# Research on Developing Status and Countermeasures of Finished Housing in China

### Hongyong Liu a, Qiushuang Huang b

School of Southwest Petroleum University, Chengdu 610500, China a342691740@qq.com, bhqs0916@126.com

**Abstract.** With a series of encouraging policies insisting on enacting finished housing in China, the construction industry has paid more attention on the development of finished housing. First, this paper concluded the developing status of finished housing in our country from two sides, policy guidance and development of the industry. Then, this paper analyzed the problems of finished housing development. For example: owners and costumers' negative attitude of the finished housing. In the end, proposed a series of countermeasures, such as implementing of incentive policies, increasing the punishment, enhancing scientific and technological content, developing standardized production.

**Keywords:** Finished Housing; Standardization; Countermeasures; Standardization.

#### 1. Introduction

Finished housing is the house that all the functional space of the fixed surface or paint complete, the basic equipment for the kitchen and bathroom are completed before delivery of the keys <sup>[1]</sup>. The finished housing can save the construction material, reduce the construction waste and the pollution. And it can improve the quality of residential construction and urbanization; ensure the residential safety in the same time. This is of great significance for building a resource-saving and environment-friendly society, protecting residential security, creating livable environment, and promoting the adjustment of residential industrial structure <sup>[2]</sup>.

#### 2. Developing Status of Finished Housing in China

#### 2.1 Policy Support

Table 1 National Policies of the Development of Finished Housing

Release Date	Department	Policy	Policy Summary
1999.8.20	Ministry of Construction	< <opinions and="" concerning="" housing="" improving="" industry="" issues="" modernization="" of="" on="" promotion="" quality="" several="" the="">&gt;</opinions>	Develop and revise a number of relevant technical standards and specifications to improve the housing security system technology; Increase the development of residential building systems and tonic system, research and extension.
2002.3.5	Ministry of Construction	< <residential decoration<br="" interior="">Management Approach&gt;&gt;</residential>	Promote that one-time decoration or menu-style decoration should satisfy the individual needs of consumers
2008.8.1	Department of Housing	< <notice further="" on="" strengthening="" the<br="">Management of Residential Decoration&gt;&gt;</notice>	Actively promoting one-time decoration or menu-style decoration in new housing.
2011.8.18	Department of Housing	<<"Twelfth Five Year Plan" in Construction Industry>>	Actively promoting finished house before delivering the keys

National Policy. In 1999, the National Ministry of Housing Construction proposed the request that actively promoting one-time decoration or menu-style decoration in new housing. After nearly ten

years of exploration and practice, the National Ministry of Housing Construction issued a series of policies as follows in table 1.

Local Policy. After a series of policies that develop the finished housing proposed by the country, the major cities have introduced corresponding policies and regulations to correspond. The local policies are as follows in table 2.

Table 2 Local Policies of the Development Finished Housing

City	Policy Summary		
Shenzhen	Promulgated the "action plan on promoting the housing industry" in early 2008, and		
	required a one-time decoration to comprehensively promote housing construction and		
	the sale rate of finished housing to reach 100%. In July, 2008, Prohibited the sales		
	unfinished housing.		
Beijing	December 10th, 2008, issued the "Beijing Construction of Affordable Housing on the		
	Installation Cost of the Project Standard Notice", formulated that the affordable housing		
	must be one-time decoration.		
Shanghai	Until 2010, the rate of finished housing in the center of Shanghai accounts for 60% to		
	70% ratio, and other parts strives to reach 30% -40%.		
Hangzhou	Until 2010, the rate of finished housing of Hangzhou accounts to 50%.		
Chongqing	Until 2012, the rate of finished housing of Chongqing accounts to 30% at least.		

Real Estate Company Policy Planning. The major real estate companies put forward the corresponding planning to respond to national and local policy. The planning is as follows in table 3.

Table 3 Real Estate Company Policy Planning of Development Finished Housing

Real Estate	Real Estate Company Policy Planning	
Company		
Wan Ke	Say good-bye to unfinished housing, 100% finished housing	
Heng Da	90% finished housing at least	
Bi Guiyuang	Fast integrated development. A molding, once supporting the place, the whole	
Di Guiyuang	renovation submitted	
Fu Li	100% finished housing, launched the renovation of the whole renovation of the	
ı'u Lı	revolution in South for the first time.	
Bao Li	Financing to increase "green energy efficient building" investment and improving	
Ba0 L1	the whole decoration of residential proportion	

#### 2.2 Development of Industry

Finished housing market in Beijing, Shanghai, and Guangzhou is more mature, where the real estate market is more mature. Those areas' finished housing markets have its own market characteristics, and represent the highest level of finished housing markets. They also have their own effective solution to the problems, such as the quality of finished housing, personalized decoration, and so on. Beijing: The promotion of finished housing is moving forward [3]. In 2006, about 50% rate of the luxury real estate finish their decoration before the delivery of keys. In July, 2010, affordable housing in Song Jiazhuang has been taken into use. The residents have received a "menu-style" decoration scheme at the same time. This is the first time that finished housing has been used to affordable housing in Beijing.

Shanghai: Half of the feet have got into the "Finished Housing Time". According to statistics, in 2011, the Shanghai Municipal Construction and Transportation Work Conference revealed that Shanghai "five-second" period will vigorously promote the housing industry, and the new finished housing proportion will reach 70%.

Guangzhou: Finished housing is gonging to be professional. Ten years ago, there were many finished housing in Guangzhou. According to the China Real Estate Index Research Institute, in 2008, among the new projects launched in Guangzhou, the finished housing accounted for 59.5%, and the unfinished housing accounted for only 40.5%. The large-scale real estate attracts customers by developing finished housing.

