

Challenges for the Implementation Strategy of Affordable China Housing

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Introduction

From the Cultural Revolution to today's rapid urban development, China housing development has undergone great transformations. Urban housing affordability has become ever so immediate to the Chinese people as China housing was transformed from a welfare benefit to a market-driven commodity.

“In the 1970's China experienced a housing quality crisis. Today's China faces the challenge of affordability.” (Zhang Xing Quan, 2000)

Housing could be affected by many internal/external factors such as economy and cultural background. This paper will discuss the causes of unaffordable issues of China housing from urban and housing development point of view, an issue which is the major concern of many China citizens. This paper seeks investigation on factors that directly affect China housing such as housing policy, land supply, and housing financing, and the paper looks at the issue of housing from the position of deregulation view point.

1. History of China urban housing development: from Social Transformation and Cultural Revolution (1950s - 1978)

In the early 1950's, the housing system mostly consisted of individual owned housing and private rental housing. After the Socialist Transformation (1955-66) and the Cultural Revolution (1966-76) all private real estate property and land was nearly reclaimed by the State as national property. Ever since the Cultural Revolution, all of the housing in China was provided by the State to its citizens through a highly subsidized low rent system as a form of social welfare. Housing was organized and distributed by national corporations (work units) to their employees. Thus, the government indirectly funded housing for all her citizens living in the cities. The state distributed funding to various work units through evaluating the amount of economic surplus that the unit was able to produce. Each year, the government was responsible for 25 billion RMB of construction cost for new housing, 10 billion RMB of maintenance and received only 1 million yuan of rent. Over the years, the government was convinced that housing welfare was an expenditure without any returns, which is not sustainable. During this period, the focus of State's government turned towards industrial production for improving national economy, and the funding for the housing system was reduced. As a result, the quality of housing condition declined in China. (Zhang Xing Quan, 2000). The average living space per capita from 4.5 m² in 1952 decreased to 4m² in 1978 (IFTECASS and NYIA, 1996). In addition, the government considered the housing welfare at the time as an inefficient system that did not benefit its citizens nor the

government. In order to further improve various sectors of national economy such as banking, a multi-dimensional reform was initiated by the government to push forward the economy. Such reasons triggered a government led housing reform in 1978 which was a set of strategies that would reduce the financial burden of the State for providing national housing.

Before 1978, there was a great need to improve the living condition of existing housing blocks and to resolve the severe housing shortage problem. The reform in 1978 was where the government adopted a different approach to the housing sector in order to as a productive commodity. Both the State and work units significantly increased investment in public housing such as “Wen Bao Fang” (温饱房), this in turn maintained the dominance of public rental housing. In addition, the State enforced an ‘Open and Reform’ Policy to commercialize housing. The private housing sector was established through the building of Commodity House and permitted the construction of “Self-Built House” by the work unit.

By 1988, ten years after “Wen Bao Fang” was established, the government’s goal to provide basic housing for the citizens was generally met, and another housing reform was on its way. Prior to the reform, “the People’s Bank of China approved the CBC and Industrial and Commercial Bank of China (ICBC) for establishing the real estate credit departments to handle the non-profit individual housing loan business, which served for housing system reform” (Zhang, 2000). As a turning year, 1988 was the termination of the welfare housing system originally provided by the State. Individuals had to solve their housing problem through the market, which caused the demand for housing mortgage and housing units to increase sharply. In order to promote housing reform, the State relaxed housing financial supervision. The People’s Bank of China issued the “Procedures for the Control of Individual Housing Loan”. The State Council issued the “Regulations on the Control of the Housing Provident Funds” in 1999 (Zhang, 2000).

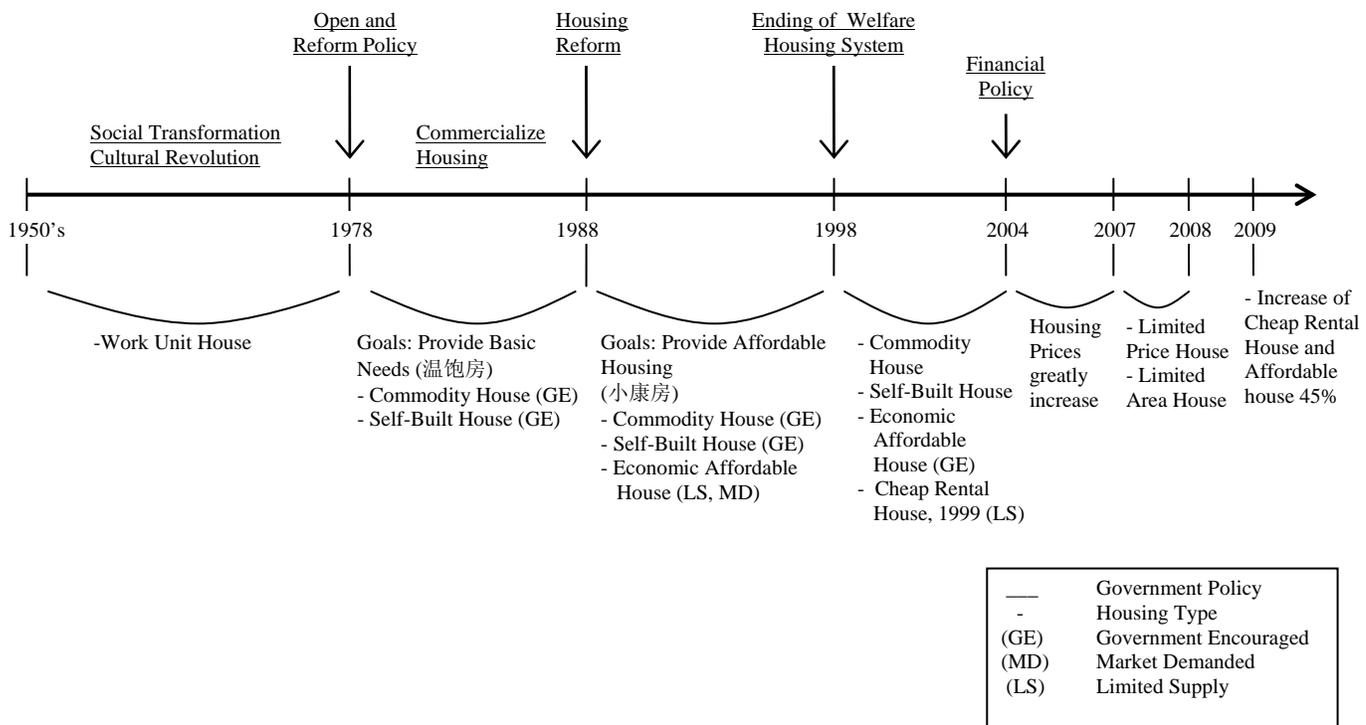
State-supported rental housing was once again permitted in 1999 due to population polarization in the commercialization process. Since after 1998 the nation did not provide public housing as in the 1950s to 1980s period anymore, there was a need to establish another kind of social welfare housing to accommodate the needs of low income households. In 1999, the Ministry of Construction set up administrative guidelines for the provision of low-rent rental housing, and the guidelines were revised in 2003. The revised guidelines have been enforced in every city of China since 2007.

