

## Original Paper

# Financial Instruments for Attracting Investments in the Real Estate Market

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### **Abstract**

**Subject of the study:** REIT (Real Estate Investment Trust) as equity investment instrument issued by management companies that are involved in the purchase, maintenance and construction of new real estate, and can also buy mortgage-backed securities from banks.

**The object of the study** is the analysis (Real Estate Investment Trust) real estate market in China.

**The purpose of the work** is to draw a conclusion about the attractiveness of investment in real estate in modern conditions relative to other tools and to identify the development prospects of REITs in China

**Research methods:** descriptive-analytical, comparative-comparative, statistical, formant, contextual analysis methods.

This thesis finds that equity REITs are still very immature and are not widely accepted by mass investors in China. The thesis puts forward three suggestions for apartment REITs in China: to streamline the REIT structure and avoid excessive complexity and opacity; to promote information transparency and regulated disclosure mechanism; to encourage and protect equity REIT investors by constraining REITs from taking on too much debt. Finally, the thesis concludes that REITs, as shown by US experience, should be regarded as a great opportunity to cultivate Chinese investors' confidence in the stock market with its very simple and plain-vanilla structure. With the Chinese government's strong ambition to increase housing affordability and to deleverage the economy, we foresee continuous legislative breakthroughs and more systematic improvements in the REIT field.

**Novelty elements:** the current apartment operators are using REITs as debt-financing channels instead of real equity financing. As a result, the leverage level of the real estate sector may not really be decreased at all, but rather increased. With regard to this, the overall leverage level of the emerging apartment REIT companies should be a key factor that must be monitored to embody REIT as an equity

*investment vehicle.*

*This work is dedicated to solve a number of difficulties in relevant fields of economy.*

**Keywords**

*REITs, rental, market, china, macro background perspective, apartment*

**Introduction**

As early as 2012, an official report published by the People's Bank of China (PBC) titled "China's Financial Market Development Report" (2011) introduced the concept of Real Estate Investment Trust (REIT) publicly in China for the first time. It was also the first time the government in China called for "the initiation of REIT products at the appropriate time" in official publications.

In June 2020, the General Office of the State Council issued "Several Opinions on Accelerating the Cultivation and Development of the Rental Housing Market." The "Opinions" sent the signal that the government in China, for the first time in the past decades, switched its focus from building housing for sale and rapid urbanization to the cultivation and development of the rental housing market. Subsequently, a series of favorable policies and documents supporting the development of rental housing were issued by the central and each level of government. These policies have provided strong political support to the rental housing sector from two aspects: by increasing the accessibility of land for rental apartments and by tapping a broader source of capital for the development of rental apartments. Theoretically, the mechanism of REIT can help cultivate and accelerate the formation of a sustainable rental housing market in China. In China, so far there is not a specific law for REITs, nor have any publicly listed REITs been successfully issued. Though a specific law is absent, many real estate companies and operators have started their own explorations to build REIT-style schemes within 12 legal limits.

Another Chinese "REIT Similar" case that is analyzed in this paper is the one issued by Poly Real Estate Development, a state-owned development company. The scheme represents the first shelf-registered apartment REIT, and is also the first REIT case issued by a state-owned enterprise (SOE). The case shows well how the "visible hand" of the government is actively supporting the issuance of apartment REITs and the importance of political support in the process of the formation of REITs in China currently.

Object analysis (Real Estate Investment Trust in China) real estate market in China.

Subject REIT (Real Estate Investment Trust) as equity investment instrument issued by management companies that are involved in the purchase, maintenance and construction of new real estate, and can also buy mortgage-backed securities from banks.

The purpose of the work is to draw a conclusion about the attractiveness of investment in real estate in modern conditions relative to other tools and to identify the development prospects of REITs in China.

During the past 2 years, Real Estate Investment Trusts (REITs) and the push to develop more rental housing in China have drawn lots of attention. REITs are expected to provide multiple capital channels

for the development of rental apartments without continuously leveraging up the real estate industry, as traditional financing methods did. The mechanism of equity REIT can help cultivate and accelerate the formation of a sustainable rental housing market in China.

This thesis explores the opportunities and obstacles for REITs to work in the rental housing market in China by exploring the reasons for introducing REITs in the Chinese real estate market from a macro and historical perspective; by examining some cases of the newly issued REIT-like companies in China; and by reviewing the framework and system of REITs in US markets so as to draw lessons for China from a comparative perspective.

This thesis finds that equity REITs are still very immature and are not widely accepted by mass investors in China. The thesis puts forward three suggestions for apartment REITs in China: to streamline the REIT structure and avoid excessive complexity and opacity; to promote information transparency and regulated disclosure mechanism; to encourage and protect equity REIT investors by constraining REITs from taking on too much debt. Finally, the thesis concludes that REITs, as shown by US experience, should be regarded as a great opportunity to cultivate Chinese investors' confidence in the stock market with its very simple and plain-vanilla structure.

The theoretical chapter examines the research question and describes the general background of this question. The research methodology and structure are described here.

The second chapter covers and establishes the links between REITs and the rental apartment sector from a theoretical point of view. By explaining the fundamental structure and evolution of REITs, readers can understand the mechanisms that enable REITs to support the rental market not only by attracting a broader source of capital, but also by adjusting the business model of the real estate industry.

The third chapter describes the macro-environment of real estate development in China at the present time and how this macro-factor affects the development of REITs, as well as the rental sector of apartments. This chapter attempts to construct a two-way observation of the macro environment at the current stage.

The last chapter outlines the prospects for the development of REITs in China.

## **1. Theoretical Foundations and Literature Review**

### *1.1 The Essence of Using REITs*

The abbreviation REIT stands for Real Estate Investment Trust—real estate investment fund. At first glance, this American “invention” is an analog of Russian real estate mutual funds, most often closed—end (ZPIFN). However, this is not the case.

Russian SPIFS are not a legal entity. Roughly speaking, ZPIFN is simply real estate, about which it can be said that it is included in some fund. Of course, the fund's real estate needs to be serviced somehow and, ideally, operated and made a profit. For this purpose, there are management companies (CC) (not to be confused with management companies in the field of public utilities) that work with this property

on the basis of the rules of trust management. Formally, the ZPIFN can exist independently of the management company, and investors can transfer their powers to another management company if they want.

American REITs are companies that work with real estate, which in most cases is on the balance sheet (owned or leased). And the abbreviation REIT is simply a designation of the corresponding tax regime. And if the company complies with its terms, it receives tax benefits.

1) Publicity (the number of shareholders should be more than one hundred, and five or fewer shareholders should not account for more than 50% of the company's shares).

2) 75% of the assets should be real estate.

3) The company must receive at least 75% of its revenue from the rental / sale of real estate or mortgage payments.

4) At least 90% of the taxable income must be distributed among the shareholders. Such "generosity" has a downside—increased taxes: the tax rate for dividends in this case is 30%.

In the process of studying this market segment, you will see that the REIT is a completely different entity than the Russian ZPIFN. Moreover, in Russia, we are used to understanding real estate as buildings—residential and non-residential. In the latter case, it usually means buildings intended for commercial use—shops, offices or warehouses.

In the US, the real estate segment is more developed. For example, American Tower Corporation (AMT) works with telecommunications towers—it builds and leases them to large companies like AT&T and Verizon. In essence, telecommunications towers are really real estate, but this interpretation may be very unusual for a Russian investor.

A Real Estate Investment Trust (REIT) is a company that owns and, in most cases, manages income-generating real estate. These can be office and residential buildings, warehouses, hospitals, shopping centers, hotels, etc.

REIT gives you the opportunity to invest in real estate without buying it. The fund invests the shareholders' money in the objects that it manages itself. After the sale or rental of apartments, houses or hotels, shareholders receive a share of the profit, proportional to the investment.

In most countries, legislation allows real estate companies to pay less corporate tax and capital gains tax. REITs have been repeatedly criticized as structures that encourage speculation and reduce housing affordability.

A real estate investment trust (REIT) is a form of company organization in which the company's capital is formed by selling shares (or in rare cases, shares) to investors and is invested in real estate in one or both of the following ways: – by purchasing real estate for the purpose of leasing them (the so-called equity REIT, which includes 91% of all REITs); – by purchasing mortgage securities or providing mortgage loans (the so-called mortgage, mortgage REIT, 7% of all REITs).

REITs work differently depending on their type. There are three types of REITs:

1) Rent, or equity (Equity) REITs. These are classic real estate funds that occupy a market share of

more than 90%. They buy or build properties from scratch, and then resell them or rent them out for a long-term lease. Most of them work only in one area of real estate, for example, LTC Properties and Vent as rent out premises only to medical institutions, or under the “one object-one tenant” scheme, for example, Apple Hospitality rents out its space only to two hotels: Hilton and Marriot.

2) Mortgage (Mortgage) REITs. They invest not in real estate, but in mortgage-backed securities. They get their income from interest on mortgage payments. Such REITs are not very large in the market – about 8%. Prior to the mortgage crisis in 2014, the securities of such REITs were in a large model, and their share reached, according to some estimates, more than 40%. In fact, the income of mortgage REITs depends not on real estate and rental prices, but on mortgage rates and the solvency of borrowers. Therefore, such mortgage funds differ in a key way from rental funds.

3) Mixed (Hybrid) REITs. They use both mortgages to generate income, and directly invest in real estate. Their market share is small-less than 2%.

Another classification is based on geography. The vast majority of REITs (more than 80%) are registered in the United States and are traded on the New York Stock Exchange. But in Europe there are various real estate funds, for example, in Germany there are such REITs as Alstria Office, Fair Value and Hamborner, in the UK – Workspace Group, British Land and Hammerson.

Another classification is sectoral. The following types of REITs are distinguished:

- Residential (housing)—residential real estate (houses, apartments, apartments, etc.)
- Office-office buildings;
- Industrial-warehouses, factories, factories and other industrial facilities;
- Retail-shops, malls, shopping and entertainment centers, boutiques, etc.;
- Lodging-hotels, hostels, motels, apartments, hotels, resorts, holiday homes, etc.;
- Health Care-hospitals, clinics, medical laboratories, nursing homes, sanatoriums, etc.;
- Education-educational institutions;
- Infrastructure-infrastructure objects (power lines, TV and radio towers, roads, bridges, etc.);
- Data center-data centers (premises for servers and computer equipment);
- Self-storage-self-service warehouses for small businesses;
- Timberland-forest plots, sawmills, etc. (such REITs also harvest and sell wood);
- Specialized-other types of real estate that are not included in the list above (for example, casinos, billboards, airlines, airports,
- Diversified-a fund that invests in several types of real estate.

Thus, there is no abstract “spherical in a vacuum” REIT in nature. Be sure to look at where exactly the fund invests: in what type of real estate and in what country.

