

REITs and Securitization as Innovative Modes to Finance Affordable Housing in China

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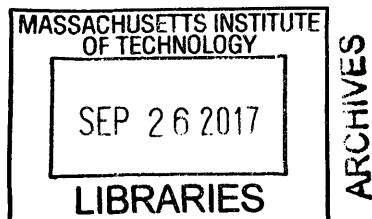
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ABSTRACT

Affordable housing finance in China is a hot issue, which mainly relies on government budgets and bank loans. These two financing channels are insufficient to support the large number of affordable housing projects, and there is a need to explore innovative channels. Within them, this thesis focuses on REITs and other types of securitization (ABN and ABS), in order to research their implementations in affordable housing finance, as well as the obstacles and impacts. In 2005, Hong Kong Government created the first REIT by privatizing and securitizing the retail and parking facilities affiliated to affordable housing owned by the government. This REIT was financially successful with good stock performance; nonetheless, as an equity REIT, its underlying assets were fully owned by private REIT manager with profit-oriented strategy, which undermined its affordability and caused negative social impacts. Four years later, mainland China wanted to learn from Hong Kong and create the first REIT by securitizing the affordable housing properties in Tianjin Municipality. However, this practice was unsuccessful, due to a lack of REITs legislation in mainland China and a tightening of government regulations on the overheated real estate market. It turned out this pilot project of REIT had to be restructured in 2012 as ABN, an existing financial instrument that could be issued quickly. In 2014, mainland China began a new experiment of using ABS to securitize and finance affordable housing projects in Xuzhou City. Compared with ABN, the ABS business was more advanced and similar to REITs in terms of structures, thus mainland China has taken one step closer to REITs. This thesis predicts that mainland China will establish its REITs legislation in the near future, which might be based on and modified from the ABS regulations, due to their similarities. Besides, future REITs could be implemented in affordable housing through debt financing instead of equity financing: on one hand, affordable housing projects have low return (below-market rent) and low risk (government guarantee), which are suitable for debt financing; on the other hand, the government could keep ownership of affordable housing in order to ensure its affordability.

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Chapter 1 Introduction

1.1 Background

Affordable housing is a big issue in China. The financing modes of affordable housing are quite various and complicated, and many innovations have happened. Within them, REITs and other types of securitization are new and promising modes used to finance affordable housing projects. Scholars and investors may doubt whether these innovative financing modes could have better impacts than the traditional modes do. Thus this thesis is targeted to analyze the structures and impacts of these financing modes on affordable housing, and focuses on securitization. Although there are different types of affordable housing in China, this thesis will concentrate on the financing modes of affordable housing as a whole, instead of digging deep into the detailed classification of affordable housing.

1.2 Research question

This thesis proposes to research and analyze the question whether and how REITs and other types of securitization could be effectively applied to finance affordable housing in China; what are the obstacles and impacts? First, I will research the structures and operation modes of different types of securitization, including Real Estate Investment Trusts (REITs), Asset-Backed Notes (ABN), and Asset-Backed Securities (ABS). Second, I want to analyze how these types of securitization are gradually modified and implemented to finance affordable housing in Hong Kong and mainland China in chronological order, as well as the obstacles of implementation. Finally, I will discuss the connections among these types and their impacts on affordable housing finance. It should be noted that REITs, ABN, and ABS are originally created to securitize commercial properties, credit assets, enterprise

assets, and so on. The practice of using securitization to finance affordable housing is an innovative and interesting experiment, which will be analyzed and discussed in this thesis.

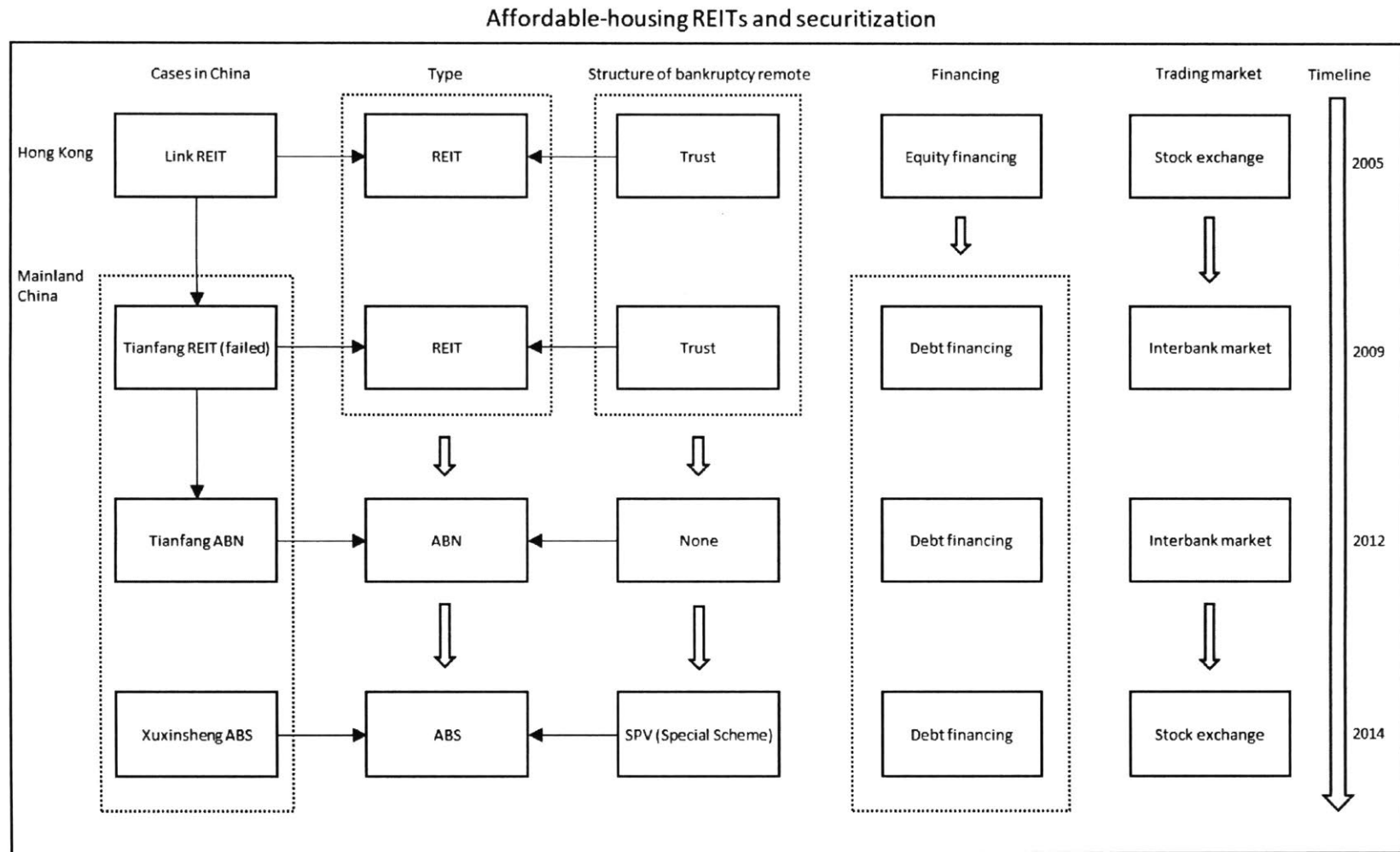
1.3 Research design and methods

1.3.1 Research framework

The ontological assumption of this thesis is that reality is a concrete structure and we can use positivism to study the reality. With the above assumption, this thesis will research the financing modes and affordable housing in an objective and empirical way.

This thesis proposes to conduct empirical study on the different practices of securitization financing affordable housing in China. Hong Kong had the first practice of affordable-housing REIT in 2005, when the government created the Link REIT by privatizing the retail and parking facilities of public houses owned by the Hong Kong Housing Authority. 4 years later, the government in mainland China wanted to learn from Hong Kong and create a REIT with the properties of affordable housing in Tianjin Municipality. However, this practice failed due to the obstacles in legal system and government regulations on the overheated real estate market. It turned out that the affordable housing projects were securitized as ABN in 2012, the structure and function of which were much simpler than those of REITs. In 2014, mainland China began new experiment of using ABS to securitize and finance affordable housing projects. Compared with ABN, this ABS practice was more advanced and able to fulfill some functions as REITs could do. The history of these securitization practices clearly shows a procedure of evolution.

Figure 1: Research framework of this thesis



1.3.2 Analysis of deal structure

This part of thesis proposes to compare the deal structures of different types of securitization financing affordable housing projects in China. Three main types related to this thesis will be analyzed: REITs, ABN, and ABS. This part will provide a preliminary answer about how securitization is actually implemented to finance affordable housing projects in China. It would be interesting to make comparisons among REITs, ABN, and ABS, in order to find out their differences and connections. The merits and demerits of each type of securitization will also be analyzed and discussed.

1.3.3 Case study

Based on the above analysis of deal structure, this part will take one step further and analyze the practical cases within each type of securitization, in order to conduct deeper analysis. The Link REIT in Hong Kong will be used as case study of affordable-housing REIT. I will research the structure, management, and the stock performance of the Link REIT; the controversial impacts of this REIT will also be analyzed and discussed. Besides, I will study the Tianfang ABN as a case of affordable-housing ABN; this product was initially proposed by the government as Tianfang REIT imitating the precedent of Link REIT, but it turned out to be structured as ABN due to some legal obstacles in mainland China. What's more, Xuxinsheng ABS, a case of ABS financing affordable housing, will be analyzed and discussed. All the cases will be researched in chronological order and I will discuss how each case is related to its precedent, in order to demonstrate a process of structure evolution.

1.3.4 Quantitative analysis

Quantitative analysis will be used to study the case of Link REIT in Hong Kong, where there are 11 REITs in total. A good measurement of a REIT is its stock performance, so I will compare the stock information between the Link REIT and 10 other REITs (which are not targeted in affordable housing) in Hong Kong, the comparison of which will assess the performance of Link REIT.

Table 1: The Link REIT and 10 other REITs in Hong Kong

Type	STOCK CODE	NAME OF LISTED SECURITIES	UNIT TRUSTS/FUND MANAGER
Affordable housing	00823	LINK REIT	The Link Management Ltd.
Non affordable housing	00405	YUEXIU REIT	Yuexiu REIT Asset Management Ltd.
	00435	SUNLIGHT REIT	Henderson Sunlight Asset Management Ltd.
	00625	RREEF CCT REIT	RREEF China REIT Management Ltd.
	00778	FORTUNE REIT	ARA Asset Management (Fortune) Ltd.
	00808	PROSPERITY REIT	ARA Asset Management (Prosperity) Ltd.
	01275	NEW CENT REIT	New Century Asset Management Limited
	01426	SPRING REIT	Spring Asset Management Limited
	01881	REGAL REIT	Regal Portfolio Management Ltd.
	02778	CHAMPION REIT	Eagle Asset Management (CP) Ltd.

	87001	HUI XIAN REIT	Hui Xian Asset Management Ltd.
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Source: Hong Kong Exchanges and Clearing Limited (HKEx)¹

There are many indexes about REITs, such as stock price, which could be obtained from REITs annual reports and stock information websites like Reuters². If the Link REIT has better stock performance than the 10 other REITs, it implies that stock investors think highly of REITs financing affordable housing; if the latter is better, then affordable-housing REITs may not be a good choice. More details about the analysis will be discussed in Chapter 3 of this thesis.

¹ <https://www.hkex.com.hk/eng/prod/secprod/reit/reitlist.htm>

² <http://www.reuters.com/finance/stocks/chart?symbol=0823.HK>

Chapter 2 Literature review

2.1 Experience from US

The construction of affordable housing in US started in 1910s (Edson 2011). After a century's development, the main investors of affordable housing have shifted from governments to private developers. Within this process, the Low Income Housing Tax Credit (LIHTC) created in 1986 has entitled the private investors to develop affordable housing with the reward of tax credit, the effect of which has dramatically facilitated the construction of high-quality affordable housing. Through LIHTC, the governments allocate tax credits to developers of affordable housing, and then the latter will sell the credits to investors in exchange for equity financing. Finally, the investors will claim the tax credits on their tax returns. (Desai, Dharmapala, and Singhal 2010)

Some affordable housing projects are financed through REITs. The concept of Real Estate Investment Trusts (REITs) was firstly created by Congress in 1960 through the Real Estate Investment Trust Act. Generally speaking, a REIT is a company that invests in income-producing real estate. REITs typically pay out most of their earnings and capital gains as dividends to shareholders. There are two types of REITs in US: equity REITs are companies that own or actively manage portfolios of properties, while mortgage REITs invest in mortgages, either through direct lending or by purchasing mortgages and/or mortgage-backed securities (Geltner et al. 2006).

REITs have a long history related to affordable housing in US. On one hand, REITs can bring liquidity to affordable housing through the public offering. Non-profit organizations

could also use REITs to promote and preserve affordable housing (Pruitt and Wotapka 2013). In return, they can also benefit from affordable housing development by LIHTC. Specifically, REITs could sell the tax credit from affordable housing to other tax-bearing firms at a discount price (Huang 2010). Besides, the US President's fiscal 2014 budget proposes to modify the rules in order to permit a REIT that receives LIHTCs to designate as tax exempt some of the dividends that it distributes (Reaman 2013). The cases in US are REITs like "Home Properties"³, "Community Development Trust"⁴, "Housing Partnership Equity Trust"⁵, and so on.

2.2 Affordable housing in mainland China

Mainland China began its affordable housing construction much latter than US. In the 1990s, housing affordability became a challenge so China launched its first affordable housing program in 1995 (Zou 2013). The governments sponsor real estate development companies to construct affordable housing under certain standards at reasonable prices. Besides, some companies are directed by the governments to build a certain proportion of affordable housing within their commercial housing projects. What's more, the governments also encourage the construction of affordable housing by exempting the land transaction costs and subsidizing taxes and fees (Yuan and Hamori 2014).