From 1988 to 1998 two types of new housing emerged. The Xiaokang housing program (小康房) was established to improve the standard of living area per person by the year 2000 to 9m² (Xie, 1996). Since 1991, the Chinese government began its planning for the Economic Affordable House that would target low- and medium-income households. In 1998, the Economic Affordable House as a type of Commodity House was set up, and sitting tenants were encouraged to buy public rental housing with subsidized sale prices. Limited by the land and incentive to provide this type of housing, the supply of these houses was very limited but the market had a large demand for it. From 1999, the affordable housing scheme has been encouraged by the policy, and some individual consumers bought more than one unit of the Economic Affordable House.

There were three changes in the financial policies since 2004. One of the changes was the tightening of housing credit requirement. The macro regulator introduced several policies to suppress real estate investment and to avoid housing price from rising too quickly. Another change was that foreign banks were allowed to provide financial services to the real estate markets. The third change was the housing financial innovation. For example, the CBC made its housing mortgage securitized; Guangda Bank designed a fixed-rate mortgage in 2006 (Wang and Cheng, 2007).

In May 2006, the Ministry proposed - Suggestion of Stabilizing Housing Supply Structure (关于调整住房供应结构稳定住房价格的意见). This is a policy which a price limited commodity housing system with a limit requirement for the amount of the floor area of each housing unit to be less than 90m². The limited price and area housing types were implemented into the housing sector in 2007. Figure 1 shows the timeline of the China housing system transformation.

Figure 1: Timeline of China Housing System



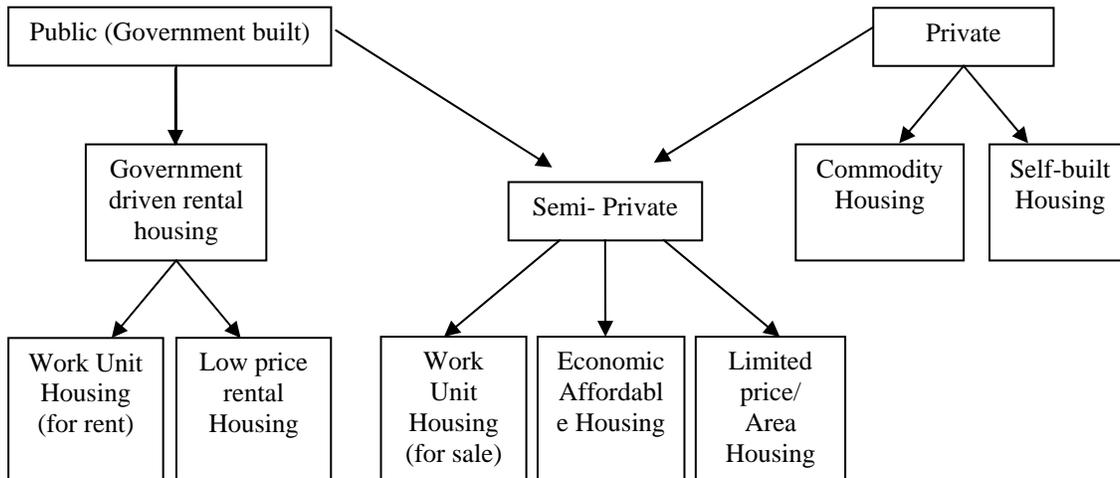
2. Current Housing System

2.1 Composition of current housing system

After undergoing a significant amount of changes in the housing policies and provision structure, the current China housing system comprises numerous types of housing. The

housing types can be generally divided into three categories: public, semi-private and private, different from the system before the housing reform in 1977 which only public housing existed before the housing reform. Figure 2 describes the currently housing system in China.

Figure 2: Current China Housing System



All public housing is built, funded, rented and monitored by the government to provide housing for low-income groups. Rented work unit housing is still available for employees of particular national enterprises. Low rent public housing that is subsidized by the government is also available for those who are not employed by national enterprises, for example, many residents cannot be employed by national enterprises. The low rent housing is also built for immigrants like the situation in Shenzhen. This type of house can be rented by anyone regardless of their employment status. In general, these public housing units are smaller than those in the private sector.

