

# Discussion on Financing Mode of Affordable Housing Construction

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## ABSTRACT

Solving the housing problem of low- and middle-income groups is the basic responsibility of the government and an important indicator of whether a country's housing supply system is complete. In the past ten years, China's housing security has achieved great results. However, at present, there are still many problems in the construction of affordable housing in China, such as large capital gaps, a single financing model, an immature financing system, etc. This article analyzes these problems and the basis of their causes. Because of China's actual housing security goals, the author proposes to raise real estate property tax as the main part to raise construction funds, innovate financing channels, attract social capital to enter, improve housing security laws and other policy recommendations, to provide certain decision support for the government.

**Keywords:** *Affordable housing; financing model; PPP*

## 1. INTRODUCTION

It is the basic responsibility of the government to solve the housing problems of the low and middle-income groups, and it is also an important indicator of the adequacy of a country's housing supply system. The housing supply system of a country is an important indicator of its completeness. In the past ten years, China has achieved great success in housing security, however, the construction of subsidized housing in China still generally suffers from a large funding gap, a single mode of financing, and an immature financing system.

Based on the analysis of the above-mentioned problems and their causes, this paper proposes to raise construction funds mainly by levying a real estate property tax, innovating financing channels, attracting social capital to enter and improve housing security laws. The paper also proposes policy recommendations to improve housing security laws, to provide the government with some support in its decision-making.

## 2. LITERATURE REVIEW

At the macro policy level, since the 12th Five-Year Plan in 2011 proposed that 36 million units of affordable housing and shantytown reconstruction housing should be built within five years, and the coverage rate of

affordable housing in China should reach about 20%<sup>1</sup>, the 13th Five-Year Plan<sup>2</sup> emphasizes housing security projects such as public rental housing and shantytown reconstruction again. China has always paid close attention to the construction of low-income housing, which is closely related to people's livelihood, and local governments have been continuously investing in it over the years. In financing a new mode of exploration, from December 2016, China's National Development and Reform Commission and the securities and futures commission released the hair change department at the provincial level should vigorously promote the PPP<sup>3</sup> project assets securitization to December 2018, the National Development and Reform Commission (NDRC) corporate bonds only support the limited area<sup>4</sup>, such as affordable housing projects, known in the implementation of the "room not fry" direction, The country is gradually trying to explore a new financing model in the area of affordable housing.

From the international level, many developed countries have discussed affordable housing from the necessity of the initial construction to how to choose the construction financing mode and now to explore innovative financing models. The price of commercial housing is closely related to the demand for affordable housing, and scholars such as Jackelyn Hwang<sup>5</sup> believe that immigration and other issues will further exacerbate housing price increases, residential segregation, and the

wealth gap. As early as 2004, John M. Quigley and Steven Raphael<sup>6</sup> made an in-depth empirical analysis on the impact of the government's behavior of reducing housing supply and land restriction regulations on the rise of housing prices and rent. In this regard, the government should provide land for building high plot ratio housing to ensure the implementation of housing and political rights of middle and low-income people. The government should not only lead the construction of indemnification housing but also play a guiding and normative role in its financing. In addition to legislative support, developed countries led by the United States have established relatively mature fiscal and tax support systems and have the most complete REITs market in the world. At the same time, financing innovation cannot be without the intervention of social capital. The World Bank said in 2018 that the global housing construction and financing are mainly concentrated in the high-end market, and the corresponding demand of middle and low-income people is difficult to guarantee, so corresponding loans will be provided to countries in need. Luisa Ingaramo and Stefania Sabatino (2011)<sup>7</sup> have explored whether more than ten Italian cities adapt to the new housing financing mode using controlled experiments and proposed that banks should establish the housing ethical fund system under the existing legal system., to provide a source of capital for the financing of affordable housing.

