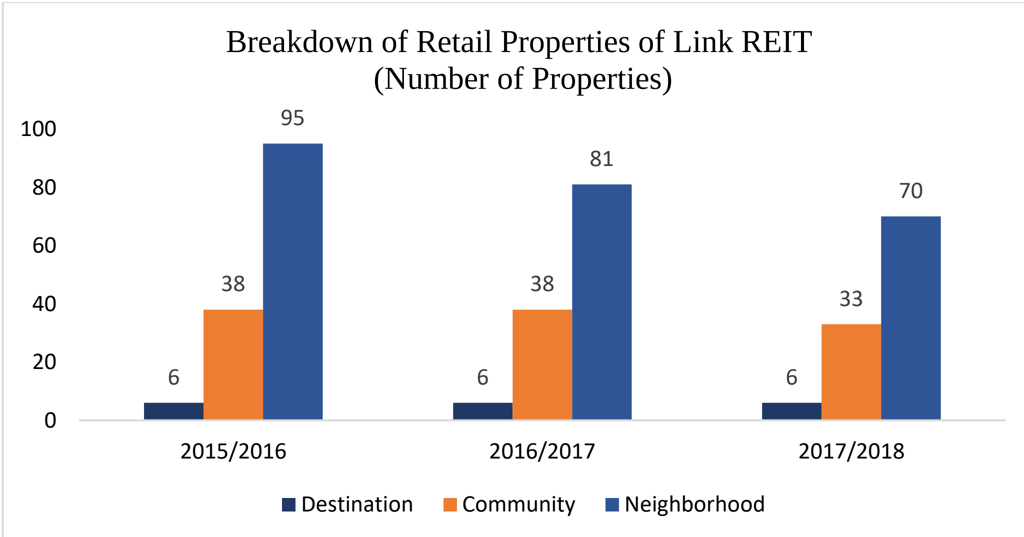

Figure 61：Breakdown of Retail Properties of Link REIT (Number of Properties)

Source：Annual report of Link REIT

Table 17：Properties Disposal of Link REIT

	Number of properties sold	Price of sale （100 million HK$）	Valuation premium	IRR
2014/15	9	30	33%	14%-30%
2015/16	5	17	30%	15%-23%
2016/17	14	73	24%	13%-22%
2017/18	17	230	52%	-
Total	**45**	**350**		

Source：Link REIT presentation

7.8 Capital Management

Link REIT is good at timing the financial market, dynamically controlling the cost and maturity of the debt. To discover favorable time windows for financing or refinancing, Link REIT always stays highly sensitive to the global economic conditions, constantly observing the global changes in the interest rate and exchange rate.

Table 18：Main Financing Activities of Link REIT

Financial year	**Macro-environment**	**Main financing activities**
2017/18	The Hong Kong banking system has sufficient liquidity, interest rates have risen slowly, and the interest rate spread on Hong Kong dollar loans has narrowed.	Refinance a 5-year bank loan of 1 billion HK$
2016/17	Because of the Brexit, the US Treasury bond interest rate and spreads fell.	Issued 10-year green bonds overseas, raising a total of 500 million US dollars at an interest rate of 2.875%
2015/16	The oil price fell and the global economy slowed down, and the European and Japanese central banks cut down interest rates. The Hong Kong market is full of liquidity and loan spreads have narrowed.	Got bank loans of 17.5 billion HK$ from 16 banks.

The average financing cost of Link REIT decreased year by year, and the debt ratio and the average life of the debt also remained at a relatively stable level. Between 2008 and 2018, the company's debt ratio has remained between 11% and 17%, and the average debt life has remained at around 4.5 years.