For a long time, these companies enjoyed a bad reputation as a result of the failure of mortgage REITs in the 1970s and high inflation, which significantly slowed down the development of companies in the 1980s. The nineties of the twentieth century were a time of change: low real estate prices allowed

REITs to actively expand their activities, and the companies' entry into the public market made them accessible to a wide range of investors [2].

### *1.2 Foreign Experience in using REITs*

As early as 2012, an official report published by the People's Bank of China (PBC) titled "China's Financial Market Development Report" (2011) introduced the concept of Real Estate Investment Trust (REIT) publicly in China for the first time.

However, what happened after 2012 was not what many scholars and financial experts expected. In the nearly 10 years from 2011 to 2020, barely any successful REIT have been issued or traded, nor were any detailed and developed policies guiding REITs published by the authorities.

In June 2020, the General Office of the State Council issued "Several Opinions on Accelerating the Cultivation and Development of the Rental Housing Market." The "Opinions" sent the signal that the government in China, for the first time in the past decades, switched its focus from building housing for sale and rapid urbanization to the cultivation and development of the rental housing market.

Can REIT in China live up to these expectations? What are the critical factors that incentivize the Chinese government to promote the rental housing sector now? If REITs do help to finance the sector, what were the government's concerns that led them not to promote or promulgate REITs since 2012 when they first floated the idea? This paper will answer these questions and explore both the opportunities and obstacles for REITs to really work in the rental housing market in China by:

- Exploring the reasons for introducing REITs recently as socio-technical innovations in the current Chinese real estate market from a macro and historical perspective;
- Examining some cases of the newly issued REIT-like companies in China.
- Reviewing the framework and system of REITs in US markets so as to draw lessons for China from a comparative perspective.

This thesis employs four types of research methods: literature review (including internet based investigation), interviews, case studies, and comparative analysis (which itself is based on literature review, interviews and case studies).

Another Chinese "REIT Similar" case that is analyzed in this paper is the one issued by Poly Real Estate Development, a state-owned development company. The scheme represents the first shelf-registered apartment REIT, and is also the first REIT case issued by a state-owned enterprise (SOE).

Much REIT research looks at the historical performance of REITs by comparing REITs with other traditional and alternative investments. They help to connect REITs' performances with a broader range of factors such as interest rates, global capital flows, mortgage supply and fundamental real estate cycles. Though Waldron's research is set up in the Irish post-crisis context, his observations are very compelling to China where the leverage level of the real estate sector is perceived to be very high, and one of the goals that REITs are expected to achieve is to provide a sustainable capital source for the rental apartment sector while deleveraging the overall Chinese real estate market.

The main interviewee of this paper is Mr. Paul Adornato, who has built his successful career in REIT

industry over the past 20 years. He witnessed and participated in the underwriting of US REIT IPO (Initial Public Offerings) boom in 1990s and has shared with the author many front-tier stories of the era.

Comparative analysis plays a very important role in this paper. There are at least two comparisons that are needed here. First, the vertical comparison, which is the comparison within a country across different times. The answer to both questions is “no”. That is, REITs may not appear to have a major impact on rental housing development. But through the explorations of these questions, we may gain some insight about the possibilities.

The development history of the REIT industry in the U.S. is examined in this paper to make comparisons with the development of REITs in China. Most research is built on the basis of the relatively mature and efficient capital and real estate markets in the U.S., while both are relatively underdeveloped in China.

With the combination of the methods above, the paper is structured in a way that starts from developing the claim that REIT can support the rental housing market by examining the theoretical mechanisms. The paper then tests the assumption through empirical data analysis and specific case studies. Finally, by examining the US historical experience and current practical experience of apartment REIT operation, the paper points out several suggestions for the REIT development in China.

The first side is about the motivations. What are the driving forces that stimulate the Chinese government’s promotions on rental apartment development as well as the advocacy of REITs? As mentioned before, it is not the first time that REITs came into the attention of the government’s decision-making level. Besides, the chapter also pictures the dynamic relationships of developers, buyers and tenants and real estate investors in the same period.

The other side is about the favorable policies, driven by the motivations above, that have been published and implemented so far. The section further discusses the sub-level mechanisms that transform these political support into straightforward driving forces for the growth of rental apartment sector and the development of REITs in China.

By definition, an equity REIT is a company that, as its principal business, buys, manages, renovates, maintains, and occasionally sells real properties. Many are also able to develop new properties when the economic conditions are favorable. A mortgage REIT is a REIT that makes and holds loans and other bond-like obligations that are secured by real estate collateral. Hybrid REITs own both properties and mortgages.

In the US, all the above three types of REITs exist, but in practice, even mortgage REITs typically behave like equity rather than debt. This is in part because mortgage REITs tend to be highly leveraged, so the debt on the liability side of their balance sheets largely offsets the debt-like characteristics on the asset side.

REITs possess portfolios of income-producing properties of various categories, ranging from office, retail facilities, apartment buildings, industrial parks to health facilities, and etc. All of these types have

specific advantages, risks, idiosyncrasies, and cycles that set them apart from the others.

Although many of the issues discussed are applicable to all types of REITs, this paper focuses primarily on publicly traded equity REITs for two reasons. First, this type of REIT has been at the epicenter of the policy discussions and practical explorations in China addressed in this paper. Second, publicly traded equity REITs account for more than 94% of the total public REIT market capitalization. Mortgage REITs are excluded because they account for a very small fraction of the industry and cannot well represent the equity essence and the other investment characteristics of REITs.

In summary, all the REITs-related concepts and descriptions in the rest of this paper, if not explained specifically, refer to publicly listed REITs.

The valuation of REITs could be analyzed from two perspectives: REITs as collections of assets or REITs as streams of cash flows.

Viewed as a stream of future cash flows, the valuation of a REIT is not so different compared to the valuation of other types of stocks. However, due to the dividend payout requirement of REITs, shareholders of REIT companies care more about the future dividends amount than those of non-REIT companies that have huge corporate-retained earnings and small payout ratios. The formula for the cash flows valuation is below, where  $E$  represent the current value of the firm's equity,  $DIV_t$  refers to the annual dividends expected to be distributed by the REIT in year  $t$ , and  $r$  refers to the stock market's required long-run total return expectation for investments in the REIT shares.

$$E_0 = \frac{DIV_1}{(1+r)} + \frac{DIV_2}{(1+r)^2} + \frac{DIV_3}{(1+r)^3} + \dots = \sum_{t=1}^{\infty} \frac{DIV_t}{(1+r)^t} \quad (1)$$

Alternatively, REITs can be uniquely treated as collections of physical capital. Given a well-functioning primary real estate market, the value of a REIT can be estimated by the value of property assets that it holds. It is thus necessary to subtract the value of the REIT's current liabilities and adjust for any non-asset-based value the REIT might have, such as property management services, to reach the net asset value (NAV) of the REIT.

By either method, the valuation of a REIT fundamentally reflects the income generating capacity of the properties it holds as well as the property management capacity of the REIT company. But the valuation methodology or philosophy has to be adjusted within different geographical and cultural contexts.

Investors are heterogeneous in terms of different investment objectives and constraints, which lays the foundation for a market in investment products. The investment industry matches heterogeneous investors with heterogeneous productive assets.

In the 1990s, the "securitization revolution" of commercial real estate saw a tremendous development of a second-level of investment products in the US: the REITs and CMBS. REITs are essentially equity products, whereas CMBSs are characterized by debts.



**Table 1. Typical Concerns and Constraints That Investors Have**

Risk	The possibility that future investment performance may vary over time in a manner that is not entirely predictable at the time when the investment is made.
Liquidity	The ability to sell and buy investment assets quickly without significantly affecting the price of the assets.
Time Horizon	The future time over which the investor's objectives, constraints, and concerns are relevant.
Investor Expertise and Management Burden	How much knowledge, ability, and desire the investor has to manage the investment process and the investment assets.
Investor Size	How "big" the investor is in terms of the amount of capital in need of investment
Capital Constraint	Whether the investor faces an absolute constraint on the amount of capital he or she has available to invest, or can obtain additional capital relatively easily if good investment opportunities are available.

REITs, in the same manner as the other investment products or vehicles, add value by matching and connecting sources and uses of capital. Finally, unless the investor purchases a large proportion of all the REIT shares, the investor will have little management burden because REITs are typically managed actively by the company's professional management teams. The table below depicts how the characteristics of REITs speak to varied concerns and constraints of real estate investors.

To understand how REITs can potentially support the rental market, we need to first trace back to the basic mechanisms of REITs from a theoretical perspective. The following chapters provide practical cases and empirical evidence to further testify these mechanisms and assumptions. Here, we introduce three fundamental factors. First, REITs need to generate on-going income, and rental apartments do that. Second, public REITs provide liquidity for their investors, and are accessible to a broad group of investors including small investors, hence, can attract capital for building rental apartment properties. Third, REITs need to, and have the scale and specialization to enable them to, provide skilled professional operational management of rental properties. We elaborate on these three points below.

