

**THE EFFECTS OF CHINESE URBAN HOUSING
INEQUALITY ON LOW AND MIDDLE-INCOME FAMILIES:
A CASE STUDY OF BEIJING**

by

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ABSTRACT

This study examines the issue of housing inequality in Beijing, and how urban low and middle-income families gain access to affordable houses. By analyzing the housing price-to-income ratio (PIR) and affordable housing supply and demand, this project reveals how serious the affordability issue is in Beijing. Interviews with residents living in affordable houses are explored to show how Beijing residents deal with the unaffordability of housing, as well as their personal experiences with inequality. Affordable housing policy documents are also examined to explore how policy-makers are trying to resolve the problems of inequality. The project finds that although both social networks (*guanxi*) and money pay offs play a role in the affordable housing allocation process, lack of policy regulation and poor implementation are the major causes of inequality in housing accessibility. Drawing lessons from Hong Kong and Singapore, the study makes recommendations for Beijing's affordable housing development.

Keywords: Housing Inequality; Low and Middle-Income Families; Beijing; Affordable Housing; Interview; Price-to-Income Ratio; Housing Policy

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1 INTRODUCTION

A decent and affordable house is important for each family and the stability of the whole society. It is the government's responsibility to ensure that low and middle-income families have equal opportunities with higher income families in accessing affordable housing. After thirty years of housing reform, China has gradually changed its public welfare housing system to a commercialized housing system. At the same time, housing inequality issues have become serious. On the one hand, market housing is becoming unaffordable for low and middle-income families; on the other hand, affordable housing provided by the government has not reached its goal to satisfy the housing needs of low and middle-income families.

This project uses Beijing as a case study for analysis. It explores the effects of housing inequality on Beijing's urban low and middle-income families in gaining access to affordable housing. Chapter 1 explains the research background of this project, including research questions, definitions of several major terms, significance of the research and the methodological framework. In Chapter 2, the study reviews previous research on affordability, introduces the Chinese urban housing reform and Chinese housing inequality issues. Chapter 3 narrows down the scope to Beijing by introducing the socioeconomic background of Beijing, the status quo of housing development, specifically Beijing's affordable housing development. In Chapter 4, the project examines the price-to-income

ratio (PIR) to show how serious the housing affordability issue is and estimates affordable housing supply & demand to reveal there is a shortage of affordable housing in Beijing. In Chapter 5, interviews are explored to show how Beijing's residents deal with the unaffordable houses and their personal experiences with inequality; affordable housing policy documents are also examined to explore how policy-makers are trying to resolve the problems of inequality. In Chapter 6, the study draws lessons from Hong Kong and Singapore and makes policy recommendation for Beijing. The project reaches conclusions in Chapter 7 that in general, inequality has lessened because of policy improvement; although both social networks (*guanxi*) and money pay offs may play a role in the affordable housing application process, lack of policy regulation and poor implementation are the major causes of inequality.

1.1 Research Questions

This project intends to answer the specific question: Does Beijing's affordable housing policies create a situation that residents with more money, social networks (*guanxi*) and official residential status (*hukou*) are more likely to gain access to affordable housing?

The main hypothesis is, generally, that Beijing's urban low and middle-income families have more serious housing affordability issues compared with higher income people. However, Beijing's affordable housing policies create a situation of scarcity in which residents with better social networks (*guanxi*) and official residential status (*hukou*) are more likely to gain access to affordable housing.

Larger questions this research addresses are: What is the current situation of housing inequality for Beijing's urban low and middle-income families in gaining access to affordable housing, why does it happen and accordingly how to resolve inequality by improving the current affordable housing policies?

Based on previous research, this project identifies two types of housing inequality: vertical inequality and horizontal inequality. Each type of housing inequality can be further divided based on different resources residents possess.

1.1.1 Vertical Inequality

i. Income Level

Hypothesis: Low and middle-income households have more difficulties affording a decent house.

ii. Social Status

Hypothesis: Even in the same income level, lower social status may limit households' opportunities to obtain affordable houses.

1.1.2 Horizontal Inequality

i. Social Networks (*guanxi*)

Hypothesis: People who have more network connections are more able to gain affordable housing.

ii. Work Units' Ability

Hypothesis: The existence of housing allocation by some work units provides their employees with a huge advantage in gaining access to affordable housing.

iii. Official Residential Status (*hukou*)

Hypothesis: The *hukou* status generates housing inequality between local residents and migrant workers.

Considering the project's limitation in length of time and available resources, this study focuses on three types of inequality - affordability, social networks and *hukou* for specific description and analysis.

1.2 Definitions

1.2.1 Affordable Housing

The term 'affordable housing' in China does not imply one type of housing, it has developed as a whole guaranteed housing system. As stated by the Beijing Municipal Construction Committee in 2007, Beijing will establish a four-layer affordable housing supply system (Zong and Sun, 2007):

1) Low-rent housing for the lowest income families to rent;

2) Cost rent housing (rent equal to the house's operational cost) for "sandwich class" families (who are not qualified for low-rent housing and cannot afford economical housing) to rent;

3) Economical housing (a type of government subsidized housing with its prices controlled by the state and less than 3 per cent of profits) for low and middle-income families to purchase;

4) Double-limit housing (a type of regular commercial housing with its size and price controlled by the state) for middle-income families to purchase.

Considering the cost rent housing is still in the pilot stage, the term 'affordable housing' in this project refers to the programs of low-rent housing,

economical housing and double-limit housing, and housing policies related to these three types of housing are termed as 'affordable housing policies'.

1.2.2 *Guanxi*

Guanxi literally means "relationship" in Chinese. "It refers more narrowly to 'particularistic ties'. These ties are based on ascribed or primordial traits such as kinship, native place and ethnicity, and also on achieved characteristics such as attending the same school, having shared experiences etc." (Gold, 2002: 6)

More generally, "*guanxi* resembles Pierre Bourdieu's concept of social capital". (Gold, 2002:7) *Guanxi* is "a form of social investment or social capital, and important resource that a person can tap into when there is a need to find help or support". (Fan, 2002: 549)

1.2.3 *Hukou* System

The Chinese *hukou* system is a unique household registration system. "Every Chinese is born with a *hukou* classification – urban or rural *hukou* depending on the birthplace, and *hukou* location – local (permanent) *hukou* or non-local (temporary) *hukou* based on the place of registration." (Huang and Clark, 2002: 27) In general, only people with urban permanent *hukou* qualify for government provided welfare, such as subsidized housing, medical insurance and pension.

1.3 Research Background

This research has significance from both academic and practical perspectives.

1.3.1 Academic Perspective

Chinese housing issues are unique. They can only be viewed and explained within the context of China's distinctive political and socioeconomic system. Previous literature has addressed the housing inequality issue that resulted from the old housing welfare system, whereas few have discussed about the role of social networks in accessing affordable housing and the inequality issue it may entail. Many researchers have touched on housing inequality through descriptive case studies, whereas few have either analyzed the housing policies or applied ethnographic methods for study.

Using established hypotheses from previous literature, this project not only addresses housing inequality issues by analyzing the housing price-to-income ratio (PIR) and affordable housing supply & demand, but also digs into details by analyzing affordable housing policy documents and conducting interviews with residents to better understand how they gain access to affordable housing and the housing inequality they are facing.

Furthermore, this research intends to analyze the issue from a more international perspective. Its theoretical framework largely builds on English literature. Moreover, it applies housing experiences from other regions as recommendations for Beijing.

1.3.2 Practical Perspective

From a practical perspective, housing is always an issue for Chinese people – owning a house provides a sense of home. On a larger scale, as stated by Chinese President Hu, Jintao that every family has a decent house to live in is a

prerequisite for China to build a harmonious society. (The Report of 17th Congress of the Communist Party of China, 2007) However, housing prices are too high for many Chinese to afford. A survey in 2006 showed 95 per cent of Beijing's residents considered the current housing price "relatively expensive" or "very expensive". (Li, 2006)

The initiation of Beijing's affordable housing program was intended to resolve the housing needs of low and middle-income households. However, it resulted in some higher income people gaining access to affordable housing. Figure 1 shows a luxurious BMW car is parking in Tian Tong Economical Housing Community, indicating that some economical housing residents may not be in the low and middle-income group.

Figure 1: A BMW Car is parking in Tian Tong Economical Housing Community



Source: www.xinhuanet.com

Being unable to buy a market house or apply for affordable housing, many low and middle-income families have to live in old dilapidated apartments received from their employers decades ago (housing was treated as public welfare in the past). They are facing problems such as overcrowding (three or even four generations living in the same house), run down housing conditions and safety issues.

Therefore, how Beijing's affordable housing policies help these low and middle-income families to overcome the housing inequality, and obtain an affordable house is a crucial issue.

1.4 Methodological Framework

This project uses Beijing as a case study to analyze housing inequality in China. It utilizes both quantitative data and qualitative data including: policy documents, census data, semi-structured interviews and data from other secondary sources (e.g. journal, press release and theses).

This research was done with a deductive approach. The original hypotheses were based on previous literature. Policy documents and statistics were applied to validate (or disprove) the hypotheses, whereas interviews are implemented to give on-the-ground evidence.

Nine semi-structured interviews with Beijing's residents were conducted for the project. Admittedly, this is not a huge sample and cannot represent all Beijing's residents' opinions.

One casual trial interview of a low-income family who lived in low-rent housing was done in December 2008. Informants showed great interest in the

interview questions. The information and experiences from this trial interview were valuable for future interviews.

Potential informants for the semi-structured interviews were selected through a snowball method. I started with my acquaintances that live in affordable housing and informants from the trial interview and asked them to introduce potential informants.

Each interview lasted for a maximum of one hour. Questions asked in the interviews included:

- 1) Personal information about the informants' background.
- 2) The informants' past housing experiences, e.g. where did they live before? How did they get that house? Why did they live there? How did they like or dislike that place? Etc.
- 3) The informants' current housing conditions, e.g. where do they live now? How and why they buy or rent their current house? Is that difficult for them to get a house? How do they like or dislike this place? Etc.
- 4) The informants' future housing plans, e.g. do they want to move, why or why not? Do they have the ability to move? Etc.
- 5) Their opinions about Beijing's affordable housing policies and their experiences of inequality in the housing application process.

Although there was an outline of questions, the interview did not strictly follow it. As expected, the interviews were led by informants' stories and hopefully revealed some evidence that previous research has overlooked. The interview process and results will be further detailed in Chapter 5.

2 LITERATURE REVIEW

As hypothesized in Chapter 1, low and middle-income families have more serious housing affordability issues and there is inequality in accessing affordable housing. But how to measure affordability and what is unique about Chinese housing inequality? Chapter 2 reviews the definition and measurements of housing affordability, introduces the Chinese urban housing reform and the Chinese housing inequality issue.

2.1 Definitions and Measurements of Housing Affordability

2.1.1 Definitions

“Housing affordability” is frequently used to describe the housing difficulties of individual households. (Hulchanski, 1995) “It could be traced back to the nineteenth century studies of household budgets and in the commonly used expression ‘one week’s pay for one month’s rent’.” (Hulchanski, 1995: 471)

Hancock concluded two types of definitions of housing affordability from previous literature. First, Maclennan and Williams proposed a very broad definition. “‘Affordability’ is concerned with securing some given standard of housing (or different standards) at a price or a rent which does not impose, in the eyes of some third party (usually the government) an unreasonable burden on household income.” (Hancock, 1993: 129)

“Under this definition, housing affordability can be assessed by the ratio of income to the quantity of housing consumed multiplied by the relative price of housing. This may be termed the *ratio approach* to housing affordability.” (Lau and Li, 2004: 3)

The second type defines housing affordability by “the amount of *residual income* remained for other household needs after deducting housing expenditures”. (Lau and Li, 2004: 4) As Bramley defined, “Households should be able to occupy housing that meets well-established (social sector) norms of adequacy (given household type and size) at a net rent which leaves them enough income to live on without falling below some poverty standard”. (Hancock, 1993: 129)

Bourassa came up with a more concise definition. “Affordability should be defined in terms of the adequacy for other household needs of income remaining after deducting housing costs.” (Bourassa, 1996: 1869)

2.1.2 Measurements

The ratio test is the most popular way to measure housing affordability. (Bourassa, 1996) “Under that test, any household paying more than 30 per cent of its income on housing costs is deemed to have an affordability problem.” (Bourassa, 1996: 1868) Nelson et al. criticized that this approach has “inability to determine whether households spend more than 30 per cent of their income on housing by necessity or by choice.” (Nelson, 2002: 120) Other measurement problems involve the definitions of income and housing expenditure. (Nelson, 2002)

The ratio approach is frequently employed in Chinese cases. Hui used both the ratio approach and residual income to study affordability in Hong Kong. (Hui, 2001) Lau and Li applied the price-to-income ratio (PIR) in Beijing. (Lau and Li, 2004) Mostafa et al. believed that “in China, the desire to own property is very strong among the populace, therefore, the monthly mortgage payment to income ratio could be at 50 per cent of the household’s monthly income”. (Mostafa, 2006: 62) Chen et al has applied the approach in Shanghai. (Chen et al, 2006) Mak et al has employed it to compare the housing affordability in Beijing, Guangzhou and Shanghai. (Mak et al, 2007) According to the World Bank, “the price of an affordable house should be no more than three to six times a family’s annual income. In the Chinese case, a ratio of 2:1 to 7:1 is desirable based on a report by the Chinese Academy of Social Sciences.” (Lau and Li, 2004: 6)

