



## Study on the Financing Problem Improvement of Economically Affordable Housing

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**Abstract:** As an important part of China's housing supply system, economically affordable housing undertakes the task of solving the housing problems of most low-and middle-income families in China, and plays an important role in the housing supply market. However, at present, economically affordable housing's construction funds in China mainly come from bank loans, government budget, and value-added income from housing provident funds. On the way of financing, there are some problems, such as the lack of targeted support from banks to buy houses to buyers and sellers, the small amount of funds invested by local governments, the unobvious role of housing provident funds, and the single source of funds, which leads to the predicament of economically affordable housing's construction in our country. In order to solve the problem of insufficient funds faced by economically affordable housing's construction, we need to encourage commercial banks to actively participate in economically affordable housing's construction financing, give certain preferential policies to real estate developers and property buyers, and encourage local governments from various angles to actively raise funds needed for economically affordable housing's construction, improve the housing provident fund system, and innovate financing channels at the same time. The introduction of public-private partnership (PPP) model, real estate investment trust (REITs) model, and the issuance of housing lottery and other ways are needed, by the government to take the lead in the reasonable introduction of social capital, so that economically affordable housing's capital sources are diversified. Through this series of measures, we can improve the supply of economically affordable housing, further improve the housing supply system of our country, and enhance the well-being of the people.

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**Key words:** Economically affordable housing, Financing method, Housing supply system, PPP model, REITs model

### 1. Research background and rising of questions

The construction of indemnificatory apartment is a worldwide problem, which is related to the vital interests of the people. Governments all over the world attach great importance to it, and academia has done a lot of research on the construction of indemnificatory apartment. Yang Zan and Shen Yanhao (2010) believe that in the process of indemnificatory apartment construction, the government should act as a guide and supervisor of project financing, rather than a direct investor, which can improve the efficiency of indemnificatory apartment construction. Zhang Da and Li Daokui (2011) believe that in order to effectively promote the construction and development of indemnificatory apartment and give institutional support to the construction of indemnificatory apartment, the government should establish a financing system related to the construction of indemnificatory apartment. In terms of the source of

funds for the construction of indemnificatory apartment's project, the academic circles have also carried out a lot of research. Many scholars believe that we should not rely solely on financial funds to supply indemnificatory apartment, but should introduce social capital, which on the one hand can reduce the financial burden of the government, on the other hand, it can also increase the investment channels of social capital. Among them, David T. Brown believes (2000) that in order to maintain the long-term nature of the indemnificatory apartment system, relying solely on government financial funds is far from enough in the construction of indemnificatory apartment, private capital should be introduced to form a good operating mechanism for indemnificatory apartment construction. (Alison Peters (2009) through the research on the housing situation of

residents of New South Wales, it is found that for the low-and middle-income and homeless groups in the area, the public housing, rental housing and community housing provided by the government still cannot solve their housing problems, so they should absorb social capital and make them bear the responsibility of indemnificatory apartment's construction together with the government.

At present, indemnificatory apartment's construction has alleviated the housing problem of some low-and middle-income groups and achieved certain results, but due to the lack of construction funds, indemnificatory apartment's construction is faced with financing difficulties. Shi Changkui (2011) believes that the current financing problem facing indemnificatory apartment's construction is due to the hindrance to the access of private capital and social capital, and this is mainly due to indemnificatory apartment's low construction profits. The relevant access and exit mechanisms are not perfect. Qiu Feng (2012) summed up the factors that restrain indemnificatory apartment's financing in China as follows: small profit margin, long payback cycle, unclear definition of property rights, imperfect relevant laws and regulations, and so on.

In the specific innovation of indemnificatory apartment's financing model, scholars have put forward REITs and PPP models to increase financing channels. For example, Liu Dong (2005) put forward the REITs financing operation mode which accords with the actual situation of our country through research. This research has promoted the development of indemnificatory apartment financing in our country. Xie Shuqian and du Jing (2009) introduced the matters that should be paid attention to when using the PPP model in the construction of indemnificatory apartment in China, and how to reasonably share the risks and benefits between the government and social capital. Noah Kofi Karley (2002) conducted in-depth research on new financing methods of indemnificatory apartment, such as asset backed securitization (ABS) and real estate investment trust fund (REITs), and achieved certain results, which promoted the innovation of financing channels for indemnificatory apartment's construction.