³ The official website is: <http://www.homeproperties.com/>

⁴ The official website is: <http://www.cdt.biz/>

⁵ The official website is: <http://hpequitytrust.com/>

There are several problems faced by affordable housing in mainland China. Firstly, affordable housing finance mainly relies on government budget, which suffers from a severe shortage of fund (Chen 2010; Luo 2013; Wan 2016). For example, Chen (2012) has analyzed the huge financing gap, about RMB 500 billion, of affordable housing construction from 2009 to 2011. Secondly, the issue of burden sharing between the central and local governments in terms of affordable housing construction. According to Zheng, Fu and Ren (2009), the local governments are bearing excessive burdens to finance affordable housing, which are beyond their fiscal capacities. There is a conflict of interest between the central and local governments (Tan and Lou 2012). Thirdly, there exists a mismatch between the demand and supply of affordable housing. Zheng (2010, 2016) points out that many affordable housing projects for low-income people are always located in faraway places from the city center, which may induce social problems like higher living costs, lower quality of life, and residential segregation and crime, etc. She has also used Hedonic model to analyze the site selection decisions of affordable housing projects in Beijing.

Within all the above problems, this thesis will focus on the first one: the financing issue of affordable housing. It should be noted that there are different types of affordable housing in mainland China, including public rental housing, cheap rental housing, price-limited housing, economical and applicable housing, resettlement housing of shantytown redevelopment, and so on; each of the type is targeted at a specific group of low- and middle-income people (Chen 2010; Wan 2016). However, this part of thesis will not dig deep into the detailed classification of it. Instead, this thesis will focus on the financing

modes of all the affordable housing as a whole. Thus the “affordable housing” mentioned in this thesis includes all the above types.

2.3 Financing modes of affordable housing

There are two types of affordable housing subsidy. One is supply-side subsidy, which means the government agencies, or developers supported by government funds, construct affordable housing properties for the low-income families. The other is demand-side subsidy, such as housing allowances and housing choice vouchers, which would directly subsidize low-income people so that they could freely select their houses in the private market. Currently the dominate type in mainland China is supply-side subsidy, in order to deal with the shortage of affordable housing. However, some local governments are conducting pilot projects of demand-side subsidy: for instance, the government of Guangxi Province will use housing vouchers to directly subsidize low-income families to rent or purchase houses (Pang and Li 2017).

This thesis will focus on the supply side of affordable housing, especially its financing modes. According to Jiang and Li (2014), the affordable housing projects in mainland China are mainly financed through 4 channels: the financial budgets of the central and local governments, policy-oriented long-term loans from different banks, social capitals, and the incremental benefits from housing provident funds. Wan (2016) analyzed and added several more channels: land transfer fees, social security funds, insurance funds, local government bonds, trust funds, and so on. Affordable housing is a type of public good, whose financing mainly rely on the first channel, government budgets and funds.

These existing financing modes are not enough to finance the large number of affordable housing projects in China. Chen (2012) analyzed the shortage of funds in the early 2010s: Ministry of Housing and Urban-Rural Development (MOHURD) proposed to invest RMB 900 billion (about 133 billion dollars) from 2009 to 2011 to construct affordable housing, in order to fulfil the task given by the State Council. However, the actual government budget for affordable housing was only RMB 400 billion (about 59 billion dollars), thus there existed a huge financing gap of RMB 500 billion (about 74 billion dollars). Many other scholars (Chen 2010; Luo 2013; Wan 2016) have also criticized the insufficient and unstable budgets of affordable housing.

2.4 Securitization and affordable housing

2.4.1 Definition and structure of securitization

Securitization (also known as asset securitization) emerges as a new method to deal with the financing problem of affordable housing (Mo and Li 2013; Xu 2016). Securitization is the process of transforming an illiquid asset into a security and selling the related cash flows to third party investors. There are many parties involved in the process of securitization. Generally speaking, the originator initially owns the assets to be securitized. It will pool and transfer a suitable portfolio of assets to a Special Purpose Vehicle (SPV; also known as Special Purpose Entity, SPE), which is called the issuer. Typically, the issuer/SPV will issue tradable securities to buy the assets from the originator, while investors will purchase the securities through private or public markets. When the assets are transferred to the issuer/SPV, it should have the function of “bankruptcy remote”,

which means if the originator goes bankrupt, the creditors of the originator could not claim the assets of the issuer.

A SPV may be formed through a limited partnership, a trust, a corporation, a limited liability company, or other entities. Many REITs use trusts as SPVs to fulfill “bankruptcy remote”. A trust is a fiduciary relationship among several parties: grantor (also known as settlor or trustor), trustee, and beneficiary. According to Fu (2015): “The grantor contributes the property to the trustee and states the term of the trust, the trustee received the property and hold it for the benefit of the beneficiaries. There is a title transfer from the grantor to the trustee. The trustee is the legal owner of the property but must use it for the benefit of the beneficiaries.”

In some cases of securitization, there will be asset managers to help structure the securities and manage the underlying assets. Guarantors and credit rating agencies may also be involved in credit enhancement and tranching. Generally, an asset or a pool of assets could be packaged into various tranches of securities with different types of risk and return, which could satisfy the diversified investment preferences of investors (Ventura 1997).

Any asset generating predictable cash flow could be securitized. Real estate securitization will convert the investment in real estate into securities. “The practice is to make the real estate market merged with the capital market assuring that the value of the real estate is converted from fixed capital to mobile capital securities as an expanded investment (Beals and Chen 2013).”

There are many types of securitizations, including Real Estate Investment Trust (REIT), Asset-Backed Note (ABN), Asset-Backed Security (ABS), and so on. REITs are mainly utilized to securitize real estate assets; besides, in some countries (e.g. US) with advanced financial markets, REITs are also modeled after mutual funds, in order to invest in real estate equity or debt. Compared with REITs, ABN and ABS are used to securitize not only real estate assets, but also financial and enterprise assets.

2.4.2 Real Estate Investment Trusts (REITs)

2.4.2.1 Definition of REITs

REIT is a special type of securitization that securitizes real properties. (Kothari 2006; Beals and Singh 2002). In China there exist REITs involved in affordable housing in Hong Kong instead of the mainland China. According to the *Code on Real Estate Investment Trusts* (the REIT Code) published by Securities and Futures Commission (2014): “A REIT is a collective investment scheme constituted as a trust that invests primarily in real estate with the aim to provide returns to holders derived from the rental income of the real estate.” A REIT has to be formed as a trust: “The assets of a REIT shall be held in a trust and segregated from the assets of its trustee, its management company, its related entities, other collective investment schemes and any other entity.”

2.4.2.2 REITs and affordable housing

The first and most famous case of affordable-housing REIT is the Link REIT⁶ in Hong Kong. This REIT was created by privatizing the retail and parking facilities of public houses owned by the Hong Kong Housing Authority. However, as a public traded REIT, it regards commercial profits above social goals of the public housing (Huang 2010). Due to the profit-oriented pressure from stock investors, the project managers will increase the rents of the retail and parking facilities to maximize the profit, which will hurt the interests of low-income people who use the facilities.

2.4.3 Asset-backed Note (ABN)

2.4.3.1 Definition of ABN

In mainland China, according to the *Guidelines on Asset-backed Notes for Non-financial Enterprises on the Interbank Bond Market* issued by the National Association of Financial Market Institutional Investors (2012), Asset-backed Note (ABN) is a type of debt financing instrument, backed by underlying assets, allowing a non-financial enterprise, the originator, to raise fund and obtain cash from investors. The originator should repay the principal and interest of ABN to the investors using the cash flow generated by the underlying assets, including (a portfolio of) property and property rights. The trading market of ABN is the China Interbank Bond Market. It is an OTC market formed in 1997 when the People's Bank of China (PBC), the central bank, mandated all commercial banks to move their repo

⁶ The official website is: <http://www.thelinkreit.com/EN/Pages/default.aspx>

and bond trading into an interbank market, the operation of which is based on an electronic trading system.

However, ABN is only a simplified type of securitization. ABN was not regulated to use the structure of SPV to hold underlying assets, thus it cannot realize the function of bankruptcy remote, which is the typical character of securitization.

2.4.3.2 ABN and affordable housing

Mo and Li (2013) discussed the advantages and drawbacks of using ABN to finance the construction of affordable housing in China. Although the payback period of affordable housing was relatively long, the stable cash flows generated by future rents were suitable for securitization through ABN. What's more, Xu (2016) analyzed the principles and policies about ABN, as well as a case study about financing affordable housing projects in Tianjin Municipality. He pointed out the low investment return of affordable-housing ABN, which was not attractive to investors. A deeper analysis will be conducted in Chapter 4 of this thesis.

2.4.4 Asset-Backed Security (ABS)

2.4.4.1 Definition of ABS

Generally speaking, Asset-Backed Security (ABS) is a type of security whose payments are backed by a pool of underlying assets, which is a portfolio of small and illiquid assets. ABS is similar to ABN, both of which are existing financial instruments in China that could be used to securitize real estate assets. Their main difference is that ABN is not required to

use SPV to fulfill the function of bankruptcy remote, while ABS is strictly required to do so. Thus the structure of ABS is more advanced and complicated than that of ABN. More details will be discussed in Chapter 5 of this thesis.

There exist two regulation systems of ABS in mainland China: the first system is regulated by the China Banking Regulatory Commission (CBRC). The underlying assets are mainly credit assets of banks and other financial institutions in China, while the trading market is the China interbank bond market. However, this CBRC system is irrelevant to affordable housing industry in China.

The other system of ABS is regulated by China Securities Regulatory Commission (CSRC), the operation process of which is similar to the first CBRC system mentioned above, except that the underlying assets are mainly enterprise assets. This CSRC system of ABS is quite related to affordable housing finance in China, thus all the “ABS” mentioned in this thesis refers to CSRC system.

A Special Purpose Vehicle (SPV) is required to handle the securitization of ABS in mainland China. There are many different types of SPV: for example, CSRC has specially defined a form of SPV named “Special Scheme”, in order to handle the underlying assets of ABS. Besides, SPV could also be structured as a trust.

2.4.4.2 ABS and affordable housing

ABS is widely used to finance affordable housing projects in China. Han (2011) analyzed the drawbacks of the current financing modes of affordable housing, and proposed a theoretical scheme of utilizing ABS to solve the financing problem of insufficient fund. Besides, Zhao (2012) researched the possibility and necessity of attracting more nongovernment capital to invest into the construction of affordable housing, and argued that ABS was the best solution. What's more, Zhu and Liu (2013) discussed the current legal issues of securitizing affordable-housing assets, especially the operation process and the design of deal structure. More analysis will be conducted in Chapter 5 of this thesis.

2.4.5 Relationships among REITs, ABN, and ABS

REITs, ABN, and ABS are three types of securitization that could be used to securitize and finance affordable housing. They have many differences and similarities, in terms of trading markets, types of investors, deal structures, and so on. A preliminary comparison among them is illustrated as follows, while more comparisons among the practical cases will be analyzed and discussed in following chapters of this thesis.

Table 2: Different types of securitization involved in affordable housing in China

	Hong Kong	Mainland China	
Types	REITs	ABN	ABS
Regulatory authority	The Securities and Futures Commission (SFC)	National Association of Financial Market	China Securities Regulatory Commission (CSRC)

		Institutional Investors (NAFMII)	
Originator	Real estate companies	Non-Financial Enterprises	Enterprise and/or state-run institutions
Trading market	Stock Exchange	Interbank bond market	Stock Exchange
Investors	Institutional investors and individual investors	Mainly institutional investors	Institutional investors and qualified individual investors
Structure of bankruptcy remote (SPV)	Trust	No specific requirement	Special Scheme
Cases related to affordable housing	Link REIT	Tianfang ABN	Xuxinsheng ABS

2.5 Comparison between securitization and other innovative financing modes

Securitization could attract private investment into the public projects of affordable housing. Besides securitization, there exist other types of innovative financing modes with similar function. For example, Public-Private Partnership (PPP) is a contract between a government entity and a private-sector company, in order to build, finance, or operate a public asset or service, such as infrastructure construction and affordable housing. PPP has many different modes of implementation, such as Build-Transfer (BT), Build-Own-

Operate (BOO), and Build-Operate-Transfer (BOT), etc. For instance, BOT mode means that the government attracts real estate developers to construct affordable housing through a series of preferential policies. After completion, the developer would obtain the management right of affordable housing and get investment return from housing rents and government subsidies like tax incentives. The developer could operate the affordable housing project within a certain period of time (concession period) and then transfer the project to the government.

Both PPP and securitization could attract private investment into affordable housing, and each has its advantages. Firstly, in terms of risk sharing, PPP can distribute the risk between government entity bearing the policy risk, and private company who takes the risk of construction and operation (Lv 2014); in comparison, securitization mainly uses SPV to isolate the bankruptcy risk of the originator, in order to protect the interest of investors (Zhu and Liu 2013). Secondly, securitization is more open and inclusive than PPP. Only a limited number of professional developers could participate in PPP, while securitization has less restriction on the number and qualification of investors. Thirdly, many PPP projects are not transparent with the problem of rent-seeking (Chen et al. 2014); by contrast, securitization has higher information transparency and more liquidity, the products of which could be issued and traded in well-regulated transparent financial markets (Lv 2014; Wan 2016).

Some scholars have also conducted case study about the comparison between PPP and securitization, in terms of their implementations in affordable housing finance. Based on

the case of the first public housing project in Shanghai Municipality, Luo (2013) calculated the economic feasibility of financing affordable housing through PPP and found out the profitability might be too low to attract private developers; in comparison, if use REITs/ABS to finance the same project, the internal rate of return would be higher than that of government debt (a benchmark with similar default risk), thus the project would be economically feasible to attract investors.

Finally, many scholars have discussed the theoretical possibility of combining PPP with securitization (Zhao 2010; Wei 2013; Xie 2014; Wan 2016). The private partner within PPP could exit its investment through securitization. In other words, the private developers could construct the affordable housing projects for the government, within the cooperative framework of PPP. Then, the government could purchase the affordable housing using the fund raised from the issuance of REITs/ABS.

Chapter 3 The first practice of REIT in 2005

3.1 Policies and regulations about REITs in Hong Kong

In March 2003, Hong Kong's Securities and Futures Commission (SFC) issued the draft version of the REIT Code, in order to consult the public opinions. In July, SFC officially published the *Code on Real Estate Investment Trusts*, which defined the concept of REITs in Hong Kong, as well as the process of establishment, deal structure, geographical restrictions, operational issues, etc. In June 2005, SFC revised the REIT Code allowing REITs to invest in real properties located in foreign countries. After that, SFC conducted several small modifications to the REIT Code, the latest version of which was promulgated in August 2014.