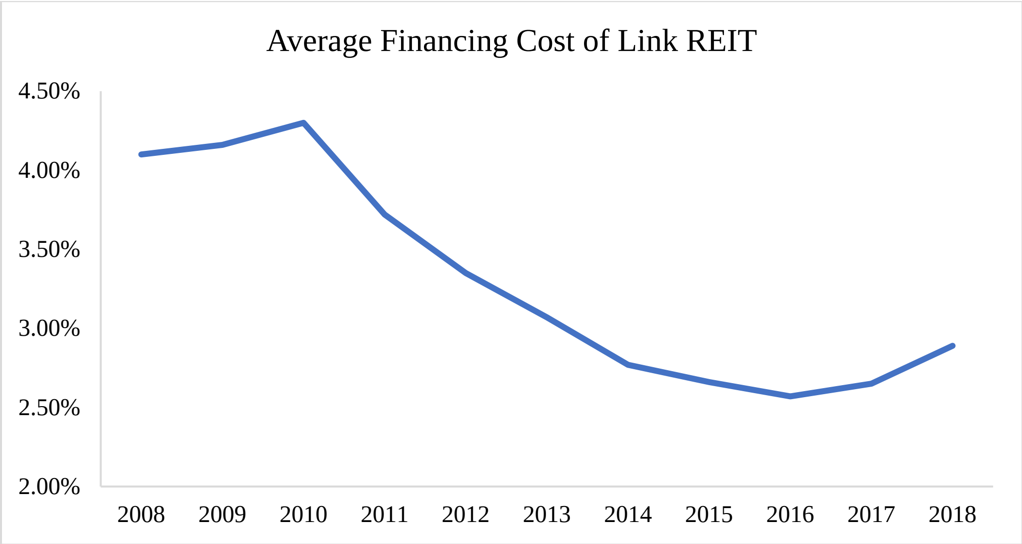

Figure 62：Average Financing Cost of Link REIT

Source：Annual report of Link REIT

Link REIT is good at risk management, especially hedging interest rate risk. When the market expects interest rates to rise, the company will increase the weight of fixed-rate debt in total debt, hence reducing its exposure to rising interest risk. The figure below shows that the proportion of fixed-income debts of Link REIT has a significant positive correlation with the US dollar forward interest rate. Especially in the 2017/18 fiscal year, when the international market expected the Fed to raise interest rates, and the forward interest rate began to rise. To control the risk of rising borrowing costs, Link REIT raised the proportion of fixed interest debts from 61% to 76%.

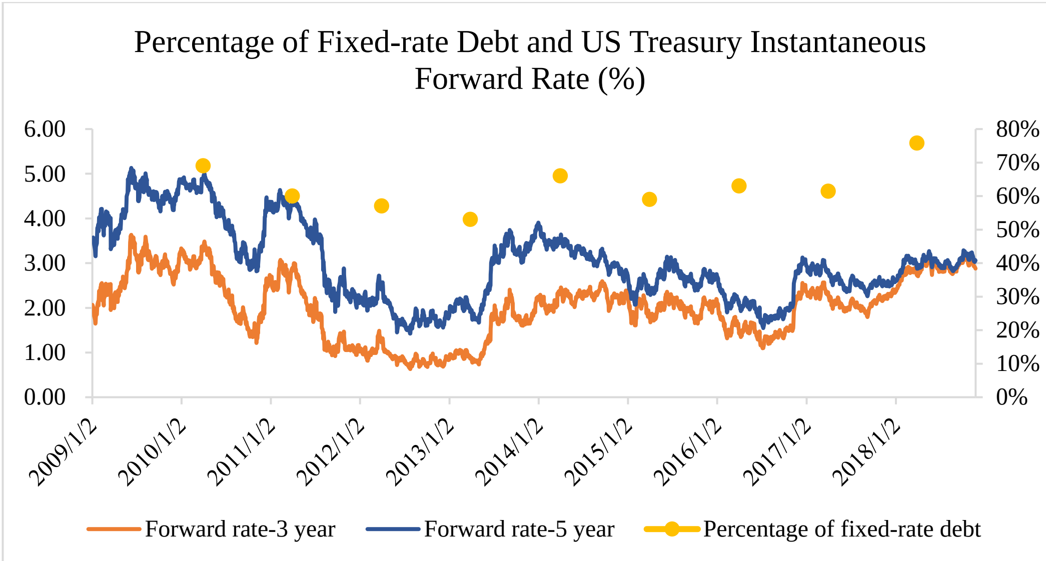

Figure 63：Percentage of Fixed-rate Debt and US Treasury Instantaneous Forward Rate

Source: Fed, Annual report of Link REIT

8. Conclusions

China‘s economy is currently facing huge downward pressure. Under the control of the government, the growth of real estate prices has gradually slowed down. China has ushered in an important time window for the development of REITs. It is in the interest of all market participants to launch REITs as soon as possible. First, the investment market with a well-developed REIT sector could satisfy the domestic investor’s needs better. Secondly, the launch of REITs can effectively support the transformation of the domestic real estate industry. Third, the Chinese government could gain a new source of public finance to support the development of infrastructure. By issuing REITs, the local government could also expect to liquidate its assets, repay its debt and reduce the risk accumulated in the financial system.

Previous international experience indicates that the development of the REITs market is more driven by market demand. Previous experience shows that, only when the real estate market entered a downturn, do most countries start to develop the REITs market. Because, during a market downturn, revised property prices and reasonable investment returns tend to stimulate demand for real estate investments including REITs. Therefore, we believe that China's public REITs market will develop on the premise that the domestic real estate market has experienced a sharp correction in price and that return on investment has met investors’ expectations.

Before the launch of REITs, China still needs to complete three tasks. First, the country must establish a sound regulatory system, including related legislation for REIT. Second, China must modify its tax policies to resolve the problem of double taxation and assure tax neutrality for REITs. Third, China must encourage the cultivation of inter-discipline talents. Based on the above three premises, China’s public REITs can flourish.

The rapid development of the Quasi-REITs market in China laid a solid foundation for the launch of public REITs. Through participating in the issuance and management of Quasi-REITs, the market participants have accumulated valuable experience and developed the crucial skills for them to better adapt to the public REITs market. When legislation is completed, the Quasi-REITs market could be seamlessly integrated with the public REITs market in the future. And, the final ring of the chain of real estate securitization process will be provided.