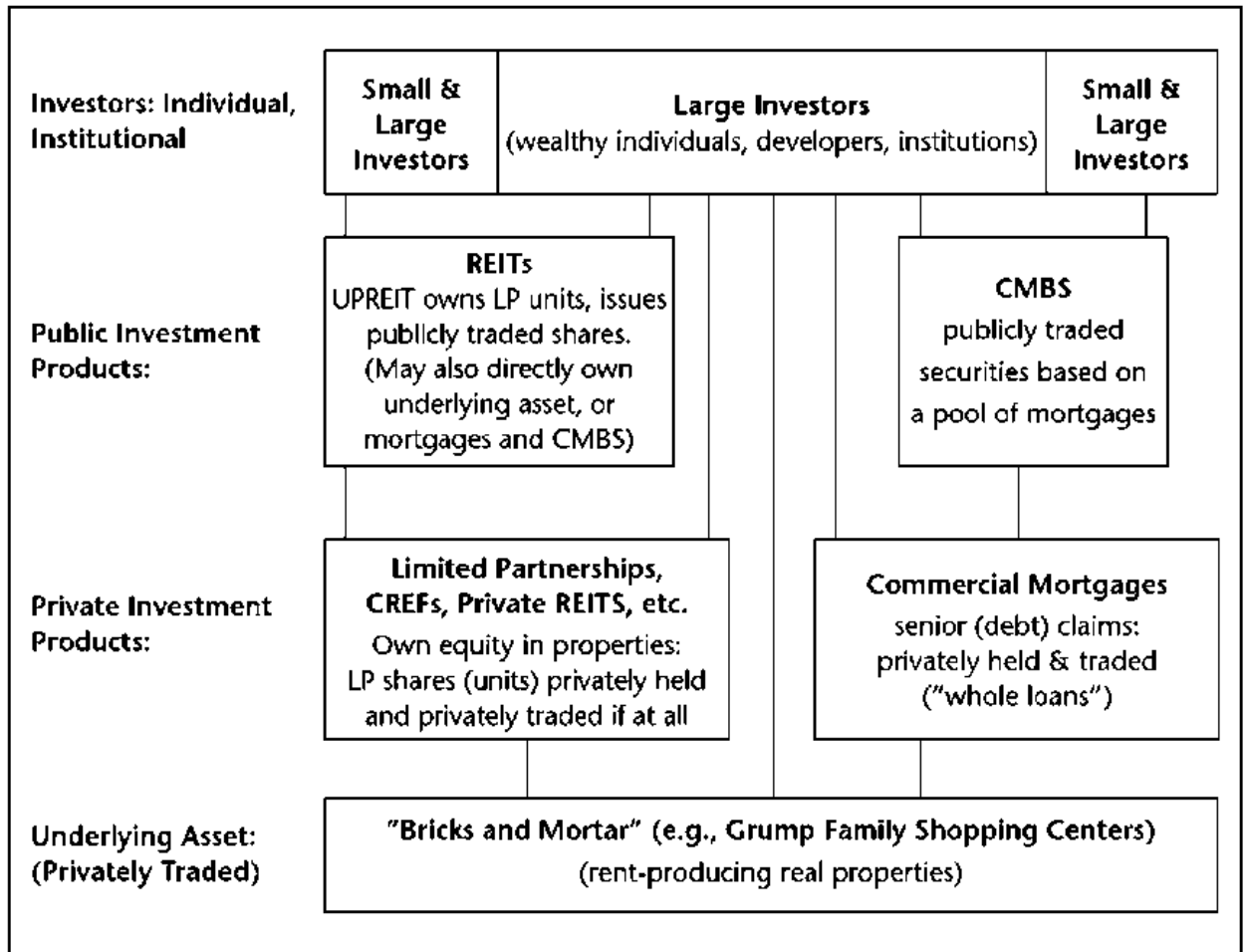


Figure 1. Real Estate Investment System in US

The set-up of REITs’ underlying properties needs to be income-producing, as do “commercial properties” in the US context. The opposite of commercial property is owner-occupied home. By this definition, the commercial residential properties in China are very scarce.

The reasons are twofold. First

Table 2. Typical Concerns and Constraints That Investors Face

Risk	REITs are typically actively managed firms that may engage in buying and selling of properties as well as property management. Thus, the risk of the REIT reflects the risk of the REIT’s management, including the stock market’s perception of their abilities and future opportunities, as well as the nature of their existing portfolio of properties.
Liquidity	Publicly traded REITs provide investors with high liquidity.
Time Horizon	Perpetual ownership vehicle.
Investor Expertise	and Publicly traded REITs typically specialize in investing in, and often actively developing and

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Management Burden	managing portfolios of commercial property equity. These activities are conducted by the REIT's professional management, thus relieving management burden for investors, except those who own a large proportion of all the REIT shares.
Investor Size and Capital Constraint	REITs shares are small, enabling small individual investors to participate in commercial property investment.

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The above two reasons show the scarcity of commercial properties in the residential sector in China. The developers of these residential buildings get their profit by once-off capital gain rather than rental income. Obviously, apartment REITs do not have a solid and board fundamental in China given this landscape of residential sector.

Besides REITs, there are a number of ways investors can choose to hold or invest in real estate, such as direct individual ownership, private partnership, and holding shares of traditional property companies which develop and operate real estate. But let's consider how these other ways compare to REITs in terms of liquidity and accessibility (of the investment to a broad range of investors).

Investors like liquidity, real estate investors are no different in this. However, liquidity has been a major constraint or concern in traditional real estate investment due to the high transaction cost. Property assets may need a long time to sell at a less discounted value, compared to publicly traded stocks and bonds. The process of selling a single piece of real property may be very time-consuming and risky for individual property owners.

Some research has demonstrated the value of such expertise quantitatively with historical performance data. REIT management teams have typically grown the REIT's cash flows by 4-6 percent annually—and sometimes much more. Adding a 5 percent dividend yield to capital appreciation of 4-6 percent, resulting from a 4-6 percent annual increase in operating cash flow, provides for total return prospects of 9-11 percent.

In China, a clear legal and administrative guidance for governing residential tenancy has long been absent. This absence undermines the quality of rental housing services significantly and thus creates market opportunities for the institutional apartment operators to capture value by competing for more professional and reliable apartment services.

The importance of management expertise is amplified by REITs. Because of the fact that REIT investors are actually buying a bundle of underlying assets and management expertise, competition for efficient property management will naturally motivate the operators to provide better services to attract tenants and build up tenants' loyalty.

Furthermore, REIT as an equity product requires stable and sustainable income generation to pay back investors, thus it is not designed to serve the "merchant developers". Thus the introduction and promotion of REITs is exclusively beneficial to the investors and companies who pursue profitable opportunities from holding properties.

In summary, REIT management teams not only contribute property management expertise but also

sophisticated financial skills. This attribute effectively links and coordinates the asset market and the capital market. Presumable results accordingly are that REITs can help to tap a very large capital market which can flow into the rental apartment sector. Besides, with financial support and sophisticated management teams, REITs can help make better use of existing assets with a better management capacity.

## **2. The Opportunities for Rental Apartment and Reits in China from a Macro Background Perspective**

### *2.1 Operation of REIT funds in China*

The Securities Regulatory Commission of China may soon allow Penghua Qianhai Vanke to create a REIT fund (Real Estate Investment Trust, real estate mutual investment fund).

Penghua Qianhai Vanke is the largest residential property developer in the country. If approved, it will be the first REIT fund in China.

Along with easing monetary and regulatory policies, the creation of REIT funds, according to the authorities, will help to stabilize the real estate sector.

Due to the boom in the last decade, developers and real estate companies have accumulated excess debt. The Chinese authorities are currently looking for a way to deal with huge debts without hurting economic growth. They believe that REIT funds will offer a new source of funding, which will reduce dependence on unregulated shadow banking and restore confidence in the financial sector.

Although Chinese REIT funds seem profitable in theory, it is not known whether they will become effective investment vehicles. Rental income outside of major cities remains low. There are also unresolved tax issues regarding funds and their shareholders. To date, there is no official document regulating Chinese REIT funds.

The real estate market in China is in a difficult position. In May 2020, the State Council of China published its proposals for “further promoting the healthy development of capital markets”, which considered the creation of REIT funds. This happened during the downturn in the Chinese real estate sector. The official index of housing prices in 70 cities in China shows that in March 2021, prices for new properties fell by an average of 6% compared to the same period last year. The decline in prices has been observed for the seventh month in a row.

To create real estate liquidity, the Chinese authorities are taking a two-pronged approach: lower rates and weaker regulatory oversight. According to officials, this will help banks roll over debt and allow the creation of new products (for example, REIT funds) to give developers easy access to financing.

Last month, Chinese authorities further relaxed rules on asset-backed securities, allowing banks not to get official approval to issue such products. Once the banks are licensed by the China Banking Regulatory Commission, they will be able to create securitized products at their discretion (a form of raising financing by issuing securities that generate stable rental income).

The People’s Bank of China cut its key rate by 25 basis points to 5.1%. This is the third rate cut in six

months. The central bank hopes that lower rates will encourage bank lending.

The authorities are likely to further relax the rules and by the end of 2020 will allow the issuance of mortgage - backed securities backed by commercial real estate (CMBS, commercial mortgage-backed security), according to representatives of financial analysis firms China Merchants Securities Co. and China Chengxin International Credit Rating Co.

The issuance of RMBS and CMBS is likely to help banks burdened with housing debt reduce the size of their balance sheets. These tools are quite complex and, as a rule, are focused only on institutional investors (legal entities acting as holders of funds in the form of contributions, shares, etc.).

Entering the market of REIT funds creates a new source of capital for developers. However, their creators still have many legal and tax problems.

REIT funds are taxed at the investor level. However, a relatively high effective (real) real estate tax rate can greatly reduce an investor's income. Chinese property developers will have to resolve several complex tax issues in order to transfer their assets to REIT funds.

The rating agency Fitch Ratings says that even if the rules are relaxed, Chinese REIT funds are unlikely to grow significantly in the short and medium term due to small profits.

Most investment property (real estate that is held for rental income or for the future increase in its value) in China is of poor quality and has a low rental yield of less than 4%. This return will be offset by high internal borrowing costs of 6% or more. Thus, the shareholders of REIT funds are left with very little profit.

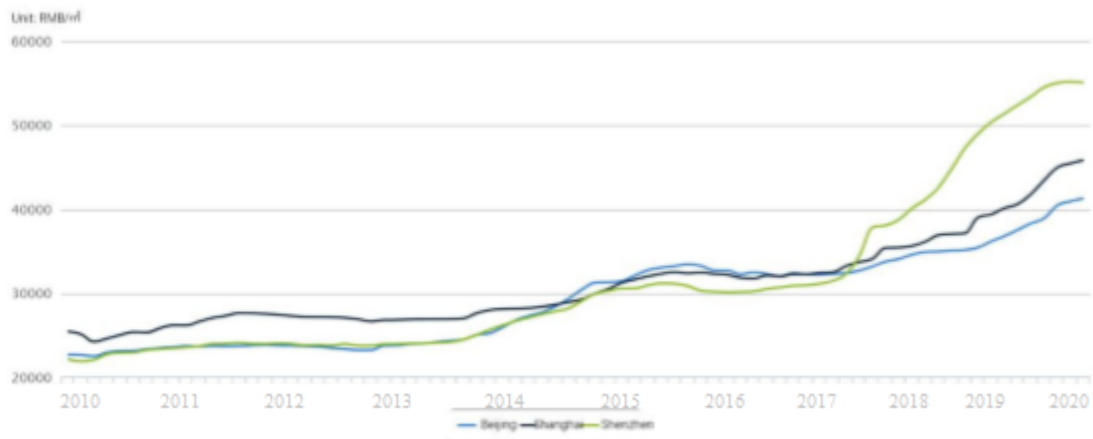
## *2.2 Rental Market in China*

As illustrated before, geographical factors matter a lot when studying the Chinese real estate market. This section mainly focuses on first-tier cities where most of the recent successfully issued rental apartment REITs have exposure.

Both the real estate market fundamentals and the policy preferences bring about the opportunities and requirements for the development of rental apartments.

Seen from real estate market fundamentals, the boom of the real estate sector in the past decades has been significantly supported by aggressive borrowing both by home buyers and by housing enterprises. Some research has shown the different influence that the leverage level has had on different groups of cities. According to data from CREIS, the average price/m<sup>2</sup> in Beijing, Shanghai and Shenzhen, from June 2010 to June 2020, has increased by 65%, 59%, 136% respectively.

The Figure 2 shows average housing price in Beijing, Shanghai, Shenzhen in 2010-2020.