According to the *Code on Real Estate Investment Trusts*, "A REIT is a collective investment scheme constituted as a trust that invests primarily in real estate with the aim to provide returns to holders derived from the rental income of the real estate. Funds obtained by a REIT from the sale of units in the REIT are used in accordance with the constitutive documents to maintain, manage and acquire real estate within its portfolio." Hong Kong Exchanges and Clearing Limited (HKEx) will be responsible for the listing of REITs on the Stock Exchange of Hong Kong. Investors/holders can buy and sell units of REITs similar to stocks at the Stock Exchange.

The REIT Code also requires that a REIT shall have the following characteristics. Firstly, at least 75% of the gross asset value of the REIT shall be invested in real estate that generates recurrent rental income; active trading of real estate is restricted. Besides, the

greater proportion of income shall be derived from rentals of real estate. Thirdly, the REIT shall distribute to unitholders as dividends each year an amount not less than 90% of its audited annual net income after tax. What's more, the aggregate borrowings of a REIT shall not exceed 45% of the total gross asset value of the REIT.

According to the REIT Code, a REIT has to be formed as a trust: "The assets of a REIT shall be held in a trust and segregated from the assets of its trustee, its management company, its related entities, other collective investment schemes and any other entity." Within a trust, the trustee has the fiduciary duty to hold the assets of a REIT in trust for the benefit of the holders, and to oversee the activities of the management company, who manages the REIT in accordance with the REIT's constitutive documents in the sole interest of the holders.

The REIT Code also allows REITs to invest in real estate through Special Purpose Vehicles (SPVs). REITs are structured as trusts, which are subjected to property tax in Hong Kong if they directly hold real estate. However, if REITs hold the real properties indirectly through SPVs, such SPVs would generally be exempt from property tax (Whiting 2007; European Public Real Estate Association 2016). As a result, many REITs in Hong Kong own SPVs as their subsidiaries to indirectly hold the real estate. According to the REIT Code, REITs must maintain a majority ownership and control of each SPV, and there should be at most 2 layers of SPVs.

3.2 Link REIT: securitizing affordable housing in Hong Kong

3.2.1 Affordable housing in Hong Kong

Affordable housing in Hong Kong is also called public housing. In 1953, there was a big fire in Hong Kong, which destroyed numerous shanty homes. Next year, the Hong Kong government began the public housing policy, in order to construct affordable housing for the homeless caused by the fire, as well as for the poor. Nowadays, public housing in Hong Kong is a major component of housing in Hong Kong; in 2004 when Link REIT was established, around half of the population resided in public housing (Hong Kong Housing Authority 2015).

Public housing properties are managed under a set of housing programs. They may be rented or sold to the poor people, subject to various restrictions and requirements. Compared with private housing, the rents or prices of public housing are much lower due to the subsidies from the government budget. Some revenues could be generated from the parking and retail facilities affiliated to the public housing.

The biggest provider of public housing is the Hong Kong Housing Authority (HA), which is an agency of the Government of Hong Kong established in April 1973 under the Housing Ordinance. It plans, builds, manages and maintains different types of public housing (rental housing, interim housing and transit centers), in order to achieve the government's policy objective of meeting the housing needs of low-income families that cannot afford private

accommodation. Besides, Hong Kong Housing Authority also owns and operates a number of flatted factories and ancillary commercial and other non-domestic facilities⁷.

3.2.2 The establishment of Link REIT and related lawsuits

In the year of 2003-2004, Hong Kong Housing Authority suffered from a deficit of 589 million Hong Kong dollar (Liu 2007). In July 2003, Hong Kong Housing Authority decided to privatize the parking and retail facilities affiliated to the affordable housing managed by it. The purpose was to raise fund from the privatization, in order to construct more affordable housing projects and to solve the deficit problem; meanwhile, these properties would be owned and managed professionally by private institutions, which could improve operating efficiency; besides, the privatization was also a good opportunity for people who want to invest in real estate for stable return (Liu 2007; Yang and Wang 2008).

In 2004, Hong Kong Housing Authority selected 180 parking and retail facilities, which would be securitized and structured as the first REIT in Hong Kong named the Link Real Estate Investment Trust (Link REIT). The IPO of Link REIT began on December 6, 2004. However, some residents of the affordable housing worried that after the privatization and securitization, these parking and retail facilities would raise rents for more profits, which would damage the interests of local residents. Thus they opposed the privatization and initiated a lawsuit against the Hong Kong Housing Authority on December 8, 2004. Due to this legal issue, the IPO of Link REIT had to be suspended.

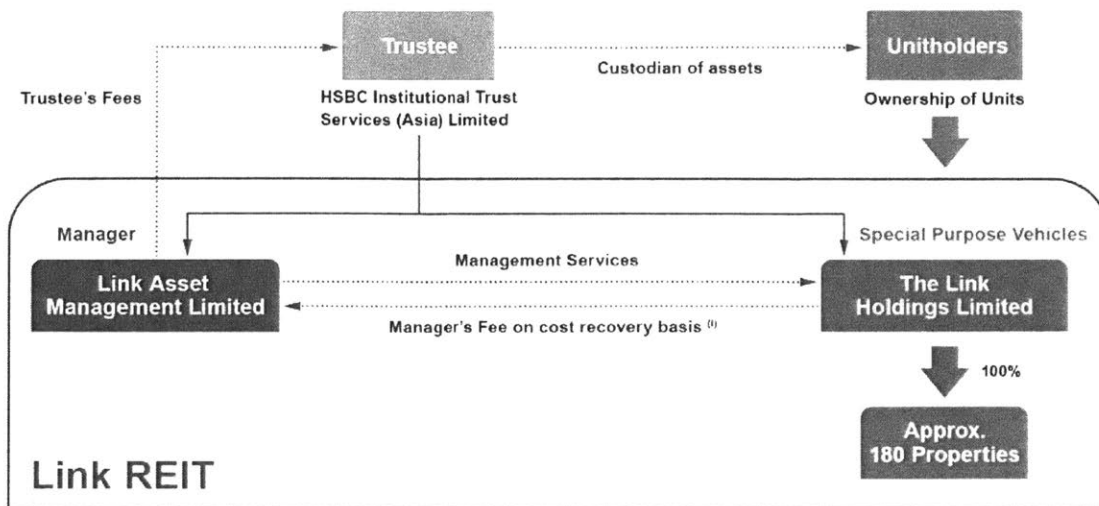
⁷ <http://www.housingauthority.gov.hk/en/about-us/housing-authority/index.html>

This lawsuit triggered extensive debates over the privatization of public properties of affordable housing. Many people argued that the privatization would undermine the interests of the poor people. However, the retail investors of Link REIT supported this IPO and blamed that the affordable-housing residents were wrongly preventing investors to benefit from this good investment opportunity of REIT.

3.2.3 2nd IPO of Link REIT

In July 2005, Hong Kong Housing Authority won the lawsuit and decided to restart the establishment of Link REIT. On November 14, 2005, Link REIT resumed its IPO. It issued 1.925 billion units with the price of HK\$10.30 per unit, the total of which was HK\$20 billion. Besides the IPO, Link REIT also borrowed loans from financial market, in order to purchase from Hong Kong Housing Authority the 180 parking and retail facilities, the property value of which was HK\$33.802 billion. On November 25, 2005, Link REIT was listed on the Stock Exchange of Hong Kong with the code 0823 and its close price was HK\$11.80, 14.56% higher than the offering price of HK\$10.30.

Figure 2: Deal structure - Link REIT



Source: the official website of Link REIT⁸

Link REIT was the first REIT in Hong Kong. It was an equity REIT investing in the 180 parking and retail properties affiliated to affordable housing, which were originally owned by the Hong Kong Housing Authority. Within these underlying assets, the total area of retail properties was 960 thousand square meters, 9.1% of the total retail properties in Hong Kong; the number of parking lots was about 79 thousand units, 13.7% of the total parking lots in Hong Kong. The assessed value of underlying assets was HK\$33.802 billion (Dou et al. 2006).

Link REIT was structured as a trust and regulated by the provisions of the Code on Real Estate Investment Trusts. The trustee, HSBC Institutional Trust Services (Asia) Limited, was a wholly owned subsidiary of the Hongkong and Shanghai Banking Corporation Limited (HSBC, the largest bank in Hong Kong). The trustee had the fiduciary duty to hold

⁸ <http://www.thelinkreit.com/EN/aboutus/Pages/Corporate-History-and-Profile.aspx>

the assets of the REIT in trust for the benefit of the holders, and to oversee the activities of the management company, Link Asset Management Limited. This REIT manager would manage the REIT in accordance with the REIT's constitutive documents in the sole interest of the holders. As discussed in the beginning of this chapter, Link REIT would hold all the properties through the special purpose vehicles, which would generally be exempt from property tax.

Finally, after the privatization and securitization, Hong Kong Housing Authority would not hold any share of Link REIT or its management company, Link Asset Management Limited (Liu 2007). As a result, Link REIT would be wholly owned by individual and institutional investors, and independent from the government of Hong Kong. The impacts of this issue will be discussed as follows.

3.3 Impacts of Link REIT

3.3.1 Achievements

The establishment of Link REIT was a success to Hong Kong Housing Authority. The proceeds from the privatization and securitization of Link REIT could improve the financial situation of Hong Kong Housing Authority, who suffered from financial deficit in 2003-2004. Besides, the proceeds would also be used for future expenditures and construction of affordable housing (Liu 2007).

Link REIT was also the first REIT in Hong Kong and Asia's largest REIT. After the successful IPO of Link REIT, the REITs industry boomed with more and more REITs being created and going public. In total, there are 11 REITs listed on the Hong Kong Stock Exchange, the information of which is as follows.

Table 3: The 11 REITs listed in the Hong Kong Stock Exchange

STOCK CODE	NAME OF LISTED SECURITIES	BOARD LOT	UNIT TRUSTS/FUND MANAGER	AUTHORIZATION DATE
405	YUEXIU REIT	1,000	Yuexiu REIT Asset Management Ltd.	8/12/2005
435	SUNLIGHT REIT	1,000	Henderson Sunlight Asset Management Ltd.	30/11/2006
625	RREEF CCT REIT	1,000	RREEF China REIT Management Ltd.	1/6/2007
778	FORTUNE REIT	1,000	ARA Asset Management (Fortune) Ltd.	30/3/2010
808	PROSPERITY REIT	1,000	ARA Asset Management (Prosperity) Ltd.	30/11/2005
823	LINK REIT	500	Link Asset Management Ltd.	8/11/2005

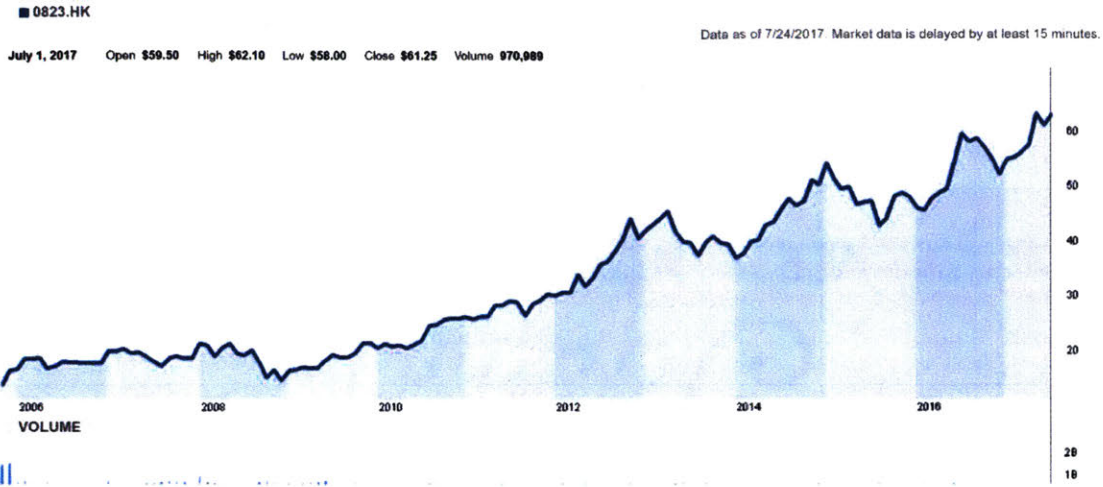
1275	NEW CENT REIT	1,000	New Century Asset Management Limited	21/6/2013
1426	SPRING REIT	1,000	Spring Asset Management Limited	21/11/2013
1881	REGAL REIT	1,000	Regal Portfolio Management Ltd.	5/3/2007
2778	CHAMPION REIT	1,000	Eagle Asset Management (CP) Ltd.	28/4/2006
87001	HUI XIAN REIT	1,000	Hui Xian Asset Management Ltd.	8/4/2011

Source: Hong Kong Exchanges and Clearing Limited (HKEx)⁹

Link REIT has good stock performance. When it was listed on the Stock Exchange of Hong Kong on November 25, 2005, its close price was HK\$11.80, 14.56% higher than the offering price of HK\$10.30; with ups and downs, the stock price has risen gradually during the next few years. On July 1, 2017, the close price reached HK\$61.25, four times bigger than that on listing date. The historical change of stock price is showed as follows.