Chinese scholars also conducted in-depth discussions on the selection of affordable housing space, construction and financing mode after relevant policies were issued in 2011. Zheng Siqu<sup>8</sup>, Zhou Suhong<sup>9</sup>, Song Weixuan<sup>10</sup>, and others respectively studied and discussed the theoretical basis and international experience of affordable housing space selection, its impact on employment choice, problems, and countermeasures. Because of the influence of "land finance", the early indemnification housing in China generally had the problem of the remote location, which exacerbated the employment difficulty, class solidification, and other social problems. However, due to the influence of the tax-sharing reform in 1994, the financial and administrative powers of local governments were separated, and the land transfer fee, as the main form of fiscal revenue, is directly related to the amount of local fiscal revenue. Therefore, the selection of affordable housing, even the construction, and financing problems are fundamentally local financial problems. Local financial funds are limited, which not only affects the location of space but also continues to affect the capital input of affordable housing construction, thus determining its construction quantity and quality. Since 2012, scholars like Lu Junping<sup>11</sup>, Yang Zan<sup>12</sup>, and Qin Zhenyang<sup>13</sup> have continuously studied the existing problems of affordable housing financing mode, learned from international experience, and made innovations, and even Lin Yongmin<sup>14</sup> and other scholars innovatively proposed the PPP+REITs financing mode and gave detailed operation suggestions. With the rapid

development of China's economy and the government's continuous research and attempts in recent years, the academic area has gradually promoted the discussion on affordable housing financing mode, constantly innovating the old and bringing forth the new, and more and more detailed elaboration has been made on the summary of international experience and the reference scheme suitable for China. However, few scholars have made an in-depth analysis of the fundamental problems of affordable housing financing mode from the outside to the inside and put forward appropriate policy suggestions according to the latest policy situation in China. What is the financing model of indemnification housing construction suitable for China's national conditions? What is the impact of "land finance" on the choice of financing mode? How to broaden the financing channels of indemnification housing in line with the long-term goal of building a long-term mechanism of real estate? The author will try to analyze these problems from phenomenon to essence in the specific case of indemnification housing and try to give corresponding solutions and policy suggestions.

### **3.THEORY**

#### ***3.1 Public goods theory: Indemnificatory housing should be led by the government and introduced into the market***

Indemnification housing, as a quasi-public good, is an incomplete non-competitive, and non-exclusive product. Therefore, indemnification of housing, as a quasi-public good for specific groups, should be organized by the government and other groups representing the interests of the people. However, since it is not a public good, it has certain exclusivity and competitiveness, so social capital can be gradually guided to participate in its construction and financing.

#### ***3.2 Supply and demand theory: Indemnificatory housing helps to suppress housing prices and achieve the goal of "getting a place to live"***

Affordable housing is a quasi-public good, but in the real estate market, it can be regarded as an incomplete free circulation of goods. The supply and demand of a commodity do not determine its value, but they can affect the fluctuation of its price. In the real estate market, when the supply of indemnification housing increases, the demand for housing for people in need will decline. As time goes by, the demand for housing will gradually fall short of supply, and the housing price of such housing type will also fall to a certain extent. Type for improving demand, investment demand even just need housing decline in investment properties, and they will tend to look more into luxury homes, have more appreciation

potential and higher added value products. With the future real estate tax, the government can achieved using economic means to curb speculative investment in the effect of the "real estate" demand.

### ***3.3 Land rent theory: There are contradictions between "land finance" and indemnification housing financing***

The value determines the price, and the real estate price mainly depends on the value generated by its geographical location. In recent years, local governments mainly rely on the value-added income of land transfer fees as the main way of fiscal revenue, and land as the pillar of fiscal revenue is called "land finance". According to the land rent theory, the income obtained by the local government is economic land rent, which is the excess profit from the income obtained through the transfer of land use rights and deducting the infrastructure construction and other expenses invested by the government in the early stage. The size of the excess profit is mainly determined by the scarcity of land, the most important performance is its geographical location and the surrounding scarce resources. Therefore, in different cities, or different regions of the same city, or different geographical locations may bring completely different "land finance" benefits to the government. For maximizing economic benefits, government-subsidized housing is likely to be arranged in areas with low land prices, imperfect supporting facilities, or even remote geographical locations. Then, although the insured people have places to live, their employment difficulty, living cost, and other aspects will be adversely affected. If the government considers its economic benefits mainly for social benefits, the construction of affordable housing with better site selection is not only the opportunity cost brought by giving up the land with high excess profits, but also the huge capital cost in the early stage of affordable housing construction, and even other costs such as rent subsidy in the later stage. These are huge costs for the government and have a long payback period, with little profit margin. Therefore, social capital should be appropriately introduced to help share the huge financial pressure and later operation and maintenance costs of local governments. The price is to give some preferential conditions or benefits to participating enterprises or institutions, such as higher plot ratio and easier access to scarce land.

