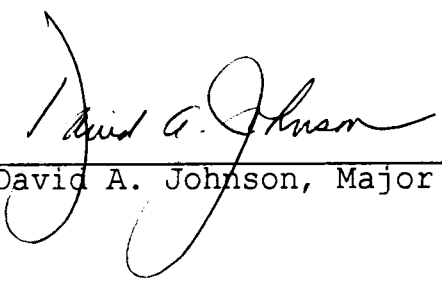
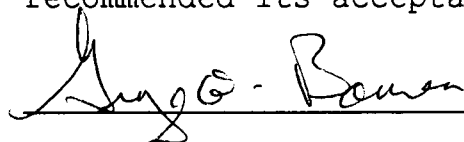


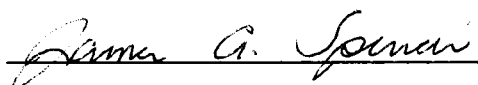
To the Graduate Council:

I am submitting herewith a thesis written by Yan Anny Lin entitled "Rent Adjustment and Housing Commercialization: A Study of Chinese Housing Reform Policy." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Planning.

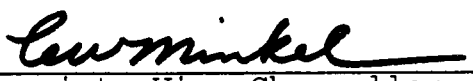

David A. Johnson, Major Professor

We have read this thesis and
recommended its acceptance


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Rent Adjustment and Housing Commercialization:
A Study of Chinese Housing Reform Policy

A Thesis
Presented for the
Master of Science Degree
The University of Tennessee, Knoxville

Yan Anny Lin
December 1996

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Special appreciation goes to my family, here and in Shanghai, for their great love and continuous efforts to support me throughout this study.

ABSTRACT

Chinese housing reform is a political and economic crusade initiated by the Chinese government to deal with the urban housing crisis and to accelerate the privatization process. Before 1978, the Chinese government was responsible for building, allocating, and maintaining housing for urban workers. The concept of housing reform is to eliminate the housing allocation system by promoting home ownership in Chinese cities. In this thesis, I have studied and observed Chinese housing reform in two major areas: housing commercialization and rent adjustment. The purpose of this research is:

1. to analyze and discuss housing reform policies, reform strategies, and their effectiveness in order to assist future development of Chinese urban housing sector;
2. to introduce Chinese housing reform to the scholars in the United States.

This thesis is a case study which is based on the improvement of housing conditions in Shanghai. The assumption of the study is that if Shanghai, the city with the largest population, the highest density and the most intense housing shortage, shows considerable improvements in housing after reform, we can say that the housing conditions

in other Chinese cities will also be improved as well.

The materials of the research are obtained from both the United States and China. Two Chinese scholars and their assistants have dedicated a lot of time and effort to gathering data for this research. Fax, telecommunication, mail and Internet are used to facilitate the research. Also, a hundred of the interviewees in Shanghai were asked to answer a series of research questions which was designed to test the satisfaction level of Shanghai residents. The conclusion is drawn based on this assumption: the samples will reflect the response of Shanghai residents. If most of the respondents agree with the effectiveness of housing reform, the housing reform is accepted by Shanghai dwellers.

Since the reform, Chinese urban dwellers have doubled per capita living space. The first three years of reform, the floor space of newly completed residential housing was four times greater than in the previous eleven years (1953-1965). Only five years after reform, 40 million urban dwellers had new homes. This means that the government houses more than 2 million households in Chinese cities in the early reform stage. Yet, there are some problems that should be solved and could be solved. It is a conclusion of the thesis that the government ought to reduce the proportion of discount housing. Also, the government should set up regulations to restrain excessive profits of the commercial housing sector.

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CHAPTER I

INTRODUCTION

A. STATEMENT OF THE PROBLEMS

In China the urban housing crisis has always been one of the country's most serious problems. Housing conditions vary tremendously in China among cities and countryside, eastern and western, small cities and large cities. Before the end of 70's, housing shortage, overcrowding, and general dilapidation of housing due to the lack of resources were obviously very serious problems of the large cities in China. Especially, the twenty-one largest metropolises whose populations exceeded one million suffered more problems than other areas. Most of them were located along the east coast areas of China, such as Shanghai, Gangzhou, Beijing, and Wuhan.