Semi-private housing is funded by government and developers together, can only be purchased by individuals for residential use. The investment purpose can be relieved five years after the purchase and some compensatory payment should be submitted to government. The work unit housing can also be sold to employees at a highly subsidized price which is significantly below the market price. Both national and international enterprises are encouraged to sell housing units to its employees (Li, 2000). However, since the rental prices of the work unit housing are still significantly lower than the buying price, many employees choose to rent rather than to buy their homes. The Economic Affordable Housing is also a semi-private housing type that involves the developers and the government (For example, Beijing, Huilongguan, 回龍觀, Figure 3). The state has recently introduced limited price and floor area housing as one supplement for the Economic and Affordable Housing. Under such regulation, the profit margin of the developers is limited to a certain percentage in order to maintain an affordable price for low-middle income consumers. Both public and semi-private housing aim to serve the housing needs of low to middle class who are experiencing difficulty for commodity housing.

Figure 3: Economic affordable housing: Huilongguan, Beijing



The private housing sector consists of Commodity Housing and “Private Self-Built Housing”. These two types of housing are built by developers and individuals and are subject to open market prices. In 2009, the government will greatly increase the amount of Low rent public housing and Economic Affordable Housing by 45% to resolve the high demand for low cost housing. The average selling price of commercialized housing has been increased greatly in the recent 10 years (Table 1).

Table 1: Average Selling Price of Commercialized Buildings by Use

(yuan/sq.m)

Year	Average Selling Price of Commercialized Buildings	Residential Buildings			Office Buildings	Houses for Business Use	Others
		Residential Buildings	Villas, High-grade Apartments	Economically Affordable Housing			
1997	1997	1790	5382	1097	4677	3090	2129
1998	2063	1854	4596	1035	5552	3170	1837
1999	2053	1857	4503	1093	5265	3333	1804
2000	2112	1948	4288	1202	4751	3260	1864
2001	2170	2017	4348	1240	4588	3274	2033
2002	2250	2092	4154	1283	4336	3489	1919
2003	2359	2197	4145	1380	4196	3675	2241
2004	2778	2608	5576	1482	5744	3884	2235
2005	3168	2937	5834	1655	6923	5022	2829
2006	3367	3119	6585	1729	8053	5247	3131
Beijing	8280	7375	12181	3007	13555	14965	5116
Tianjin	4774	4649	6152	3204	6171	6259	5584
Hebei	2111	2028	3656	1461	3667	3365	1602
Shanxi	1988	1806	3573	1269	4315	4806	2284
Inner Mongolia	1811	1627	2766	1327	2947	3223	1945
Liaoning	3073	2884	5512	2244	5446	5329	3219
Jilin	2010	1858	4613	1696	2975	3716	2309
Heilongjiang	2196	2035	3244	1692	3449	3358	3014
Shanghai	7196	7039	10835		12078	6479	5580
Jiangsu	3592	3375	5599	1675	5247	5402	2110
Zhejiang	4774	4510	7131	2828	7148	7455	3180
Anhui	2322	2153	3155	1325	3572	3714	2105
Fujian	3994	3656	6290	1492	5377	8919	2251

(source: China Statistical Yearbook, 2007)

2.2 Resold housing market

In any housing market, the recycling of housing units through old houses exchange is essential in completing the financial cycle. Households are deterred to rent due to the low quality of rental housing and the incontinence of the rental housing market. But many households still own another unused old house even if they move to the new one. These unused homes can be a source of housing instead of the reliance upon the government to build a lot of new cheap rental houses. For example, in the city like Shanghai, 1500RMB/month or 18,000RMB/year can rent a 2-bedroom apartment downtown with convenient facilities. If the government provided 1.8 billion RMB for housing subsidy per year, it could fully support 100,000 families in the lowest class for getting a home or help 200,000 families by subsidizing half of the rent. But if using this money to build 60m² Economic Affordable House, it could only help 10,000 families (3000RMB/m² subsidy). Another big issue is that who will be the beneficiaries? 3000RMB subsidy may only lower current high housing price from 10,000RMB to 7,000RMB downtown, from 8000RMB to 5,000RMB suburban. Even for the latter one, the lowest income families still cannot afford it.

2.3 Housing finance system and Housing Provident Fund (HPF)

In 1994, the People's Bank of China issued the "Provision Rules of Procedure of Non-profit Housing Credit" and "Provisions Rules of Procedure of Commercial Bank Self-operation Housing Loans", which defined non-profit and profitable housing finance, and expanded the range of the qualified commercial banks which were committed to grant the non-profit housing loans, including the CBC, ICBC and Agricultural Bank of China (ABC). The banking system has been used as a source of funding for housing rather than just the government. (Zhang, 2000)

2.4 Housing Provident Fund (HPF)

The Housing Provident Fund is a compulsory employment savings plan in which employees and employers are required to contribute a percentage of the salary to a HPF account managed by a local HPF management center. The HPF system was established with reference to Singapore's Central Provident Fund (refer to section 4). This fund can be used for house purchase and home repair financing. All the contribution over years would be returned at the time of retirement.