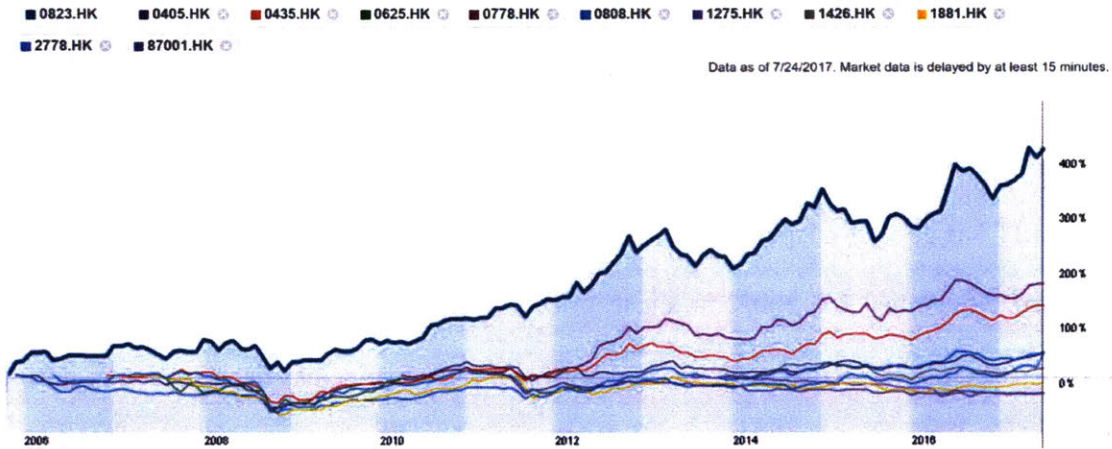
Figure 3: Historical stock price of Link REIT (0823.HK)

⁹ <https://www.hkex.com.hk/eng/prod/secprod/reit/reitlist.htm>



Source: Reuters.com¹⁰

Figure 4: Comparison of historical stock prices of Link REIT (0823.HK, the highest dark green line) and other REITs in Hong Kong



Source: Reuters.com¹¹

¹⁰ <http://www.reuters.com/finance/stocks/chart?symbol=0823.HK>

¹¹ Ibid.

According to the above figure, the long-term stock performance of Link REIT was much better than those of 10 other REITs listed on the Hong Kong Stock Exchange. The underlying assets of Link REIT were mainly retail and parking facilities affiliated to affordable housing, although it also invested in some shopping centers and office projects after its IPO; in comparison, other 10 REITs mainly invested in commercial properties. However, we cannot simply conclude that the difference of long-term stock performances was caused by the different types of underlying assets. The stock prices are also influenced by the REIT managers' operational capabilities, investment strategies, and so on.

To sum up, Link REIT was created by privatizing and securitizing the retail and parking facilities affiliated to affordable housing properties owned by Hong Kong Housing Authority. On one hand, the proceeds from Link REIT's IPO has solved the deficit problem faced by Hong Kong Housing Authority, thus it would be able to construct more affordable housing. On the other hand, Link REIT has good stock performance, which will benefit the REIT investors. Nevertheless, many people have criticized that Link REIT is "successful" at the cost of undermining the welfare of affordable housing residents, which will be discussed below.

3.3.2 Criticisms

As mentioned before, Link REIT's first attempt of IPO in 2004 was suspended due to the opposition from some affordable housing residents. They initiated a lawsuit against the Hong Kong Housing Authority and argued that after the privatization and securitization, the parking and retail facilities affiliated to affordable housing would be sold to Link REIT

under the control of private management company. Due to the profit-oriented pressure from stock investors, the REIT manager would gradually raise the rents of parking and retail properties in order to maximize the profit. The increasing rents would inevitably hurt the interests of the tenants and customers of these facilities, who were mainly low-income people living in the nearby affordable housing properties.

This lawsuit not only suspended the IPO of Link REIT, but also triggered extensive debates over the issue. Scholars, local residents, and REIT investors held different opinions towards the privatization of public properties of affordable housing. However, it turned out the Hong Kong Housing Authority won the lawsuit, indicating that the court gave support to the privatization and securitization, the proceeds from which could solve the deficit problem of affordable housing construction.

After the lawsuit, Link REIT went public and became the first REIT in Hong Kong and the largest one in Asia. What the residents worried really happened: the REIT manager constantly renovate the parking and retail properties in order to raise the rents and maximize profits. On one hand, residents complained the parking fees were increased on the excuse of facility renovation (Chen and Wu 2012). On the other hand, many small tenants, or family-run tenants, could not bear the increasing rents of retail space and had to give up their businesses. Consequently, more and more chain stores and big companies, who could afford the high rents, moved into the vacant retail space. Many affordable housing residents complained that the standardized chain stores could not provide

diversified daily necessity services as offered by family-run tenants (Sophia 2010; You 2014).

I think the above issue is a dilemma to equity REITs investing in affordable housing. Compared with debt financing, equity financing may raise more fund, but the original owner (the government or its subsidiary) will lose the control over the affordable housing properties, which would be managed by private institutions with profit-oriented strategies. As a result, the affordable housing properties would be no longer “affordable”. Actually, in the case of Link REIT, some small tenants protested during the shareholders meetings and asked Hong Kong Government to repurchase shares of Link REIT in order to regain control of it.

Chapter 4 REIT transformed into ABN in 2009-2012

4.1 Incentives to introduce REITs in mainland China

There exist several incentives to introduce REITs in mainland China. First and foremost, REITs can expand the financing channels of real estate companies in mainland China (Xiang 2006). Presently, real estate firms highly rely on indirect finance, especially bank loans. Thus the banking system has to bear the risk of real estate industry. REITs, a channel of direct finance, could help the companies to reduce financial risk and improve their capital structures.

Secondly, REITs industry is also a promising investment channel for Chinese investors. Currently they can only buy houses or invest in the stocks of real estate companies, and REITs will offer them a new investment opportunity with tax incentive and high dividend yield (Xiang 2006; Shi 2014).

What's more, REITs could be specifically implemented in affordable housing finance. Currently, the affordable housing construction relies on several sources of capital: government financial budgets, policy-oriented bank loans, social capitals, housing provident funds, and so on (Jiang and Li 2014). All these funds are insufficient to finance the construction of affordable housing in mainland China. For example, from 2009 to 2011, there existed a huge financing gap of RMB 500 billion, or 74 billion dollars (Chen 2012). There is a demand to utilize innovative financing modes like REITs to support the construction of affordable housing (Zhou and Li 2011), because REITs can provide a

channel to attract private investment (numerous private investors) into big public projects like affordable housing.

With the above incentives, the precedent of Link REIT was a good example for the government of mainland China to learn from. Financial regulators could imitate the structure of Link REIT in order to conduct pilot projects of creating affordable-housing REITs in mainland China; the REITs legislation in Hong Kong could also be used for reference (Liu 2005; Wang 2005).

4.2 Policies about REITs and affordable housing in mainland China

In January 2007, People's Bank of China (PBC), the central bank, began to research and formulate policies about REITs in mainland China. It proposed to do experimental work about issuing and trading REITs in the interbank market with institutional investors, in order to gather as much experience as possible; then the experiments would be expanded to stock exchanges with retail investors. In April, China Securities Regulatory Commission (CSRC) formed a working team to research the establishment of REITs. Its proposal was to structure REITs in the form of closed-end funds, which would be traded in stock exchanges.

In June next year, PBC Shanghai Head Office (2008) published *China Financial Market Development Report 2007* indicating that PBC would make innovations and create REITs in the future. At the end of 2008, the General Office of the State Council of China held

several conferences proposing to conduct experimental work about using REITs to expand the financing channels of real estate companies.

In 2009, PBC cooperated with CSRC and 9 other ministries to form a special working team, in order to formulate a detailed implementation plan for REITs. The pilot projects of REITs would invest in real estate debt instead of equity, and they were located in three municipalities: Tianjin, Beijing, and Shanghai. The preparation of pilot projects were mainly finished by the end of this year.

In May 2010, PBC reported to the State Council on the progress of REITs projects, and PBC was required to submit more documents about whether and how to use REITs to support the construction of affordable housing. Consequently, all the pilot projects were adjusted to affordable housing REITs. One month later, Ministry of Housing and Urban-Rural Development (MOHURD) and 6 other ministries jointly published a guidance to explore ways to finance affordable housing through REITs. However, most of the pilot projects were suspended or terminated except for the one in Tianjin, which was called Tianfang REIT (later restructured as Tianfang ABN).

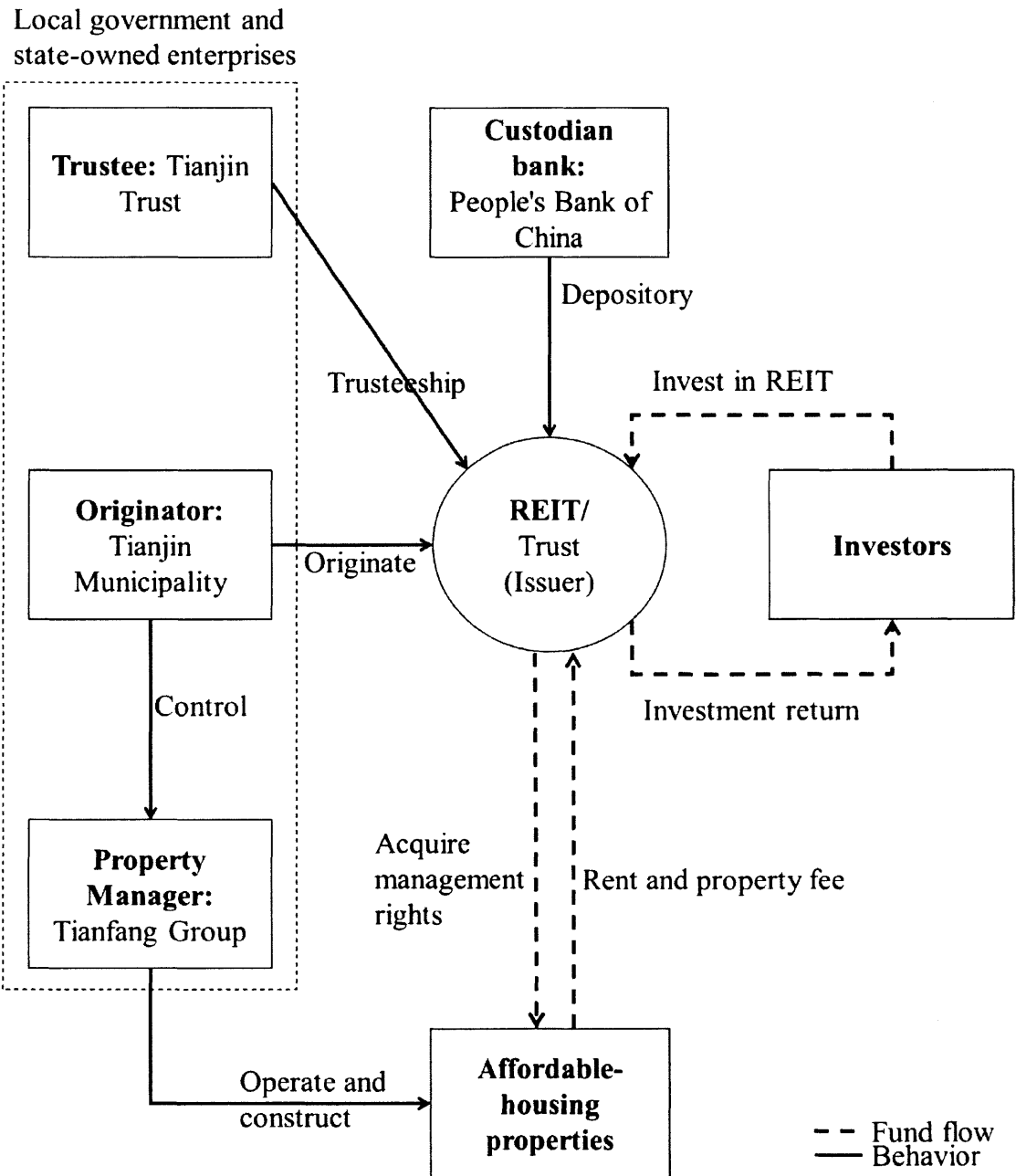
4.3 Tianfang ABN as a failed REIT

4.3.1 Original scheme as Tianfang REIT

According to the original scheme in 2009, Tianfang REIT was structured as a trust to invest in affordable housing debts. It would be traded by institutional investors in the interbank market instead of stock exchanges.

The underlying assets were 40 thousand units of affordable housing owned by the property manager, Tianfang Group, a state-owned enterprise controlled by Tianjin Municipality. The gross floor area was 2 million square meters assuming 100% occupancy rate. Tianfang Group and Tianjin Municipality (the originator or settlor) would transfer the management rights (not ownership) of the affordable housing to Tianjin Trust (the trustee), in order to set up a trust, Tianfang REIT (the issuer). The beneficiary rights of the trust would be sold to institutional investors (mainly commercial banks) and traded in the interbank bond market. The capital scale of Tianfang REIT was RMB 3.8 billion (about 560 million dollars).

Figure 5: Deal structure - Tianfang REIT



Source: Modified from Research Institute of Hwabao Securities (2012)

The structure of Tianfang REIT was similar to the precedent of Link REIT, both of which were affordable-housing REITs. They were both structured as trusts to fulfill the function

of bankruptcy remote, although Link REIT had another layer of SPV (limited company) for tax purpose. Besides, the investors of both REITs were beneficiaries or unitholders of the trusts.

However, unlike Link REIT who mainly invested in equity, Tianfang REIT was a debt-focused REIT (similar to a mortgage REIT). It invested in and acquired the management rights, instead of ownership, of the affordable housing projects from the property manager. The duration of Tianfang REIT would only be 5 years and the property manager would repurchase the management rights at the maturity date of the REIT. In other words, Tianfang REIT was giving out a 5-year “loan” to the property manager who would repay the “loan” using affordable housing rent and property fee. As a result, the incentive of issuing this REIT is to help local government (Tianjin Municipality who controlled the property manager) to borrow money from interbank bond market (where the REIT would be traded).

4.3.2 Final scheme as Tianfang ABN

Due to the inflation and an overheated real estate market in 2010, Chinese government began to strictly regulate the real estate industry. Since April 2010, Ministry of Housing and Urban-Rural Development (MOHURD), as well as China Banking Regulatory Commission (CBRC), had intensively published regulation policies to control real estate investment and speculation. Concerned that the REITs pilot projects might attract more hot money into real estate sector, the People's Bank of China (PBC) decided to postpone the REIT pilot projects.

One year later, with a loosening of real estate regulation policies, Tianfang REIT pilot project was restarted, the application of which got approval from the State Council. However, the issuance of this pilot project was detained by several legal issues. Firstly, mainland China had no tax law or regulation officially defining the concept and qualification of REITs, thus Tianfang REIT could not benefit from tax incentives. Besides, REITs were not existing financial instruments, thus the financial market was not ready for pricing and trading them. Finally, without tax reduction and government subsidy, it was difficult for low-rent affordable housing to generate the investment return required by REITs.