Because of the socialist characteristic of Chinese government, urban housing is one part of the welfare system constituting a form of income subsidy, and it is the government's responsibility to build, maintain, manage, allot and rent to urban residents. The urban houses are mainly owned by the state. Before reforms, private housing units were a very small proportion of total housing in China

(Chu and Kwok, 1990; Kirkby, 1985, 1990). Home ownership was seriously discouraged in the Mao Zedong period, particularly during "The Cultural Revolution." The private housing sectors have been growing after the housing reform but still are relatively small. The central government administered by the State Council manages urban housing through the local level Housing and Real Estate Management Bureau, the state-owned enterprises, and the collectively-owned enterprises. The state-owned enterprises represent the public ownerships that the government provides capital to and is responsible for profits or losses for its own businesses (Chu and Kwok, 1990). The collectively-owned enterprises are the shared ownerships which are "mainly organized under the auspices of the public bodies below the county or city district government" (Chu and Kwok, 1990, p. 644).

Housing policies are carried out in three steps in China: initiating, coordinating, and implementing (Xu, 1996). At first, housing policies are initiated and determined by the central government. The provincial and district governments are responsible for providing services to the public and the other local governments. The services include policy transmission, coordination with other provinces and districts, and the adjustments of housing policies according to the local geographical features, economic conditions and social atmosphere. The city,

county, and subcounty governments are the implementation bodies of housing policy (Chu and Kwok, 1990; Xu, 1996).

In theory, each urban worker in China will have equal opportunity to obtain a unit from his or her work unit, or in some cases, if the work unit is in the "non-productive" category, such as a small clinic or a primary school, the Housing and Real Estate Management Bureau of local government will be responsible for the allocation of workers' housing. In reality, however, the housing system has not worked as planned. The housing crisis was the issue complained about and criticized by the urban dwellers, especially those who live in the large cities. The roots of the housing crisis had two parts: the development of the national economy which includes the growth of urban population and a higher standard of living, and improper urban policies (Cia, 1991).

The urban housing crisis can be seen as the results of five major factors: 1. heavy subsidies and a low rent policy; 2. biased and unbalanced investments on productive and non-productive items; 3. the inequality of housing allocation; 4. population growth and population migration; and 5. smaller family sizes (Cia, 1991; He, 1980; Kirkby, 1985, 1990; Su, 1987; Zhang, 1988). Of these five components, the first three factors were the results of counterproductive urban housing policies.

Many Chinese planners and some leaders of the central

government, believed that the housing crisis was caused only by the population growth. The central government created the "Hu Ko" system to control the development of cities and to restrain the rural population from migrating to urban areas. A "Hu Ko" is a certificate that proves one can live and work in a certain area. There are three types of "Hu Ko": a city "Hu Ko" which is for the people working and living in cities, a non-agriculture "Hu Ko" which is for people living in rural towns who have a non-agriculture job; and an agriculture "Hu Ko" which is for the rural population. Because the Chinese government subsidizes a large proportion of the cost of education, health care, food and housing for urban residents, and the state provides much better services such as construction technology and housing design, the cities are more desirable places to live compared to rural areas. It is fairly easy to transfer from big cities to towns or rural areas, but is almost impossible to do the reverse. The central government realized that the rapidly increasing urban population would worsen the urban problems and housing shortages. However, they did not realize that the major cause of the housing crisis was the urban housing policy instituted by the central government forty years ago.