## **4.FINDINGS AND RESULTS**

### ***4.1 there is a large funding gap***

After the tax-sharing reform, the local financial power is insufficient, and the local government's dependence on "land finance" is increasing day by day, which directly

conflicts with the logic of location selection, construction, and financing of indemnified housing. As the preferred alternative to "land finance", the real estate tax has become increasingly popular in recent years. However, the lack of legislation, registration difficulties, double taxation, and many other problems have brought great difficulties to the concrete implementation of the real estate tax. In the short term, the universal tax on housing still cannot be implemented. And more government debt, "land finance" as in China for many years the currency over-issue and the important way of inflation, already with housing investment properties and the whole financial market volatility is closely linked, inescapably, just rely on the power of local governments to provide affordable housing all the funds have not feasible. Therefore, many funding gaps should not only be undertaken by local governments or central financial allocations, transfer payments, etc., and affordable housing, as quasi-public goods, should also be appropriately integrated into the market role. As mentioned in the 13th Five-Year Plan of Housing security development of Shenzhen at the end of 2016, the total investment of social housing projects in Shenzhen has reached 65.77 billion yuan, of which 43.67 billion yuan is social capital, accounting for 66.42% of the total investment. Market roles to join, can not only alleviate the pressure of the local government short-term fiscal, bring abundant cash flow construction of affordable housing projects, more conducive to project the introduction of a market mechanism, market supervision, and inspection, finally attain the goal of improving project quality and management level, etc., to promote projects increase economic and social efficiency, at the same time for the government to deepen reform of systems and mechanisms, and it is also helpful to strengthen "delegating administration and improving administrative efficiency". However, the introduction of social capital should be tailored to local conditions and cities. As early as 2010, when the sixth census was conducted in Shenzhen, the permanent resident population had exceeded 10 million. However, by the end of 2016, the registered population of Shenzhen was only 3.8452 million, and the non-registered population accounted for more than 50% of the permanent resident population of Shenzhen. And the average housing price in 2016 has exceeded 50,000 yuan/square meter, ranking the highest in China; The price-to-income ratio is about 37 times, also the highest in China. Shenzhen, as a large city with a net inflow of population, has the most pressure on house purchases in China. However, the purchasing power of housing price of permanent residents (especially those who just need to buy a house from outside) is seriously insufficient, so the local government has a large demand for construction and financing of indemnification housing projects. However, due to the rapid economic development and high land-use intensity in Shenzhen, the newly sold land and its income are increasingly limited.

Therefore, the larger capital gap should be supplemented by introducing social capital. On the other hand, for the public rental housing project in Kashgar of Xinjiang in 2019, the total demand was 80 million yuan, and the government raised 58 million yuan of its funds, accounting for 72.5% of the total investment. The remaining funds were raised by issuing special bonds. Due to the relatively small demand for public rental housing and the relatively small financial pressure of the government, the local government still chooses direct investment as the primary financing mode.

#### ***4.2 The financing model is relatively single***

Diversified financing modes can delay or even solve the pressure brought by capital, management experience, long-term self-support, and operation so that local governments can provide higher quality social security services without violating market rules. The choice of model should not blindly learn from the successful experience of global countries but should be based on China's national conditions, regional financing status, and the existing exploration process of a specific analysis. At present, the financing model of affordable housing in China is still dominated by direct investment by local governments (including fiscal allocation, land transfer value-added income, accumulation fund value-added income, bank loans, etc.). Around 2015, many local governments gradually began to explore new financing modes. Data show that local fiscal expenditure on public rental housing has been declining year by year since the 12th Five-Year Plan, with a total of 487.738 billion yuan<sup>15</sup>. Moreover, since the 12th Five-Year Plan, only 4.85 million units of government-subsidized housing were built in 2014, with a relatively small proportion of tax rebates and transfer payments from the central government.