2.2 Chinese Urban Housing Reform Overview

2.2.1 Literature Overview

Research on the Chinese urban housing reform has been well addressed by previous literature. Several studies provided overviews of pre-reform urban housing problems, housing policies in different reform stages, and evaluation of their successes and failures. (See, for example, Fong, 1989; Shaw, 1997; Zax, 2000; Li, 2003; Lou and Palomar, 2006) Chen argued that “China’s urban housing marketization hinged on a sensible ratio of housing price to rent.” He recommended that “housing can be made more affordable if home financing becomes widely available.” (Chen, 1996: 1077, 1089) Lee concluded that “few previous researches have attempted to view housing reform from a social policy

perspective where issues such as distributive justice and inequality are expounded.” (Lee, 2000: 62) Wang and Murie analyzed the social and spatial implications of the Chinese housing reform and argued, “the special aspects of the Chinese reform involve rural urban divisions, the role of work units and the particular class structure developed in China”. (Wang and Murie, 2000: 398)

2.2.2 Evolution of Chinese Urban Housing Reform

Before Chinese housing reform, the government provided housing as welfare to residents. (Huang, 2004) The reform “was originally motivated by the perception that urban housing was in short supply and that much of what was available was substandard”. (Zax, 2000: 5) Therefore, the main goal of the housing reform was to “establish an equitable and efficient housing system to solve the housing shortage problem”. (Fong, 1989: 36)

Previous literature does not agree on which year and event was the turning point that initiated China’s housing reform. Some believed that the National Urban Housing Construction Conference (1978) which decided to change the Chinese public welfare housing system to a commercialized housing system was a milestone. (See, for example, Lou and Palomar, 2006; Chen et al, 2006) While others asserted the reform began in 1980 following the famous speech by Deng, Xiaoping that addressed the issue of private housing ownership. (See, for example, Lee, 2000; Zax, 2000)

Despite arguments in the initial year, event and stage division of the Chinese housing reform, researchers were more inclined to agree with each other on major experiments and policies in the reform process. Subsidized housing sale,

the first option to be tested, was the principle reform policy from 1979 to 1985. (Shaw, 1997) Under this experiment, house buyers only have to pay one-third of the housing cost, their employers and the city government pay the other two-thirds of the cost. (Wang and Murie, 2000) From 1986 to 1988, “raise rent, increase wages, and facilitate housing sales’ was put forward as the guideline for the housing reform”. (Shaw, 1997: 203) The Chinese National People’s Congress passed laws in 1988 to clarify rights for private properties. “These initiatives led to renewed attempts to subsidize private housing ownership.” (Zax, 2000: 6) The State Council inaugurated the *Decision on Deepening the Urban Housing Reform* in 1994. New programs that were initiated included: “a dual housing provision system with economical housing for low and middle-income families and commercial housing for high-income families; establishing housing insurance, finance and loan systems which would enable both policy oriented and commercial developments etc.” (Wang and Murie, 2000: 403-405). The 1994 policy “set the stage for the ‘monetarization of housing subsidies’ introduced in 1998, which involved the termination of welfare housing allocation through providing direct housing subsidies in cash terms”. (Lee, 2000: 66) In the 1998 *Implementation Plan for a Gradual Housing System Reform in Cities and Towns*, the government planned to make affordable housing accessible to 70%-80% of urban residents. (Wang and Murie, 2000) “The higher income households in urban areas (10%-15%) would be encouraged to obtain high-standard housing through the market; and poor urban families (10%-15%) would be given subsidized rental housing by their employers or the city government.” (Wang and

Murie, 2000: 405) The total investment on affordable housing by the Chinese government rapidly increased from 1998, then decreased for the first time in 2001, and continually dropped from 2003 to 2005, hitting the bottom in 2005. (Ye and Wu, 2008) “The consistent increase of housing prices and the weaknesses of the housing subsidy policy resulted in serious housing affordability problems, particularly for low and middle-income families.” (Ye and Wu, 2008: 287-288)

2.3 Chinese Housing Inequality Overview

Previously, a few researchers have addressed the issue of housing inequality in China. (See, for example, Lee, 2000; Wang, 2000; Wang and Murie, 2000; Zhang, 2001; Zhao and Bourassa, 2003; Wu, 2004) Some focused on “vertical inequalities resulted from the failure to provide housing for the urban poor or due to the persistence of the ranking system for allocating housing.” (Zhao and Bourassa, 2003: 724) Zhang argued the housing subsidy system favours richer people because subsidies are allocated based on a person’s social status instead his/her actual needs. (Zhang, 2001) Wang identified two major groups of urban poor in Chinese cities - the poor official urban residents (official poor) and the poor rural to urban migrants (unofficial poor). He argued that there is lack of policy regarding housing provision for the unofficial poor. (Wang, 2000) Wang and Murie confirmed that affordable housing is not available to most migrant workers because in order to gain access to it, “one must be an official resident of the city (with *hukou*) and must have a stable job”. (Wang and Murie, 2000: 409) Zhang et al pointed out “rural migrants, being virtually excluded from

the urban housing market, are forced to seek accommodation through a self-help approach, e.g. ghetto settlements or migrant enclaves". (Zhang et al, 2003: 912)

A few researchers such as Zhao and Bourassa focused on horizontal housing inequalities and argued that the housing reform "has increased the differences in economic power among work units. Some powerful work units have earned considerable profits and constructed high quality housing for their employees, while other work units are unable to improve their employees' housing conditions". (Zhao and Bourassa, 2003: 724)

Several researchers addressed the inequality issue in the implementation process of affordable housing policies. Lou and Palomar pointed out "the real estate developers, who win the bid of developing and selling affordable houses, tend to construct houses with large areas in order to get more profits". Therefore, "affordable houses are getting larger and more luxurious", thus more expensive, "whereas low and middle-income families who have genuine housing needs are squeezed out of the system due to the high price". (Lou and Palomar, 2006: 46)

Lin argued that the inequality in the affordable housing application and allocation processes indicates a lack of government management and supervision. (Lin, 2007) He noticed that a few cities have allocated affordable houses to teachers, veterans and senior intellectuals as welfare, instead of providing them to low and middle income families. The implementation failure was largely due to the unclear definition of the target group for affordable housing and a lack of supervision over policy implementation. (He, 2008)

In this chapter, the ratio approach for measuring affordability was introduced and Chinese housing inequality issues were also reviewed. They will be further analyzed in Chapter 4 and Chapter 5. The overview of Chinese housing reform explains why and how China has developed a guaranteed affordable housing system and helps us to better understand Beijing's affordable housing issues.

3 BEIJING AFFORDABLE HOUSING ISSUES

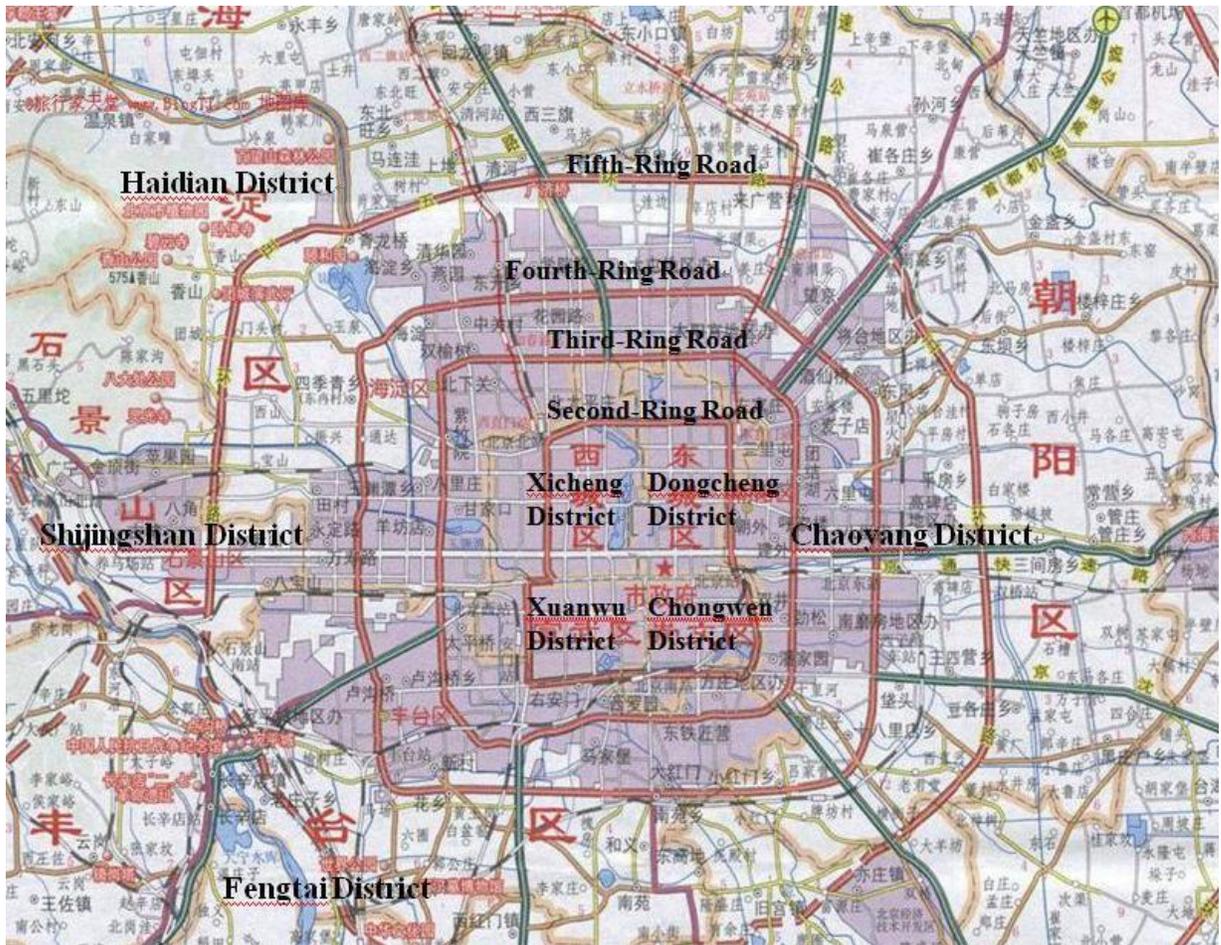
In this chapter, the study narrows down the scope to Beijing by introducing the socioeconomic background of Beijing, the status quo of its housing development, specifically affordable housing development in Beijing.

3.1 Socioeconomic Background of Beijing

As stated by the Beijing Urban Master Plan (2004-2020), Beijing is the capital of China, Chinese political and cultural centre, world-renowned historic city and a modern cosmopolis. (Beijing Municipal Government, 2005)

The Beijing municipality governs sixteen districts and two rural counties with a total administrative area of 16,000 square kilometres. Its urban area consists of eight districts in the city centre: Xicheng, Dongcheng, Xuanwu and Chongwen called “four urban districts”, Haidian, Chaoyang, Fengtai and Shijingshan called “four suburban districts”, with a total area of 1,085 square kilometres. (Beijing Municipal Government, 2005) The urban central area, encircled by the Fourth-Ring Road, is approximately 300 square kilometres. (Beijing Municipal Government, 1993) (Figure 2) The eight districts left, Mentougou, Fangshan, Tongzhou, Shunyi, Changping, Daxing, Huairou, Pinggu and two rural counties, Miyun and Yanqing form the exurb area. (Xiang and Xie, 2005)

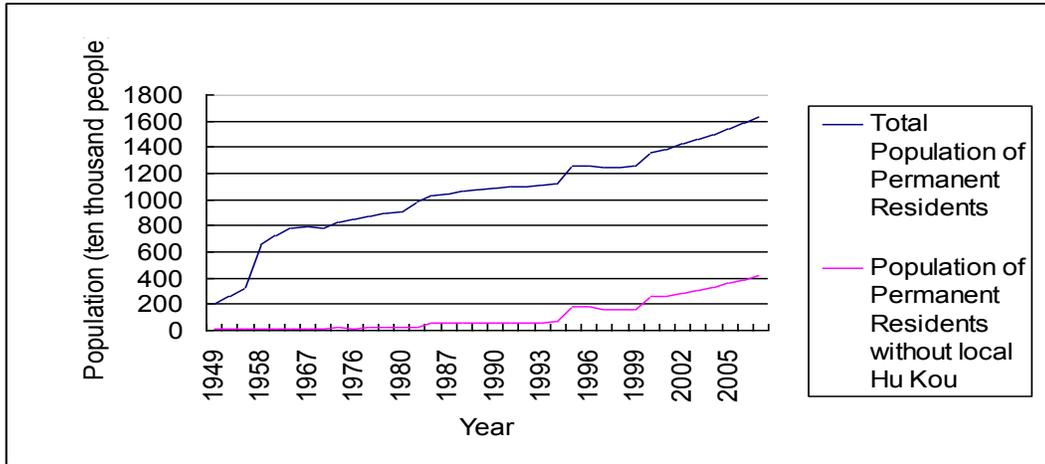
Figure 2: Beijing urban Areas and Ring Roads