After the 1949 Liberation, China became a communist country based on socialist principles. Followed the steps of the Soviet Union, the government's strategies for the

management of urban housing promoted a heavy subsidy and low rent policy (Kirkby, 1990). Three consequences were directly generated by this policy: housing shortages, housing dilapidation, and housing inequality. Housing dilapidation and housing inequality increased housing shortages. There are several points which explain why China has instituted housing reform and why China should change its housing policy from a welfare system to a market economy system:

(1) Under former housing policy, low rent could not cover the government's previous investments in urban housing. Urban housing became a heavy burden on government (Cia, 1991; Su, 1987; Xu, 1996; Ren Ming Ri Bao, various issues; Xing Ming Wan Bao, various issues). Urban workers paid only a very small amount of their income (a token fee) on housing. Research shows that in Beijing residents only paid 0.68 Yuan (9 cents in U.S. currency) per person on rent each month (Zhang, 1988), which is less than the cost of a pack of cigarettes. The city, Wuhan, where population exceeds a million, is a typical larger city in China. The residents of Wuhan only spent 2.3% of total family income on rent (He, 1980). Between 1956 to 1980, the average income of the city Changsa's households had increased 47%, but the ratio of average rent to average households incomes had decreased from 10.4% to 1.43% (see Table 1. on page 6). Table 2. on page 7 and Table 3. on page 8 show the changes of incomes

Table 1. Average Households Income and Average Rent in Changsa Between 1951 to 1980

Year	Average Rent (m ² /Yuan)	Average Living Space of Households (m ²)	Average Monthly Rent (Yuan)	Average Households Income (Yuan)	Ratio of Rent to Households Income (%)
1951	0.24	15	3.65	28.2	12.6
1952	0.28	15	4.13	32.8	12.6
1953	0.32	15	4.8	37.6	12.7
1954	0.37	15	5.54	40.5	13.7
1956	0.31	15	4.64	44.5	10.4
1958	0.29	15.2	4.51	68.3	6.61
1963	0.26	17	4.42	77.4	5.49
1973	0.19	21	3.95	97.9	5.94
1977	0.095	22.4	2.13	97.1	2.16
1979	0.095	23	2.19	114	1.92
1980	0.095	24	2.23	139.7	1.43

Source:

Cia De Rong, Urban Housing of China---Theory, Fulfillment and Reform Thoughts, China Statistical Publishing Company, 1991.

Table 2. The Changes of Chinese Urban Workers' Wage and Rent Between 1952 to 1989

Year	1952	1956	1963	1973	1977	1989
Average Workers' Annual Income (Yuan)	445	601	576	587	576	1,935
Average Workers' Monthly Income (Yuan)	37	50	48	49	48	161.2
Workers' Wage Increased over 1952 (%)	0	35.1	29.4	31.9	29.4	334.8
Monthly Rent (m ² /Yuan)	0.30	0.21	0.16	0.14	0.13	0.13
Workers' Rent Decreased Since 1952 (%)	0	30	46.7	53.4	56.7	56.7

Source:

Cia De Rong, Urban Housing of China---Theory, Fulfillment and Reform Thoughts, China Statistical Publishing Company, 1991.

Table 3. The Proportion of Per Capita Living Expenditure and Its Composition of Urban Households

Item	Amount of Expenditure on Items by Household			Percentage of Expenditure on Each Items (%)		
	1982	1983	1984	1982	1983	1984
Total Monthly Per Capita Livelihood Expenditure of Urban Households (Yuan)	39.25	42.16	46.62	100.00	100.00	100.00
Foods	23.02	24.96	27.02	58.65	59.21	57.97
(Grain)	5.06	5.13	5.26	12.89	12.17	11.26
(Tea, Wine, Cigarettes)	2.07	2.23	2.53	5.27	5.29	5.43
(Subsidiary Foods)	12.58	13.84	15.08	32.05	32.83	32.35
Clothing	5.64	6.13	7.24	14.54	14.54	15.53
Daily Consuming Items	3.62	3.81	4.22	9.22	9.04	9.06
Rent and Utilities	1.01	1.12	1.17	2.57	2.66	2.51
(Rent)	0.59	0.64	0.65	1.50	1.52	1.39