Therefore, it can be roughly inferred that the construction financing of government-subsidized housing, mainly public rental housing, is still dominated by local fiscal expenditure. Although the number of PPP projects in government-subsidized housing projects has increased year by year since 2014, government-subsidized housing, mainly public rental housing, accounts for less than 10% of the total, while the rest are shantytown renovation projects. At present, the financing model of affordable housing projects in China is still dominated by government direct financing, and the attempt of diversified financing channels is still in the initial stage. The central bank's decision at the end of 2016 to promote securitization of assets in low-income housing projects can be seen as a landmark starting point. Although it is only at the initial stage, some cities have taken the lead and become national demonstration projects to promote the asset securitization of government-enterprise cooperation projects. For example, in 2015, the public rental housing project of Fuji

Garden in Jiyuan city, Henan Province, a PPP project funded by social capital accounting for 65%, was formally established and successfully became a state-level demonstration project. In 2018, The Asset securitization project implemented by CHANGJIANG Asset Management with Wuhan public rental income as the underlying asset was the first in China. Although there are no typical cases of PPP asset securitization projects for reference, the government and social organizations have gained more practical experience in risk control and asset revitalization with the operation and stable operation of indemnification-protected housing, and the further development and improvement of China's financial market. The combination of the PPP model and asset securitization may emerge as The Times calls. In addition, REITs is also a new model widely discussed and studied by the government and academic area in recent years. However, due to the high overall risk of REITs and the difficulty of tracking and control at present, China's financial market does not have relatively sound legal and policy support and other reasons, it is only in the preliminary stage of testing water.

#### ***4.3 The financing system is immature***

The maturity of the housing finance system can standardize and regulate the construction and financing of housing in various localities and even nationwide, improve administrative efficiency and promote social equity, and in the long run help to build a long-term mechanism for the real estate market. However, there are still many problems with China's subsidized housing financing system. At the level of national legislation, there is not enough legal basis to restrain the boundaries of local government policy implementation; at the level of local implementation, there is a lack of sound implementation standards to regulate the financing mode of each local government, and local governments have unstable funding from "land finance" and many bank loans that may affect future funding. In terms of the logic of the operation of the existing system, the existing financing system has caused widespread controversy in the society, such as the rationality of using the value-added income from the provident fund for the construction of low-cost housing, following the Singapore model, and the involvement of a large amount of social capital, which complicates the issue of shared ownership and makes it more difficult to solve the problem; In terms of the exploration of new models, the future is also uncertain. From June 2016 to January 2020, the Ministry of Finance has landed 26 demonstration projects for PPP projects, but since December 2017, only 2 new projects have been added every quarter, and so far, no PPP project has achieved profitability, and the risk assessment effect of PPP projects is not yet clear. The multiple problems of unstable funding, shortage of funds, lack of a standardized system, imperfect legislation, and

uncertain risk control in the old and new models have made the financing of subsidized housing also full of uncertainties. Although the exploration of new models has just started, the handling of problems and the control of risks are still largely dependent on the decisions of local governments, rather than on more common standardized processes and clearer legal bases.

## **5.SOLUTIONS AND SUGGESTIONS**

### ***5.1 Fundamental measures: levy real estate property tax to ensure stable financial funds***

Because of its quasi-public goods and social security properties, indemnification housing should be led by the local government to maintain social stability and ensure the realization of its limited group "housing" goal. Existing local government fiscal revenue mainly comes from the gold of land sell one's things, etc. Through the transfer of land use rights to obtain income approach, and based on the present situation of the urban and rural land market cut crack and speed up the pace of urbanization in China, the land as a scarce resource, its supply will be less and less, and the advantage of geographical position quality block will also be more scarce. The land bonus period is gradually withdrawing from the historical stage, and the "land finance" income that local governments can get from it will be more unstable or even reduced. It can be seen that "land finance" is not an ideal way to obtain long-term and stable affordable housing construction funds. Real estate property tax has the characteristics of stable source of funds, large potential to be released, and effective adjustment of income gap through redistribution, and the existing problems of omission, less collection, and multiple taxes will release more capital potential under the correct reform path, and its development in the future also has a good expectation. Chongqing, Shanghai has been started for a high-grade residential property tax pilot, its take to the "commercial housing", is to the logic of "affordable housing", to the income gap between the rich and the poor regulation of logical loop is formed within the housing system, thus cleverly avoid the big and all the other low-cost capital appreciation income for the rationality of housing security question. At the same time, levying property tax on housing is equivalent to obtaining a long-term, stable, and considerable source of income in the possession of housing. Compared with the instability of "land finance" and the potential financial risks caused by it, the levying of real estate tax not only brings abundant cash flow, moreover, it can bring more reliable credit to the government and even help improve its credit rating. It is also of great benefit to the construction and financing of other facilities of local governments. Moreover, the collection of the real estate tax and the corresponding funds used for the construction of affordable housing

realize the purpose of redistribution within the real estate market, which is conducive to achieving the goal of "stabilizing housing prices, land prices and expectations", narrowing the gap between the rich and the poor in property ownership, and promoting social fairness and harmonious development.