Facing the above difficulties, Tianfang REIT had to be restructured in 2012 as Tianfang ABN in order to be issued and traded in mainland China. Both ABN and REITs could be used to securitize the underlying real estate assets like affordable housing. However, unlike REITs, ABN was an existing financial instrument that complies with the legal institutions and financial system of mainland China.

The concept of ABN (Asset-backed Note) was created and defined by the *Guidelines on Asset-backed Notes for Non-financial Enterprises on the Interbank Bond Market* issued by the National Association of Financial Market Institutional Investors (NAFMII) in 2012. ABN was an instrument allowing a non-financial enterprise, the originator, to securitize its underlying assets in order to raise fund and obtain cash from investors in the China interbank market. The originator should repay the principal and interest of ABN to the

investors using the cash generated by the underlying assets, including property and property rights (e.g. receivables). There was no requirement to get approval prior to the issuance, and the originator simply needed to register its ABN projects with NAFMII. This convenient issuance process was an advantage of ABN, which was one of the reasons to restructure the suspended REIT pilot project into Tianfang ABN.

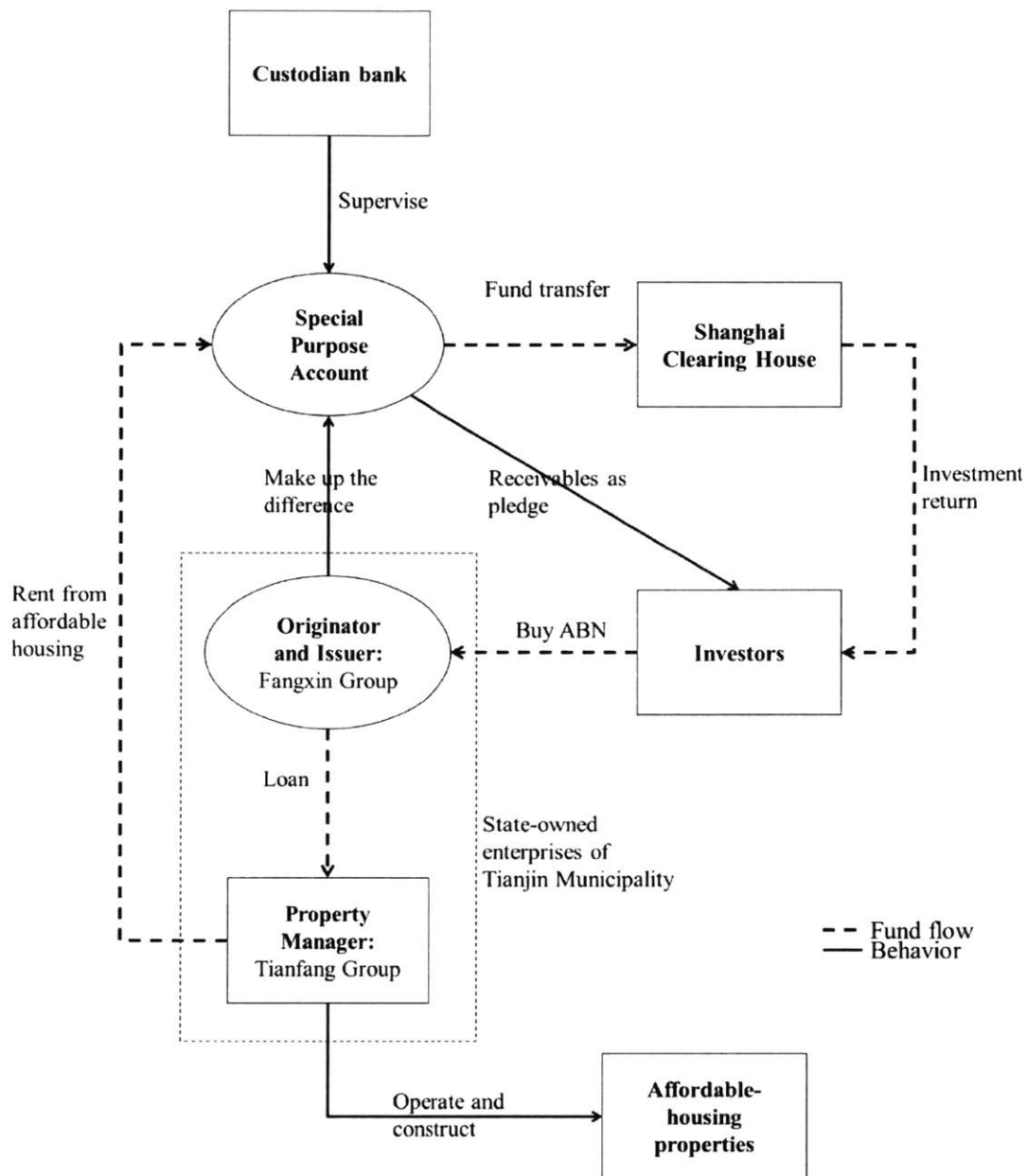
Tianfang ABN was successfully issued in August, 2012. Its capital scale was RMB 2 billion (about 300 million dollars), and it was structured into 5 categories with different interest rates and maturities. The detailed information of each category is as follows.

Table 4: Information about the 5 categories of Tianfang ABN

Security code	Category	Capital scale (million RMB)	Maturity (year)	Calculation of interest	Coupon rate (%)
081273005.IB	A	340	1	Fixed rate	5.75
081273006.IB	B	360	2	Fixed rate	6.25
081273007.IB	C	400	3	Fixed rate	6.75
081273008.IB	D	440	4	Fixed rate	7.74
081273009.IB	E	460	5	Fixed rate	8.23

Source: Hongyuan Securities (2013)

Figure 6: Deal structure - Tianfang ABN



Due to the limitation of data, it is difficult to obtain the official graph of the deal structure of Tianfang ABN. However, based on some product descriptions (Cinda Securities 2012; Hongyuan Securities 2013; Xu 2016) about this ABN, its approximate deal structure could be drawn above.

The structure of Tianfang ABN was partially different from that of original Tianfang REIT. The underlying assets were all the property rights, such as future rents and receivables generated from the affordable housing properties. The originator and issuer, Fangxin Group, raised fund from ABN investors and gave out a loan to the property manager, Tianfang Group, who was also a state-owned enterprise controlled by Tianjin Municipality. The property manager would use the money to operate and construct affordable housing, the rent from which would become the repayment of capital and interest to ABN investors.

However, the future cash flow of rent would not be directly repaid to investors. Instead, the originator set up a Special Purpose Account in a custodian bank; the rent from affordable housing would be firstly collected into the Special Purpose Account, and then transferred to ABN investors through a clearing house. The custodian bank would supervise the use of this Special Purpose Account, while the originator also pledged the account receivables to the ABN investors to guarantee the repayment. All these functions were designed to ensure that the money collected by the Special Purpose Account would be used only for the repayment to ABN investors, instead of other purposes. Thus the Special Purpose Account, as well as the account receives as pledge, were used for credit enhancement.

Nevertheless, the Special Purpose Account was still owned by the originator. If the originator went bankrupt, the fund within Special Purpose Account belonged to bankruptcy estates; in this situation, ABN investors would be treated as secured creditors. Thus the

Special Purpose Account was different from SPV and could not realize the function of bankruptcy remote, as required by typical securitization. In other words, without SPV and bankruptcy remote, ABN was only a simplified type of securitization.

What's more, Tianfang ABN did not use subordination/tranching as internal credit enhancement. The 5 categories of Tianfang ABN had same priority in terms of repayment and credit loss, although they had different maturities and interest rates in order to satisfy the diversified demands of different investors. Besides, though the originator and property manager were solely state-owned enterprises, Tianjin Municipality did not provide guarantee against default to the ABN investors. In other words, there is no guarantor providing external credit enhancement. However, Tianfang ABN was still successfully issued, and I think the reason was Chinese investors believed that the financial products issued by solely state-owned enterprises, which were supported by the government, would rarely default.

In comparison, the original scheme of Tianfang REIT in 2009 was structured as a trust, a typical type of SPV with the function of bankruptcy remote. However, there was no REITs legislation in mainland China, and REITs were not existing financial instruments that could be priced and traded in the financial market. As a result, Tianfang REIT had to be restructured in 2012 as Tianfang ABN in order to be successfully issued.

ABN was an existing financial instrument complying with the current legal and financial system in mainland China, and it could be easily issued in the interbank bond market

without pre-approval. Nevertheless, ABN was only a simplified type of securitization, because it did not have a structure of SPV to realize the function of bankruptcy remote. This drawback of Tianfang ABN would do harm to the interests of its investors, if the originator defaulted. In short, the structure of Tianfang ABN was less advanced than that of original Tianfang REIT.

Chapter 5 From ABN to ABS: new practice in 2014

5.1 Policies about ABS in mainland China

After the first experiment and practice of Tianfang ABN as a failed REIT, the government of mainland China took one step further and came up with new experiments to finance affordable housing through Asset-Backed Security (ABS), which will be analyzed in this part of thesis. ABS is similar to ABN, both of which are existing financial instruments in China that could be used to securitize real estate assets like affordable housing. Their main difference lies in the deal structures: according to regulation policies, ABN is not required to have the structure of SPV, thus ABN cannot fulfill the function of bankruptcy remote, which is a typical character of securitization. In other words, ABN could only be regarded as simplified or quasi securitization. In comparison, ABS is more complicated and advanced than ABN, in terms of deal structure and regulation policies: ABS is strictly required to use the structure of SPV, in order to realize the function of bankruptcy remote. Thus ABS is an instrument of standard securitization.

As mentioned in the literature review of Chapter 2, there exist two regulation systems of ABS in mainland China: one is regulated by China Banking Regulatory Commission (CBRC), while the other is regulated by China Securities Regulatory Commission (CSRC). The CBRC system is not related to affordable housing finance in China, thus all the “ABS” mentioned in this thesis refers to CSRC system.

The experiments of ABS business in mainland China firstly started in 2004 when CSRC came up with several regulations to conduct pilot projects of ABS. From 2005 to 2008,

there were only 9 cases of ABS product. Later, the pilot projects were suspended due to the breakup of 2008 financial crisis, and resumed in 2011 when the crisis was fully terminated. With the experiences obtained from pilot projects, in March 2013 CSRC published the *Provisions for the Administration of Asset Securitization Business of Securities Firms*, which officially illustrated the definition and regulations about ABS business.

In November 2014, CSRC promulgated the *Provisions for the Administration of Asset Securitization Business of Securities Firms and Subsidiaries of Fund Management Firms*, and meanwhile abolished the old provisions published in March 2013, in order to improve the regulation policies about ABS business. One month later, as required by CSRC, Asset Management Association of China (AMAC) published the *Guidelines on Negative List of Underlying Assets for Asset Securitization*, which defined the negative list about the scope of underlying assets that could not be securitized through ABS.

5.2 Structure of ABS in mainland China

According to the above policies and regulations, ABS business is the activity whereby a securities firm or a subsidiary of fund management firm, in the capacity as the manager of a Special Purpose Vehicle (SPV), acquires the underlying assets from the originator, in order to issue securities supported by the cash flow generated by such underlying assets. The originator could be any enterprise and/or state-run institution, while the securities will be issued in stock exchanges and traded by qualified individual investors or institutional investors (not exceed 200 in total).

CSRC has specially defined a form of SPV named “Special Scheme”, which is a special asset management scheme set up exclusively by a securities firm or a subsidiary of a fund management firm, in order to conduct asset securitization business. The Special Scheme will purchase, or use other legal means, to acquire and hold the underlying assets, which would be independent from the assets of the originator, manager, custodian, ABS investors, etc. When these parties come to bankruptcy and conduct liquidation, the underlying assets under the Special Scheme shall not belong to the bankruptcy estates, in order to achieve the bankruptcy remote, as required by securitization.

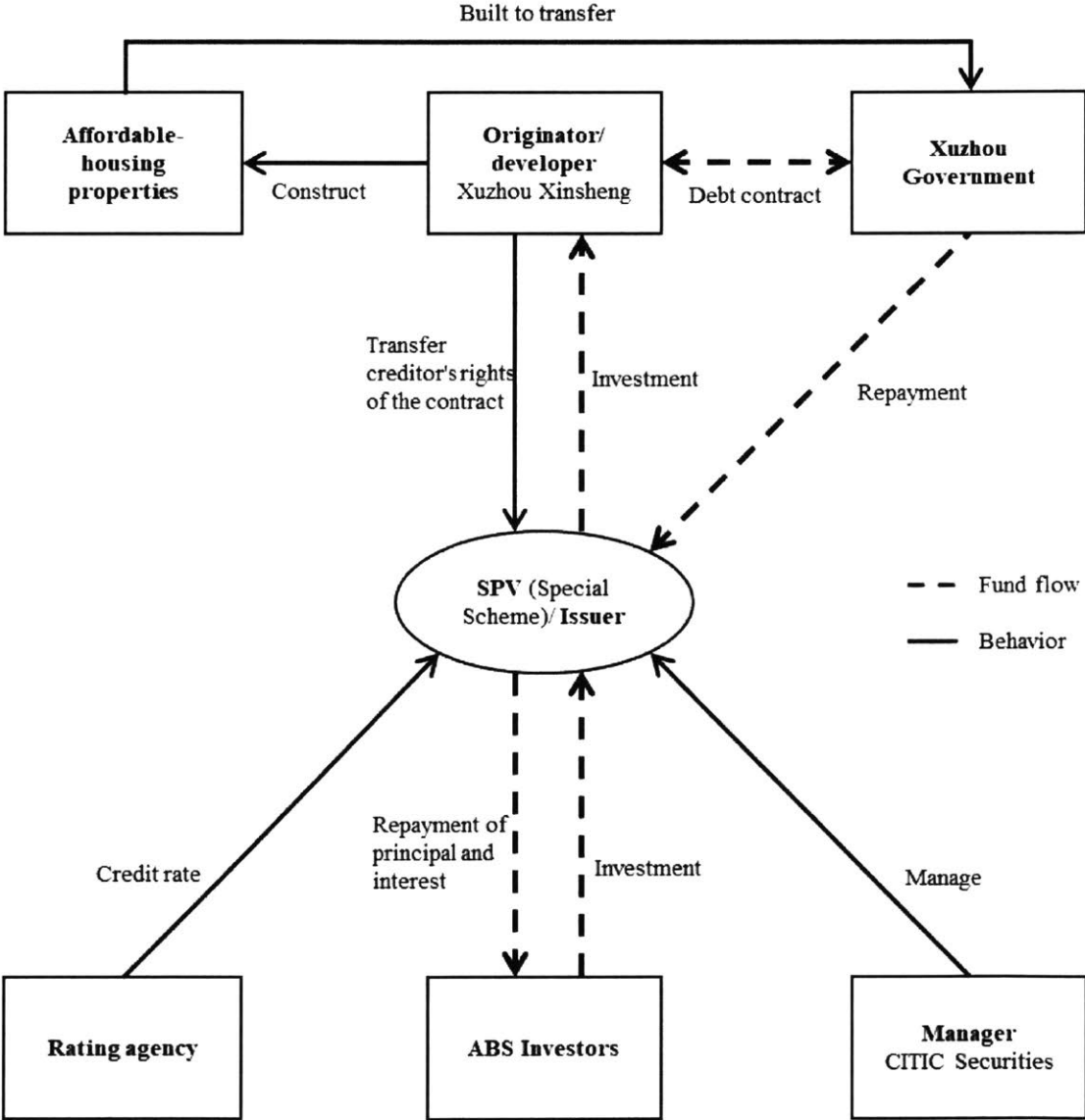
5.3 Xuxinsheng ABS in 2014

The underlying assets of Xuxinsheng ABS were creditor’s rights. In general, creditor’s rights are the procedural provisions designed to protect the ability of creditors to collect the money that is owed to them from their debtors. Creditor's rights include the right to put a lien on a debtor's property, the right to seize the debtor's property and conduct a forced sale of it, and a number of other rights. Such relationship between creditors and debtors is usually defined in a contract, thus creditor’s rights are sometimes called contract creditor’s rights.