At present, domestic research is mainly aimed at the problems existing in indemnificatory apartment's construction financing and the corresponding innovation of financing methods, and there is little research on the shortage of construction funds faced by economically affordable housing and economically affordable housing. What's more, there is no effective and innovative financing model according to economically affordable housing's characteristics, which makes the development of economically affordable housing into a bottleneck period, so in order

to promote the development and improvement of economically affordable housing system, on the basis of previous studies on indemnificatory apartment, this paper points out the problems existing in economically affordable housing's financing mode and the causes of the problems, and further puts forward some suggestions to solve them. It is hoped that the study of this paper can promote the development of economically affordable housing system and provide suggestions to solve the housing problems of low-and middle-income groups.

## **2. Current financing mode of economically affordable housing**

The existing financing channels of economically affordable housing in China mainly include bank loans, financial allocation, value-added income of housing provident fund and so on. From the point of view of economically affordable housing builders, bank loans are still the main source of funds. In addition, the financial subsidies given by the government to developers and developers' own funds also play an important role. From the point of view of economically affordable housing's buyers, the user's own down payment, installment payment to the bank and housing provident fund constitute the user's source of funds. The details are as follows:

### **2.1 Bank loan financing**

In the course of economically affordable housing's construction, the main financing channel for developers is to borrow money from banks, and about 70% of economically affordable housing's development funds come from banks. At the same time, for the low-and middle-income house buyers, because their income level is not high, they cannot pay the house at once, so they need to apply for a mortgage loan from the bank. Therefore, in the process of economically affordable housing's development, from the perspective of the buyer and the seller, they all need a certain amount of financial support from the bank.

### **2.2 Policy land and financial subsidies**

From an objective point of view, the administrative allocation of land and financial subsidies given by the government to developers in the construction of economically affordable housing is also a kind of capital saving or a deduction of financing costs for developers. In this process, as the land is obtained free of charge, the construction costs of developers can be reduced rapidly. At the same time, the relevant administrative fees reduced by the government and the financial subsidies can attract social capital into the field of economically affordable housing construction, and then promote the development of economically affordable housing system.

### 2.3 Housing provident fund

Housing provident fund system is an important social security system in China, which has the characteristics of mandatory, mutual assistance, security and so on. In the process of housing purchase, housing provident fund plays an important role and is an important source of housing payment. At the end of 2018, the total amount of housing accumulation fund was 14.589977 trillion RMB, the total withdrawal was 8.796489 trillion RMB, the total amount of personal housing loans was 8.582132 trillion RMB, and the balance of loans for indemnificatory housing construction projects was 4.611 billion RMB. Thus it can be seen that the housing provident fund system provides some financial support for urban residents to buy houses, and still needs to play an important role in the future.

## 3. The problems existing in economically affordable housing's financing

### 3.1 The bank did not give targeted support for house purchase

In China, for economically affordable housing, the housing loan policies given by the major banks to real estate developers and buyers are basically the same, and the different credit application conditions are not designed according to the needs of borrowers and the ability to buy houses. Therefore, it can not better meet the requirements of the target group. Economically affordable housing sells to low-and middle-income families facing housing problems. For low-and middle-income groups, most of them need to apply for loans from banks to buy houses. Although China has introduced a preferential policy for families who buy economically affordable housing, not all home buyers can get loans from the bank smoothly, and developers do not enjoy preferential loans from banks at the same time, which is not conducive to attracting social capital.

### 3.2 The local government lacks initiative in the construction of economically affordable housing and does not invest much money

The measures for the Administration of Affordable Housing issued in 2007 stipulated that the government should provide free land for economically affordable housing's construction, and grant administrative fees and relevant government funds to developers for building houses. At the same time, some tax concessions and financial subsidies should also be given. As far as the local government is concerned, the income from the sale of land and the budget are directly related to the government's revenue, especially the income from the sale of land, which makes economically affordable housing's policy opposed to the motivation of the local government to increase revenue. At the same time, as the government

has to supervise economically affordable housing's construction, examination and approval, transactions and other links, there will be a number of supervision costs. The "cost-benefit" mismatches leads to the local government's lack of enthusiasm for economically affordable housing's construction, so local governments do not invest much money in economically affordable housing's construction.