The fund was firstly implemented in Shanghai as the Urban Housing Provident Funds (UHPF) in 1991. The UHPF was to allow additional sources of funding for households with low to medium income that require financing for the purchase and building of their home. The UHPF took out 5 percent of the salary and in 1999 the amount increased to 7 percent (Yeung and Howes, 2006). The HPF also been applied to other cities. The HPF saves the money, that is deducted from one's salary, and does not use it to invest in the financial market, unlike the Hong Kong's Retirement fund. The HPF can be regarded as a local benefit rather than a national one. In July 2008, Beijing will increase their HPF rate from 8% to 12% (People's daily, 26th May). The HPF also paves way for overseas companies that would set up a base in China but would not provide housing welfare to its employees. This is because the HPF was

to help make households independent and to facilitate the relational change between the employer (work units) and the employees to become purely exchange for service. (Yeung and Howes, 2006)

Although the HPF was to finance individual housing purchase and construction, the Comfortable Housing Program was introduced to meet the financial needs of low income families. In addition, the HPF co-ordinates with loans from financial institutions in order to effectively help households with housing financial needs. HPF account holders are eligible for a mortgage interest rate of 1 to 2 percent lower than the normal bank housing loan rate (Li and Yi, 2007). The current interest rate for a loan over 5 years for HPF account holders is 5.22 percent in comparison to 7.74 percent to non-HPF account holders (People's Bank of China).

According to a household survey conducted by the Department of Geography and Center for China Urban and Regional studies in Hong Kong Baptist University, based on the probability-proportional to-size principle the personal saving of Guangzhou citizens makes up more than 50% of the purchasing capital for housing in 2005. This percentage of house financing contribution is true to both commodity housing and subsidized housing. From 1998 to 2005, parental support amounted to 27.6% of house financing. Until 2005, the use of HPF as a source of housing finance was only 1%. Nationally 25% of the total HLP savings have been withdrawn from HPF savings account and only 3% is used for home purchasing. (Li and Yi, 2007)

Although the HPF is a program to help consumers finance the purchase of their homes, it still has fundamental problems that are needed to be solved. Compared with the employment's saving programs in other countries, China's HPF is still at its days of youth. The households who would like to utilize their HPF savings for housing finance face a dilemma of insufficient funding saved because of their low salary base. HPF rates did rise along with the economic growth of the Nation. However, it has not increased at the same rate as housing prices in the open market. Since many families are not able to save a sufficient amount in their HPF savings for the down payment of a home, they choose not to use their HPF savings at all. As a result, the HPF is currently not a good solution to resolve immediate housing financial needs of many families. Many of the homes purchasing capital come from parental funding. Nationally, about 20% of homes are financed through the HPF. Survey data shows that in a city like Shenzhen, the use of HPF is virtually zero.

A more general issue of the HPF is that it only applies to employed individuals or households with members that are employed. Since the minimum salaries of Chinese workers are increasing, companies cannot afford to employ the same amount of workers and some people will be sacked. Unemployed individuals cannot rely on housing provided by work units. They could only rely on Cheap Rental Housing, but there is not enough supply of good quality rental housing for such a group of people within the society. For the cities like Shenzhen with rapid economic growth, many low-income or unemployed works and their family need to stay in "City Villages" with below-standard living quality. Housing in the open market will become unaffordable to them without any employment savings support, and the same can be applied to self employed non-skill workers.

The use of HPF for housing finance is still relatively unpopular although the HPF system is more widespread than before. Individuals have turned to the use of Bank loans more than the HPF; however, it still makes up only a small part of the housing purchasing fund (Li and Yi, 2007). In Guangzhou, mortgage loan contribute to 15.1% of house purchase fund. (Yeung and Howes, 2006)

2.5 Loan/mortgage

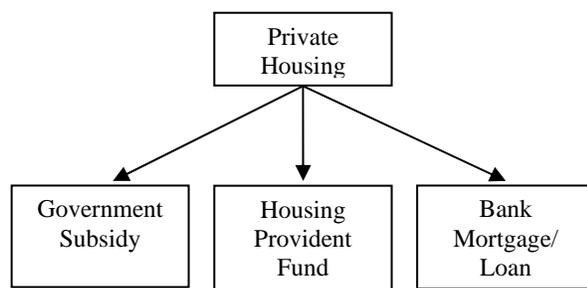
Before 1994, the People’s Bank of China was the only financial institution that was permitted to lend out mortgage loans. In 1994, the State granted permission for the Construction Bank of China and the Industrial and Commercial Bank of China along with other banks were qualified to grant non-profit loans for housing. Thereafter, the government is not the only institution that is responsible for housing finance.

There are three kinds of housing loan that is available to China’s potential home buyers; Individual account housing loan, authorized housing loans and combined housing loans. Individual account housing loan draws funding from a bank’s consumer credit funds. Public accumulated fund is lent out as the authorized housing loans. The combined housing loans are from the first two types of funds (Deng *et al.*, 2005).

The basic requirements for loans are as follows; the loan cannot be more than 80% of the purchasing price of the house or of the assessed value. The income to payment ratio cannot surpass 70%. In addition, the mortgage term cannot be more than 30 years and the debtor’s age added with the mortgage term cannot exceed 65 years. Mortgage interest rate is determined by the People’s Bank of China. The current interest rate for 3 to 5 years loan is 7.74 %percent and a term for more than five years is 7.83 % (People’s bank of China). The lender determines the type of guarantee needed for the loan. For example, the type of guarantee can range from holding property of the debtor to a third party’s property. (Deng *et al.*, 2005)

Despite the wide awareness of loans, Chinese citizens are still reluctant to use loans as a means to finance the purchase of homes. For example, Beijing city survey organization have found that more than 75% of Beijing’s residents know about personal loan and its availability but less than 10 % have ever applied for it. (Deng *et al.*, 2005)

Figure 3. China Private Housing Financial System



3. Issues Challenge housing system

3.1 Background

Since China is undergoing a rapid development, housing regulations and monitoring system could not catch up, especially considering the rapid urbanization process and inequality development of different areas. Unsustainable development reduces the efficiency of Chinese cities and leads to problems of national resources and social sustainability.