**Figure 2. Average Housing Price in Beijing, Shanghai, Shenzhen (2010-2020)**

In a typical real estate cycle, rents and property values begin to rise as the economy and demand for space expands; at a certain point, new building accelerates to take advantage of the higher values; the market becomes overbuilt, but new construction continues to come online because of the time lag in construction; values fall due to oversupply. These cities have strong attractiveness to the migrants all across the country because of their mature and comprehensive economic structure.

Tier one cities like Beijing, Shanghai and Shenzhen have developed into a stage where knowledge-intensive and technology-intensive industries play more important roles in supporting fiscal income compared to land finance. Human capital is the most valuable resource to the sustainable development of an economy. Accordingly, one priority issue that needs to be solved is the accommodation of these talents.

Besides the regulations on the leverage level, restrictive policies have been published simultaneously to limit the supply of traditional residential land while providing a separate channel for rental housing land supply. The goal is to suppress home purchases as well as stimulate demand for rental housing via the cross-elasticity of demand.

In general, the policies and documents have provided support to the rental housing sector from two aspects: increasing the accessibility of land for rental apartments and tapping a broader source of capital, i.e., financial support, for the development of rental apartments.

The land resource in China is usually regarded as an important vehicle to help fulfill the country's macro-level strategy and help implement relevant policies. This is also the case in the current wave of promoting rental apartment.

The conflict between the rising value of the collective-owned land and the lack of legitimacy to develop it and sell the units into the market is becoming more obvious, especially in the big Chinese cities where formal housing prices are constantly rising and increasingly unaffordable for many urban residents.

In summary, the accessibility of rural collective land for rental apartment largely cuts the land cost of

rental apartment thus also help to maintain the rental to an affordable level for tenants. It also helps to make better use of the existing assets on the collective land and provides new profit channels for rural collectives.

As explained in Chapter two, the several key factors of a typical REIT: requirement for long-term and constant dividends; effective asset management; sophisticated financial skills of the management team as well as equity investment, make REIT a favorable choice to promote the development of rental apartment in a high-levered macro environment. In other words, REIT is expected to tap a broader capital source for developing rental market without continuously leveraging up the real estate sector like what construction and development bank loans did.

It is further described in the next chapter that the recent “breakthroughs” in REITs in China are largely credit to the political support and relevant preferential policies. Meanwhile, the rental apartment operators also benefit from the accessibility of other financial vehicles such as rental income asset based securitization (ABS), asset based notes (ABN) and commercial mortgage based securitization (CMBS). These financial vehicles have been recently introduced in China. Actually both ABS and CMBS were frequently issued but previously the underlying assets normally were limited to consumer mortgages, infrastructure projects, shopping malls, office buildings and so forth. It is the current boost of rental apartment that enables the rental apartments to be used as underlying assets to issue ABS, ABN and CMBS.

### **3. The current Landscape of Institutional Rental Apartments in China and Its Implication for Reits**

#### *3.1 Current State of Institutional Rental Apartments in China*

Upon establishment of the People’s Republic of China in 1949, the Chinese government applied a social system to distribute housing to workers as part of the social welfare in the urban areas. Housing could only be assigned and transferred under the control of the government. Housing was not a commodity therefore cannot be freely traded in the market. Since 1979, when China put forward the economic reform policy, some pilot programs on housing reform were also underway. In 1990, a Housing Provident Fund System was introduced in Shanghai to replace the social welfare system and was soon approved in twenty-four cities including Beijing. The fund was used as a financing source for workers to purchase their previously assigned housing units at a discount rate.

In 1994, the State Council issued “The Decision on Deepening the Reform of Urban Housing System” which unequivocally set three prices at which the houses could be sold: market price, cost price and standard price. Banks launched the secured loan business for individuals to purchase houses. The relationship between government’s control of the land use rights and developer’s speculation on the land use rights has been one of the most determining factors (another factor is considered as government’s control on bank’s lending policy) influencing the Chinese real estate market even until today. China’s state-ownership of the land and its government’s changing land use policies, coupled

with government's monetary control over the central bank system, are truly unique and fundamental differences that set China apart from other markets around the world, impacting the supply-demand dynamic of both the property and capital sides.

Rural-urban migration is directly linked to the development process of countries and has significant social, economic and political consequences.

#### The Land System of China

a) Ownership of the Land According to the Constitution of China, unless specified by law, all land in China is owned by the State in the urban areas and is owned collectively by rural residents in the rural areas. Prior to 1986, all land is treated as allocated. The Civil Law of 1986 introduced a land use rights tenure system in China that distinguishes between the ownership of the land and the right to use the land.

b) The Primary Land Development Land (except collectively owned land) is State owned in China and is strictly controlled by the Land Resource and Management Bureau at the national, provincial and local levels. Converting "raw land" into "developable land" with sufficient infrastructure support (water, sewer, electric, etc.) is called primary land development.

Chinese government's strict control on primary land speculation by the private sector.

c). The Grant of the Land Use Rights Under the current urban land regulations, the grant of a land use right by the government to a land user is for a definite period of time and is subject to the payment of a land premium by the land user as a result of an agreement, public auction tender or bidding. The maximum term of the land use right depends on the type of land use, outlined as follows.

**Table 3. China's Maximum Term of the Land Use Rights by Type**

Land Use	Type Maximum
Term Residential	Up to 70 years
Industrial	Up to 50 years
Education, science, culture, public health or physical education uses	Up to 50 years
Commercial, tourism and entertainment	Up to 40 years
Comprehensive utilization or all other uses	Up to 50 years

*Source:* The Urban Land Regulations of China.

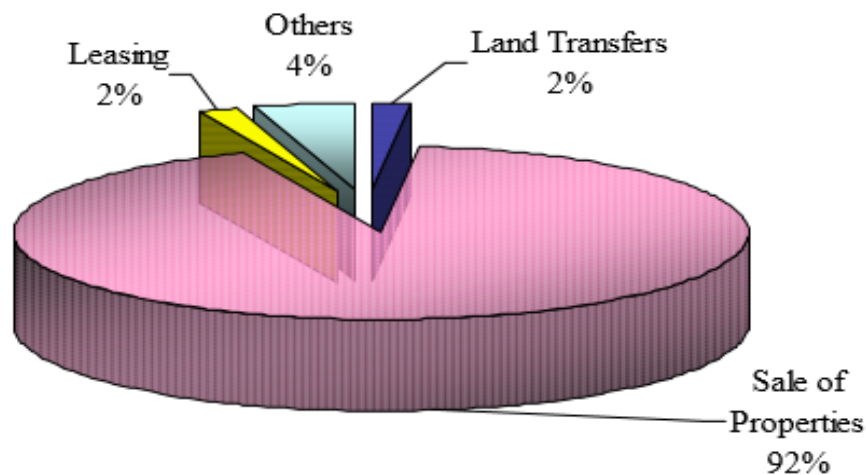
Office, retail, hotel, and serviced apartment etc. are categorized as commercial and have a maximum term of 40 years on their land use rights.

Under the Property Right Law of China promulgated in 2019, upon expiration of the land use right term, it is possible for the land users to renew the term with a new payment. However, the law has not yet provided details on how to renew the terms. If the term is not renewed, the land use right and



ownership of any building thereon will revert to the State without compensation.

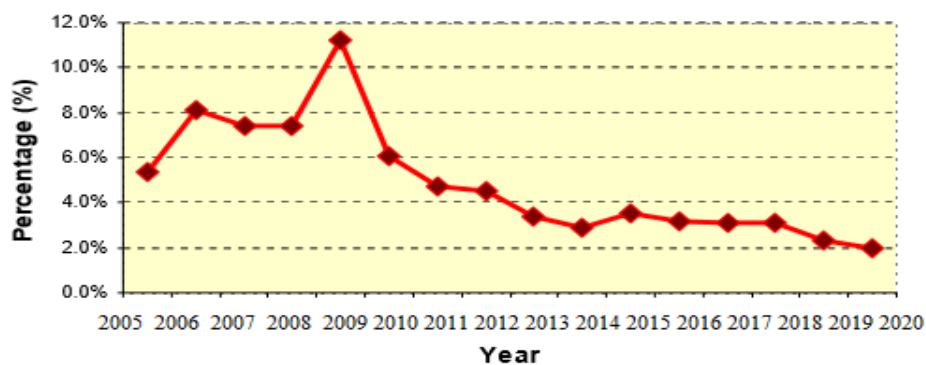
Land use rights will terminate upon expiration of the term of the grant specified in the relevant land use grant contract. Land use rights may also terminate upon withdrawal of the land use right by the State or loss of the land etc. Total revenue of the real estate enterprises in China was totaled at RMB1, 805 billion in 2019. The largest source of revenue, by far, is the sale of the property. About 92% of the total revenue in 2019 came from the sale of properties. Land transfer, leasing and others accounted for the remaining 2%, 2%, and 4% of the total revenue, respectively.



**Figure 3. Total Chinese Real Estate Revenue by Source of Income, 2019**

Source: China Yearly Statistic Book of 2020

It is interesting to point out that between 1991 and 2019, as illustrated in Figure 5 below, revenue from land transfers peaked in 1995 at 11.2% of the total revenue, but declined continuously since then, to less than 2% of the total revenue in 2019. Data reveals that it is becoming increasingly difficult for Chinese real estate companies to make profit from land speculation. It also reflects the Chinese Central Government's emphasis on land use policy as an important macroeconomic control measure.



#### Figure 4. Trend of China's Real Estate Revenue from Land Transfers, 2005-2020

Source: China Yearly Statistic Book of 2020.

Understanding these unique features of the Chinese real estate sector sets an important foundation as we examine further into the current status of China's property and capital markets.

According to official data released by the CNBS, investment of real estate assets in China was totaled at RMB1, 938 billion in 2019, representing an increase of 21.8% as compared to 2018. Investment of real estate assets contributed more than 9% of China's GDP in 2019.

In 2019, over 70% of the total investment was made towards new residential properties, while only 17% was made on developing commercial properties. The heavily weighted investment in the residential sector reflects the current emerging stage of China's economic cycle and the strong demand driven by rapid urbanization and increasing levels of income and purchasing power of the Chinese residents.