Source: www.bjstats.gov.cn

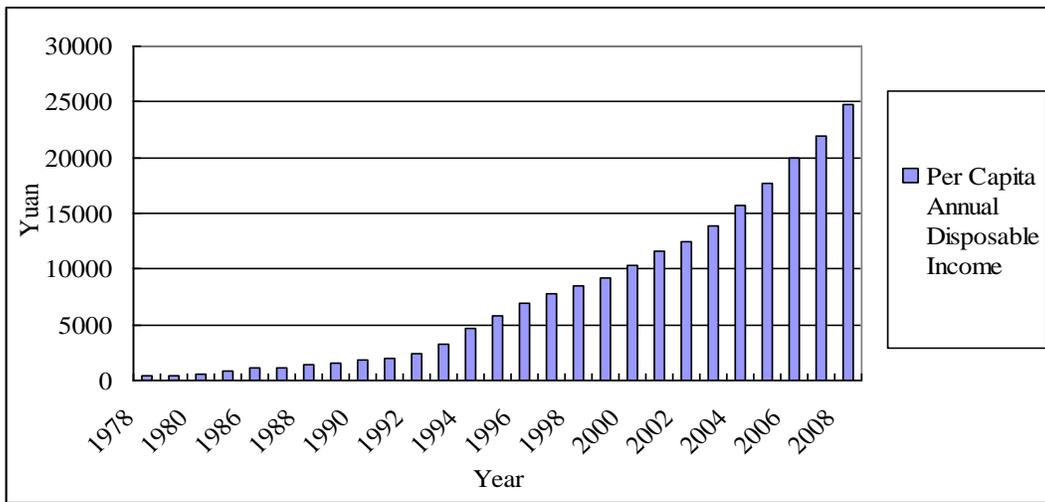
Beijing's population has dramatically increased in the past sixty years, jumping from two million to eighteen million. In 2007, the total population in Beijing reached 17.7 million; 9.29 million residents (3.56 million families) had Beijing urban *hukou*, 2.84 million residents (1.17 million families) had Beijing rural *hukou*, and 5.55 million were residents without Beijing local (permanent) *hukou*. (Beijing Municipal Bureau of Statistics, 2008) It is worth noting that the number of Beijing's residents without local *hukou* has increased significantly since year 1995, which accounts for 50 per cent of the total population growth. (Figure 3)

Figure 3: Growth of Beijing Population of permanent Residents (1949-2007)



Source: Beijing Municipal Bureau of Statistics

Figure 4: Growth of Per Capita Annual Disposable Income of Beijing urban Residents (1978-2008)



Source: Beijing Municipal Bureau of Statistics

At the same time, Beijing has experienced rapid economic development during the last decade. With a growth rate of more than ten per cent for nine

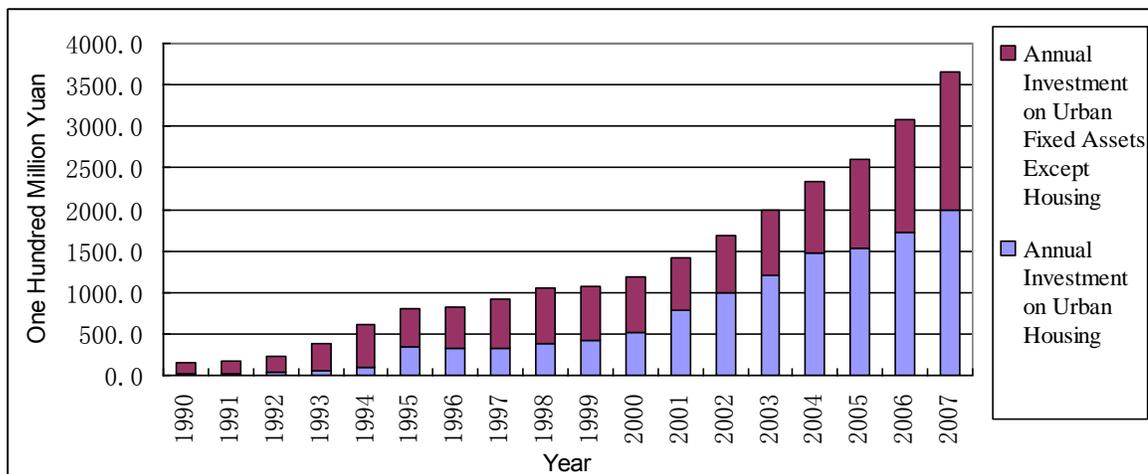
consecutive years, the GDP of Beijing for 2007 reached 900 billion yuan¹, increasing 12.3 per cent compared with 2006.

Simultaneously, the income of Beijing’s residents has grown fast. The per capita annual disposable income of Beijing’s urban residents approached 24,725 yuan in 2008, seventy times of that in 1978, fourteen times of that in 1990, and doubled the income in 2000. (Figure 4)

3.2 Status Quo of Beijing Urban Housing Development

In the past two decades, Beijing has gradually enlarged the investment on urban housing. In 1990, the share of investment on urban housing accounted for 14 per cent of total investment on urban fixed assets, while it topped to 63 per cent in 2004 and remained above 55 per cent until 2007. In particular, the investment on urban housing has dramatically enhanced since 2001. (Figure 5)

Figure 5: Beijing annual Investment on urban fixed Assets and Housing (1990-2007)

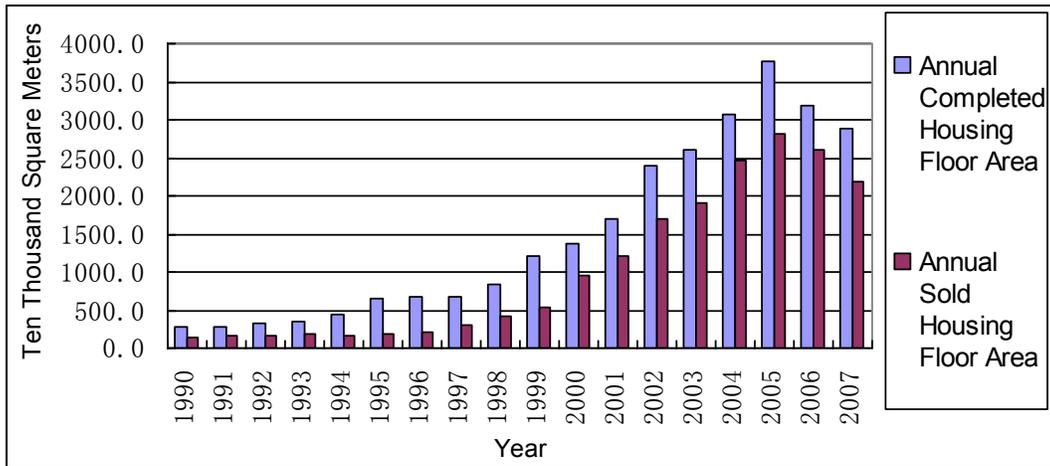


Source: Beijing Statistics Report 2007.

¹ Equals to 138 billion Canadian dollars, on 2009-12-01

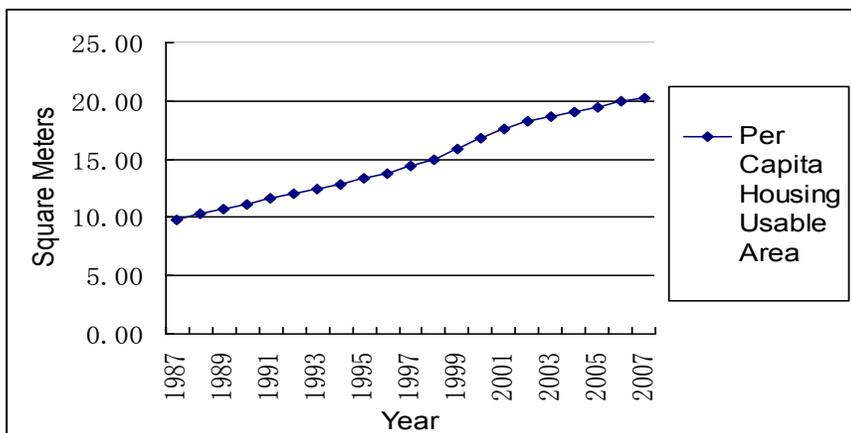
Consequently, the annual completed housing projects and sold houses significantly increased in proportion to the investment from 1990 to 2005. However, they began to decline from 2006 despite of the continual expanding of investment. (Figure 6)

Figure 6: Beijing annual completed/sold Housing Floor Areas (1990-2007)



Source: Beijing Statistics Report 2007.

Figure 7: Beijing Per Capita Housing Usable Area (1987-2007)



Source: Beijing Statistics Report 2007.

With the efforts of increasing investment on urban housing construction and housing institutional reform, living conditions of Beijing's residents have steadily improved. The per capita housing usable area doubled from 9.75 square meters in 1987 to 20.3 square meters in 2007. (Figure 7)

Although Beijing's residents have significantly improved their living conditions, they are still spending more and more money on housing. As Table 1 shows, in 2007 the housing price index was close to the overall consumer price index compared with the base year of 1978. This indicates that during the last three decades, housing prices have risen in proportion to the overall consumer price rise. However, housing prices have disproportionately gone up since 1990, increasing by six times, while the overall consumer price only tripled. (Table 1)

Table 1: Beijing Residents' Consumer Price Index of multiple Years

	1978	1980	1990	2000	2005	2007
Consumer Price Index	100	107.9	232.0	623.8	647.9	669.3
Food	100	110.4	275.7	646.9	730.5	820.3
Cigarettes and Alcohol	100	100.0	218.9	374.5	387.7	394.3
Clothes	100	97.8	163.4	379.1	351.0	349.9
Health Care	100	108.8	245.3	634.9	611.1	619.7
Transportation & Communication	100	100.0	118.6	128.7	118.0	112.1
Entertainment	100	102.7	194.1	210.1	230.5	225.7
Housing	100	74.4	101.5	512.2	593.7	622.8

Source: Author's analysis of Beijing Statistics Report 2007.

3.3 Establishing the Beijing Affordable Housing System

While Beijing began to carry out its housing reform experiments as early as 1980s, the guaranteed affordable housing system was implemented in 1998 when the State Council launched the multilevel housing system. (Li, 2006)

The *Beijing Regulations on Accelerating Economical Housing Constructions* (1998) was the first policy that regulates the management, land provision, housing cost, housing finance and other aspects of economical housing development in Beijing. It stated that economical housing is developed for low and middle-income families with Beijing urban *hukou*. (Beijing Municipal Government, 1998)

The *Beijing Implementation Plan of Deepening Urban Housing Reform and Accelerating Housing Construction* (1999) suggested building a three level housing supply system with low-rent housing, economical housing and double-limit housing. It also emphasized developing economical housing as a major means to encourage housing consumption and make the housing industry a new economic growth point of Beijing. (Beijing Municipal Government, 1999a)

To clarify the applicant's qualification for economical housing, the *Beijing Regulations on Purchasing Economical Housing* was enacted in 2000. It stated that households with urban *hukou* and family income below a certain level are qualified to apply for economical housing. (Beijing Municipal Government, 2000)

The *Beijing Management Measures of Urban Low-Rent Housing* (Beijing Municipal Government, 2001) and its *Implementation Plan* (BJGTJ, 2001) detailed the administration, application process, applicant's qualification, subsidizing approaches and other aspects of implementing the low-rent housing program.

In 2006, the *Beijing Housing Construction Plan (2006-2010)* was promulgated. The plan strictly regulated unit sizes of affordable housing: newly

built economical houses should be limited to small size (approximately 60 square meters) or medium size (approximately 80 square meters), and unit size of 90 square meters or above is not allowed. (Beijing Municipal Government, 2006)

Faced with a variety of problems owing to poor management, the Beijing Municipal Government promulgated three policies in a row – the *Beijing Management Measures of Low-Rent Housing*, *Beijing Management Measures of Economical Housing* and *Beijing Management Measures of Double-Limit Housing*. Some policy changes about economical housing include: Qualified applicants must have obtained Beijing urban *hukou* for five years; households that are dismantled and dislocated or have elders and disabled family members have priorities for purchasing affordable houses; economical houses should be mixed with other types of houses in the same community, and so on. (Beijing Municipal Government, 2007a, 2007b, 2008)

To prohibit investment activities on economical housing for purposes other than self-use, the *Notice of Economical Housing Resale Issues* was initiated in 2008, which stated that economical houses that have been purchased within five years are not allowed to be sold on the market, but can only be sold back to the government at its original price. (BMCC, 2008a)

In Chapter 5, we will further detail the affordable housing policy documents and compare them with policy implementation effects.