### 3.3 The effect of housing provident fund is limited

Housing accumulation fund is the long-term housing reserve fund deposited by the unit and its on-the-job employees, and it is the main form of monetization and socialization of housing distribution. The housing accumulation fund that the worker individual as well as the unit pays, implements the special account storage, when the worker needs to buy the house, may withdraw the fund from the housing accumulation fund or deal with the housing accumulation fund loan, but from the foregoing, we can see, as of the end of 2018, the total amount of individual housing loans is 8.582132 trillion RMB, but the loan for indemnificatory housing construction projects is only 46 million RMB. And compared with 2016 and 2017, it also showed a downward trend. In 2016, the housing provident fund issued 2.079 billion RMB in loans for indemnificatory housing construction projects; in 2017, 962 million RMB in project loans were issued, which has shown a rapid downward trend, plummeting to 46 million RMB in 2018, thus it can be seen that the housing provident fund has less support for economically affordable housing's construction and its effect is more limited.

### 3.4 The source of funds is single

At present, the funds developed by economically affordable housing in China mainly come from bank credit, financial budget and housing provident fund. Very few people use equity financing and bond financing, which leads to the shortage of funds among real estate developers in the development process of economically affordable housing, relying too much on bank loans and relatively single financing channels. Therefore, it is very important to develop a new economically affordable housing financing model.

## 4. The causes of economically affordable housing's current financing problems

### 4.1 The reason why the bank did not provide targeted support for house purchase

4.1.1 The operating Nature of Commercial Banks and the restriction of economically affordable housing's property right attribute

On the one hand, for banks, the government does not force them to give certain loan concessions to economically affordable housing property buyers, while banks, as the main body of the market economy, weigh interests and risks. Only when the risk meets its

requirements will it lend. On the other hand, because economically affordable housing's construction land is allocated by the state, property buyers only enjoy limited property rights, in order to avoid risks, banks usually require applicants to provide a third-party guarantee, but most low-and middle-income families because of their low income and weak loan repayment ability, it is difficult to find a third-party guarantee.

4.1.2 It is difficult to guarantee the repayment amount of economically affordable housing, which restricts the bank's credit to developers.

On the one hand, although economically affordable housing can withdraw funds in a relatively short time through the construction mode of "promoting construction through sales and rolling development," economically affordable housing's remote location and imperfect infrastructure construction have led to poor sales of some economically affordable housing, which slows down the withdrawal of funds from development enterprises, and loans are prone to extension and overdue. Therefore, in order to ensure the safety of funds, Banks are reluctant to put loans into economically affordable housing's construction.

#### **4.2 The current performance assessment mechanism is not perfect**

In the performance assessment of our government, the growth rate of GDP and important economic indicators are the key to the assessment. At the same time, due to the implementation of the tenure system, some officials will try their best to improve GDP in order to highlight their political achievements during their term of office, so the theory of GDP has spread in many places, which causes local governments to ignore the basic livelihood problem--the housing problem of residents. Although in recent years, the central government has advocated the establishment of a correct concept of political achievements, and the evaluation of economic indicators in performance assessment has been weakened, actual economic growth and economic strength are still the most important indicators for evaluating the work level of local officials. This has led to the fact that local governments do not attach great importance to the construction of economically affordable housing, which can solve the housing difficulties of low-and middle-income groups. At the same time, at present, there are relatively large local taxes and fewer taxes. Local governments have limited financial resources, so the funds invested in economically affordable housing's construction are insufficient.

#### **4.3 The reason why the effect of housing provident fund is limited**

4.3.1 Housing provident fund financing and value-added channels are narrow

Since it came into being, the housing provident fund system in China has been limited to the payment of working urban workers, but no other financing methods have been added, and there is no corresponding securitization mechanism to maintain and increase the value of the housing provident fund. The use of the existing housing provident fund is limited to using the provident fund to buy treasury bonds and deposit the provident fund into the bank to earn interest, but there are some drawbacks in the domestic interest rate system, which ultimately leads to the insignificant increment effect of the provident fund. Data show that the value-added rate of return of housing provident fund in all parts of the country in 2018 is not more than 2%. National debt and large deposits in banks are still the main sources of value-added income. Because the value-added effect of housing provident fund is not significant, the value-added income is not high. Therefore, it is unable to give greater support to the construction of economically affordable housing.