On one hand, the pre-mature housing market makes central government and municipal city agencies be involved directly, which reduces the administrative efficiency to provide comprehensive housing scheme and brings difficulties in monitoring. On the other hand, developers have devoted various efforts to keep multi-level close relationship with local officers of municipal government to get extraordinary high profit from their investment. So they are not so keen to improve the housing quality and public facilities to attract the potential home buyers.

For the individual city residents, there also exist many inequalities in the existing housing provision framework influenced by social background of buyers, such as, work unit, party relationship, income differences, ‘guanxi’ network, etc. Meanwhile, for the low-income or disadvantage groups, there is very limited channel for them to make their own voice in the society, especially on urban renewal or redevelopment issues. During the urban renewal process, a lot of these groups have been moved to the estates located in the edge of the city or new developed areas which are lack of public facility. In addition, it would be time consuming and money consuming of the daily transportation.

3.2 Government relationship with developers

An important aspect to housing is the relationship between the government and the developers through government policies and regulations. With limited central funding to develop housing for low and middle income class, the local municipal government has initiated various policies to attract funding from developers. Developers are also attracted by the high profit margin in China’s real estate market. Unfortunately, because the urban administration is not capable of dealing with the challenge and the immaturity of associated regulations, illegal activities and mis-management have increased along with such investments especially during land reform and urban renewal process. The investment into residential building has been increased in the recently ten years (Table 2). Thus, the government needs qualified experts and financial resource for monitoring and management. Also the local government needs to build up the management platform. Since this required input costs could be higher than the revenue brought by the penalty and other profits, the government has two possible solutions. One is to loosen the monitoring and management, which will lower the public confidence. The other one is to set up new rules to raise the penalty, which may lead more developers to finding alternative illegal approach, raising the difficulty in monitoring the city administrators and officers themselves.

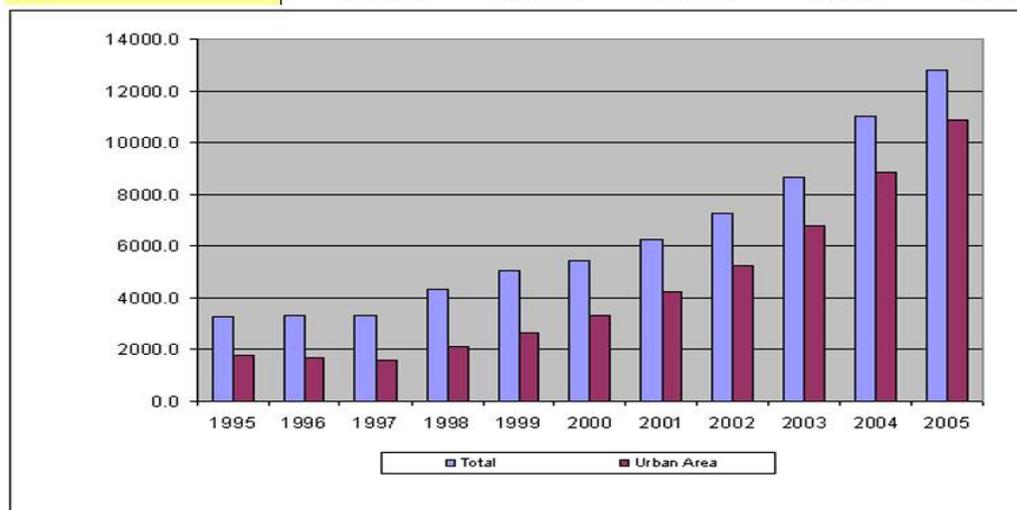
The constitution of housing price breakdown is an indicator of the cause of high profit in a housing development process. For example, in the housing estate projects in Beijing, the land

cost for developers amounts to about 20%-30% of the overall development cost. Construction cost is 16%, facilities are 15%, management is 3% and the tax of public facilities is 6% of the construction fee. Overall, the average profit could reach 27%. (Beijing, REICO studio, Season 2, 2006) The profit of China urban estate development is much higher than international average level, about 6%-8%. Some countries only have 2% profit. But in mainland China, it reached 30% or even higher from 1990 to1995. Even in recent years, it has at least 20% profit. (Li *et al.*, 2006) For such high profit raises, housing price is increased to a level that is unaffordable to many potential home buyers. The reason to such high profit is due to low percentage of land, development and infrastructure tax fees.

Table 2: Total investment in residential buildings

(100 million yuan)

Year	Total	Urban Area	Real Estate Development	Rural Area	Agricultural Households
1995	4736.7	3278.2	1753.1	1458.5	1349.9
1996	5198.5	3326.2	1699.2	1872.3	1766.4
1997	5370.7	3319.7	1539.4	2051.0	1890.7
1998	6393.8	4310.8	2081.6	2083.0	1907.2
1999	7058.8	5050.9	2638.5	2007.9	1799.1
2000	7594.1	5435.3	3312.0	2158.9	1946.5
2001	8339.1	6261.5	4216.7	2077.6	1879.5
2002	9407.1	7248.9	5227.8	2158.2	1917.7
2003	10792.3	8624.8	6776.7	2167.5	1875.1
2004	13464.1	11010.1	8837.0	2453.9	2002.2
2005	15427.2	12825.8	10860.9	2601.5	2211.6



(source: China Statistical Yearbook, 2007)

3.3 Housing and sustainable urban development

Housing estate development has become the key factors to transform the China cities, and brought in new challenges from multiple aspects, such as resource management, environmental quality, social services, infrastructure and urban identity, etc. From the urban

planning point of view, density control and land saving issues are the two key factors influencing future city growth in China.