3.4 Status Quo of Beijing Affordable Housing System

3.4.1 Low-Rent Housing

Low-rent housing refers to a housing program that provides houses to the lowest income family with a relatively low rent (comparing with private rental housing). It consists of three approaches: rent subsidy as the major approach, with rental house allocation and rent deduction as supplements. (Zhao, 2006)

Since Beijing initiated the low-rent housing program in 2001, altogether 17,000 low-income families have been given rent subsidies or allocated with low-rent houses. (Guo, 2009) From 2006 to 2010, approximately 10,000 low-rent houses will be built, and 67,000 low-income families will receive rent subsidies to improve their housing conditions. (Beijing Municipal Commission of Urban Planning, 2006)

“Jing Cheng Ren He”, the only low-rent housing community in Beijing, was established in 2004. It is located in Chongwen District close to the East Second-Ring Road, and houses 400 low-income families. Considering most of the residents are disabled or elders, the community has built dedicated lanes & elevators, and emergency calling system. Besides, there are supermarkets, rehabilitation centre, senior activity centre and a series of community infrastructures that satisfy residents' needs. (Zhang, 2007)

Figure 8 shows the view in the Jing Cheng Ren He Community and Figure 9 shows a typical one-bedroom low-rent house in Beijing with floor areas of thirty square meters.

Figure 8: Beijing Jing Cheng Ren He Low-Rent Housing Community



Source: Zhang, 2007.

Figure 9: A typical One-Bedroom Low-Rent House in Beijing



Source: goufang.abang.com

3.4.2 Economical Housing

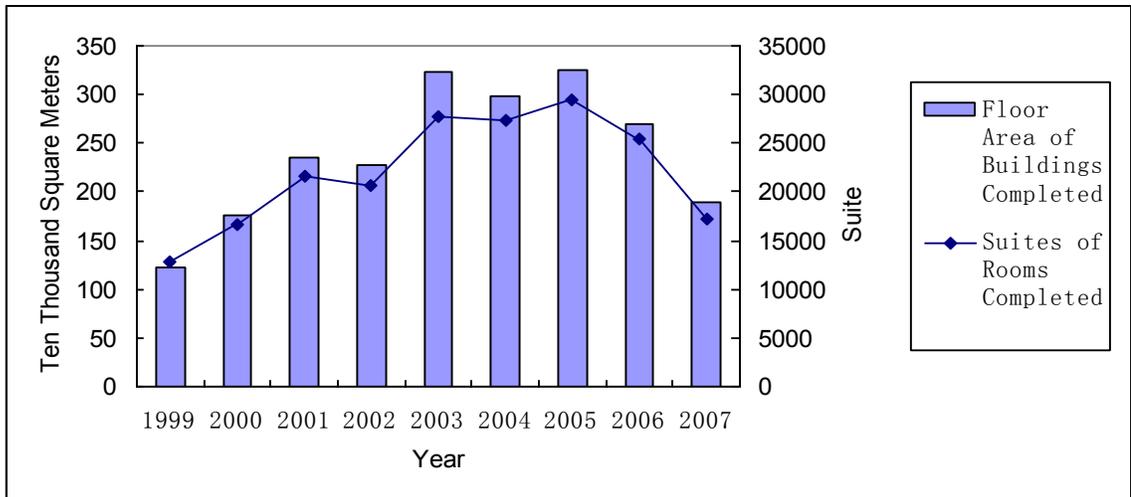
Economical housing is a special type of market housing with its price controlled by the government. The price of economical housing can cover its costs and less than 3 per cent of profits. Its costs include costs of land acquisition and compensation, prospecting and designing, neighbourhood's facility

construction costs, construction cost, management fees, interests on loans and taxes. (State Council, 1998)

Beijing introduced the economical housing program in 1998, when nineteen economical housing projects were initiated. (Lin, 2007) Between 1998 and 2007, Beijing completed 52 economical housing projects with the total building floor areas of 22 million square meters, thus provided houses to 200,000 families. (Beijing Municipal Bureau of Statistics)

Figure 10 illustrates the accomplishment of Beijing economical housing construction. The floor areas and suites of annual completed economical housing reached the maximum in 2005 and then substantially decreased.

Figure 10: Floor Areas and Suites of annual completed Economical Housing (1999-2007)



Source: Beijing Municipal Bureau of Statistics

Meanwhile, the share of economical housing in total housing construction remained above 10 per cent before 2004 (except for 2002), and then dramatically dropped. (Table 2)

housing projects built before 2005; red spots represent new projects built after 2005 in urban and suburban areas; and orange spots represent new projects in exurban areas. Those two that are located to the north of the Fifth-Ring Road named Hui Long Guan Community and Tian Tong Community are the two largest economical housing communities in Beijing.

Pictures below show the view in Tian Tong Community and Hui Long Guan Community. (Figure 12 to Figure 14)

Figure 12: Tian Tong Economical Housing Community in Beijing



Source: Yan, 2004.

Figure 13: Tian Tong Economical Housing Community in Beijing



Source: Yan, 2004.

Figure 14: Hui Long Guan Community in Beijing



Source: Yan, 2004.

3.4.3 Double-Limit Housing

Double-limit housing is a special type of market housing. Real estate companies purchase the construction land from the government through public bidding and auction for housing development. The government controls the house price, size and its selling target group. The floor areas of each double-limit housing unit are smaller than 90 square meters. (Beijing Municipal Government, 2008) It is designed for the middle-income families that are unqualified to apply for economical housing and unable to afford commercial housing.

Comparing to the previous two types of housing, the double-limit housing program is relatively new. It was initiated by the Beijing government in 2007. Floor areas of two million square meters and 4.52 million square meters were built in 2007 and 2008 respectively (Wu, 2009), and that of 6.5 million square meters have been planned to be built in 2009 (Cheng, 2009).

The first double-limit housing project, located in Xi San Qi outside the North Fifth-Ring Road, comprises 18 high-rise apartment buildings and altogether 4,685 units. More than 80 per cent of the units are two-bedrooms with the unit

floor areas of 80 to 90 square meters. Its average price is 6,350 yuan/sq. m., almost half of the price of new market housing projects nearby (between 10,500 and 12,500 yuan/sq. m.). (Chen, 2007) Figure 15 gives the expected view of Xi San Qi Community. Figure 16 shows Xi San Qi Community is still under construction.

Figure 15: Expected View of Beijing Xi San Qi Double-Limit Housing Community



Source: www.bjd.com.cn

Figure 16: Beijing Xi San Qi Double-Limit Housing Community is in Construction



Source: Qi and Zhang, 2008.

4 ANALYZING PROBLEMS

Despite the rapid development of Beijing's overall housing market and the affordable housing system, many low and middle-income residents still feel that the housing prices are unaffordable and that affordable housing is hard to access.

In this chapter, the study analyzes the housing price-to-income ratio (PIR) to show how serious the housing affordability issue is and roughly estimates affordable housing supply & demand to reveal there is a shortage of affordable houses.

4.1 Price-to-Income Ratio

This study applies the price-to-income ratio (PIR) to compare the affordability of market housing and economical housing for Beijing's residents. Considering the lack of data for Beijing's gross floor areas per housing unit, I have made changes to the following function calculating the PIR.

$$\text{PIR} = \text{AP} * \text{FA} / \text{AY} * \text{nP}$$

where

AP = mean selling price of residential building (yuan/ m²)

FA = pre-specified gross floor areas per housing unit (m²)

AY = mean per capita annual income per urban household (yuan)

nP = average number of persons per urban household

(Lau K.M. and Li S., 2004: 7)

I replaced FA with Chinese per capita floor areas, replaced AY with per capita income, and eliminated nP from the function, the new PIR function is:

$$\text{PIR} = \text{AP} * \text{FA} / \text{AY}$$

where

AP = The average selling price of new residential buildings in Beijing (yuan/ m²)

FA = Chinese per capita urban housing floor areas (m²)

AY = The per capita annual disposable income in Beijing (yuan)

Table 3 shows the statistics of Beijing's market housing prices, economical housing prices and per capita housing floor areas from 1999 to 2008.

Table 3: Beijing Market Housing Prices, Economical Housing Prices and Per Capita Housing Floor Areas (1999 – 2008)

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
The Average New Residential Market Housing Prices in Beijing (Yuan/m ²)	4787	4557	4716	4468	4456	5629	6721	9205	11099	16892
The Average Economical Housing Prices in Beijing (Yuan/m ²)	N/A	N/A	2900	2800	2918	2953	3015	3077	3207	N/A
Chinese Per Capita Urban Housing Floor Areas (m ²)	19.4	20.3	20.8	22.8	23.7	25.0	26.1	27.0	28.0	N/A

Source: Beijing Municipal Bureau of Statistics

Table 4: Beijing urban Per Capita Annual Disposable Income (1999-2008)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
The Urban Per Capita Annual Disposable Income in Beijing (Yuan)	9183	10350	11578	12464	13823	15638	17653	19978	21989	24725
20% Low-Income	N/A	5775	6271	6058	7304	7401	8581	9798	10435	N/A
20% Medium-Low Income	N/A	7916	8579	8941	10344	10961	12485	14439	15650	N/A
20% Medium-Income	N/A	9624	10631	11316	12896	14245	16063	18369	19883	N/A
20% Medium-High Income	N/A	11861	13237	14211	16011	18455	20813	23095	25353	N/A
20% High-Income	N/A	17831	20653	23349	24690	29635	32968	36616	40656	N/A

Source: Beijing Municipal Bureau of Statistics

The Beijing Municipal Bureau of Statistics divides Beijing's urban residents into five equal sized income groups: low, medium-low, medium, medium-high and high income. The low and middle-income group consists of 20% low-income population and 20% medium-low income population. The per capita annual disposable income of each income group is shown in Table 4.

By putting the data of Table 3 and Table 4 into the PIR function, this research comes up with the data in Table 5 to show the PIR of Beijing's residential market housing and economical housing for each income group.

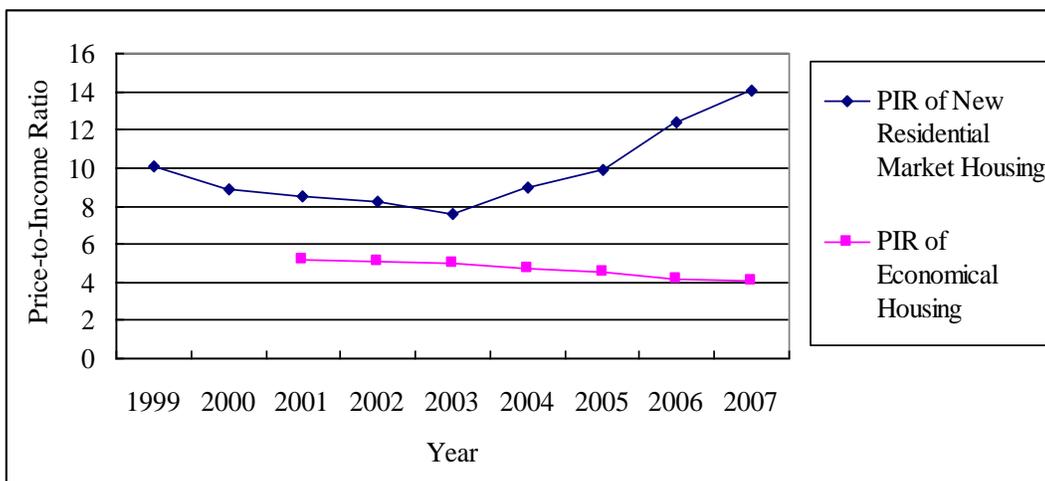
Table 5: PIR of Beijing Market Housing and Economical Housing (1999-2007)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
PIR for Average Income	New Residential Market Housing	10.1	8.9	8.5	8.2	7.6	9.0	9.9	12.4	14.1
	Economical Housing	N/A	N/A	5.2	5.1	5.0	4.7	4.5	4.2	4.1
PIR for 20% Low-Income	New Residential Market Housing	N/A	16.0	15.6	16.8	14.5	19.0	20.4	25.4	29.8
	Economical Housing	N/A	N/A	9.6	10.5	9.5	10.0	9.2	8.5	8.6
PIR for 20% Medium-Low Income	New Residential Market Housing	N/A	11.7	11.4	11.4	10.2	12.8	14.1	17.2	19.9
	Economical Housing	N/A	N/A	7.0	7.1	6.7	6.7	6.3	5.8	5.7
PIR for 20% Medium-Income	New Residential Market Housing	N/A	9.6	9.2	9.0	8.2	9.9	10.9	13.5	15.6
	Economical Housing	N/A	N/A	5.7	5.6	5.4	5.2	4.9	4.5	4.5
PIR for 20% Medium-High Income	New Residential Market Housing	N/A	7.8	7.4	7.2	6.6	7.6	8.4	10.8	12.3
	Economical Housing	N/A	N/A	4.6	4.5	4.3	4.0	3.8	3.6	3.5
PIR for 20% High-Income	New Residential Market Housing	N/A	5.2	4.7	4.4	4.3	4.7	5.3	6.8	7.6
	Economical Housing	N/A	N/A	2.9	2.7	2.8	2.5	2.4	2.3	2.2

In the Chinese case, a ratio of 2:1 to 7:1 is desirable based on the report by the Chinese Academy of Social Sciences. (Lau and Li, 2004: 6) However, Figure

17 shows the PIR of Beijing’s new residential market housing for residents with average income was higher than 7 for the consecutive years from 1999 to 2007. It reached the lowest point at 7.6 in 2003 and increased rapidly to 14.1 in 2007. Conversely, the PIR of economical housing for residents with average income stayed stable around 4 to 5 and slightly decreased since 2003. It can be explained by the rapid increasing per capita income and the relatively stable economical housing price.