The launch of the C-REITs will profoundly change the business logic and game rules of the real estate industry and bring new opportunities to traditional developers. How could they grasp the unprecedented opportunity? I suggest Chinese companies should make full use of their advantages as latecomers. They should learn from overseas REITs with outstanding performance.

9. Appendix

9.1 Basic Procedure of Asset Securitization

In the broad sense of asset securitization, assets that lack liquidity but have future cash inflows are collected and packaged into asset pools, backed by the future income of the asset pools, sponsors issue the securities that can be sold and circulated in financial markets. Real estate securitization is a sub-category of generalized asset securitization. The underlying assets are interests related to real estate, including equity and mortgage, etc. The asset securitization process is usually divided into eight steps as follows.

9.1.1 Build Asset Pools

As the first step of asset securitization, the sponsor needs to build an asset pool. The sponsor is the initiator of asset securitization and the original owner of the underlying asset. The sponsors of asset securitization could be financial institutions or other types of corporations prescribed by legislation. Usually, under the guidance of the intermediary agency, the sponsors will choose the assets according to certain screening criteria and then classify and group the assets by maturity and interest rate to form an asset pool. The expected income from the asset pool must be greater than the repayment of the asset-backed securities.

9.1.2 Build SPVs

In the second step, the sponsor must sell the asset pool to a special purpose vehicle (SPV) to isolate the assets from the sponsor’s bankruptcy risk. The special purpose vehicle receives the sponsor's assets and issues securities backed by this asset pool. SPVs could be set up by sponsors or government (such as Fannie Mae and Freddie Mac in the United States).

SPV could be categorized into three types, i.e., special purpose companies, special purpose trusts, and special purpose partnerships. To achieve bankruptcy risk isolation, the policymakers have made a series of regulations for SPV. First, the legislation put a limit on the scope of SPV's business. Usually, an SPV only serves the purpose of asset securitization. Second, the legislation minimizes the probability that SPV goes bankrupt by constraining its financing behaviors. Third, the legislation allows an SPV to be a shell company. The SPV only generates income from the issued securities, and it outsources most of its functions as a corporate to other institutions. To sum up, the SPV is a tax-exempt channel entity in the process of asset securitization, and its main purpose is to assure risk isolation.

Sell the Assets to SPVs

After setting up the SPV, the sponsor needs to transfer the assets to the SPV. The sponsor must ensure that the asset transfer is consistent with the legislative definition for the “sale of assets”. This is the premise that the SPV could serve the purpose of protecting the ABS investors from the bankruptcy risk of sponsors. The sold assets are not involved in the liquidation process when the sponsor goes bankrupt, and the sponsor's creditors have no recourse to the sold assets.

9.1.3 Credit Enhancement

In asset securitization transactions, sponsors should commit to protecting investors from certain risks. The sponsor must ensure that the statement about the underlying asset is true, accurate and complete. Also, the sponsor must guarantee that the assets are legal and valid, and the debtors are constrained by the relevant contract terms.

However, in many cases, the sponsor's commitment alone cannot fully satisfy the securitization requirements. Investors often need sponsors to ensure that securitized products can achieve promised returns. During the existence of asset-backed securities, various risks may affect the timely and full repayment of the securities, including prepayment risks, default risks, and interest rate risk. To attract investors, the sponsors often enhance the credit of ABS. Credit enhancement methods include the division and reorganization of cash flow, over-collateralization of cash flow, commitment of sponsors to pay differentials, issuance of letters of credit, and guarantees provided by third parties. Through credit enhancement, the securities issued by the SPV will gain a higher rating than the securities issued directly by the sponsor, thus effectively reducing the financing cost.

9.1.4 Credit Rating

Sponsors typically invite third-party agencies to rate the credit of asset-backed securities. The credit rating provides the basis for investment decisions for ordinary investors. After credit enhancement, the credit rating of asset-backed securities is generally higher than the credit rating of the sponsor. After the asset-backed securities are graded, the rating agencies must also supervise the ABS daily. The rating agencies must write supervision reports regularly, according to factors such as the financial market situation, the sponsor's condition, and debt performance. If there is a significant change in credit quality, the rating agency will adjust the grading of asset-backed securities.

9.1.5 Underwriting

SPV enters an underwriting agreement with the securities underwriter. The underwriter is responsible for promoting and selling the securities to investors. The underwriters raise funds from investors in the form of public offerings or private placements. After the underwriter sells the securities to investors, the SPV obtains the income from the underwriters and repays the sponsors the funds for the purchase of the underlying assets at the agreed price.

9.1.6 Asset Management

Since SPVs are mostly shell companies and generally do not engage in specific businesses, they usually hire specialized service providers for asset management.

The SPV will appoint the trustee to manage the issued securities on behalf of the investor.

9.1.7 Liquidation

SPV uses the income generated by the asset pool for repayment of principal and interest and payment of various service fees. At the end of the duration, if the SPV has funds remaining, it will distribute the funds between the sponsor and the SPV by agreement. The entire asset securitization transaction ends.

What has been described above is a standard process for issuing and managing asset-backed securities. In practice, the transaction details may differ from case to case.

10. References

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