4.3.2 Housing provident fund lacks effective internal supervision mechanism, and violations often occur.

Due to the lax internal supervision and control in the management of the housing provident fund, the phenomenon of illegal use and misappropriation of the housing provident fund often occurs, and the government lacks effective punishment for the irregularities detected by the government. Failed to achieve the purpose of effectively curbing these corruptions, may greatly affected the role of housing provident fund.

#### **4.4 At present, the domestic housing financial system is not perfect**

The housing problem is related to the development of people's livelihood. Western developed countries have generally established indemnificatory housing financial systems and indemnificatory housing financial intermediaries with their own characteristics. Indemnificatory housing financial institutions are mainly set up to solve the housing problem of low-and middle-income groups. The Federal Mortgage Association of the United States and the Central Public Provident Fund Bureau of Singapore all belong to this kind of institutions. In China, due to the imperfect financial system, the imperfect capital market, the failure to establish a corresponding housing financial system, and the lack of indemnificatory housing financial intermediaries, there is a shortage of housing financial innovation products. as a result, financial institutions and markets do not play their due role in supporting the construction of economically affordable housing.



## **5. Suggestions on improving economically affordable housing's financing problem**

### **5.1 Innovate the credit model and encourage commercial banks to participate actively**

First, the state legally stipulates that commercial banks should give certain preferential policies to economically affordable housing's construction, whether it is the buyer or the seller, such as giving the project loan applied by economically affordable housing developers a lower interest rate than the construction of commercial housing, relaxing the requirements for the loan term, allowing such loans to only repay interest during the project construction period, and then repay the principal when the project enters the follow-up sales period. For buyers, banks should also give preferential policies of low interest rates to the personal housing loans they apply for, so that property buyers can really enjoy the benefits of the policy.

Second, by expanding the types of business, for example, by issuing economically affordable housing financial products, banks can create combined guarantee methods such as project under construction mortgage, land use right mortgage, equity pledge and so on. so as to increase the financial support for economically affordable housing's construction.

### **5.2 Arouse the enthusiasm of local governments to raise funds**

#### **5.2.1 Improve the incentive mechanism for local governments**

At present, regional economic growth, especially the growth rate of GDP is still the main criterion for evaluating the performance of local officials. Under such circumstances, compared with the construction of economically affordable housing to improve people's livelihood, local governments pay more attention to the development of local economy. Therefore, in order to carry out economically affordable housing's policy, it is necessary to incorporate economically affordable housing's construction into the performance assessment mechanism and implement effective incentive and punishment mechanisms. Officials who conscientiously implement economically affordable housing's construction should be given certain rewards, while those officials who passively implement economically affordable housing's policies will be given certain administrative penalties.

#### **5.2.2 Improve the tax sharing system and increase the proportion of local tax revenue**

At present, China's tax system is not perfect, the proportion of local taxes is relatively small, and local governments bear a lot of responsibilities, and there is a problem of unequal rights and responsibilities, which makes local governments rely too much on land finance. In recent years, with the continuous development of urban land, land finance has also

shown an unsustainable phenomenon. Therefore, in order to increase local financial revenue, the current tax system of our country should be reformed and improved. By appropriately increasing the proportion of local taxes and speeding up the construction of the local tax system, taxes closely related to local economic development can be classified as local taxes, and local governments can pay attention to the growth of local taxes and conserve local tax sources, which can generate income for local governments, mobilize their enthusiasm and promote the development of economically affordable housing's construction.

### **5.3 Earnestly improve the housing provident fund system**

In recent years, China has set up a housing provident fund management center based on the experience of Singapore, but there are still some problems, such as lack of decision-making, single business, small coverage and so on. For this, we can regard the provident fund management institution as a policy financial institution and operate strictly in accordance with the mode of operation of the financial institution. Under this mode of operation, we can increase the investment channels of the housing provident fund and increase the investment income of the housing provident fund. To achieve a better value-added effect, at the same time, under the operation of professional financial experts, it can also reduce the relevant investment risks. In addition, policy-oriented financial institutions can implement a corporate governance structure, improve the coverage of provident funds, raise funds in many ways, and provide housing security for more people in need. In addition, it is necessary to strengthen the supervision of the housing provident fund, and a special institution can be established to supervise the use of the housing provident fund, with special personnel responsible for supervision, so as to avoid the phenomenon of misappropriation of funds and ensure the smooth operation of the housing provident fund system.