Creditor’s rights are transferrable and can be used as the underlying assets of ABS. In terms of affordable housing finance in mainland China, the underlying assets could be creditor’s rights of affordable-housing contract; such contract is signed between a housing developer

and a local government who pays the developer to construct affordable housing (Xu 2016). The following case of Xuxinsheng ABS is a good illustration of it.

Figure 7: Deal structure - Xuxinsheng ABS



Source: Modified from China Merchants Securities (2015)

Xuxinsheng ABS was successfully issued in November 2014. Within the above deal structure, Xuzhou Xinsheng, the developer, was a state-owned enterprise in Xuzhou City. Xuzhou Government asked the developer to construct affordable-housing properties (to be used as the resettlement housing of shantytown redevelopment). They signed a debt contract indicating that Xuzhou Government would make annual payments to the developer for 5 years in a row, in order to purchase the affordable-housing properties. Thus the developer was the creditor of this contract.

Then the developer, acted as the originator, transferred its creditor's rights to a SPV (a Special Scheme) as the underlying assets. The manager of the SPV issued Xuxinsheng ABS that was backed by the underlying assets of creditor's rights. In other words, the investment from ABS investors was used to purchase the creditor's rights through the SPV, while the annual payments from Xuzhou Government would be repaid to ABS investors as principle and interest.

How to understand this transaction? The government wanted to make 5-year annual payments to purchase the affordable-housing properties constructed by the developer. Thus they signed a contract about the transaction and the developer was the creditor of this contract. Then, the developer securitized its creditor's rights through the issuance of ABS. As a result, the government would make annual payments, as future cash flows, to ABS investors instead of the developer.

Noticing that the developer was actually a state-owned enterprise controlled by the government, it was clear that the final result of issuing this ABS was to help the government to “borrow” money from ABS investors as a 5-year “loan”, in order to finance affordable-housing properties.

Regarding the external credit enhancement, Xuzhou Government would set up a special fund that was specifically used to make repayments to the SPV. If this government fund could not make sufficient payments on time, the originator (the developer) guaranteed to make up the difference.

What’s more, a senior/subordinated structure (tranching) was used as the internal credit enhancement. Xuxinsheng ABS was structured into 5 senior tranches (RMB 1.9 billion in total) and 1 junior/subordinated tranche (RMB 100 million). The senior tranches would be paid back first, while the subordinated tranche later. If the underlying assets defaulted, the losses would be allocated from the junior to the senior tranches. Besides, the subordinated tranche would be wholly held by the originator, while the senior tranches could be traded in the interbank bond market.

Table 5: Information about the 5 senior tranches of Xuxinsheng ABS

Security code	Tranche	Capital scale (million RMB)	Maturity (year)	Interest rate (%)
119109	01	200	1	5.5
119110	02	300	2	5.8

119111	03	400	3	6.1
119112	04	500	4	6.4
119113	05	500	5	6.7

Source: Xu (2016)

Chapter 6 Discussion and prediction

This thesis researches and analyzes the question whether and how REITs and other types of securitization could be effectively applied to finance affordable housing in China; what are the obstacles and impacts? Based on the illustration and analysis conducted in previous chapters, we could find the answers to these questions, which will be summarized and discussed in this chapter.

The answer to the first part of the research question is yes, because REITs have been successfully implemented in Hong Kong to securitize affordable housing, while ABN and ABS, two other types of securitization, have been utilized in mainland China to expand the financing channels of affordable housing projects. Then the next part of question is: how were they gradually implemented in China? In 2005, Hong Kong Government created the Link REIT by privatizing and securitizing the retail and parking facilities affiliated to affordable housing owned by the Hong Kong Housing Authority. Link REIT was not only the first REIT in Hong Kong but also the largest one in Asia with good stock performance. 4 years later, mainland China wanted to learn from Hong Kong and create the first REIT, Tianfang REIT, by securitizing the affordable housing properties in Tianjin Municipality. However, this practice was unsuccessful, due to a lack of REIT legislation and a tightening of government regulations on the overheated real estate market. It turned out the Tianfang REIT was restructured in 2012 as ABN, an existing financial instrument that could be issued quickly in mainland China. In 2014, mainland China began a new experiment of using Xuxinsheng ABS to securitize and finance affordable housing projects in Xuzhou

City. Compared with ABN, the ABS business was more advanced and complicated. Thus the history of these securitization practices in China has illustrated a process of evolution.

6.1 Obstacles

Within the above historical process of experiments and implementations, many obstacles have happened. The REIT Code in Hong Kong was published in 2003 and removed the legislation obstacle for Link REIT to be created one year later. Instead, the biggest obstacle hindering the establishment of Link REIT was the lawsuit initiated by local residents who oppose the privatization of public properties affiliated to affordable housing. This lawsuit directly delayed the IPO of Link REIT for almost one year.

In contrast to Hong Kong, the obstacle in mainland China was a lack of REITs legislation. There was no law or regulation to officially define the financial instruments of REITs, as well as the tax incentives. Although the government had formulated many policies to encourage the pilot projects of REITs, most of them failed except that Tianfang REIT was restructured into ABN.

6.2 Impacts

The Link REIT has great impacts in Hong Kong. First of all, it is the first REIT in Hong Kong and the largest one in Asia, as well as the only REIT involved in affordable housing finance. Secondly, Hong Kong Housing Authority has raised lots of fund from the IPO of Link REIT, thus it could solve the deficit problem and construct more affordable housing in the future. Finally, Link REIT also has great social impacts. The lawsuit against the

establishment of Link REIT has triggered extensive debates over the privatization of public properties. Besides, due to the profit-oriented pressure from stock investors, the private REIT manager constantly increases the rents of parking and retail facilities, the process of which has hurt the welfare of low-income tenants and customers.

In mainland China, the capital scales of both Tianfang ABN and Xuxinsheng ABS were RMB 2 billion, which were quite small compared with the affordable housing industry as a whole. According to Chen (2012), from 2009 to 2011, annual investment of affordable housing was around RMB 300 billion. Wan (2016) pointed out that from 2011 to 2015, annual investment of affordable housing was around RMB 1 trillion. Thus securitization had very small impacts on affordable housing finance, in terms of the scale. However, the government thinks securitization is a promising channel of financing and has published many policies to encourage the practices of securitization, thus I think in the future there might be more cases of financing affordable housing through securitization.

6.3 Equity financing versus debt financing

Link REIT was equity financing, because its underlying assets were the retail and parking facilities affiliated to affordable housing, which could generate higher rents than affordable-housing properties themselves. In other words, these retail and parking facilities were similar to commercial properties which could provide asset appreciation and sufficient rents to investors. However, as equity financing, Link REIT was fully owned and controlled by private management company and stock investors, instead of the Hong Kong Government. Due to the profit-oriented pressure from investors, the REIT manager had to

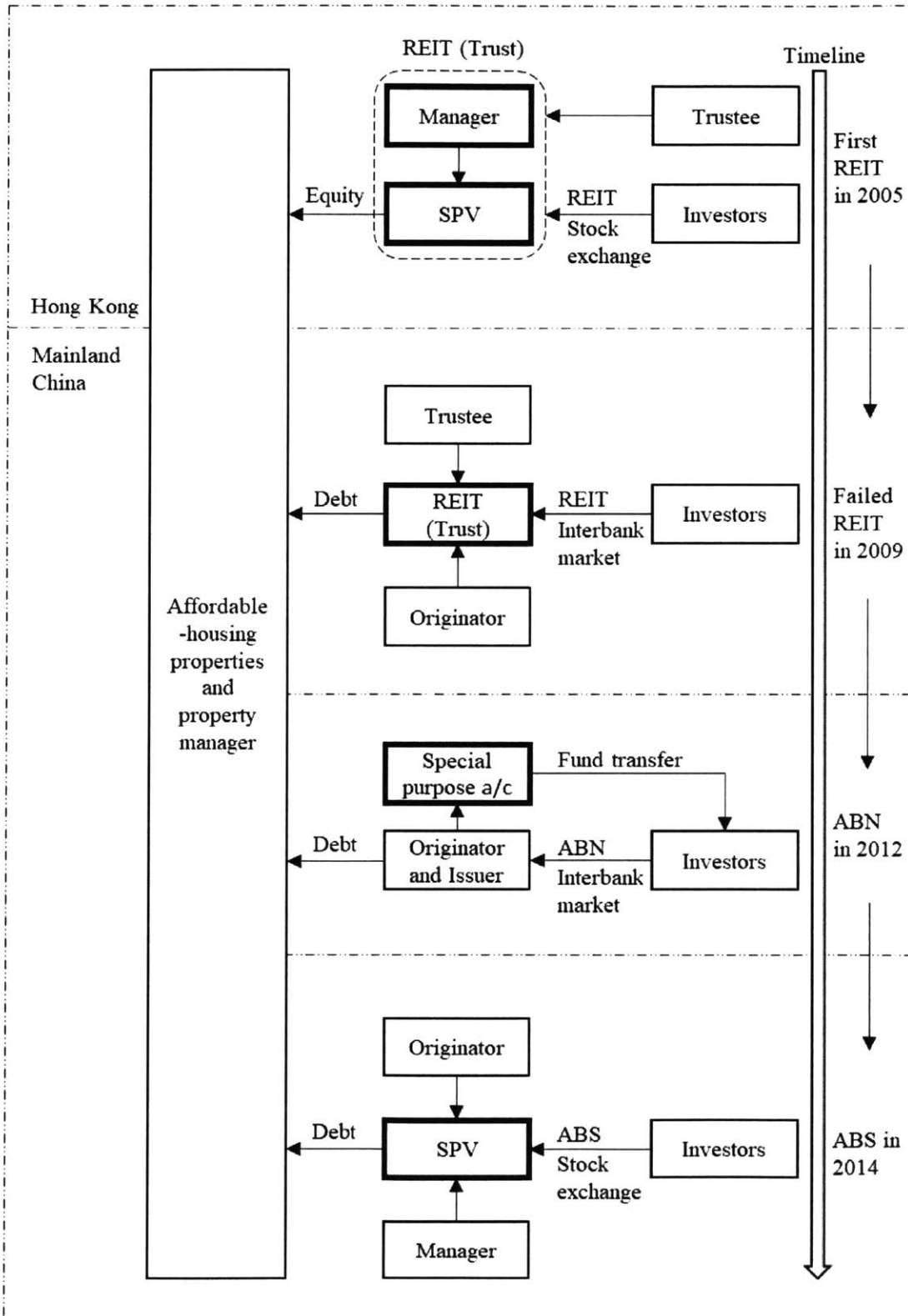
gradually raise the rents of parking and retail properties in order to maximize the profit, which would inevitably hurt the interests of the low-income tenants and customers of these facilities. As a result, the properties would be no longer “affordable”. This is a drawback of equity financing.

Generally speaking, debt is less risky and cheaper than equity. Compared with Link REIT, the cases of Tianfang REIT/ABN and Xuxinsheng ABS were debt financing, because they securitized the affordable-housing properties, instead of the affiliated commercial properties generating higher rents; although there were government subsidies, the rents from affordable housing were relatively low, which were not suitable to conduct equity financing. It should be noted that Tianfang ABN and Xuxinsheng ABS were originated by the state-owned enterprises supported by local governments with low default risks, thus they were suitable for debt financing. Finally, unlike Link REIT, the local governments could keep control of the affordable housing properties through debt financing, thus the affordability would not be influenced by the pressure from investors. As a result, this thesis suggests that future affordable-housing REITs in mainland China should focus on debt financing instead of equity financing.

6.4 Evolution of deal structures

Regarding the different types of securitization (REITs, ABN, and ABS) implemented in China, it is interesting to make comparisons among their deal structures, in order to find out their differences and connections. The history of these practices of securitization illustrates a procedure of evolution.

Figure 8: Summary of different structures of securitization financing affordable housing



The first REIT, Link REIT listed in 2005, was structured as a trust with the function of bankruptcy remote. Besides, it indirectly hold real assets through a SPV for tax purpose, as discussed in previous chapters. 4 years later, when the government conducted REIT pilot project in mainland China, the deal structure of Tianfang REIT was similar to that of Link REIT, because Tianfang REIT also used a trust to securitize affordable housing and to fulfil the function of bankruptcy remote.