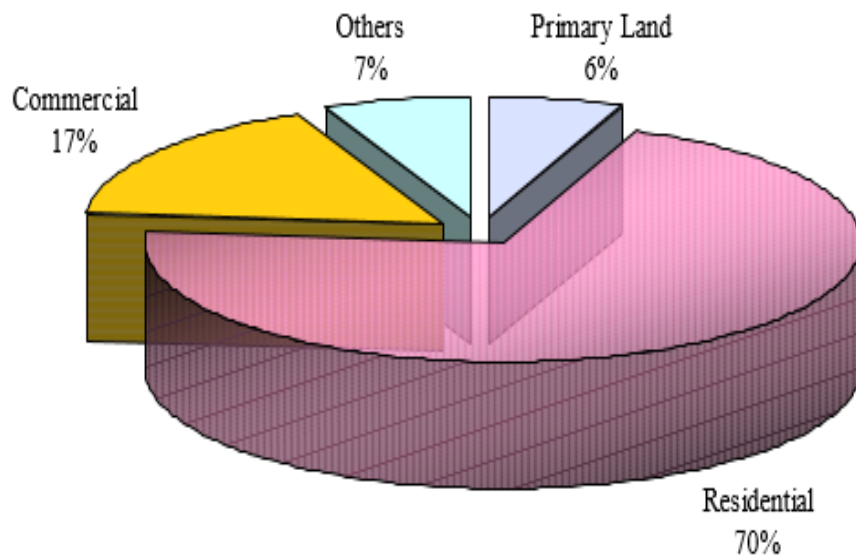
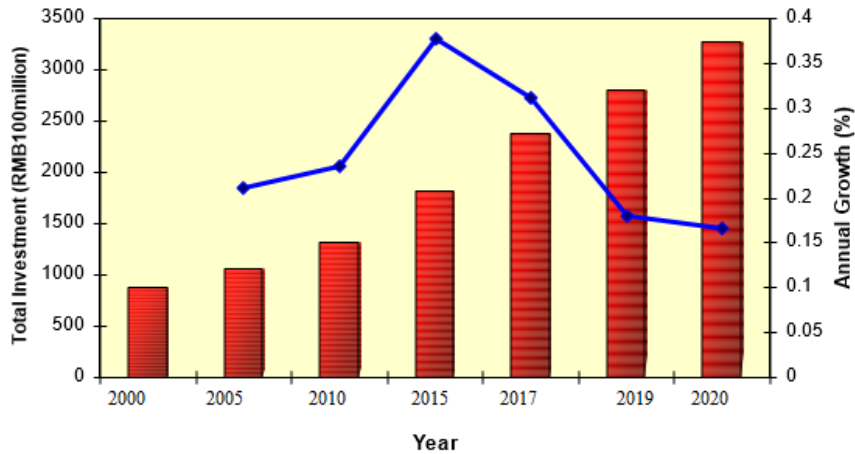


Figure 5. China's Real Estate Investment by Type, 2019

Source: China Real Estate Development Report of 2019

In 2019, investment of commercial real estate in China was totaled at RMB328.9 billion. As figure 3.3 reveals, commercial real estate represented about 16.9% of China's total real estate investments in 2019. Although commercial real estate still accounts for a small share of China's real estate market, since 2000, investment in China's commercial real estate assets has been growing at two-digit rates, ranging between 17% and 38%, every year, as Figure 7 shows.



**Figure 6. Commercial Real Estate Investment in China, 2000-2020**

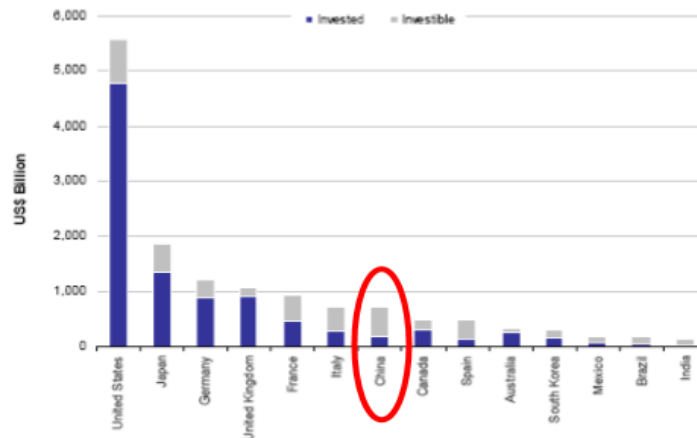
Source: China Yearly Statistics Book of 2019, CNBS

The growth trend has been and will continuously be driven by an increasing number of business activities in China. Business activities were run predominately by State-owned entities and were highly restricted to both private domestic firms and foreign companies in China. Since China’s major economic reform in the early 1990s and accession to the World Trade Organization in 2001, more sectors, particularly the service sectors, have been substantially privatized and have been continuously opening up to the world.

*3.2 China’s Commercial Real Estate Sector Growth Potential REIT*

The growth potential of China’s commercial real estate sector can be further supported by findings from a recent research conducted by RREEF.

It shows that the U.S. accounts for more than a third of the global total, followed by Japan, Germany and the UK. China, although is recognized as a sizable market with significant amount of commercial real estate assets, the invested share of these assets remains at a low point.



**Figure 7. World’s Top 10 Real Estate Markets by Investable Commercial Properties, 2019**

Source: RREEF Research  
Capital Market Overview.

This section provides a general picture of China's capital market, particularly on those financing vehicles available to the real estate sector, and reveals how real estate projects get financed in China. It helps us to understand how a REIT structure may potentially fit into this dynamic yet emerging country.

The four-quadrant table below summarizes the major types of capital asset markets and investment products in the U.S. and in China. It is evident that China's capital market is still an immature and controlled market, and is in major shortage of many financial products on both debt and equity sides, compared to a sophisticated market like the United States.

**Table 4. Four-Quadrant**

	Public Markets	Private Markets
Equity Assets	Stocks REITs Mutual Funds	Real Property Private Equity Hedge Funds
Debt Assets	Bonds MBS Money Instruments	Bank Loans Whole Mortgages Venture Debt & LBOs

**Major Types of Capital Asset Markets and Investment Products, China**

	Public Markets	Private Markets
Equity Assets	Stocks Pension Funds	Real Property Private Equity Trust
Debt Assets	Government Bonds Corporate Bonds	Bank Loans

Source: Geltner, D., Miller, N.G. Commercial Real Estate Analysis and Investments, 2nd ed., South-Western/College Publishing Co., Mason, OH, USA. 2019.; research interviews conducted in China.

The following section describes the above key asset classes that are currently available in China's public and private capital markets.

a). Private Debt - Bank Loans. In 2020, there are 3 policy banks, 5 state-owned commercial banks, 12 incorporated commercial banks, 124 city commercial banks, 48 city credit unions, and 8,497 rural credit unions in various forms in China.

With China's accession to the WTO and further opening up of the banking sector, foreign banks will inevitably compete with China's domestic banks in the real estate sector by providing long term development loans and other financial products to meet the market needs.

Specific to the real estate sector, the Chinese commercial banks provide the following loans to real estate companies in China: Land Loan: loan value cannot exceed 70% of the appraised land value; maximum loan term of 2 years. Construction Loan: minimum requirement of 35% equity of the

estimated total development budget; equity shall go into the project prior to the bank loan. Housing mortgage loan to individuals: a minimum of 30% down payment; floating rate determined by the Central Bank of China; maximum loan term of 30 years.

Total loans made to real estate enterprises and individual consumers for housing purchase exceeded 20% of total bank loans in China in 2020, rising from less than 4% in 1998.

b). Public Debt-Corporate Bonds. In China, government bond is not available for the real estate companies to finance their development projects. Corporate bond is available to the real estate sector in China. However, it is strictly regulated and controlled under the current banking and security regulatory framework. For example, in 2008, the China Banking Regulatory Commission (CBRC), for the first time, approved three Chinese real estate companies to issue corporate bonds, namely Polly, Vanke and Xihu.

c). Private Equity-Trusts and Funds. The China Trust Law of 2001 gave birth to a new financing tool in China's real estate sector, the trust. It is important to note that the trusts as currently existing in China are neither limited to the real estate sector nor legally treated as corporations. In initial years, due to regulatory restrictions and market's unfamiliarity of this new product, the growth of trusts remained fairly slow in the real estate sector until 2017. It is important to note that the majority of the real estate trusts issued during this period was functioned as loans to developers.

Currently, there are a total of forty-eight trust companies registered under the China Security Regulatory Commission (CSRC) and no new trust company can be proved under the current regulations.

In 2019, the combination of bonds, trusts and funds sourced about 2% of the capital on real estate development projects in China.

d). Public Equity-Stocks and Pension Funds. By the end of 2019, there were 80 real estate companies listed on China's domestic A-share stock markets of Shanghai and Shenzhen, 5.6% of the total market asset value.

Given Chinese market's current limitation on real estate finance, many real estate companies choose to go public to raise money through the stock market as an alternative financing channel.

Constant policy changes and market fluctuations added tremendous pressure and challenge to the Chinese real estate developers as they continue to seek for additional financing sources and tools under the current regulatory constrains.

**Table 5. IPOs Issued by Chinese Real Estate Companies in Overseas Stock Markets, 2020**

Company	Listing Date	Offering Price	Capital Raised (in millions)	1st Day Price Increase	Area of Specialty
<b>Shenzhen</b>		<b>RMB</b>		<b>RMB</b>	
Rise Sun	Aug-07	12.93	905	292%	real estate development and management
Cosmos	Apr-07	10.8	680	76%	real estate investment, development and management
<b>Hong Kong</b>		<b>HK</b>		<b>HK</b>	
Zhong An	Nov-07	6.67	3622	0.60%	real estate development in Yangtze Delta Region
China Aoyuan	Oct-07	5.2	364	31%	residential development in Guangdong Province
SOHO	Oct-07	8.3	12857	15%	commercial and retail development particularly in Beijing
China Ocean Land	Sep-07	7.7	11943	44%	middle- to high-end residential development
Franshion PPT	Aug-07	2.35	332	-11%	residential and commercial development, leasing and
KWG Property	Jul-07	7.28	4550	8%	middle- to high-end residential development
Country Garden	Jun-07	5.38	12912	35%	property development and management; hotel management
China Properties	Feb-07	3.6	1620	-3%	residential and commercial development
Hong Long	Feb-07	1.8	450	24%	middle-class residential and commercial development; commercial property leasing
<b>United States</b>		<b>USD</b>		<b>USD</b>	
Xinyuan Real Estate Co.	Dec-07	14	300	20%	residential development focusing on tier II Chinese cities

Source: Ernst and Young China

Understanding the current regulatory framework of China is particularly important as China proves to be a marketplace with unique and complex characteristics. The legal system in matured REIT countries such as the United States and Australia, or in emerging REIT countries such as Singapore and Hong Kong, inherits the British Common Law System. China, on the contrary, is often considered by many as a country governed by people rather than by laws. The legal system in China is based on government policies, written statutes and interpretations.

This chapter provides an overview of China's regulatory environment and an update on the current regulations and laws that are most relevant to the future adoption of REITs in China. The chapter then summarizes current taxation guidelines that apply to real estate enterprises in China.