Figure 17: PIR of Beijing Market Housing and Economical Housing for average Income (1999-2007)



By comparing the PIR of Beijing’s new residential market housing for the five income groups, as seen in Figure 18, the study finds that the PIR of the low-income and medium-low income groups were higher than 10 and increasing more rapidly than the PIR of other income groups consecutively from 2000 to 2007. It indicates low and medium-low income residents have the most serious affordability issue with market housing and they are in genuine need of low-rent housing and economical housing. Even for medium and medium-high income

residents, market housing is not affordable. The PIR of medium and medium-high income groups were higher than 7 successively from 2000 to 2007. This explains why so many middle and higher income people have applied for economical housing. Conversely, the PIR of the high-income group was desirable which indicates high-income people do not have any housing affordability issues.

Figure 18: PIR of Beijing new Residential Market Housing for five Income Groups (2000-2007)

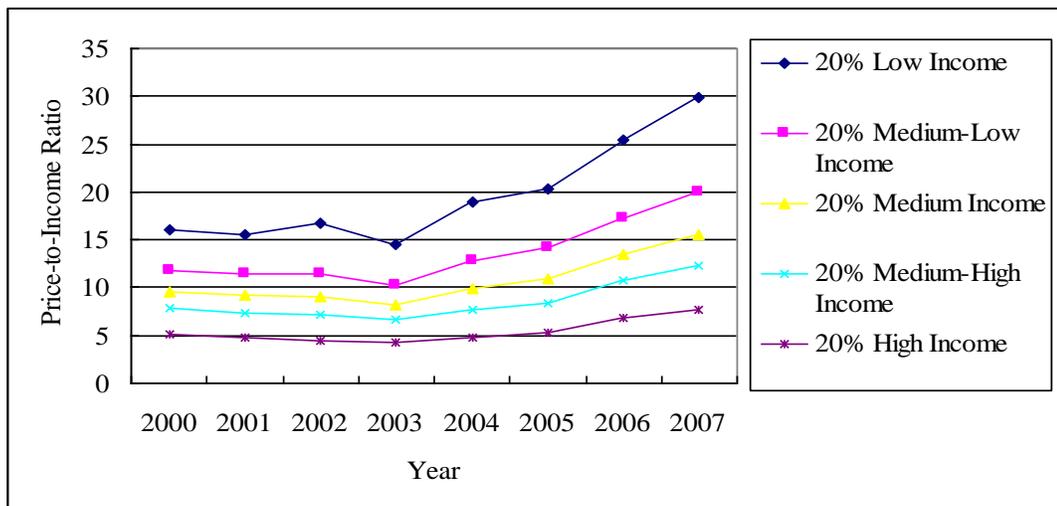
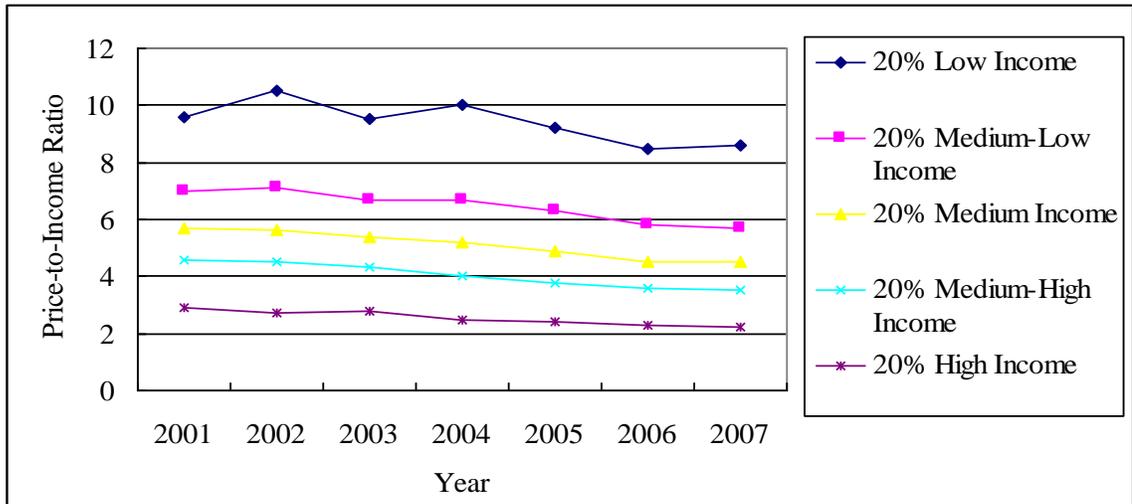


Figure 19 shows the PIR of economical housing for the five income groups. It is worth noticing that although the PIR decreased in the period from 2001 to 2007, the PIR for 20% low-income group was above eight at all times. It indicates that economical housing is not affordable for the 20% low-income population. Low-rent housing might be a more suitable program for them. The PIR of the other four income groups were in the desired area, which indicates that the economical housing program is an effective way to provide residents who cannot afford market housing with affordable houses.

Figure 19: PIR of Beijing Economical Housing for five Income Groups (2001-2007)



Overall, the affordability difference between economical housing and market housing was not very large before 2004. With the market housing getting more and more unaffordable from 2004, many people with average income or higher may have turned to economical housing. The exceptional high demand made economical housing hard to get, which led to inequality issues such as underground deals with social networks (*guanxi*) or money pay offs.

4.2 Affordable Housing Supply & Demand

In this section, the research roughly estimates the demand for affordable housing compared with the supply to reveal if there is a shortage of affordable houses.

4.2.1 Low-Rent Housing

Ever since Beijing initiated the low-rent housing program since 2001, altogether 17,000 low-income families have been given rent subsidies or allocated with low-rent houses. (Guo, 2009)

However, according to the Beijing Municipal Bureau of Statistics, up to 148,000 urban residents in Beijing were still under the official line of urban subsistence allowance in 2007, namely, their monthly family income was below 330 yuan – the lowest cost for subsistence in Beijing. These lowest income residents are the major group that low-rent housing should be provided to.

Xiao estimated the number of low-income families that have been supplied with low-rent housing only accounts for 0.28% of the total number of Beijing's urban families. There are at least 70,000 lowest income families and key special-care families that need to resolve their housing problems. (Xiao, 2007)

In recognition of the low-rent housing supply, from 2006 to 2010, approximately 10,000 low-rent houses will be built, and another 67,000 low-income families will receive rent subsidies to improve their living conditions. (Beijing Municipal Commission of Urban Planning, 2006)

By comparing low-rent housing supply with the demand, the study finds that the low-rent housing program may well cover the lowest income families under the official line of subsistence allowance. However, as we mentioned in the Price-to-Income Ratio section, most families from the 20% low-income group are not qualified for low-rent housing and cannot afford economical housing.

4.2.2 Economical Housing and Double-Limit Housing

By the end of 2007, Beijing had completed 52 economical housing projects with total floor areas of 22 million square meters, thus provided houses to 200,000 families. (Beijing Municipal Bureau of Statistics)

From 2007, Beijing put more efforts on affordable housing development. The double-limit housing program was initiated to favour medium and medium-low income families as a complement to economical housing. Floor areas of two million square meters and 4.52 million square meters were built in 2007 and 2008 respectively (Wu, 2009), and there were plans to build 6.5 million square meters in 2009 (Cheng, 2009). As well, Beijing built 3.02 million square meters of economical housing in 2008 (Wu, 2009) and planned to build floor areas of 1.6 million square meters in 2009 (Cheng, 2009). Therefore, from 1999 to 2009, altogether 40 million square meters, amount to 360,000 suites of economical houses and double-limit houses will be provided to Beijing's residents.

In terms of affordable housing demand, a major group is those whose households have been dismantled due to public construction projects. In the period of "the Tenth Five-Year Plan" (2001-2005), Beijing dismantled three million square meters of old and dangerous houses, amount to 350,000 families. (Zeng, 2007)

Another major group is new married couples who have an inelastic demand for housing. (Liang, 2006). Table 6 shows the number of Beijing's new married couples from 2001 to 2006. In total 630,000 couples were married in these six years.

Therefore, approximately one million families may be in need of housing in the period from 2001 to 2006. The study roughly estimates that 40% low and medium-low income families may apply for affordable housing, requiring 400,000 suits in total.

Table 6: Statistics of new married Couples in Beijing (2001-2006)

Year	2001	2002	2003	2004	2005	2006
New Married Couples (10,000)	7.7	7.4	8.9	12.3	9.6	17.1

Source: Liu, 2007.

Except for dismantled households and new married couples, there may be high housing demand from other qualified groups, such as families with veterans, other key special-care recipients, or new permanent residents moved to Beijing from other provinces. Besides, we have to consider that a great proportion of affordable houses were allocated to civil servants, employees of public institutions and teachers as favoured by the policy, most of them may not be in the low and middle-income group.

To sum up, by the end of 2009, about 360,000 suites of economical houses and double-limit houses will be provided, whereas the housing demand from dismantled households and new married couples reached 400,000 in 2006.

4.2.3 Conclusion

By analyzing the Beijing's affordable housing supply & demand, the study roughly estimates that by the end of 2009, some 11% of Beijing's urban families have received affordable housing subsidies or affordable houses (approximately 400,000 units in relation to 3.56 million Beijing's urban families).

The study finds that overall the supply cannot meet the demand of low and middle-income residents with genuine housing needs. The demand from other income groups makes the conflict between affordable housing supply & demand more serious. The analysis also reveals there is a "sandwich class" who are not qualified for low-rent housing and cannot afford economical housing.

5 INTERVIEW AND POLICY EVIDENCE

Due to the shortage of affordable market houses and government provided affordable houses, Beijing's residents have applied several strategies to get access to an affordable house. In this chapter, the research explores interviews with residents living in affordable houses to show how Beijing's residents deal with the unaffordability of housing, as well as their personal experiences with inequality. Affordable housing policy documents were also examined to explore how policy-makers are trying to resolve the problems of inequality.

The project applied semi-structured personal interviews instead of questionnaire surveys for two reasons: first, the former is more helpful than the latter in digging into the informants' detailed housing stories; second is because of the financial concern, specifically the cost to the researcher.

The interview questions focused on the informants' affordable housing application process and their opinions on inequality in this process. Nine informants participated in these interviews. Eight of them are residents who have applied for affordable housing. The first seven have successfully applied whereas the eighth is still waiting for approval. The ninth informant, who has been working as director of the housing department of a Beijing College for twenty years, is knowledgeable about Beijing's housing policy changes. Their basic background information is shown in Table 7.

By analyzing policy documents and transcribed interview data, the study found different inequality issues for each type of affordable housing in four

aspects: priority groups in the application process, the application & examination processes, gaining access to a ranking number for houses and the exit system.

Table 7: Informants' basic Background Information

No.	Age	Job	Family Members when Applying	Family Monthly Income when Applying (yuan)	Year of Applying	Housing Type	House Location
1	56	Retired	5	10,000	2003	Low-Rent	East Second-Ring Road
2	36	Engineer	1	6,000	2002	Economical	North Fifth-Ring Road
3	29	Clerk	1	3,000	2002	Economical	North Fifth-Ring Road
4	37	Driver	2	4,000	2003	Economical	South Fifth-Ring Road
5	32	Clerk	1	6,000	2007	Economical	North Fifth-Ring Road
6	28	Clerk	4	10,000	2008	Double-Limit	South Fourth-Ring Road
7	34	Taxi Driver	2	7,000	2008	Double-Limit	East Fifth-Ring Road
8	30	Wedding Master	1	10,000	2009	Double-Limit	N/A
9	50	Director of the Housing Department in a College	N/A	N/A	N/A	N/A	N/A

Note: The personal information of No.5 is of Informant 5's cousin and provided by Informant 5.

5.1 Low-Rent Housing

5.1.1 Priority Group

The low-rent housing program in Beijing consists of three approaches: rent subsidy as the major approach, with rental house allocation, and rent deduction as supplements. Of the three, rental house allocation seems to be the most favourable program for residents:

Informant 1 If we chose rent subsidy or rent deduction instead of rental house allocation, we will merely receive 600 yuan each month. It is impossible for us to rent a three-bedroom apartment like this one on the market. Though I'm not very satisfied with our rental house, I still feel lucky, because many other poor families can't get access to rental house allocation.

Rental house allocation is not available for every low-income family, but for families in the priority group:

Rental house allocation is mainly for application families who have fallen servicemen, lone elders, and seriously disabled family members dependent on them. (BJGTJ et al., 2001)

Rental houses are mainly allocated to families with elders (sixty years old and older), seriously disabled members, seriously sick patients, families who live in dangerous houses and dismantled residents. (Beijing Municipal Government, 2007a)

Informant 1 indicates the existence of priority group in the low-rent housing application process:

Informant 1 The low-rent housing allocation is only for families that have martyred soldiers, labour models and veterans. In our situation, my father is a veteran.

5.1.2 Application & Examination Processes

As stated by *Beijing Management Measures of Urban Low-Rent Housing*, to apply for low-rent housing, there are five steps. (Beijing Municipal Government, 2001)

- i. Application: applicants should apply to their neighbourhood governments.
- ii. Examination: the Low-Rent Housing Management Office of each district should examine the applicants' family income, family members and current housing status.
- iii. Announcement: the Office of each district makes an announcement to the public of the applicants' basic information for ten days.
- iv. Registration: the Beijing Low-Rent Housing Management Office is in charge of the qualification re-examination and house registration.
- v. House Allocation: the order of house allocation is determined by lottery.