However, the experiment of Tianfang REIT was unsuccessful due to a lack of REIT legislation, thus this project had to be restructured in 2012 as ABN, which was an existing financial instrument that could be issued quickly in mainland China. Unlike REIT, ABN was only a simplified type of securitization without using SPV to meet the requirement of bankruptcy remote. ABN utilized a Special Purpose Account to separately hold the cash flow generated by underlying assets, but the Account itself was still owned by the originator. In other words, Special Purpose Account could not fulfil the function of SPV. Thus the issuance of Tianfang ABN was a “setback” and concession to legal obstacles, because its structure was less advanced than the original scheme of Tianfang REIT.

Two years later, the government of mainland China took one step further and conducted the experiment of using Xuxinsheng ABS to finance affordable housing. ABN and ABS were two different types of securitization supervised by different regulators: ABN was a simplified securitization without SPV and could be issued rapidly without pre-approval, while ABS was a standard securitization (with SPV) requiring the time-consuming

approval from regulatory authorities. Unlike ABN, ABS was similar to REIT in terms of deal structures: they both used a trust/SPV¹² to realize the function of bankruptcy remote; they were both operated by a management company (the Manager); what's more, both of them were issued in the stock exchange.

From ABN to ABS, mainland China has already taken one step closer to REITs. What's the next step? After the issuance of Xuxinsheng ABS, the government came up with more policies to encourage the experiments of REITs and securitization, as well as their implementations in affordable housing finance. In January 2015, MOHURD released *Guiding Opinions of the Ministry of Housing and Urban-rural Development on Accelerating the Cultivation and Development of the Housing Rental Market* asking Chinese cities to conduct pilot projects of REITs, in order to expand the financing channels of enterprises, as well as the investment channels of small and medium investors; MOHURD also stated that the future issuance of REITs could attract more social capital into the housing rental market and affordable housing in mainland China. What's more, the *Opinions of the General Office of the State Council on Accelerating the Cultivation and Development of the Housing Rental Market* promulgated in May 2016 also confirmed that the State Council would give support to the experiment of REITs. Based on all of the above policies and case studies, I predict that mainland China will create the first REIT in the near future, since the government has gained experience from the past failures and the practices of ABN/ABS. I think it's quite possible that the REIT legislation will be based

¹² As discussed in Chapter 2, a SPV may be formed through a trust (in the case of REIT), a Special Scheme (in the case of ABS), a limited partnership, a corporation, a limited liability company, or other entities.

on and modified from the ABS regulations, due to their similarities discussed above. I look forward to the first REIT in mainland China.

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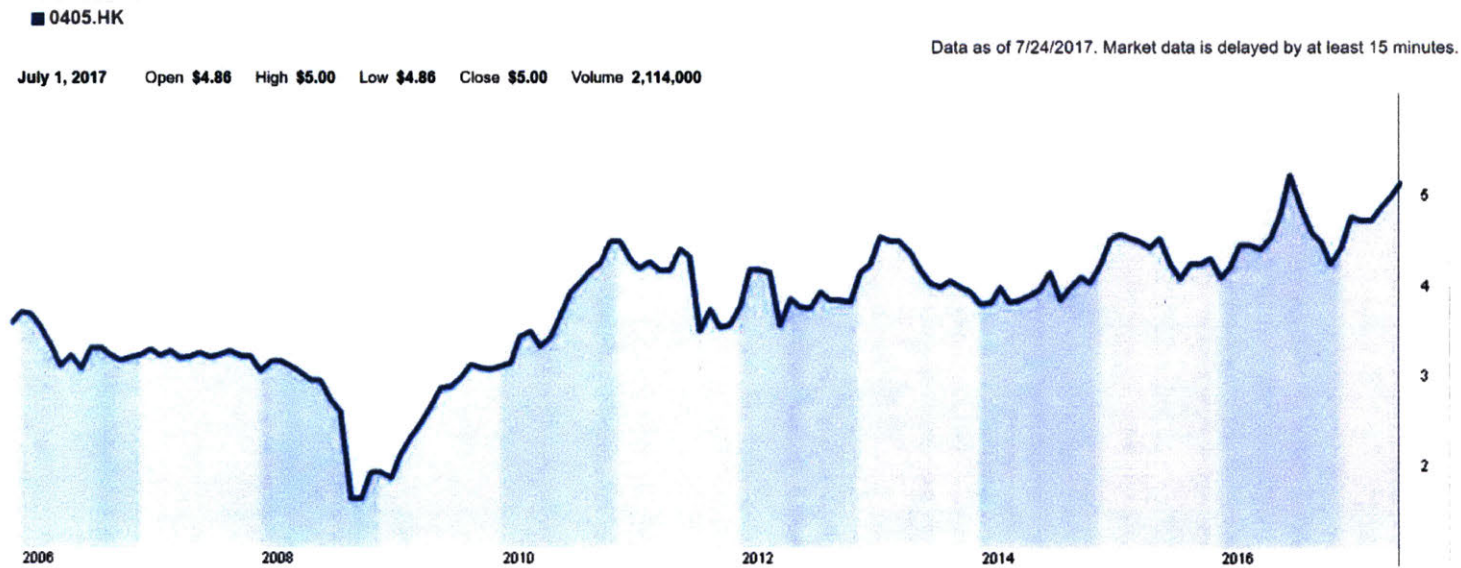
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Appendix 1

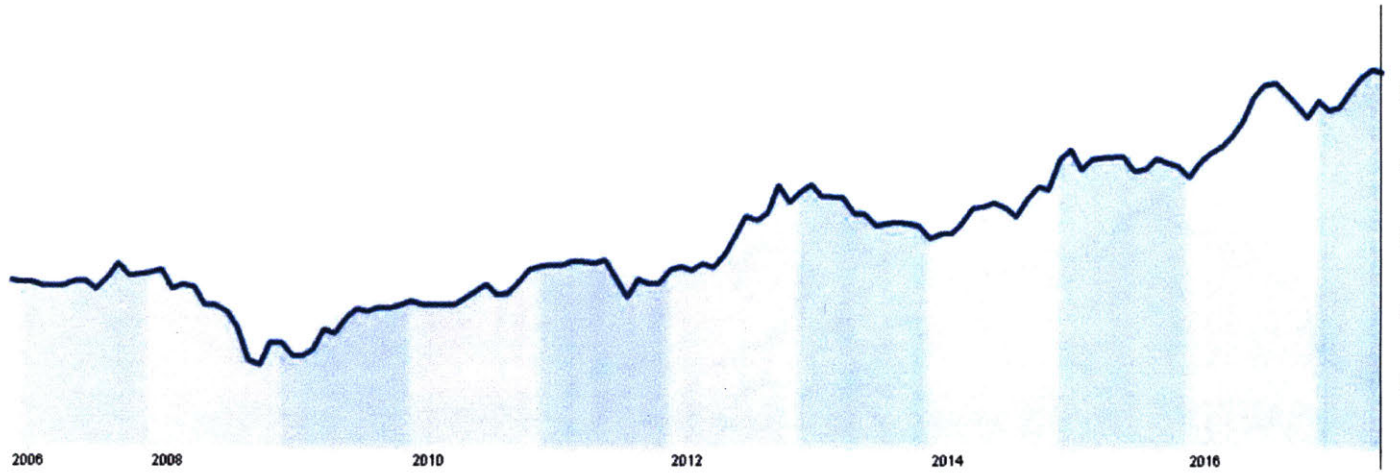
Figure 9: Stock prices of 11 REITs (stock codes: 0405, 0435, 0625, 0778, 0808, 0823, 1275, 1426, 1881, 2778, and 87001) in Hong Kong



■ 0435.HK

July 1, 2017 Open \$5.10 High \$5.16 Low \$4.99 Close \$5.08 Volume 5,709,137

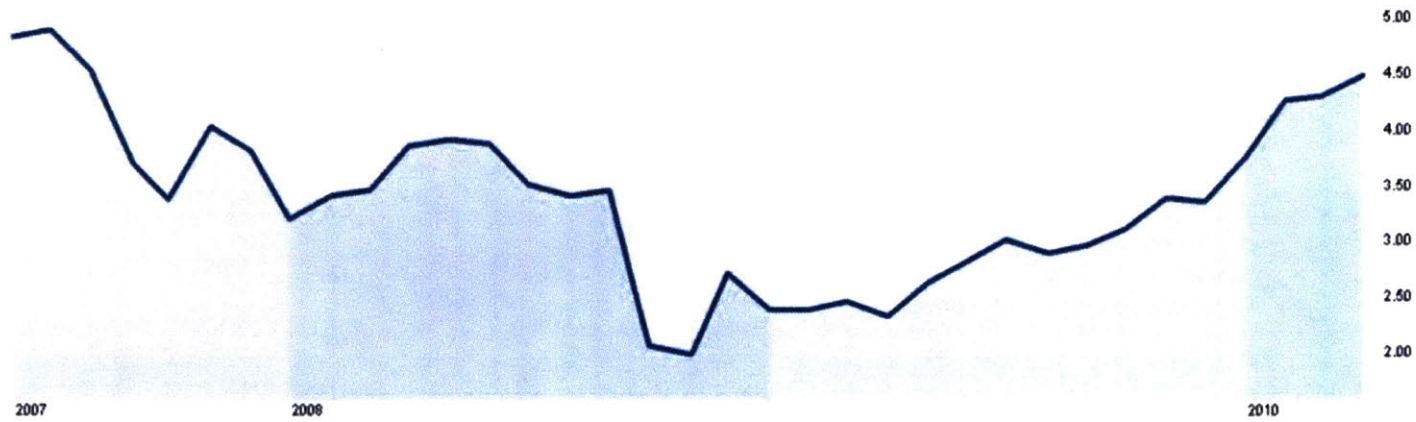
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■ 0625.HK

Open High Low Close Volume

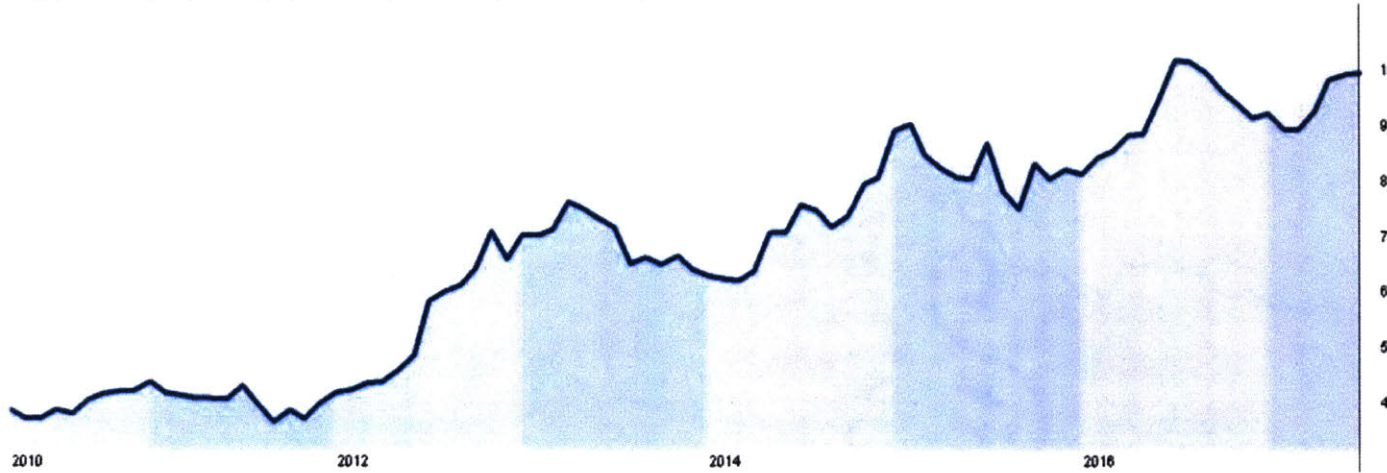
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■ 0778.HK

July 1, 2017 Open \$9.69 High \$9.82 Low \$9.28 Close \$9.72 Volume 828,000

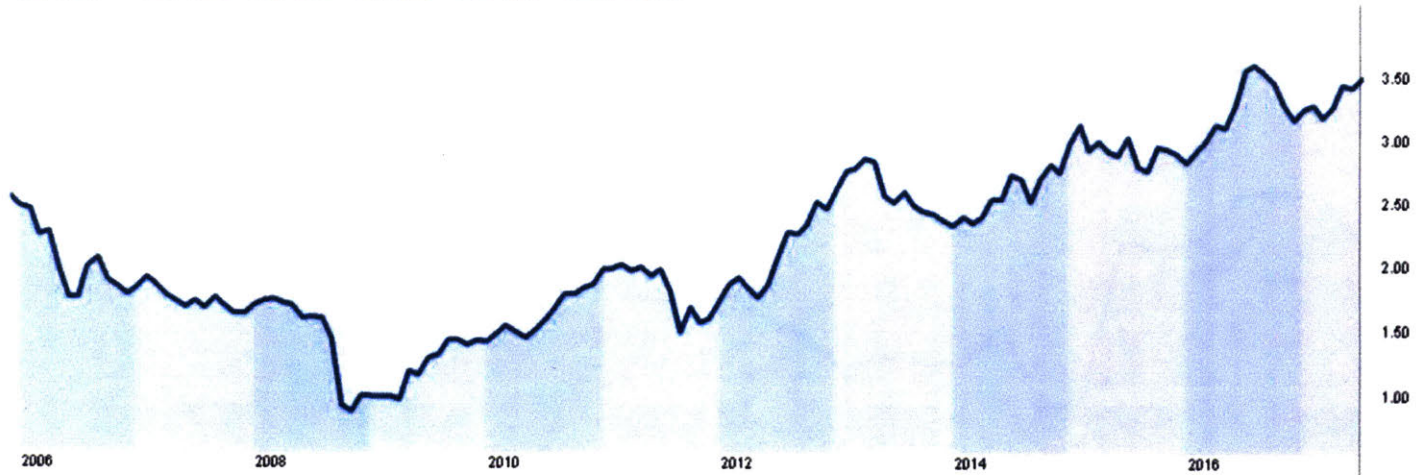
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■ 0808.HK