For foreign companies doing real estate businesses in China, Equity Joint Venture (EJV), Cooperative Joint Venture (CJV) and Wholly Foreign Owned Entity (WFOE) are the possible forms to consider and use. EJV is so far the most widely used form by foreign companies investing in China although WFOE is developing strongly. EJV and CJV are mostly regarded as enterprise legal person status under the Chinese law while WFOE is not. EJV and CJV therefore have the ability to acquire land, hiring

Chinese employees independently and constructing building etc. Foreign companies often set up offshore Special Purpose Vehicle (SPVs) under the WOFE in order to get capital in and out of China more freely and less expensively as opposed to onshore vehicles that are subject to additional regulations and taxation on profits. Land development in China, however, requires the formation of an EJV or CJV.

An EJV shall first pay off its income tax before making profit allocation. The reserve fund, employee's benefit plan and welfare fund, as well as company's development fund as determined by the board of directors shall also be paid off before profit allocation. Then the EJV shall allocate the net profit in proportion to the percentages of the registered capital paid by each shareholder or investor.

A WOFE shall also pay income tax first before allocating its profit. Additionally, 10% of the after-tax profit shall be allocated to a statutory reserve fund until the aggregate amount of such reserve exceeds 50% of its registered capital. If the WOFE's statutory common reserve fund is insufficient to make up its losses of the previous years, such losses shall be offset by the profit for the current year prior to profit allocation. A WOFE's after-tax remaining shall be distributed based on the percentage as agreed previously by shareholders or based on the actual percentage that shareholders paid up.

In March 2020, the China Banking Regulatory Commission (CBRC) updated its regulations in regards to the management of trusts in China, namely the new "Rules Governing Trust and Investment Companies" and the "Provisional Rules on Entrusted Funds".

The new regulations provides the following amendments:

- 1) The number of individual unit holder cannot exceed 50 people; no number limitation on institutional unit holders.
- 2) The trust company authorized by the CBRC is the sole beneficiary of the trust.
- 3) The introduction of the "qualified investor" concept to unit holders. It raises the bar of unit holding from minimum RMB50, 000 per unit to minimum RMB 1 million of total net wealth.
- 4) An increased level of transparency: trust plan shall be sufficiently detailed with investment strategy, profitability and risk analyses, risk distribution and the experience of the professional management team, etc.
- 5) The trust plan cannot be publicly advertised but the geographical restriction is dropped. It can be promoted through third party financial institutions such as the retail counter of the commercial banks.

These key issues, if stay unresolved, will prevent the existing Chinese real estate trusts from becoming a truly tax efficient, liquid and transparent investment vehicle that provides efficiency and diversification to the real estate capital market, whichever is called.

In April 2020, China announced the new Property Rights Law, which came into effect on October 1, 2020. The law, which has taken seven readings and thirteen years of debate to pass, makes a milestone for China on its path to an open market economy.

The new law, for the first time, recognizes that an individual's property right is equally protected as that afforded to the State and the collectives. The new law also provides significant improvements on

areas such as the renewal of land use rights and registration of property rights.

In practice, research interviews show that the new Property Law is viewed as a significant improvement on the recognition and protection of property rights in China although certain implementation details still remain unclear. Concerns over land use rights renewal is not regarded as a major risk in real estate transactions in the eyes of international community.

It is important to note that local governments collect some taxation items but tax revenues are shared between the local and central governments. For example, both business tax and land value appreciation tax are collected by local governments. However, business tax is a main revenue source for local governments while land value appreciation tax has to be shared between local and central governments and is a primary revenue source for the central government. Therefore, the taxation environment in China is location specific, which adds much complexity for businesses to follow the Chinese taxation system.

Real estate is a huge and growing business in China. Driven by a strong market demand, commercial real estate is at the beginning of a boom. However, real estate projects are difficult to get financed in China. Bank loan is the primary source of financing and is only available in the form of short-term construction loans. Alternative financing vehicles are very limited, which pose tremendous pressure on the balance sheets of the real estate developers, especially whenever the Central Government puts forward macro control policies by tightening bank lending. However, China's unique development history and features of the real estate sector pose great challenge to the adoption of REITs in China, such as a state-owned land system and the grant of the land use rights and uncertainty for renewal.

#### **4. Prospects for the Development of Reits in Chin**

##### *4.1 Improving the development of REITS in China*

At long last, China is launching real estate investment trusts (REITs). The country is taking a decidedly different route, however. The pilot program explicitly excludes residential and commercial real estate properties, and is instead starting with infrastructure. S&P Global Ratings believes "new economy" infrastructure assets will eventually dominate the trusts. In the longer term, investors will likely be more interested in REITs backed by 5G and data centers, than roads and power plants.

China has long bet big on the benefits of ambitious infrastructure investment, a strategy that allowed for rapid catch-up development and productivity gains. However, since the 2008 global crisis in particular, these investments increasingly became a growth driver in themselves, and often outpaced GDP growth. Some estimate the value of China's infrastructure assets at Chinese RMB 100 trillion-RMB150 trillion (US\$15 trillion-US\$22 trillion), a capital stock that was largely debt-fueled.

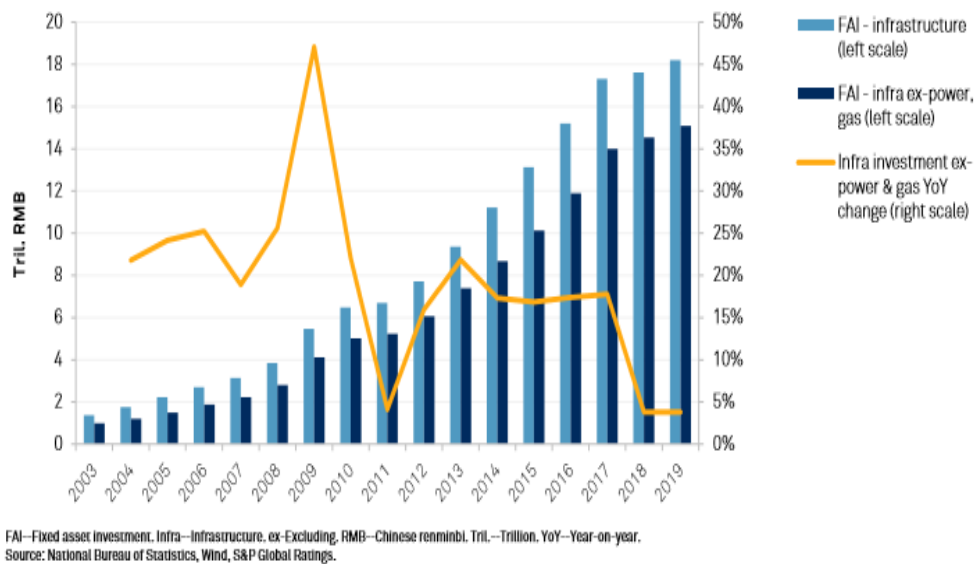
We see REITs as part of an evolving infrastructure financing framework aimed at relieving debt burdens for infrastructure developers. Switching to market-based frameworks should in turn influence the way projects are structured, with greater emphasis on internal cash generation and returns. Such a focus could direct more funds to "new economy" infrastructure versus traditional "public goods" that



are often not sufficiently paid for by users.

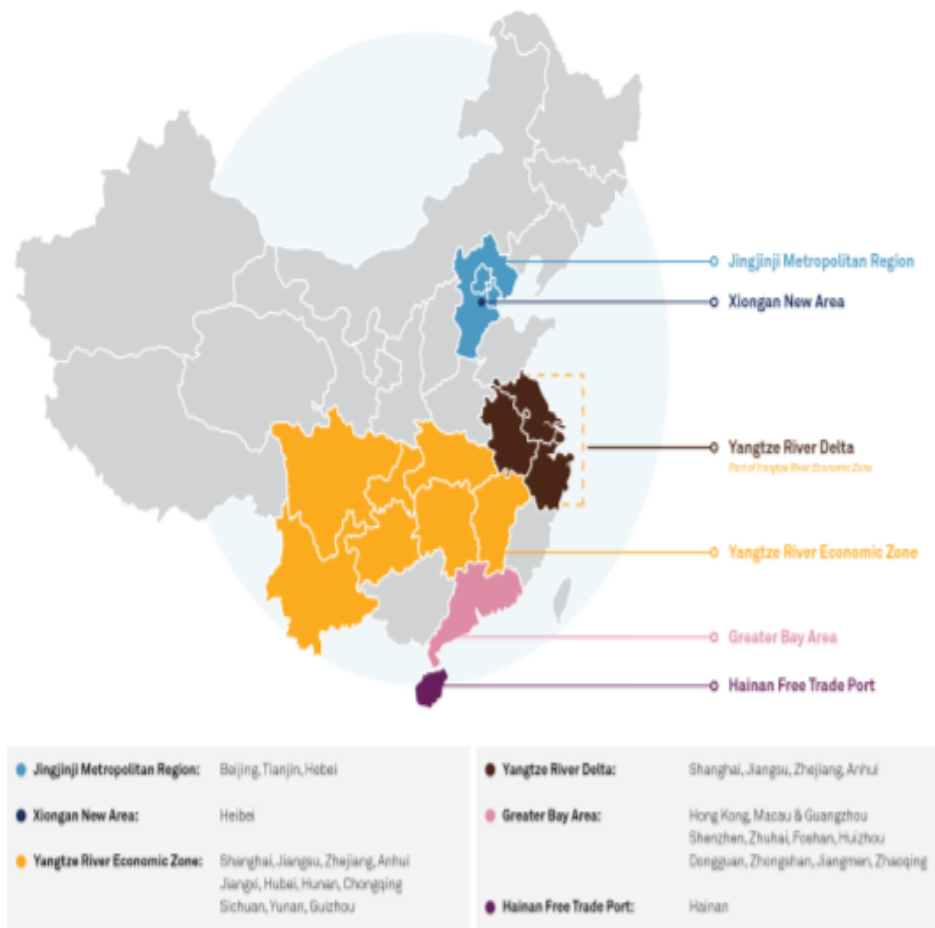
REITs add to financial market developments aimed at reducing debt risk for local governments. For example, five years ago, China launched a market for local governments to issue municipal like bonds rather than depend on off-balance LGFV-related debt. This both improved fiscal transparency and reined in overall spending. When the pandemic hit, the governments responded by significantly increasing the bond issuance as part of their stimulus packages. This however resulted in higher government debt this year.

REITs provide an equity finance option for further infrastructure development in China. Meanwhile, improved balance sheets will enhance their financing capacities for new investment. This process would also revitalize the existing assets by unlocking their value, and turn illiquid infrastructure assets to liquid REITs, which can be publicly traded.



**Figure 8. China's Massive Stock of Infrastructure Built with Credit**

Priority will go to target regions and sectors supporting national strategies. REIT assets should be located in six target regions assuming “national strategic importance” (Figure 9). State-level new areas, qualified development zones, and emerging industrial clusters supporting national strategies are specifically outlined as preferred areas as well



**Figure 9. Six Strategic Regions Will Get Priority in Infrastructure REIT Development**

**Table 6. Five Sectors Targeted for Infrastructure REITs Warehousing & Logistics**

Warehousing & logistics	
Transportation infrastructure	Toll roads, railways, airports, ports
Environmental protection	Sewage, garbage processing, solid and hazardous waste treatment
Urban utilities	Water, power, gas, and heat supply Data centers, artificial intelligence
New infrastructure	5G, cell towers, internet of things, broadband network, cable TV Smart transportation, smart energy, and smart city projects.