Informant 1 who went through the formal application process shares opinions:

Informant 1 We applied to our neighbourhood government. The examination process was quite slow. I heard that our application went through several levels of governments for examination, but I didn't know the details.

Management of low-rent housing was improved in 2007 when the new application criteria and a management program of three-level examination & two-level announcement were initiated. The new application criteria regulated family annual income, current housing status and total assets based on the number of family members. (Table 8) The new program refers: the neighbourhood

government should accept applications, check the applicants' information, conduct an indoor examination and make the first public announcement; the district government should re-examine the application forms and make the second announcement; the Beijing Municipal Commission of Housing and Urban-Rural Development (BMCC) is in charge of the final qualification examination and house registration. (Beijing Municipal Government, 2007a)

Table 8: Application Criteria for Low-Rent Housing

Family Members	Family Annual Income	Current Per Capita Housing Usable Area	Total Family Assets
One	6,960 yuan and below	7.5 sq. m. and below	150,000 yuan and below
Two	13,920 yuan and below	7.5 sq. m. and below	230,000 yuan and below
Three	20,880 yuan and below	7.5 sq. m. and below	300,000 yuan and below
Four	27,840 yuan and below	7.5 sq. m. and below	380,000 yuan and below
Five and above	34,800 yuan and below	7.5 sq. m. and below	400,000 yuan and below

Source: BMCC, 2007a.

5.1.3 Gaining Access to a Ranking Number for Houses

Because the number of affordable housing applicants was always more than that of available houses, the ranking number came up as a solution. Applicants should select and purchase (or rent in the case of low-rent housing) the house following their ranking number. Therefore, a ranking number determines whether a qualified family could successfully get a house and further get a relatively satisfying house:

Applicants' ranking numbers for houses must be chosen by lottery. The Beijing Municipal Commission of Housing & Urban-Rural Development (BMCC) is in charge of the lottery, which should be played twice a year. Before playing the lottery, public media should announce the number of houses for allocation, deadline of application and date of playing the lottery. Its process should be broadcasted by the Beijing Television Channel, and supervised by official notarization institutions. (BJGTJ et al., 2001)

Informant 1 watches television to verify to the process of playing lottery:

Informant 1 On January 2004, we finally gained the qualification and were told to watch the Beijing TV channel for the lottery. About 150 houses were given out at that time, unfortunately, we didn't win the draw. A couple of months later, there came a second chance, and we finally got our house - a 60 square meter three-bedroom.

5.1.4 Exit System

The low-rent housing program strictly regulates the exit system as demonstrated by the following policy:

An allocated low-rent house is only for application families to live in, not for reletting, subtenancy or other purposes. The Affordable Housing Management Office of each district should regularly check on the status of housing, income, family members and family assets of low-rent housing families. Families that are unqualified for one year or longer, should have their low-rent housing qualification eliminated, should stop being allocated with the housing allowance and should return their allocated house within a certain period. (Beijing Municipal Government, 2007)

Informant 1 mentions the strict lease contract and exit rules they must obey:

Informant 1 The exit system was very strict. When we signed the lease contract, it was written clearly about when we must move out. For martyred soldier and veteran families like us, if my father passed away, I could remain live here. However, if one day I passed away, my daughter's family must move out. For labour model families, things are different. If the labour model died, his children can't live here anymore. There have been a few families moved out as I know. The policy goes quite well. It's fair for everyone. But I'm worried

for my daughter, if one day we gone, how could she afford a house like this.

5.2 Economical Housing

5.2.1 Priority Group

Policy changes concerning defining priority groups reveal that economical housing has gradually changed from welfare for certain groups to guaranteed housing for families in genuine housing need.

Early economical housing policies tended to favour talented people who have Beijing *hukou* and work for the government or public institutions:

The selling target for economical housing is low and middle-income families who have permanent urban *hukou* in Beijing. The priority is on civil servants, teachers, scientists, technicians and employees of public institutions. (Beijing Municipal Government, 1998)

The policy changed slightly and provided further details on two priority groups in the year 2000. The “dismantled residents” and “relocated residents” were added for the first time:

The following families do not need to go through the family income examination in the economical housing application process: employees of the government, public institutions and teachers; residents whose houses are being dismantled in major construction projects and relocated residents in dangerous & old housing reconstruction projects by the Beijing government. (Beijing Municipal Government, 2000)

These regulations gave exemptions to priority groups. They could directly purchase an economical house regardless of the income restrictions. Informant 9 feels the rules were unequal:

Informant 9 Before 2004, economical housing was not very popular. I remember once we organized a group purchase of economical housing in Xi San Qi for our teachers, only a few showed interests. Many of them were unsatisfied with the house location. At that time, there was no qualification check for teachers. As long as you are a teacher, you can directly buy an economical house, no matter how high your income is. The same was true with civil servants. But I don't think the job of teacher or civil servant is of anything special. Their income is not less than others, college teachers maybe earn much more than the average, why they had priorities? It's weird.

New housing policies initiated in 2007 became more reasonable, emphasizing on families in genuine housing need:

The following families have priorities to be allocated with economical houses: families with elders (60 years old), seriously disabled people, seriously sick patients, dismantled residents resulting from economical housing land construction or major construction projects, relocated residents due to the historical neighbourhood reconstruction and protection, key special-care recipients, families who live in dangerous houses and other families with housing difficulties. (BMCC, 2007b)

5.2.2 Application & Examination Processes

The application restrictions were quite loose in the early years of economical housing implementation. The 1998 policy inaugurated a very general program and did not touch on the details:

Economical housing employs the application, examination & approving and registration programs. Details will be further announced. The criteria of low and middle-income families will be further announced. (Beijing Municipal Government, 1998)

The 2000 policy regulated applicants' *hukou* and annual income but with no concern on other major factors such as age, or current housing status:

Families owning Beijing urban *hukou* in Beijing's urban or suburban area and obtaining an annual income of 60,000 yuan or below qualify for applying economical housing. (Beijing Municipal Government, 2000)

Informant 3 feels the criteria on judging low and middle-income families was unreasonable:

Informant 3 I applied for economical housing in 2002. Regulation at that time was not as strict as of today. There were not too many restrictions on the applicants' age and income. I applied immediately after graduated from college, when I was only 22. The restriction on income was ridiculous. The annual family income shouldn't exceed 50,000 yuan, or 60,000 yuan, I forget. Whether there was only one member or five members in a family, the criteria was the same.

At that time, applying for an economical house was not difficult. Informant 4 gave us an example of the regular application process:

Informant 4 I applied by myself in 2003. The application process was very smooth. I went to the Beijing Real Estate Trade Centre for three times. The first time was to ask for application forms, they were not as complicated as the forms today, as I remember, just a couple of pages. My wife and I filled in the forms and went to the human resource department of our company for income certificates. We submitted all forms and copies of our identity documents to the Centre and waited for a week. Then the officers noticed us to pick up our approved application form.

Without examination and supervision, some unqualified people lied about their financial and housing status in order to gain economical houses:

Informant 2 I wrote my income certificate and submitted it to my manager for his signature and the official company stamp. My employer didn't care about how much money I wrote in my certificate. I calculated my salary. It was quite complicated. The down payment was 30% of the total house price. I planned to borrow 70% from banks and pay back in 15 years. So I have to pay about 2000 yuan per month to the bank, and leave myself 1000 yuan for living. My real salary was 6000 yuan at that time, but I claimed 3000 yuan. We called it "reverse calculation". It's quite common as I know.

Informant 9 In the past, the Committee didn't have abilities to check whether the applicants' information was true, it all depended on applicants' consciousness and the income certificate from the applicant's employer. Therefore, many unqualified applicants forged their income certificates and gained houses.

Although economical housing is limited to residents who have Beijing urban *hukou* as stated by the policy, many unqualified people who do not own Beijing *hukou* managed to gain access to it. Both social networks (*guanxi*) and money pay offs play important roles in this process:

Informant 2 If you don't have Beijing *hukou*, the salesman can help you contact those people who earn it for a profit. They have Beijing *hukou* and are qualified to apply for economical housing. First, they apply for the houses and sign the house contract, and then with the help of the sales clerk, they sign

another contract with you to transfer the house to you. It cost 10,000 yuan in 2002, but I guess the price is going up now. Well, from my experience, as long as you have money, you can always get an economical house.

Informant 3 Because my cousin didn't have Beijing *hukou*, he wasn't qualified for applying economical housing. Therefore, I applied and bought a house. Then he bought it from me at the same price. But this house is still under my name, so that we could avoid the tax and land user charge.

In 2004, the public announcement was added to prevent unqualified applications. The *Notice* stated that the applicant's information should be announced both on the Website of Beijing Construction (www.bjjs.gov.cn) and on the wall of the Beijing Real Estate Trade Centre for ten days. (BMCC, 2003)

Table 9: Application Criteria for Economical Housing

Family Members	Family Annual Income	Current Per Capita Housing Usable Area	Total Family Assets
One	22,700 yuan and below	10 sq. m. and below	240,000 yuan and below
Two	36,300 yuan and below	10 sq. m. and below	270,000 yuan and below
Three	45,300 yuan and below	10 sq. m. and below	360,000 yuan and below
Four	52,900 yuan and below	10 sq. m. and below	450,000 yuan and below
Five and above	60,000 yuan and below	10 sq. m. and below	480,000 yuan and below

Source: BMCC, 2007a.

Similar to low-rent housing, there was great improvement with the economical housing management in 2007, when the application criteria became strict and a program of three-level examination and two-level announcement was

initiated. (Beijing Municipal Government, 2007a and 2007b) Table 9 illustrates current application criteria for economical housing.

These strict regulations cause some residents to believe that unqualified people will be prevented from accessing economical houses:

Informant 6 In the past, there was lack of regulation on the economical housing application process, for example, few restrictions on applicant's income, and no announcement to the public. Therefore, some people took advantages and earned a lot. Now, things are different. Regulations become strict, housing sizes are restricted, no more big house allowed, and houses can't be resold on the market as you wish. I think the phenomenon of rich people living in economical houses and driving a BMW car will be stopped.

However, for those unqualified applicants who have both social networks and money, there were always ways to get access to an economical house:

Informant 5 In 2007, my cousin wanted to buy an economical house though he was not qualified. He found a person A, who was very cautious. My cousin got to know him accidentally through his friends. A only helped acquaintances. No matter you have houses under your name, you are married or single, as long as you don't own an economical house, he can help you apply. Anyway, he helped my cousin pass the qualification check, took him to the real estate company, and signed an economical house contract. The regular price for an economical house was 2600 yuan per square meter in Hui Long Guan Community, but my cousin paid 5500 yuan per square meter. The gap between these two prices was profits for A and the real estate company. Even at this high

price, it's still much cheaper than the price of nearby market houses, which was 9000 yuan per square meter at that time.

5.2.3 Gaining Access to a Ranking Number for Houses

Management of ranking numbers for economical housing used to be quite disordered. There were various ways to distribute the numbers based on each real estate company's choice. The two major ways were: lining up and playing lottery by computer:

Informant 2 I applied for an economical house in 2002. After completing the application, I waited for their notice. The notice told me an exact date and the number of economical houses would be for sale. I went to the selling centre in the early morning to wait in line. But there were lots of people in front of me. I heard many of them came here last night. In the end, I got a ranking number around 6000. I thought I didn't have any chance to buy one because there were merely 3000 apartments for sale. I was wrong. There were hundreds of apartments left when in my turn, but all of them were larger than 150 square meters. I even saw some apartments of 300 square meters with two floors. The real low and middle-income families can't afford it. If you want to buy the one of 300 square meters, you don't even need to wait in line. No one will compete with you.

Lottery played by computer was another major way for distributing ranking numbers for houses. It saved time and efforts for applicants and made the process seem fairer:

Informant 3 We didn't need to wait in line as before. All applicants could go to a certain website, fill in a simple form and enter into a

draw for ranking numbers. I think this is much better than lining up. At least, it seems fairer. But I wasn't lucky at all. After filling the form, I was waiting for two years, ten thousand houses were distributed but I didn't have a chance to get one. Finally in the end of 2004, I won the draw and got a good number.

However, some applicants did not go through the formal way to get access to an economical house. Social networks played a weaker role than money pay offs in this process:

Informant 4 Since I went there pretty late, houses were all sold out. I asked the sales clerk whether there was any house left. He told me if I could pay 5,000 yuan to them as the commission charge, they can help me find one. As they said, this house was from others who returned it. But I don't know whether his word was true. Maybe they kept some houses secretly and earned some profits by that. A couple of months later, my sister said she wants to buy an economical house. I recommended this sales clerk to her. He told her there was no available house. But the result was my sister paid him 10,000 yuan, and he helped her find a house in this community and signed the contract.