However, while affirming the positive significance of real estate property tax, we cannot deny "land finance" blindly. "Land finance" has brought a series of problems, such as high land prices and housing prices, increased resources unfair distribution, increase systemic financial risk, and so on, but it is undeniable that "land finance" in China during the "golden decade" of the development of the real estate has played an important role in today's highly globalized international financial markets, at the same time, China has absorbed most of the excess M2 through the national tendency to invest in real estate. Although the housing price has been pushed up, China's eyes on the international financial market have helped to reduce the impact of multiple financial crises on the economy to a certain extent. In the future, with the integration of China's financial market with the international market, the public will have more abundant, diversified, and reliable investment channels, and the characteristics of real estate as the primary investment product will gradually weaken and the housing price will be more stable. The forward role of "land finance" will gradually weaken, and the new main sources of local government fiscal revenue, such as real estate property tax, will gradually develop as a major substitute and play an important role in a longer historical period. With China's deepening reform and sustained and healthy economic development, "land finance" will gradually become the second, third, or even later fiscal revenue as a transition. Real estate property tax in the successful pilot exploration and the corresponding legal and mechanism improvement process, will also grandly on the historical stage, become new with Chinese characteristics of the main fiscal revenue.

### ***5.2 Important guarantee: the perfection of legislation***

No matter it is the more stable source of financial fund income, the application of innovative financing mode, or the more standardized financing system in the future, it is inseparable from the support and guarantee of the legal level. Under the broad framework of law, only when the government and other main bodies conduct affordable housing financing, can there be laws to follow, and those who violate the law must be prosecuted. Only when the high illegal cost can effectively regulate the behavior of relevant subjects and promote the realization of social equity from the real sense for the people. Although China adopts the civil law system, the main developed countries are the Common law system, and there are differences between them in the aspects of legislative logic.

However, in the process of perfecting the relevant laws of indemnification housing, there is a lot of mature experience in foreign countries that can be appropriately referenced and used for reference in China, and specific adjustments can be made according to China's national conditions. For example, to stimulate the enthusiasm of social capital to participate in affordable housing investment, the compensation rights of social capital can be prioritized according to the provisions of British Housing Law, and the capital risks borne by social capital can be reduced. For example, to introduce real estate trust funds (REITs), we can refer to the legislative logic of the United States, which has a more mature financial system, to restrict the potential problems such as excessive circulation, unlimited risks, and false sales of REITs in China more effectively.

### **5.3 Financing innovation: diversified financing mode**

The public-private partnership model of public rental housing has been launched in China, and there have been preliminary attempts of REITs and overseas in real estate trust funds. In recent years, the issuance of REITs has also been preliminaries explored in long-term rental apartments and other aspects. Although there are still many difficulties, such as inertia resistance of implementation, imperfect laws and mechanisms, and difficulty in changing people's investment habits, the PPP model has not been widely considered in the choice of domestic affordable housing financing mode, and asset securitization is only a preliminary attempt. The launch of REITs has a long way to go... However, the exploration of diversified financing channels for affordable housing has already begun. It does need a long time to accumulate experience from the pilot to the comprehensive promotion, and the government also needs to consider the establishment of various financing modes from the perspective of top-level design. In the future, with the gradual improvement of China's financial market legislation and the gradual integration of institutions and mechanisms with the international market, the diversification of financing channels will have more flexibility and operability.

## **6. CONCLUSIONS**

Based on the preliminary discussion of the financing model of subsidized housing construction by theory, data, and cases, and using research methods such as literature research method, qualitative analysis method, quantitative method, and empirical summary method, the writer has thoroughly elaborated and analyzed the financing mode of subsidized housing, and tried to give corresponding solutions and policy suggestions (such as widening financing channels, attracting social capital and improving legal protection).

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