July 1, 2017 Open \$3.32 High \$3.42 Low \$3.28 Close \$3.40 Volume 643,031

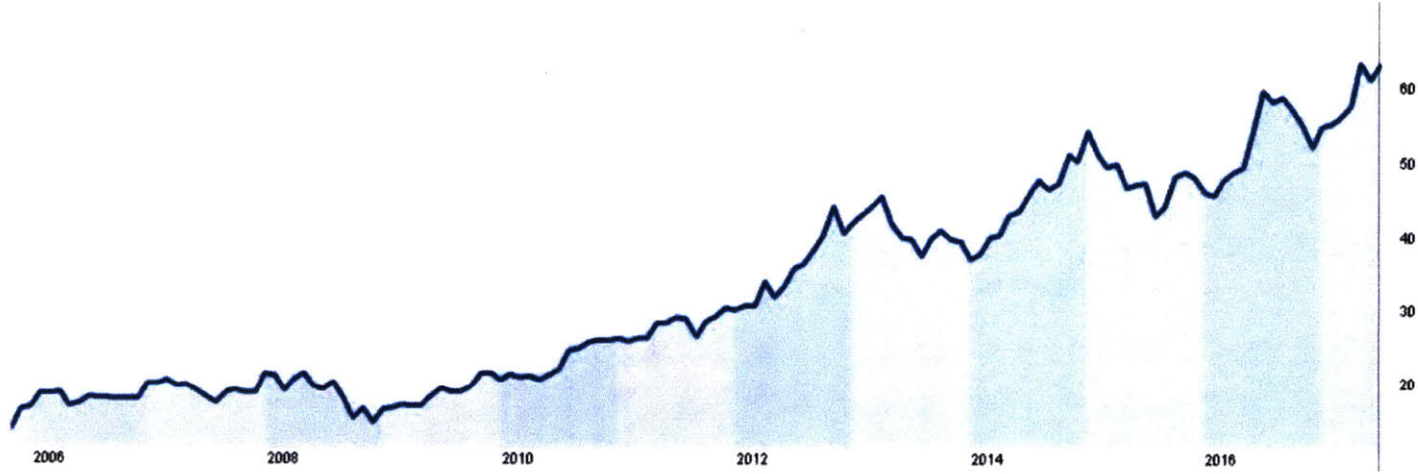
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■ 0823.HK

July 1, 2017 Open \$59.50 High \$62.10 Low \$58.00 Close \$61.25 Volume 970,989

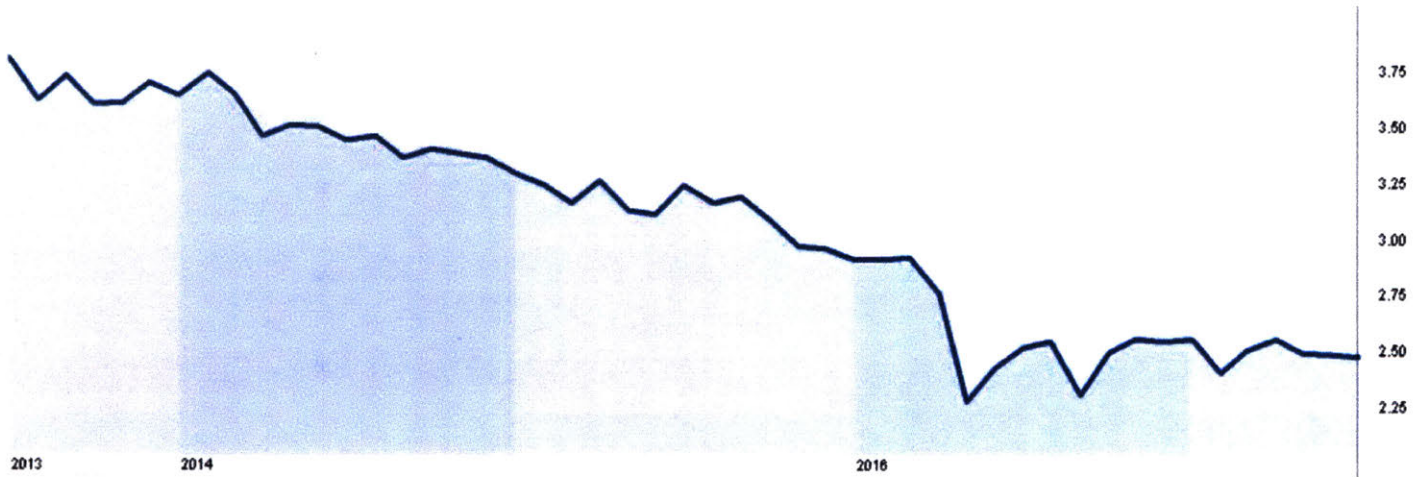
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■ 1275.HK

July 1, 2017 Open \$2.42 High \$2.49 Low \$2.40 Close \$2.42 Volume 8,000

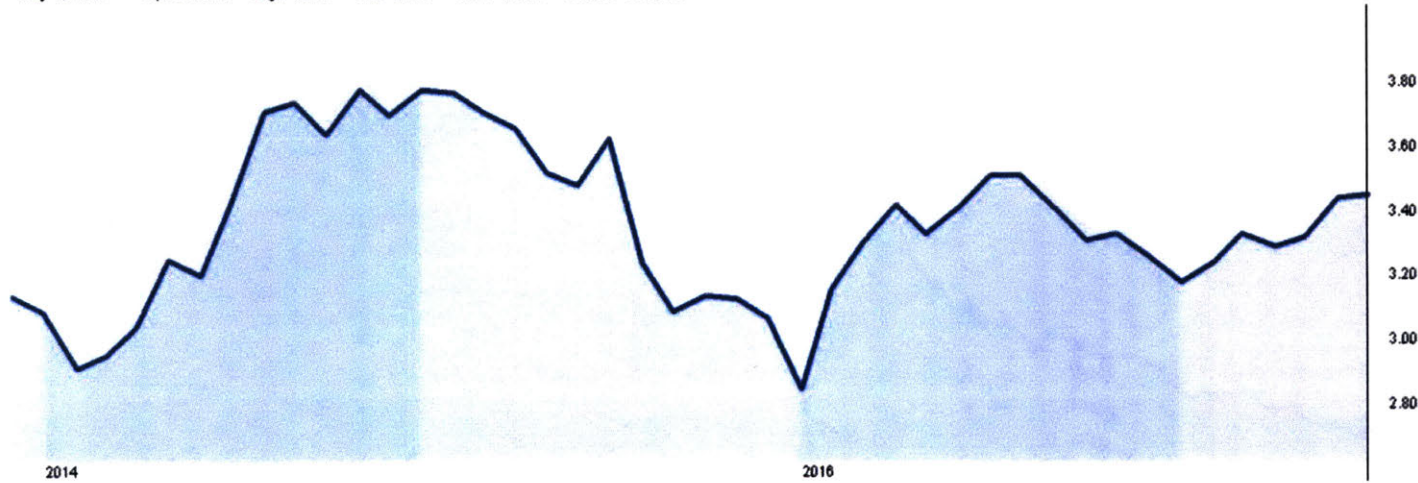
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■ 1426.HK

Data as of 7/24/2017. Market data is delayed by at least 15 minutes.

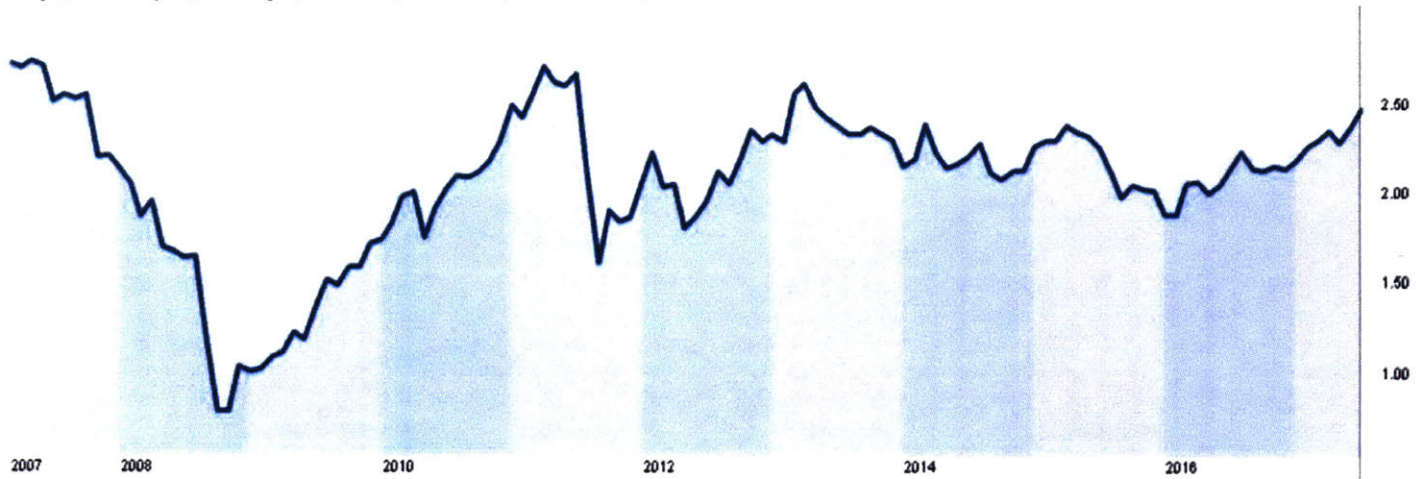
July 1, 2017 Open \$3.40 High \$3.44 Low \$3.35 Close \$3.41 Volume 112,000



■ 1881.HK

Data as of 7/24/2017. Market data is delayed by at least 15 minutes.

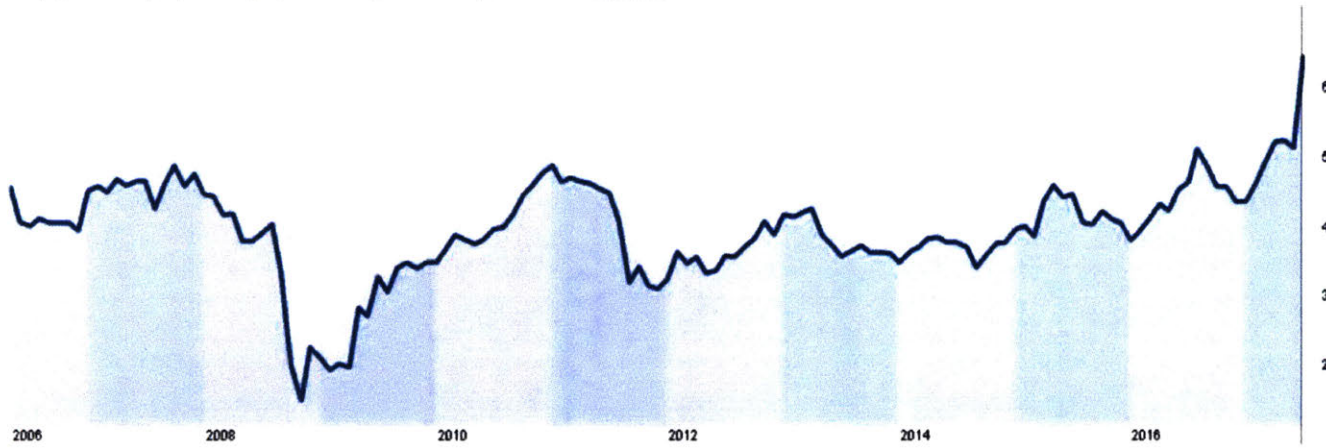
July 1, 2017 Open \$2.29 High \$2.44 Low \$2.29 Close \$2.40 Volume 65,000



■ 2778.HK

July 1, 2017 Open \$4.95 High \$6.46 Low \$4.89 Close \$6.26 Volume 10,460,000

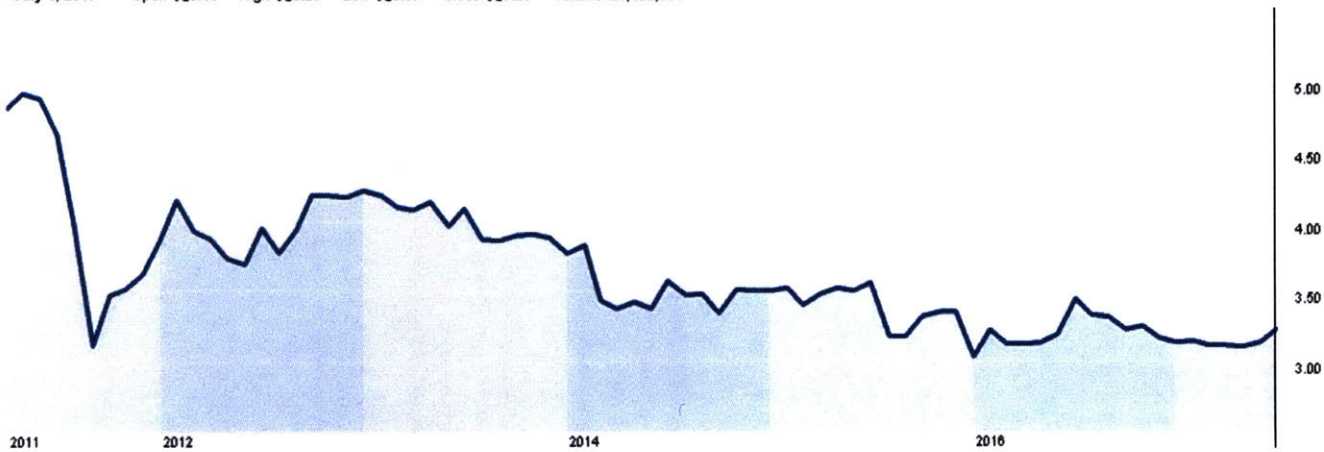
Data as of 7/24/2017. Market data is delayed by at least 15 minutes.



■ 87001.HK

July 1, 2017 Open 元3.11 High 元3.20 Low 元3.07 Close 元3.20 Volume 21,452,391

Data as of 7/25/2017. Market data is delayed by at least 15 minutes.



Source: Reuters.com