Except for house sales clerks, a group of people called "ranking number dealers" also did business with the numbers:

Informant 3 I saw many dealers selling ranking number outside the house selling centre, one number for 6000 yuan. They promised to give you a ranking number of top 10 or 20 per cent. Therefore, you have priorities to select a house with better layout and more sunshine. I have a couple of

colleagues who bought ranking numbers from the dealers in 2003. They thought the price was cheap and truly worthy at that time, because the price rose up to 30,000 yuan by 2005.

The new policy initiated in 2007 finally ended up the mess and stated that lottery carrying out by the Affordable Housing Management Office of each district is the only way to allocate ranking numbers for houses:

Before the lottery, the Affordable Housing Management Office of each district should announce housing information, including house location, number of houses for allocation, house type, size and price, deadline and location of application for the lottery etc.

The Affordable Housing Management Office of each district is in charge of carrying out the lottery to determine the order of selecting houses. Deputies of the National People's Congress, commissioners of the Political and Consulting Committee, supervisors of political conduct and public media should be invited to testify to the process. The process should be supervised and testified to by official notarization institutions. The result should be announced by the public media. (BMCC, 2007b)

5.2.4 Exit System

The exit scheme of economical housing refers to house resale and re-leasing. The early *Management Measures* regulated economical housing resale by applying the land user charge:

When reselling an economical house in Beijing's urban area (including eight districts – Dongcheng, Xicheng, Chongwen, Xuanwu, Chaoyang, Haidian, Fengtai and Shijingshan), the house owner should pay 10% of the official original house price as the land user charge. (Beijing Municipal Government, 1999)

This policy repaid the government with land taxes, though it had very weak restrictions on economical house resale and no restrictions on house re-leasing as states by Informant 2:

Informant 2 Many people bought economical houses for other purposes. Can you see those apartments? (He pointed to the building next to his balcony) They were bought by the same people or company, I'm not very sure. However, I'm sure all houses have been rented out. My neighbour applied for his economical house at the same time with me, kept it vacant for a year and sold it in 2003. The policy didn't strictly regulate reselling economical house at that time. You only need to pay 10% of the original house price to the government as tax. But people always earn huge profits through this process. My neighbour sold his house for 5,000 yuan per square meter, but the original price was 2,650 yuan per square meter. He earned 200,000 yuan at least.

The *2007 Management Measures of Economical Housing* became strict on the exit system:

Economical housing is only for the living needs of applicants. It is proscribed to re-lease, lend out the house or for any purpose other than living. Economical houses purchased within five years are not allowed to be sold on the housing market. Houses should be sold back to the affordable housing management office at the original house price with considerations of depreciation and price level. Economical houses owned for five years could be sold on the housing market. The house owner should pay land user charge in proportion to the price difference between the regular market housing and economical housing in the same area.
(Beijing Municipal Government, 2007)

The *2008 Notice of Economical Housing Resale Issues* further stated that "the economical house owner should pay 70 per cent of the profits as the land user charge" (BMCC, 2008a).

Informant 9 generalizes the changes of the economical housing exit system on two aspects and shares his opinions:

Informant 9 Recently, regulations on house resale have changed in two ways. First is on the profit. In the past, when you sell your economical house on the market, you only have to pay 10% of the original house price to the government, but now you have to pay 70% of the profits. For example, if you buy a house for 300,000 yuan from the government, and sell it for one million yuan, you simply have to pay 30,000 yuan in the past no matter how high the new price is, but now you must pay 500,000 to the government. Second is on the resale time, now you can't sell your house on the market but only sell it back to the government for the original price within five years of purchasing. However, under the new policy, no one is that stupid to sell the house back to the government, it's always better to keep the house even if you don't live in there, and sell it after five years when housing price gets higher.

5.3 Double-Limit Housing

5.3.1 Priority Group

Since double-limit housing was a new affordable housing program that was initiated in 2007, its regulations were relatively strict and integrated. Similar to the new economical housing policy initiated in 2007, double-limit housing favours families with genuine housing needs:

The following families have priorities to buy double-limit houses: dismantled or relocated families caused by historical neighbourhood reconstruction and protection, environmental development and other major construction projects; families with elders (60 years old), seriously disabled people, seriously sick patients, veterans, key special-care recipients and families that have voluntarily given up their economical housing qualifications. For other qualified application families, priorities of purchasing

houses should be given to families with no houses. (Beijing Municipal Government, 2008)

As a veteran, Informant 7 has priorities to select houses:

Informant 7 Immediately after I got the qualification, Xuanwu District had a batch of houses, about four hundred. Since I was a veteran, I had priorities to select houses. Other preferential groups included relocated households due to building demolition and families who had seriously disabled members, altogether forty people.

However, some applicants feel that it is not fair for applicants from the priority group to get better houses and leave the poorly designed houses for other applicants:

Informant 6 Recently, a huge percentage of double-limit houses have been distributed to people whose houses are dismantled by the government because of urban development. They usually get better houses in terms of size, design and more sunshine. Many other applicants go through several procedures to apply, but aren't lucky enough to win the draw. Even people, who are lucky like us, have no other choice but to buy the left poorly designed houses. I hope the housing policies could adjust the percentage of houses for dismantled households and regular applicants.

5.3.2 Application & Examination Processes

Similar to the other two types of affordable housing, double-limit housing initiated application criteria based on the number of family members (Table 10) and a three-level examination & two-level announcement management program in 2008. (Beijing Municipal Government, 2008)

Table 10: Application Criteria for Double-Limit Housing

Family Members	Family Annual Income	Current Per Capita Housing Usable Area	Total Family Assets
Three and below	88,000 yuan and below	15 sq. m.	570,000 yuan and below
Four and above	116,000 yuan and below	15 sq. m.	760,000 yuan and below

Source: BMCC, 2008.

In comparison to the previous loose economical housing regulations, some informants show their confidence with the double-limit housing management and believe unqualified applicants will be eliminated:

Informant 9 The current double limit housing policy is stricter and better than previous economical housing policy. The BMCC officers could easily check if there is any house under the name of application family members, no matter what type of houses. This couldn't be done ten years ago when the internet was not prevalent. Other strategies to check the applicants' qualification include: personal income check through taxation administration; total family assets check through banks, both savings and stocks could be tracked; the Beijing Traffic Management Bureau may help to check cars owned by the applicant's family members. But the gray income is very difficult to be checked. Actually, though it's not perfect, the current policy of qualification examination is quite effective. I know some staffs of our school were found out cheated in the application. The result was quite serious. Their names were put in the black list. They can't apply for any affordable housing within five years. Even worse, it may affect their fames and our school's image.

In terms of policy implementation, Informant 7 shares his experiences with the double-limit housing application and examination processes. His experiences prove that the three-level examination & two-level announcement management

program has implemented quite well in reality. Nevertheless, he indicates that the indoor examination is perfunctory. Informant 6 further verifies to this statement:

Informant 7 I applied for double limit housing on October 2008. After I submitted the application form, the Office examined my information by calling our company to verify to my salary. Then, two officers came to my house for an indoor examination. It only took five minutes, just looking around and calculating the house area by their eyes. After that, they announced my application information by putting two posters on the walls for seven days: one was near the gate of our community, the other one was in our apartment building. The posters showed some basic information such as family income, total assets, house information and family members. It's called the first announcement, which was for the convenience of my neighbours to verify to my qualification. Then the Office put posters on Beijing Youth Newspaper as the second announcement. It showed my name, resident identification number, my company's name and my current house area. This announcement was for my colleagues or my acquaintances to verify to my qualification. Since no one said my bad words, I finally passed the examination on last December. The whole examination process lasted for two months, which was quite a long time.

Informant 6 Our neighbourhood government did the indoor examination. By visiting the applicant's current house, it aims to check whether the information provided by the applicant is the same with reality. In our neighbourhood, officers didn't visit us. We sent them some pictures of our house. I don't know how it worked in other neighbourhoods. But our indoor examination was not strict, maybe because there were not

too many applicants in our district and the officers to some extent knew the applicants' housing situations.

No matter how strict the regulations may seem to be, there are always ways for unqualified applicants to overcome the difficulties and take advantage. Informant 8 who currently owns a house, though it was still under his father's name, has applied for double-limit housing:

Informant 8 I'm running my own business as a master for weddings. My clients pay me by cash; therefore, I don't need to pay the income tax. I usually earn 10,000 yuan per month. I own a two-bedroom within the Third-Ring Road. I got it from my parents, but the owner is still my dad. I rarely live there because it's far from my office. So I rent a high-standard two-bedroom somewhere close to my work. It costs me 4,500 yuan per month. But if you check my official record, I'm an unemployed, single, poor guy without a house. Therefore, it's really easy to meet the criteria. I became 30 last year. Therefore, you can call me "a family", without counting in my parents. I'm 'unemployed', no house under my name, very little bank deposit and personal assets under my name.

Considering Informant 8 is still in the application process when being interviewed, his statement may not be valid evidence to prove the failure of the double-limit housing regulations. He may be eliminated in the following examination processes. However, his experiences do indicate that the new policies are not perfect. Unqualified applicants may find ways to be qualified.

5.3.3 Gaining Access to a Ranking Number for Houses

As with economical housing, double-limit housing applied lottery as the sole means to distribute ranking numbers for houses:

Before playing the lottery, the Affordable Housing Management Office of each district should announce the housing information, including house location, number of houses for allocation, time limit for the housing project, house type, size and price, deadline and location of application for playing the lottery etc.

The Office of each district is in charge of carrying out the lottery to determine the order of selecting houses. Deputies of the National People's Congress, commissioners of the Political and Consulting Committee, supervisors of political conduct and public media should be invited to testify to the process. The process should be supervised and testified to by official notarization institutions. Its result should be announced on the government's website of each district or by the public media. (BMCC, 2008b)

Admittedly, playing the lottery is a much fairer and more efficient program than lining up. Informants still show their discontentment. They think the process is not transparent:

Informant 6 The order of choosing and purchasing houses depends on the lottery. However, in our district, no one knows who, when and how to play it. Our neighbourhood government only tells us the result – our ranking number, but doesn't say anything about its process.

Informant 7 has similar experiences. He mentions that the implementation of playing the lottery is inconsistent:

Informant 7 We don't know how the Office plays the draw. We only know the result. I heard that last time on May 2008, the Office played the lottery publicly. All Xuanwu district applicants were invited to the Office and watched a big electronic

screen on the wall. Officers pushed a button and then every applicant' name and a corresponding number randomly showed on the screen. It is fair, because people can't cheat by this way. I'm wondering why they don't keep on doing it.

5.3.4 Exit System

Different from economical housing, double-limit housing only places restrictions on house resale:

Double-limit houses purchased within five years are not allowed to be sold on the housing market. Houses should be sold back to the affordable housing management office at the original house price with considerations of the depreciation and price level. Double-limit houses owned for five years could be sold on the housing market. The house owner should pay the land user charge in proportion to the price difference between the regular market housing and double-limit housing in the same area. (Beijing Municipal Government, 2008)

BMCC further stated that "the double-limit housing buyers should pay 35% of the price difference between regular market housing and double-limit housing in the same area when reselling houses." (BMCC, 2008c)

5.4 Conclusion

By comparing the interview evidence with affordable housing policies, this study reaches some conclusions regarding the inequality of gaining access to affordable housing.

First, within the three types of affordable housing, economical housing that was the first to be initiated has the most serious inequality issues. Informants show discontentment with the existence of priority groups, loose and unclear application criteria, lack of qualification examination, lack of regulations on the

ranking numbers for houses and the housing exit system. However, ever since economical housing policies developed since 2004, the inequality issues have lessened. Therefore, the housing inequality issue should be analyzed from a developing perspective.

Second, there is a tendency that all the three types of affordable housing are developing into the same management program. This program consists of an application criteria based on the number of family members, a three-level examination & two-level announcement management program to verify to the applicants' qualification, applying lottery to determine the order of selecting houses, and the strict exit system to regulate house resale and re-leasing. This program favours applicants who are in genuine housing need. Informants show their satisfaction with policy improvements and mention the current affordable housing policies are much stricter and better than the previous ones. However, they also feel that policy implementation is not running very well. Transparency of the whole application, examination and allocation process is the major concern.

Third, affordable housing has gradually changed its function from welfare to guarantee in the past decade. It used to favour civil servants, employees of public institutions and teachers. However, some of them are not in the low and middle-income group who have genuine housing needs. Current affordable housing policies have narrowed the range of priority group to residents in genuine housing need and put strict restriction on applicants' financial and housing status, these efforts have made affordable housing a real social guarantee for low and middle-income families.

Fourth, both qualified and unqualified applicants have applied some strategies to gain access to affordable housing. Overall, social networks (*guanxi*) play a weaker role than money pay offs in this process. The qualified applicants are inclined to pay a little money for the convenience or choosing a better house, whereas the unqualified applicants are more likely to use strong networks and pay large sums of money to be qualified for an affordable house.

As a final point, this study has summarized various inequality issues of affordable housing. Lack of policy regulations and poor implementation are the major causes of these inequality issues. Table 11 specifies these issues from the three aspects of the government, real estate companies, applicants for the two periods of 1998-2007 and 2007 to present.