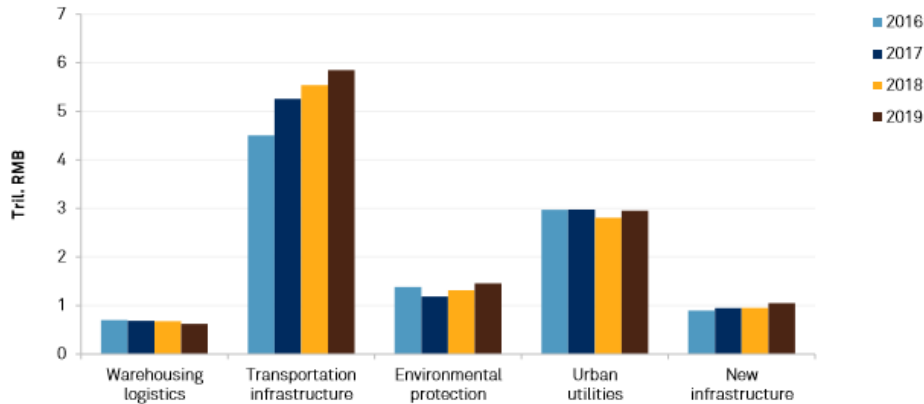
Source: China Securities Regulatory Commission, National Development and Reform Commission, S&P Global Ratings

**Table 7. Tough Terms and Limited Targets (a Summary of Key Terms Based on Infrastructure REIT Guidelines)**

1. Underlying Assets:	
(a) Asset location and sectors	Preference given to six target regions, and five target sectors.
(b). Legality	Completed projects in compliance with all rules and polices.
(c). Ownership	Full ownership of REITs in underlying assets free from liens and other legal encumbrances.
	At least three years of consistent and stable cash flow and reasonable returns.
(d). Operating period	Market-based returns, with no reliance on non-recurring income such as third-party subsidies.
2. REITs:	
(a). Distribution	Annual payout ratio of no less than 90%.
(b). Cash dividend yield	No less than 4%.
(c). Originator's shareholding	No less than 20%. Mandatory holding period of five years for portion within 20%; and three years for portion beyond 20%.
(d). Leverage	Total assets cannot exceed 140% of REIT's net assets, usage of debt limited to operation, maintenance & overhaul, and project acquisitions. Acquisition borrowings cannot exceed 20% of REITs net assets.
(e). Fund/asset management	Managers must have three years of operating track record, with corporate governance assessed as fair. Majority of senior managers must have no less than five years' experience in infrastructure projects operation.
3. Tax break	Not applicable at this stage.

*Source:* China Securities Regulatory Commission, National Development and Reform Commission, S&P Global Ratings

We believe a large number of infrastructure projects will not qualify for the program, given the restrictive guidelines. In particular, the underlying assets are unlikely to be able to generate sufficient operating cash flows to meet the minimum cash dividend yields of no less than 4%. Many existing projects were developed to meet the government's role in meeting social and political goals. Profitability was not a consideration.



**Figure 10. Targeted Segments Fixed Asset Investment Size of Five Target Sectors for REITs (2016-2019)**

REITs will typically adopt a transaction structure of “public fund plus ABS.” The infrastructure fund will apply 80% or more of proceeds to subscribe to the securities, which will be asset-backed securities (ABS). That is, the ABS will act as a conduit for passing through the cash flows from the underlying assets to the fund. In practice, one more layer--a private equity (PE) fund--between the ABS and the project company is likely. The PE fund would be set up to acquire all the shares of the project company, and make shareholder loans to enhance the equity return via leverage.

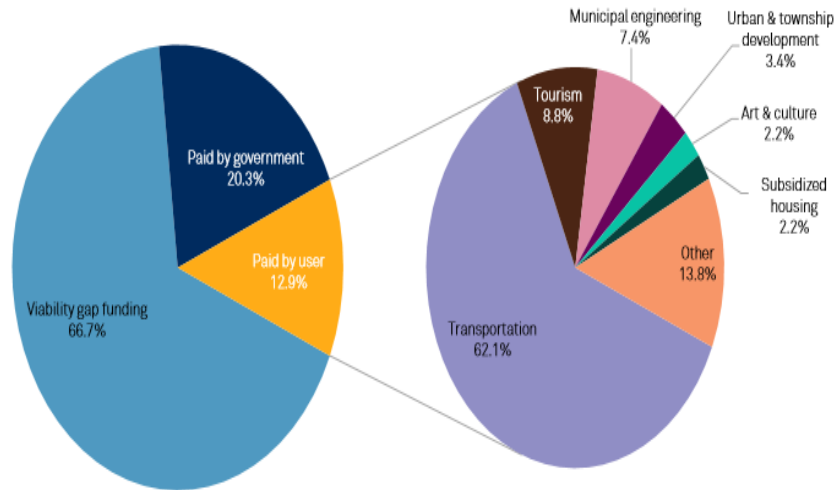
We believe the pilot REITs program itself is more of an experiment and will shortlist high quality projects in the target regions and sectors. Hence, the overall size will be relatively small; our rough estimate is US\$5 billion-US\$10 billion in the pilot stage. However, the experience and lessons will help authorities and the market to better understand REITs, and pave the way to scale up the infrastructure REITs market in China in the mid to longer term. After Circular 40 and supplemental rules were published earlier this year, a number of companies from target sectors either announced, or told the media, that they were interested in participating in the pilot scheme (table 4.3). Among a few others, Beijing Capital Co. Ltd. has already launched a proposed offering (see sidebar).

Originator	Underlying Assets	Location	Information Source
Beijing Capital Co. Ltd.	Sewage treatment	Shenzhen, Hefei	●
Bohai Water Industry Co. Ltd.	Sewage treatment	Tianjin	●
Anshun Water Supply Co.	Water supply	Guizhou	●
Zhejiang Expressway Co. Ltd.	Toll roads	Zhejiang	●
Zhongguancun Development Group Co., Ltd.	Industrial park	Beijing	●
Shenzhen Metro Group Co. Ltd.	Subway	Shenzhen	●
China Vanke Co. Ltd.	Warehousing logistics	Nation-wide	●
Hainan Development Holdings Co. Ltd.	Power generation	Hainan	●
Wuhan East Lake High Technology Group Co. Ltd.	Warehousing logistics	Hubei	●
Yuexiu Transport Infrastructure Ltd.	Toll roads	Hubei and Guangxi	●
Shanghai Zhangjiang Hi-Tech Park Development Co. Ltd.	Industrial park	Shanghai	●
Suzhou Industrial Park State-Owned Assets Holding Development Co. Ltd.	Industrial park	Suzhou	●
Shanghai Lingang Economic Development (Group) Co. Ltd.	Industrial park	Shanghai	●
China State Railway Group Co. Ltd.	Railway	Hubei	●
China State Railway Group Co. Ltd.	Railway	Hainan	●
China State Railway Group Co. Ltd.	Railway	Guangdong	●

●—Official company announcement, ●—Management interview with media. Source: Reports, company disclosures, S&P Global Ratings.

**Figure 11. Prospective Infrastructure REITs Pilot Projects**

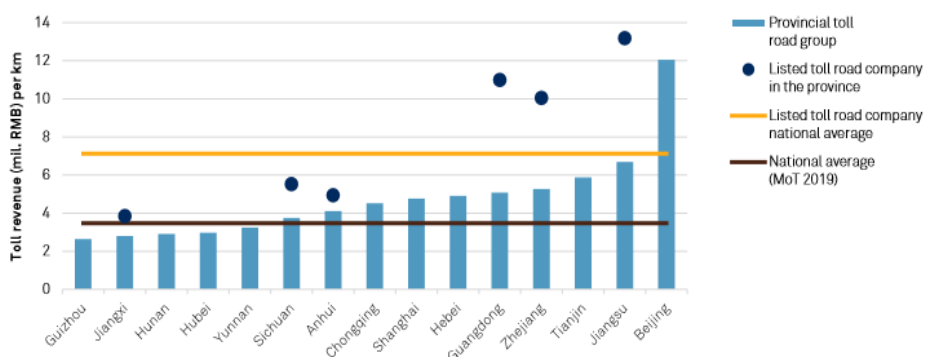
High bars and tough requirements are not the only hurdles. Other factors exist that could hinder the expansion of infrastructure REITs in China.



**Figure 12. Transportation Projects**

Transportation infrastructure is tightly regulated in pricing because the social goal of affordability of tolls generally overrides the profitability. Operation and revenues are susceptible to political interference without proper compensation. For example, all toll roads in China were required to suspend toll collection for 79 days earlier this year during the COVID-19 outbreak to support economic recovery and anti-epidemic measures.

Qualified assets should be free from liens and other legal encumbrances. In China, it is very common for developers to pledge future cash flows on projects to banks for securing long-term project loans. Hence, the originators need the banks’ consent to release the pledge and accept prepayment to meet the leverage cap on REITs through the listing proceeds.



**Figure 13. Asset Quality of Toll Roads in the Target Regions**

*4.2 REITs Development Trends in China*

REITs have to manage their financial leverage at low levels. Total assets of the infrastructure fund cannot exceed 140% of net assets, implying the ratio of total liabilities to total assets (gearing ratio) should be no more than 28.6%. Such a gearing cap is among the most stringent in the global REITs

market.

Most importantly, lack of tax breaks may reduce the appeal of China's REITs. In most markets, tax benefits are probably the most important motivation for launching and investing in REITs. The underlying assets of REITs use have reduced income tax or full exemptions. Thus, the benefits can pass to investors for higher returns, even if they do not enjoy direct tax holidays from investing in REITs. China has not yet tackled the tax issue, and the complicated "fund plus ABS" structure will involve multiple layers of asset transactions and return distributions, potentially leading to extra tax expenses for originators and other operating expenses of intermediaries.

We expect regulators will eventually introduce measures to address the tax ramifications of Chinese REITs as the market is further scaled up. Some local governments are moving fast and contemplating various incentives for local entities participating in the REITs program, such as lowering their corporate income taxes; and others may follow suit.

Over time, China's REIT market could rival the U.S. market.

While China's infrastructure REIT market will likely start slowly, the long-term potential is enormous. Given the sheer size of China's infrastructure market, even if just 1% of such assets were securitized and structured as trusts, that implies a RMB1 trillion-RMB1.5 trillion market.

Based on our assessment on the motivation for issuing REITs, and the quality needed to meet investor demand and China's guidelines, Figure 14 illustrates what the infrastructure trust market might look like over the next 10 years.