Shenzhen: November 19, 2006, Shenzhen was listed as the first national residential modernization comprehensive pilot cities, and took the lead in exploring the important task of the modernization of housing industry. Then, in 2008, the rate of finished housing increased from 8% in 2007 to 20% in Shenzhen.

According to the China Index Research Institute of Monitoring, compare 11 key cities' rate of finished housing in the quarter of 2012 as follows in Figure 1. From these rates, we can find that the rates of finished housing in first tier cities are higher than it in second tier cities. Generally, the rates in second tier cities are low, and the developmental space is enormous.



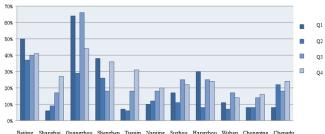


Figure 1. 11 Key Cities' Rate of Finished Housing in the Quarter of 2012

#### 3. Problems Existed

#### 3.1 Developers and Consumers' Boycott of Finished Housing

The residential vacancy rate and the house prices are high, and the real estate is overheating. In this phenomenon, the developers do not want to further develop the residential product itself. Under their consideration, the new technology, product, crafts and equipment will add more cost to the conventional input, while the income is less than the unfinished housing. On the other hand, consumers in our country is still not fully mature, and they do not recognize the comprehensive cost-performance of finished housing, so that the developers do not have enough impetus to develop finished housing.

#### 3.2 National Poor Supervision

Although the state tried to implement the finished houses, the finished housing supervision is not in place, which resulted in poor product quality <sup>[4]</sup>, such as: Roof and toilet leakage, insulation wall cracking, hutch defends leakage of pipe wall and so on. Thus reduce consumer trust for finished housing, and don't want to buy those houses.

#### 3.3 Low Content of Science and Technology

The development and construction enterprises also lack the initiative to absorb the new technology, and the lack the new technology application information feedback to the initiative of scientific research units <sup>[5]</sup>. As a result, this leads to current "two high and two low" phenomena: the material consumption and energy consumption is high, the production efficiency, content of science and technology is low. For specific performance: technical regulations are not comprehensive, lack of technical support and big breakthrough in structure and wall materials.

#### 3.4 Lack of Uniform Standards for National Production

There are so many different production methods from the room space combination to the room of the structure for each component. However, there is no uniform standard, which leads to the waste of repetitive design and construction. And this also hindered the process of components production factory, construction mechanization.

#### 4. Development Strategies

#### 4.1 Implement a Certain Incentive Policies

Largely because of the low expectations of earnings, the developers have low enthusiasm for the finished housing developing. Thus, in tax, finance and other aspects, the government should give

preferential policy supports to department product system, architectural system and technical support system of finished housing, such as: land development tax reduction, green building materials procurement subsidies, etc.

#### 4.2 Intensify the Punishment

For many years, the home buyers often complain about the house. In recent years, the thickness for floor, which leads to poor sound insulation effect, and the awful smell of kitchen and bathroom, such problems become a direct impact on the quality of buyers' life. To solve the problem, the government should increase punishment on the construction unit, construction unit, material supply unit and so on. For example, revoke the business license, increase punishment quota, etc.

#### 4.3 Improve Housing Industry Technology Content

To ensure the performance of the finished housing, except relying on strict quality assurance systems, it mainly depends on technological progress <sup>[6]</sup>. Colleges and universities, scientific research and design units should take advantages of their own scientific research and technology to pay more attention on research of residential technology security system, the construction system, quality control and building energy conservation, environmental protection, decoration, and other economic, policy and technology. Moreover, encourage and guide the development of new residential building materials and complete sets of technology, then, it will transform technology into real productive forces and better promote the development of finished housing.

## 4.4 Guide Leading Enterprises to Implement Unified Standards, and Drive the Small and Medium Enterprise to Achieve Standardization

Through table 3, we can recognize that, a few leading enterprises, such as Wan Ke, Bi Guiyuang, and Heng Da and so on, have already started to carry on the residential development and promotion. But all of them do not make an effort to achieve one goal, which resulted in a waste of resources. Therefore, it is necessary to guide the leading enterprises to do research and development of the unified standards for the domestic and the components and accessories, and to design and invest the production, so as to promote the production standardization of small and medium enterprises.

#### 5. Conclusion

The promotion of finished housing is not only an important work of promoting energy saving and emission reduction, but also the focus of promoting housing industrialization at present. Through the promotion of residential product, it will gradually solve the problems about parts of residential standards, residential performance evaluation system, industrial technology in residential construction in the practical application, relevant standards and norms formulation and adjustment. At the same time, it will also pave the way for the realization of housing industrialization.

#### References

- [1] Li Shidong. Thought on the Concept of Finished Products. Residential Forum [J]. 2003 (1): 74-77.
- [2] Matsumura J. Recent House-building Technology R&D and the Relating Education in Japan [J]. International Journal Housing Science and Its Applications, 2001(4): 84-96.
- [3] Zhu Lei, Yang Yong. Development and Quality Management of Finished Housing Projects. Shanghai Construction Technology [J].2005 (6): 56-58
- [4] Wang Song. Research on Finished Product Integration Strategy in Dalian. (MS., Dalian University of Technology, China 2012). P.17.
- [5] Devi, A. C. A Model for Automated Generation of Resource-driven Construction Schedule for Housing Industry[C]. 24th International Symposium on Automation and Robotics in Construction, (Berlin German, September 11-13 2010), Vol. 1, p.112.
- [6] Abdullah, M. R. Selection Criteria Framework for Choosing Industrialized Building Systems for Housing Projects[C]. 26th Annual Conference of the Association of Researchers in Construction Management, (London UK, July 1-3 2009), Vol. 1, p. 1131-1139.