Table 11: Inequality Issues of Affordable Housing

	1998 – 2007	2007 to Present
Government	Affordable housing is only for applicants who have Beijing permanent urban <i>hukou</i> .	Not Changed.
	The low-rent housing allocation is mainly for applicants from the priority group.	Not Changed.
	Civil servants, teachers and employees for public institutions have priorities for economical housing without income restrictions.	They are eliminated from the priority group.
	The income restriction for applying economical housing is family annual income should be less than 60,000 yuan.	Strict regulate family income, current housing status and family assets according to the number of family members.
	Lack of means to examine the applicants' qualification.	There are several new strategies to examine the applicants' economic and housing status, and the three-level examination & two-level announcement program may effectively prevent unqualified applicants.
	Lack of restrictions on economical housing resale and re-leasing.	Strict regulate resale and re-leasing of economical housing.

	1998 – 2007	2007 to Present
Real Estate Companies	Build big houses that real low and middle-income family cannot afford.	No more big houses, housing size limited to 90 square meters.
	Each company chooses their own way to distribute ranking numbers for houses based on their interests that makes the process in a mess.	Lottery becomes the only way to determine ranking numbers for houses. The Affordable Housing Management Office of each district takes the place of real estate companies to be in charge of it. However, the transparency and inconsistent implementation of this process is still a concern.
	Real estate companies or their employees secretly keep some houses to sell and earn profits by asking the buyers for commission charges.	It may not exist anymore because the government has taken real estate company's place to be in charge of housing allocation.
Affordable Housing Applicants	Some applicants lie about their incomes and ask their employers for fake income certificates.	It may lessen because the government has applied several strategies to examine the applicants' qualification.
	Residents who do not have Beijing <i>hukou</i> use social networks (<i>guanxi</i>) or money pay offs to gain access to affordable housing.	It may lessen because the government has applied restrictions on house resale. But for those that the real house owner and the name on the property ownership certificate are different such as Informant 3, there is lack of regulations.
	Some higher income residents apply strong networks and paying large sums of money to gain access to economical housing.	It may still exist.
	Some qualified applicants buy ranking numbers from house number dealers for the priority to select better houses.	It may not exist anymore because of the new strict regulations on ranking numbers for houses.
	Applicants of the priority group pick houses with better layout and more sunshine, leaving the poor designed houses for other applicants.	Not Changed.

6 POLICY RECOMMENDATION

Chapter 6 provides international experiences by drawing lessons from Hong Kong and Singapore and makes policy recommendation for Beijing.

6.1 Lessons from other Regions

6.1.1 Hong Kong

The Hong Kong government launched the public housing program in 1954. After 50 years of development, Hong Kong not only continues to provide large-scale public housing, but also provide public housing residents with good quality services. (Wang, 2006)

Hong Kong Housing Authority (the Authority) has the mission to provide assistance to low-income families who find private rental house unaffordable. It operates some 683,700 public rental housing units in 194 housing projects. (Hong Kong Housing Authority, 2006) As Table 12 shows, almost 50% of the Hong Kong population lives in public housing not tradable on the market. According to the 2008 census, 29.4% of the total population lives in public rental flats, and 18.4% lives in the Authority subsidized sale flats. Besides, there used to be a public temporary housing program before 2001 to help families with housing difficulties caused by natural disasters.

Table 12: Hong Kong Distribution of Population by Type of Housing

1 st Quarter	1998	2003	2008
Public Permanent Housing	49.4%	49.5%	47.8%
- Rental Flats	37.5%	30.9%	29.4%
- Subsidized Sale Flats	11.9%	18.6%	18.4%
Private Permanent Housing	48.5%	49.6%	51.6%
Public Temporary Housing	0.3%	-	-
Private Temporary Housing	1.8%	0.9%	0.6%

Source: Hong Kong Housing Authority, 2008.

The clear housing policy goal and continually improving access and exit schemes are successful experiences of Hong Kong public housing. (Wang, 2006) Applicants for public housing should register on the waiting list, and go through examinations of age, number of family members, income, total assets, current housing status and years of living in Hong Kong. (Cui, 2008) An important regulation is that applicants for public housing should not own any type of housing. Housing allocation follows the applicants' order on the waiting list. The Authority announces the changes of waiting list on a daily basis. Seniors (60 years and older) have priorities to be allocated with public housing. (Tong, 2007)

As stated by its report, "the Authority has to ensure that public housing subsidies are available only to families in genuine need, and that the continuing needs of those living in public rental housing are regularly reviewed and properly assessed." (Hong Kong Housing Authority, 2006:4) This mission is achieved through two major policies – the *Housing Subsidy Policy (1987)* and the *Policy on Safeguarding Rational Allocation of Public Housing Resources (1996)*. According to the *Housing Subsidy Policy*, "tenants who have resided in PRH for 10 years or more are required to declare household income at a biennial cycle". (Hong Kong Housing Authority, 2006:4) The *Policy on Safeguarding Rational Allocation of*

Public Housing Resources regulates “households with income exceeding three times the Waiting List Income Limits and net asset value exceeding the prescribed asset limits, or who choose not to declare their assets, are required to vacate their flats”. (Hong Kong Housing Authority, 2006:4) The exit program of high-income tenants is quite effective. During the last decade, about 185,100 tenants left the public rental housing and purchased houses with the help of home ownership programs subsidized by the Authority. (Hong Kong Housing Authority, 2006)

6.1.2 Singapore

The Singapore public housing model has been widely accepted as a success. The Housing and Development Board (HDB) is the main agency for implementing public housing policies. In 1997, about 80 per cent of the population owned or rented a flat developed by the HDB. (Special Unit for South-South Cooperation, 2000) Through initiating the ‘Home Ownership for the People’ program introduced in 1964 that aimed to provide and assist people to purchase low-cost flats, Singapore had established 500,000 public housing units by 2003, and more than 90 per cent of the population owned their houses. (Cui, 2008)

Singapore has established classified housing programs for different income groups. It puts high property tax on the 3% rich population; provides public housing with controlled size and price to the 80% low and middle-income families; provides government subsidized, second-hand and small size (60 to 70 square meters) houses to the 8.5% households who have financial difficulties for

purchasing; and offers second-hand and small size (about 42 square meters) rental houses to the 8.5% lowest income households. (Cui, 2008)

“Purchasers of public housing have to meet the criteria laid down by the HDB. Such conditions include Singapore citizenship, non-ownership of any other property, owner-occupancy, a minimum family size of two, and household incomes that fall below the income ceilings.” (Special Unit for South-South Cooperation, 2000:19) The HDB has raised the income ceilings frequently. Now about 90 per cent of the Singapore’s population qualify for subsidized public housing. (Special Unit for South-South Cooperation, 2000)

Public housing allocation used to follow the rule of “first come, first serve”. Applicants should apply for houses in one district as they choose and register on the waiting list. Since 1989, the HDB has introduced a “build-to-order program” to determine the number of public housing units to be developed. The HDB announces a public housing development plan in each season. Applicants could register and play the lottery for qualification. Those who win the lottery should pay a housing deposit. Within two months of paying deposit, applicants should sign a house contract with the HDB and pay 20% of the total housing price as the down payment. Houses will be built in two years. (Cui, 2008)

6.2 Recommendations for Beijing

To address the inequality issues of Beijing’s affordable housing, this research suggests the Beijing government improve the affordable housing management in four ways: clarify the mission and objectives, improve the

classified affordable housing provision system, regulate the policy implementation process, and introduce market strategies.

6.2.1 Clarify the Mission and Objectives

The study suggests Beijing's affordable housing authorities clarify their mission and objectives in providing affordable housing. Government has responsibilities to make sure that low and middle-income families have decent houses to live. However, this statement is not equal to government to ensuring that every family owns a house. In the Beijing's case, the government has provided very few low-rent houses and a large proportion of subsidized houses for purchasing (economical housing and double-limit housing). In the absence of a well-developed management system, economical housing and double-limit housing have become a scarce resource of which many people earn profits.

6.2.2 Improve the Classified Affordable Housing Provision System

Understanding its mission and objectives, Beijing should improve the classified affordable housing provision system in three ways:

First, provide more affordable houses to Beijing's low and middle-income families. Compared to Hong Kong and Singapore, the affordable housing program in Beijing has covered a relatively small proportion of Beijing's urban residents - only 11% of Beijing's urban residents have received affordable housing subsidies or affordable houses, whereas the percentage in Hong Kong is about 50%, and in Singapore it is up to 85%.

Second, public rental housing should be the most important program. Under the current system, low-rent housing has been provided much less than the subsidized housing for purchasing, though the former has the fewest inequality issues in the housing application and allocation processes. Beijing should put more efforts on establishing the public rental housing program to prevent housing inequality issues and provide rental houses for residents in genuine housing need.

Third, apply programs to resolve the housing difficulties of the “sandwich class”. There used to be a plan of cost rent housing program introduced by the Beijing government in 2007 for the “sandwich class” who are not qualified for low-rent housing and cannot afford economical housing. However, this program has not been initiated until now. The Beijing government should reconsider this program under the whole guaranteed affordable housing system and speed up its implementation.

6.2.3 Regulate the Implementation Process

Beijing’s affordable housing authorities should regulate the policy implementation process in two ways:

First, the Affordable Housing Management Office of each district should strictly conduct the examination process. In some districts, the indoor investigation has not been implemented well. Some officers may not even pay a visit to the applicants’ houses to verify to their eligibility. Beijing should put more effort on supervising the policy implementation of the examination process in order to exclude ineligible applicants effectively.

Second, the affordable housing allocation process needs more transparency and consistent implementation. The Affordable Housing Management Office of each district should follow through the allocation procedures as stated by the policy. The public media, official notarization institutions and deputies of the public should participate and supervise the process at all times. The study also recommends the Office play the lottery consistently in the same way. The case in Xuanwu District - inviting all applicants to testify to the process (as stated by Informant 7) - may be a good model to follow.

6.2.4 Introduce more Market Strategies

Except for providing affordable housing, the Beijing government should consider more market strategies to resolve the inequality issue.

First, apply a variety of financial assistances to families with housing difficulties. In consideration of the huge population in Beijing, it may be impossible for the Beijing government to build and provide affordable houses to all Beijing's low and middle-income families. Beijing could provide rental subsidies, low interest rate loans to low and middle-income families and encourage them to find houses on the market.

Second, reduce the housing investment demand to lower the market housing prices. The high PIR of market housing indicates that it is not affordable for most Beijing's residents to purchase houses on the market. The Beijing government should apply financial strategies such as putting heavy tax on purchasing a second house and increasing the rate of down payment to reduce the housing investment demand.

Third, introduce housing strategies for residents without Beijing urban *hukou*. Because of its social guarantee character and the Chinese *hukou* management system, the affordable housing program is only provided to local residents with Beijing urban *hukou*. Nowadays, however, more than 25% of the total population in Beijing are migrants who do not own Beijing urban *hukou*. Their housing needs have become more and more serious and have affected the interests of local residents in accessing affordable housing. Therefore, the study suggests Beijing consider strategies such as employer-provided housing and housing subsidies to address the housing difficulties of migrants.

7 CONCLUSION

This project analyzes the effects of inequality on Beijing's urban low and middle-income families in accessing affordable housing. It hypothesizes that Beijing's affordable housing policies create a situation where residents with more money, social networks (*guanxi*) and Beijing *hukou* are more likely gaining access to affordable housing.

By calculating the PIR and affordable housing supply & demand, the research finds that with market housing getting more and more unaffordable from 2004, many people with average income or higher turned to economical housing, however, affordable housing supply has not even met the demand of low and middle-income families with genuine housing needs. The exceptionally high demand makes the supply & demand conflict more serious and leads to inequality. This study also proves there is a "sandwich class" who are not qualified for low-rent housing and cannot afford economical housing.

By comparing the interview results with affordable housing policies, this study comes to the following conclusions. First, economical housing that was the first initiated affordable housing program has the most serious inequality issues. Second, there is a tendency that all the three types of affordable housing are developing into the same management program that may prevent inequality largely. Third, in the past decade, affordable housing has gradually changed its function from welfare to guarantee in order to favour families in genuine housing

need. Fourth, both qualified and unqualified applicants have applied some strategies to gain access to affordable housing, social networks (*guanxi*) play a weaker role than money pay offs in this process. Finally, this study summarizes various inequality issues in the affordable housing application and allocation processes, some of those have been eliminated with the initiation of new affordable housing policies since 2007, whereas some still exist. Lack of policy regulations and poor implementation are the major causes of inequality in accessing housing.

Drawing lessons from Hong Kong and Singapore, this research suggests the Beijing government clarify its mission and objectives in providing affordable housing, improve the classified affordable housing provision system, regulate the implementation process, and introduce more strategies to support market entry by low-income households.

At the same time, this research does not propose big changes to the current affordable housing policies in Beijing. Its major contributions are analyzing the housing price-to-income ratio in Beijing, providing the first hand interview evidence with Beijing residents and analyzing the changes of affordable housing policy documents in details.

Findings of this project are of course restricted due to the limitation of resources, such as time, funding and efforts. The interviews may not well represent all low and middle-income residents' opinions.

The evidence and findings of this project lay a good foundation for future research. Potential research areas for the future could be an intensive

ethnographic study on housing inequality issues in the affordable housing application and allocation processes by applying multiple methods such as surveys, interviews and observations; study on the role of work units in pursuing housing in recent years; and a comparative study of all types of housing inequality.

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