### **5.4 Innovate economically affordable housing's financing channels**

#### **5.4.1 The PPP Model of economically affordable housing's financing**

##### **(1) Project confirmation**

After the local governments have formulated plans for the construction of economically affordable housing, they will hand it over to the evaluation department to decide whether it is necessary to build economically affordable housing in the region. In addition, considering the amount of government financial subsidy, the participation of private capital and the management ability of private enterprises, we further determine the rationality of using PPP model for economically affordable housing project financing.

##### **(2) Project bidding**

After confirming the use of PPP mode to build economically affordable housing, the government will select some competitive enterprises through bidding, then select and bid according to their own financial strength and management level, and announce the results to the public. After setting the bid, the government shall consult with the project contractor to determine the special target company, which will be responsible for the specific implementation and management of the project.

#### (3) Project construction

After signing the agreement, the government and the private sector carried out the construction of economically affordable housing in accordance with the provisions of the agreement. The construction company is responsible for communication and cooperation with banks and insurance companies. At the same time, the government supervises the whole construction process of economically affordable housing to ensure the smooth completion of economically affordable housing. For the problems found in the construction of economically affordable housing, the government should communicate with the construction company in a timely manner. For the phenomenon of dereliction of duty, the relevant responsible persons should be investigated.

#### (4) Project sales

After the completion of economically affordable housing, the real estate developer was responsible for the sale of the house. However, at the time of sale, due to the social security nature of economically affordable housing, there were certain qualification requirements for property buyers. Only those who had an urban hukou and met the low-and middle-income standards, at the same time, families who had no houses or whose housing area was lower than the standards set by the municipal and county people's governments could buy houses, and the government also imposed restrictions on the selling price. The principle of cost plus small profit is implemented, and the profit margin of general real estate developers does not exceed 3%. In this case, real estate developers can sell economically affordable housing to those in need.

#### (5) Follow-up operation of the project

According to the agreement, the construction company has the right of operation and management of economically affordable housing, can enjoy the preferential measures provided by the government, and obtain a certain amount of income, so corresponding to the power, they also have the obligation to repair and repair economically affordable housing. In this regard, the government can supervise it to ensure that the economically affordable housing project can operate as expected by the government for the benefit of low-and middle-income home buyers.

#### 5.4.2 The REITs Model of economically

affordable housing's financing

In economically affordable housing's REITs model, the government should be responsible for setting up the economically affordable housing trust project and setting up the economically affordable housing investment trust institution, which will absorb social idle funds, including financial allocation, land transfer fee, etc., to form a economically affordable housing trust investment project similar to national debt. For economically affordable housing trust investment projects, the government should give certain tax concessions or subsidies to maintain the rate of return of trust investment projects, so as to protect economically affordable housing's investment attractiveness. In addition, the issuance of economically affordable housing trust products and the management of trust funds will be handed over to specialized financial institutions, and professional property management companies will be hired to manage the property.

## 6. Conclusions

In recent years, house prices in China have continued to rise, and the problem of difficulties for low-and middle-income families to buy houses has been highlighted, and the introduction of economically affordable housing's policy has played a certain role in alleviating. At present, there is still a problem that supply falls short of demand in the construction of economically affordable housing in our country. The root cause is that economically affordable housing is facing many difficulties in financing. In this paper, after analyzing economically affordable housing's financing model and existing problems, This paper puts forward targeted countermeasures, such as legally requiring commercial banks to give certain concessions to economically affordable housing's developers and property buyers, and putting forward some financing models for social capital to participate in economically affordable housing's construction, such as PPP model and REITs model, hoping that through the proposal of new and reasonable suggestions, it can promote the construction of economically affordable housing and then solve the current housing problem of the middle and low income class., thus conducive to social stability.

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