**Figure 14. Impact of Asset Quality and Motivation on China's REITs**

Market Bubble size represents potential scope of REIT market in the next 10 years.

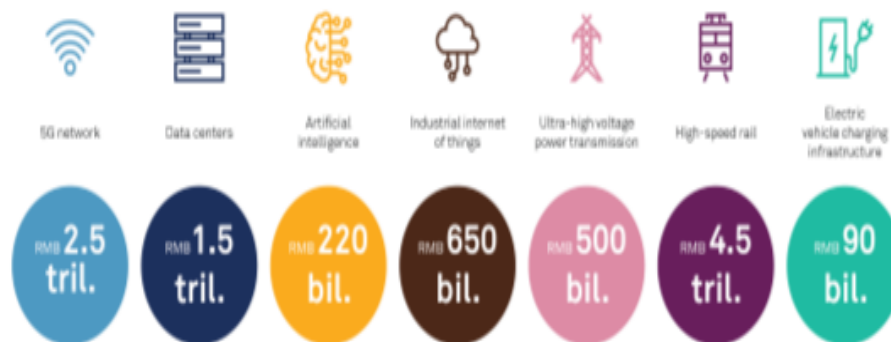
The following factors underpin our view of future market trends: Urban utilities and environmental services have more private capital than transportation assets. Concession agreements with local governments protect the monopolistic position of the operators in the service areas. In addition, ongoing urbanization and growth potential partly moderate the evolving regulation risk, and underpin their largely stable cash flows. Urban utility markets are segmented and a mix of both state-owned and

private operators.

China's booming e-commerce underscores the robust demand for warehousing logistics, especially for high-standard warehouses with superior location and well-developed transportation networks. Benefiting from a surge in online shopping and delivery services during COVID-19, the sector's stronger growth prospects and long-term rental income support stable and recurring cash flows to the operators.

"New infrastructure" will deepen digitalization of China's economy and society. While still only a small share of total infrastructure spending, this portion is definitely set to rise. New infrastructure covers seven categories, part of which relates to transportation infrastructure such as high-speed rail and subways.

IDC - the commercial real estate that houses the servers for internet communications-- also has long-term growth prospects. Rental income is the main source of revenue for vendors, which provide cabinets to corporate customers. The internal rate of return for this business can be as high as 10%-20%, and the cash inflow is relatively stable and visible.



**Figure 15. China's New Infrastructure Investment Through To 2025**

Correct the title of the picture and enlarge it, the text cannot be read.

A thriving REIT market in China ultimately depends on whether this new financial product can provide risk-adjusted returns to meet investor needs. Despite risks on capital gains and losses, REITs tend to be liquid and tradable financial products, and their dividends offer relatively stable and high cash distributions.

In China, we expect mainstream REIT investors to be institutional, in addition to the originators, which will retain at least 20% of offerings. Long-term investors such as pension funds and insurance companies will also likely be interested in this product for its yield and duration. Retail investors can invest up to 24% of total offerings.

China's 10-year treasuries lately offer yields of 3.0%-3.2%, so a minimum of 4% cash yield seems a low REIT premium based on differentials in mature markets. However, a 4% dividend payout is higher than most listed stocks in China and largely on par with major infrastructure stocks.



We believe China is more interested in the long-term development of this market than an exuberant start. The lessons and experience from the pilot program will be followed by more targeted and supportive policies for REITs development. This will likely include regulatory overhauls to allow tax benefits and other incentives.



**Figure 16. The U.S. Infrastructure REIT Market**

Given China's massive stock of infrastructure assets, booming e-commerce, and ambitious plan for new infrastructure, this market has potential to reach substantial size after start-up issues are resolved. By our rough estimates, infrastructure REITs could scale up to RMB2 trillion-RM5 trillion (US\$300 billion-US\$735 billion) over the next 10 years. This is a leap forward from the US\$5 billion-US\$10 billion we project in the pilot program.

## 5. Summary

Compared to the mature REIT schemes, the equity REIT market capitalization in China is very low compared to the total market value of the real estate industry. Most REITs issued so far are structured as debt financing tools with fixed return rates; only a small portion of the REIT schemes have equity characteristics.

In other words, the current apartment operators are using REITs as debt-financing channels instead of real equity financing. As a result, the leverage level of the real estate sector may not really be decreased at all, but rather increased. With regard to this, the overall leverage level of the emerging apartment REIT companies should be a key factor that must be monitored to embody REIT as an equity investment vehicle.

Though a naturally born equity REIT market is hard to foresee in China in the short term, with the Chinese government's recently announced support for rental apartments and the preferential policies

for apartment REITs, the leverage level of the emerging apartment REIT companies should be a key factor that is necessary to be monitored to maintain REIT as an equity investment vehicle.

The cap rates in the tier 1 cities reflect the prices investors are willing to pay to buy and hold apartment properties directly. Given the strong demand for buying properties in tier 1 cities, it's apparent that investors think these low cap rates are sufficient to justify this type of real estate investment. The continuous strong demand for buying properties may be due to a combination of several reasons: (i) Investors are expecting a lot of growth in the rents over the short, medium, and long-term; (ii) Investors view those apartment properties as having very little risk, that is, little chance that the rents will crash, vacancy will soar or cap rates will rise thereby depressing asset prices; and (iii) Maybe investors don't care very much about risk and return, they just want a place to "park" their money that they view will be safe from economic collapse and inflation.

For any of the above reasons, the low cap rate should not by itself harm investors' confidence in REITs. If direct ownership of apartment properties justifies their high prices and low cap rates by providing any of the above benefits, then apartment REITs, in theory, can also provide these benefits, assuming that the apartment REITs would hold nothing other than tier 1 apartment properties and would owe no debt. Consider the high leverage that Chinese investors are willing to take to buy properties in tier 1 cities, the debt issue must not be the fundamental reason that prevents Chinese investors from accepting equity REIT investments.

Fundamentally, the true reason that Chinese investors don't yet have confidence in REITs is that the current structure of REITs available in China are too complex, difficult for investors to understand, and create possible conflicts of interest between stockholders and managers/sponsors.

Therefore, at the end of this paper, we want to conclude that the most important issue that needs to be addressed to develop public REITs in China is to cultivate the mass investors' confidence in the stock market. REITs, as shown by US experience, should be a great opportunity to achieve this goal with their very simple structure. So far, we've already seen many state-owned enterprises, representing the policy preferences of the government, investing strategically in apartment REITs. With the Chinese government's strong ambition to increase housing affordability and to deleverage the economy, we foresee continuous legislative breakthroughs and more systematic improvements in the REIT field.

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## APPENDIX 1

### Relevant Policies to Promote Rental Housing and Apartment REITs in China (2019/1 to 2018/5)

Date	Name of the institute/ conference/document/Report	Content
01.06.2019	[2019] No.4 document issued by MOHURD	Build multiple channels to develop the housing rental market.
03.05.2019	2020 State Council Work Report	Establish a concurrent housing system for rent and purchase
12.21.2019	The Central Economic Work Conference	Encourage individuals and institutions to buy stocking houses.
04.15.2020	[2020] No.832 issued by	Digest the inventory real estate by designing city-

06.03.2020	Development and Reforms Commission  “Opinions on Accelerating the Cultivation and Development of the Rental Housing Market” issued by the State Council	specific polices, establish a concurrent housing system for rent and purchase  Support rental apartment companies by reclassifying the industry as life service industry which can benefit from a bunch of favorable policies.  Encourage the real estate development companies to initiate the business of apartment leasing, guide the development companies to cooperate with the rental apartment companies to develop the rental market, encourage these companies to lease their stock real estate.  Regulate the real estate intermediary institutions.  Support and regulate individually- operated rental units.
08.28.2020	“ Pilot Program of Building Residential Houses on Collectively-owned Land for Rental Purpose” issued by MOHURD and Ministry of Land	13 cities to build rental homes on rural collective land.
10.18.2020	“Report of the Nineteenth Congress”	The president Xi Jinping stated that “The house should be used for living, not for speculating.”
12.16.2020	The Central Economic Work Conference	Accelerate the legislating work related to the rental apartment industry.
03.05.2017	2017 State Council Work Report	Establish a concurrent housing system for rent and purchase
<b>Date</b>	<b>Name of the institute/ conference/document/Report</b>	<b>Content</b>
04.01.2017	“Notice on Strengthening the Management of Recent Residential Land Supply and Regulating Related Work” issued by MOHURD.	Enhance the price monitoring of “pre-sale” housing units, regulate the real estate development companies to price reasonably. Adapt multiple methods to increase the land supply for rental apartment.
05.20.2017	Residential Tenancy and Sales Management Regulations (Draft)	Build regulations of rental level, lease term, the rights of the tenants. Mandate the governments at city and county level to build mechanisms for publishing the local rental level and to guide a reasonable rental level locally.

07.20.2017	<p>“Notice on accelerating the financial support of rental housing development of the housing rental market in large and medium-sized cities with a net inflow of rental housing tenants. Specify the code of conduction population” co-published by nine ministries.</p>	<p>Strengthen rental housing management service and increase the supply of rental housing. Expand the financial support of rental housing. Establish a monitoring platform for housing rental level and provide convenient public services for rental housing and protect the legal rights and interests of concerned parties.</p>
12.20.2017	<p>The Central Economic Work Conference</p>	<p>Strengthen the supervision of market participants and improve the level of rental housing service. Speed up the establishment of multiple channels for rental apartment supply, build multiaspect protection, and build the concurrent housing system of renting and buying.</p>
04.25.2018	<p>“Notice on promoting rental housing asset securitization” published by MOHURD and China Securities Regulatory Commission.</p>	<p>Support rental housing companies to issue equity-based asset securitization products with their holding properties as underlying assets. Announces that pilot REITs projects will be issued in mainland China.</p>

## APPENDIX 2

### LIST OF ABBREVIATION

ABS	Asset-backed securities
BT	Business tax
CBRC	China banking regulatory commission
CIT	Corporate income tax
CJV	Cooperative joint venture
CMBS	Commercial mortgage backed security
CNBS	China national bureau of statistics
CSRC	China security regulatory commission
DT	Deed tax
EJV	Equity joint venture
IDC	Internet data centers
LGFV	Local government financing vehicles
LLC	Limited liability company
IPO	Initial public offerings

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LVT	Land value appreciation tax
MOHURD	Ministry of housing and urban-rural development
NDRC	National development and reform commission
NAV	Net asset value
O&M	Operations and maintenance
PBC	People's bank of china
PE	Private equity
PPPs	Public private partnerships
REITs	Real estate investment trust
RMBS	Residential mortgage-backed security
SD	Stamp duty
SOE	State owned enterprise
SPRH	Small property rights housing
SPV	Special purpose vehicle
WOFE	Wholly foreign owned entity

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