The government has paid great attention to address the issue of reduction of the farmland because of the urbanization process, and farmland acquired by developers for housing projects is the core problem to challenge the sustainability.

What will be the proper urban density to be adopted for the planning of future China cities is always a topic debated by the planning professional, and the observations are various from different survey methods and included parameters. From the report of Vice-Minister Qiu of the Ministry of Housing and Urban Rural Construction, the recommended planning density (or compactness) for China city should be around 10,000 per sq. km, and each city resident will occupy 100 sq. meters in the urban area which is slightly higher than cities in developed countries. In order to achieve this goal, good urban development policy and planning strategies are important.

Achieving compact city planning is the key factor for China to develop the resource-efficient and environment-friendly city in the future. However, rapid urbanization brings some problems which are challenging this idea. Firstly, without proper business and financial planning, many cities have over-initiated the special development zones and large size housing estates inside the city boundary. Secondly, lacking the expertise of transportation and road system planning, cities have implemented inefficient highway and local road system using valuable land resource, and this also leads to the problem of pollution and logistic energy saving. Thirdly, because of lacking proper monitoring and supervision, large area of farmland has been illegally occupied for project development without following the zoning plan and compensation requirement. Fourthly, because of the number of personal cars increasing dramatically in the cities, many residents can choose to live in the suburban community through which enlarges the cities. Meanwhile, seeking sufficient funding to conduct urban renewal for the inner city and to improve the living quality is critical.

Implementing green architecture and eco-city planning have been defined by Beijing government as the main approaches to addressing the sustainable development. Regulations, trainings, performance index, and technology transfer have been implemented by the central and local government, and all building types (including housing) and urban design need to compile the index set up by the government. Several new concepts have been established to achieve these aims:

a. Implementing the mix-use land use approach in order to improve the efficiency of city functions, such as the integrated location of housing and jobs. Strategic environmental assessment shall be introduced to improve the overall urban living environment quality.

b. Applying TOD (Transit oriented development) as the main planning concept for the urban expansion and suburban districts development. Multi-type transportation system, mass transit link, and pedestrian walkway network shall be implemented for the future China compact cities.

c. Considering the city and all its functional areas as one integrated eco-system to co-exist with our natural resource environment. Energy conservation, water saving, and land saving play an essential role in urban and housing estate planning and infrastructure design.

d. Conducting historic preservation works to form the urban and community identity according the local context, and introducing urban revitalization projects to update the hardware and soft tissue of inner city.

e. Implementing social-integrated urban facility and housing development in order to achieve the harmonic society through providing sound urban space and services to different community groups.

3.4 Factors affecting the implementation of affordable housing

a. Housing Provident Fund (HPF)

As discussed in previous section, few issues concerned with the current HPF operation have limited the potential HPF in the implementation of affordable housing

- The HPF is only available to the employed worker, and it cannot effectively serve as “safety net” to help citizens with different backgrounds.
- Percentage increase per annum cannot catches up with the market housing prices increase, thus it cannot draw the interest of the general public to consider it as one of the major financial sources for housing.
- Although the government has annually carried out wage justification to increase the income of mid- and mid-class workers, citizens usually do not have enough savings in their HPF to even pay a down payment.

b. Mortgage requirements

Saving and deposit criteria and short repayment periods are borrowing restrictions that make home purchasing difficult. Meanwhile, China citizens are not yet comfortable with the idea of loans. Nationally, the mortgage holders try to pay off their loans as soon as possible. The amount of loan and repaid loans each year amounts to almost the same. Thus, People are still quite reluctant to be in debt (Li and Yi, 2007).

Banks focus on the production part of housing development and less on consumption, and banks have much closer relationship to developers and enterprises than individuals (Li and Yi , 2007). In the other words, it reduces the mortgage opportunities of housing buyers.

c. Work units and Hukou

Before housing reform, housing was considered a welfare benefit such that both employers and the state had the responsibility to provide subsidized housing. While employers (work units) paid low wages to their employees, they had to provide subsidized housing. The allocation of housing was based on a queue system with those who have close relationships with the work unit listed at the top. Job rank and job seniority served as the indicators of the relationship between employees and work units.

The State had two roles in the housing system. Firstly, it provided housing investment to work units who then developed housing for their employees. The allocation of housing investment was based on the importance of work units to the national economy, which was indicated by the administrative rank of work units (Wu, 1996). Secondly, the State also directly provided housing to households who could not access housing from their work units. Yet, only households with close relationships with the State and local government could be qualified. The household registration (Hukou) system served as the filter. Only households with urban and permanent Hukou are qualified for housing provided by the municipal government.

Fortunately, recently Shenzhen has set up a new policy this year to take care of the immigrated groups living in the city over certain time period. In 2008, the local government intends to invest 3 billion RMB with another 4 billion RMB from the society for affordable rental housing, and the selling price will be only 1/3 compared to the market price. And the rental price will be lower than the farmer houses. (China Real Estate Business, 10th June, 2008)

d. Central and local government

Although central government has announced clear policies, implementation methods and targets to provide affordable housing, there is a clear gap regarding the interests and operational methods between central and local government. Few key problems are summarized in the following:

- Owing to the income/tax contributed by the housing estate development plays an important role to support the daily operation of local government, while the interest from building affordable housing is low. For example, in 2005, the total investment for affordable housing is only 5% of the total financial investment of commodity housing.
- Because the monitoring and qualification process of the affordable housing application cannot meet the expected standard, it is quite common that the residents who should be benefited from the policy cannot be qualified to purchase or rent the affordable housing.
- In order to solve the financial difficulties of building affordable housing, many local governments decide to carry out the implementation process through collaborating with the private property developers. Since the period of development cycle and investment return are crucial to private developers, without close monitoring, the goals and standards of the original planned affordable housing could be changed and beyond the affordability of local buyers. For example, developers try to increase the floor area of a mid-size flat from 80 sq. meters to more than 100 sq. meters.
- Since affordable housing could only be sold with limited profit to the developing group and the local government needs to subsidize the land price, many housing estates for affordable housing have been located to the boundary layer of the city. It creates new

problems on public transportation system, road network, municipal infrastructure and social segregation etc.

e. Difficulties of low-income rental housing

Considering the social welfare requirement to take care the low-income individuals and families, the Nation initiated the low-income rental housing provision scheme in 1998. Until the end of 2005, accumulated funding given by the central government to support the low-income rental housing scheme is 4.74 billion RMB, and there are more than 329,000 families have been included in the scheme. In order to effectively meet the aims defined in the scheme, some difficulties needs to be addressed:

- Lack of interest of some municipal city governments has slowed down the implementation of low-income rental housing supports, and these cities have not established the low-incoming rental housing system for their residents.
- Lack of stable financial funding from the budget of central and local government, and the major source contributes to the fund is from the investment return of HPF and other local income. Since the budget and resource for long term funding is not clear and stable, “one-time offer” approach becomes the format for local agencies to implement the rental housing.
- The number of families which could benefit from the rental housing scheme is still rather small, thus the impact to the society is insignificant regarding solving the affordability issue of urban housing.
- Lack of suitable housing to be used as the low-income rental housing scheme is a serious problem faced by local governments. Following the social integrated housing approach, it is not desirable to have low-income housing located at certain housing community or areas. However, even without considering the financial limit, it is a difficult task to arrange the rental housing with the affordable housing or commodity housing.

4. Reference case

This section will briefly discuss the affordable/public housing systems in Hong Kong, Singapore and UK as examples of what kind of methods which could be referenced by different regions of China to provide affordable/rental housing for her citizens.

Hong Kong

There are three types of housing in Hong Kong; low rent public housing, semi-ownership (home ownership scheme) and private housing. Low rent housing is provide by the government to low income households. HK Housing Authority and HK Housing Society, two governments funded or supported organizations, take responsibility to implement the affordable housing according to the strategic development plan of HK. The government builds and subsidizes these housing on government land. The semi-ownership housing is

public housing that is sold to low- and middle- income families or individuals. Since the buyers do not need to pay the full price of land cost, they could enjoy a lower selling price of the flat even the property is located in favored areas. There are regulations restricting the amount of years before the unit can be put on the market for sale once again. When the unit is sold, the seller must pay the land price differences; the current land price subtracted from the land price at which the unit was bought. The private housing project development is subject to the control of land provided by the government, and it involves major financial commitment for a property development because of the high land cost. In many cases, the land cost could reach 80% of the total project budget, and the developers will optimize the plot ratio and buildable area under the requirement defined by OZP (Outline Zoning Plan).

In Hong Kong, high land value policy is adopted by the government, and government controls the land supply to maintain the land value to generate land tax, which is one the major financial sources to support the government operations. The government also adopts the garden city planning concept; country park system has been implemented to maintain the green and eco-system under the high-density development.

Similar to the government of China, most of the land in Hong Kong is owned by the government and it provides long term lease to developers. Due to land ownership, the Hong Kong government has the ability to control the quantity, location, development intensity and timing of various property developments. The government is able directly influence the land supply, and indirectly influence the price of private housing. The government prepares and announces statutory zoning plans that regulate developed and developable land, and the public and interested parties could participate in the preparation process of the plans. The Hong Kong government uses land supply policy to regulate housing prices and make housing more affordable for middle class families. (Chiu, 2007)

Singapore

Singapore has the same 3 types of housing as Hong Kong provides to their residents. Public housing is subsidized and built by the government for low to middle income groups. The government limits the buyers of the public units from a certain groups of the society specified by the government, and certain social mixture is planned in order to maintain social harmony. The government's focus on housing is an understanding that housing is a factor that drives the economy and stabilizes the nation politically as a whole. Government built apartment houses for more than 80% of the nation's population. Of the entire housing economy of Singapore, private housing sector makes up 10%.

Singapore uses social policies to ensure housing securities in conjunction with economic polices. Instead of social insurance which receives money from the wealthier part of the population and redistributes to low income groups, the government runs the Central Provident Fund savings program specified for retirement funding that inspired the use of HPF in China. Thus, government revenue is evenly distributed back to everyone not only lower income households. Initially, the CPF could only be used for retirement but by 1968, it can be used for housing financing and now it can be used for health or investment into the financial market. The CPF provides interest to different savings amounts. Each year the

Singapore government will increase its CPF along with the growth in the economy, and this policy enables the government to avoid inflation.

This strategy of providing housing for all allows social integration. However, it is not ideal to apply such a system to China due to the amount of population and the demand for housing. Since most of the housing in Singapore is government funded, it would be an overwhelming financial burden for the Chinese government to do the same.

3) UK- Management of public housing reference

The UK could be considered as the senior leader in implementing the housing policy. Before 1915, UK has already begun its application of housing policies to provide affordable housing for the public. UK's housing policy began during the time of industrialization and urbanization in the late 1800 to early 1900 during the boom of new urban migration. There were two reasons why housing policies were needed to be put in place. Firstly, there was a need to provide healthy and good quality condition housing for the working class to facilitate an efficient labor force. Providing better accommodation for the working class would benefit the entire society as a whole, and, stabilizing political powers. At that time, housing was not enough and workers lived in slums and poor conditions. Rent control was first enforced in 1915. It marked a beginning to long term regulations on housing. In 1919, the state lessened its provision of housing and began to provide more rent subsidies, acting as a housing support instead of a housing provider.

UK is a successful provider of public housing to achieve social integration, as public housing is built similar in design to private ones in order to facilitate social harmony. Meanwhile, the UK government has begun to sell public housing stock to voluntary sector housing associations that are non-profit organizations providing funding for housing. The government has stepped away from public housing responsibility. The result for such a system is non profit organizations "providing non market housing in a highly regulated quasi-market." The government's goal is to improve the quality of public housing and management through this strategy. This way, competition is introduced into the social housing market. Yet, the government has a greater responsibility in regulating and monitoring such a social housing market. (Gibb and Nhygaard, 2006)

5. Suggestions and Prospects

In recent news, the Housing Index of China is higher than the index of developed countries, and it also indicates the affordability problem of China urban housing is in critical condition. The Beijing government treats the economic affordable housing policy is one of important means to provide social welfare to low and middle income citizens, solving the living problem is the key step to reach the harmonic society defined in the 11-5 National Plan. The housing affordability issue does not only stem from the housing and development sector but it is a part of the core issues within a nation's entire economy, the effectiveness of government policies, and its reinforcement. The government's goal is to take care of low and middle income families and individuals by providing highly subsidized rental housing and economic affordable houses along with the price limited and area limited housing.

Challenges of current system

However, this goal has been seriously challenged by multiple factors at the operational level of the current affordable and rental housing policy and regulations. For example, as discussed in the paper, limited by the government funding, the development process of affordable and rental housing is heavily influenced by the negotiation between local government and developers resulting in the isolation of the residents. In order to make China urban housing affordable, the government understands the importance to build up the “critical mass” of the stable supply of the affordable/rental houses. Meanwhile, an equal and efficient housing distribution mechanism with close monitoring system needs to be established and implemented on the same time. The equality between individuals with or without special social status (or “background”) could be protected by the distribution process and to ensure that the low income group will be benefited from the housing system. In this aspect, the qualification procedure, the distribution mechanism, and management system of Hong Kong and Singapore could serve as a good reference case.

There are about 0.8% population every year moving from rural areas to the urban areas in China, and this urbanization process will continue for another twenty to twenty five years until the urbanization ration reaches 75 to 80%. Thus, the pressure on providing good quality economic affordable housing and rental flats by the government will be tremendous, and also will have a strong long-term impact to the sustainable development plan of the Nation in all aspects, especially on the energy conservation and water shortage. The China housing problem is dynamic and complicated, and is influenced by various factors which are inter-dependent and multi-scale. Based on the social science viewpoint, collaboration with private sectors, the government housing policy should be accommodated both pushing and pulling actions along with systematic and effective monitoring. Following this paper, a summary on selected issues is listed below as readers’ reference.

(1) Budget for implementing low-income rental housing

Without a stable budget to support the low income housing development program, the program is impossible to sustain and serve the residents’ need. A push factor in which the government can consider to implement is social capital investment through the collection of tax. Land and development tax could be the choice with specific purposes, for example, development tax can effectively lower the high profit margin of developers. However, it is very important that the use of tax is transparent to the general public so that the public could even act as a public monitoring system on the effective use of government taxes. A pulling strategy of the government, for example, is to encourage developers to build low-cost mix-use rental houses with low-profit by providing incentives such like tax benefits.

(2) Financing individual buyers

House financing require both private and public to work together. A push policy would be to increase the types and availability of mortgage and loans for home buyer. There should be an improvement towards the equality of Housing Provident Fund for example for self-employed individuals, and should be a tighter monitoring of the types of people that is eligible for

purchasing affordable housing. A pull strategy which the government can use is to buy and resell certain types of public housing at a lower price to encourage distribution affordable housing development.

(3) Social integration of housing community design and planning

It is undesirable to build the low income rental housing separately from the rest of private/public housing, and how to carefully conduct social integration housing approach in urban housing design and planning is crucial. The direct subsidy, tax incentive, and award could be a pull strategy to encourage private developers to conduct innovative planning and design. Re-defining the housing community planning criteria setup by the local planning office shall be an effective push factor.

(4) Management and planning of affordable and rental housing

Obviously the planning and management plays a crucial role in providing good quality affordable and rental housing program to the citizens, but the local government and developers are lack of interest to engage this issue on low-income housing. One possibility, for example, the government could provide incentive funding to help to build up community-involved management scheme (or co-operation) to address the issues and workload of rental housing management. Government-supported training program to help on building up the expertise on rental housing planning and management is a good approach to improve the management quality. Meanwhile, a community-wide monitoring system could be established as a push factor.

(5) TOD, compact city planning, and urban revitalization

Since saving land and preventing the urban spur are major challenges faced by the China government, transit-oriented development and compact-city planning have been adopted as the guiding concepts. Meanwhile, effective use of the low-value or complicate land to support housing programs has been considered as an important means to save land. Both public and private housing programs will be affected by this movement. For the maintaining the inner-city redevelopment, urban revitalization process will be accelerated to maintain the existing neighborhood, community identity, and property value.

(6) Environmental and sustainable challenge

Eco-city, green architecture and energy saving are three key strategies to address the requirement of sustainable development. The Ministry of Finance and Ministry of Housing and Rural-Urban Construction both have incentive schemes, awards, incentives, and regulations to help public and private sectors to build up the expertise and capacity on address the environmental challenges.

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