Sources: China Statistical Bureau, The Summary of Statistics of China, 1982, 1983, 1984.

and rents of Chinese urban workers and urban workers' per capita living expenditure and its composition. Although urban residents enjoyed the low rent and had more purchasing power for other durable items, the nation as a whole suffered from the slowdown in the development of the urban housing sector. In 1977, the average maintenance cost of Wuhan was 2.10 Yuan per square meter. However, the annual income from rent for the government was 1.09 Yuan per square meter. The Wuhan Real Estate Company rented a total of 6.3 million square meters to its residents. As a result, in one year, the central government would lose 6.3 million Yuan by subsidizing rents in Wuhan. Under this system, the more houses the state builds, the more money the government loses (He, 1980; Tong, 1987).

In 1949, the low rent and heavy subsidy policy was appropriate for the post-Civil War stage. However, as the economy of the nation gradually stabilized and increased, especially after 1978, when economic reform caused a dramatic increase in household income, low rent policy had fewer benefits but tremendous negative influences on the national economy. Each year the central government would have to put more resources into new construction. For example, each year the central government would invest 2.5 billion Yuan into new construction of urban housing, but the annual rent of the nation was only 0.1 billion (Xu, 1996). As shown in the Table 3. on page 8, urban residents spent

ten times as much on clothing and almost four times much on tea, wine, and cigarettes than on rent.

This extreme low rent could not generate enough resources to put towards new construction, rent could not even cover the maintenance and repair costs of the existing housing sector. The low rent policy not only slowed down building new houses for urban residents but also caused the general dilapidation of the existing housing stock due to improper maintenance and repair (Su, 1987). Since low rent could not recover the costs of the necessary maintenance and management, not to mention the costs of the depreciation of building and the property tax, the newly constructed residential houses which should last at least 50 years became dilapidated after only 15 years (World Bank, 1992). Statistics shows that at the end of seventies in Wuhan, the category "dilapidated house" accounted on almost one third of the total housing stock. The category "dangerous house" was 8.77%, that was 720,000 square meters. Nearly half of the houses were in the "minor dilapidation" category. Only 13.67% of the total housing stock met the national standard for acceptable housing (He, 1980; Cia, 1991; Lee, 1988). Table 4. on page 11 shows the physical conditions of housing in Wuhan (Lee, 1988).

Moreover, most metropolises of China have long histories. The existing housing stock includes houses built centuries ago. Before the housing reform millions of houses

Table 4. Physical Conditions of Housing in Wuhan, 1979

Physical Condition*	% of Total Stock**
Dilapidated	30.21
Dangerous	8.77
Poor	1.01
Fair	46.34
Good	13.67
Total	100.00

Notes:

* No definition is given for each category by the source, except for "good," which means that housing under this category meets the state's standards.

** This includes only the housing units under the administration of Wuhan City Realty Company and not the total housing units in Wuhan.

Source:

Yok-shiu F. Lee, "The Urban Housing Problem in China", The China Quarterly, Vol. 115, No. 4, June 1988.

in big cities were in dire need of immediate renovation.

(2) Biased investment yielded urban housing for heavy industry development. The previous urban investment policy "deliberately biased investment against the urban housing sector" (Lee, 1988, p. 389). Before 1977, the central government emphasized policies on production and neglected consuming. The slogan of that time was "production first, living condition later." Housing was regarded as a consumer item in China. Housing investment was a non-productive investment. The state's urban investment policy promoted cities as productive places rather than consuming places.

The central government had emphasized heavy industry development since 1957, the urban housing sector was thus sacrificed to promote heavy industrial growth (Lee, 1988; Kirkby, 1990; Su, 1987). The urban housing sector was continually allocated only a very small proportion of the basic construction funds (see Figure 1. on page 13). From 1952 to 1978, housing investment was 34.8 billion Yuan, which was 5.8% of the national basic construction funds. Compared with developed countries, where the housing investment is 15% to 30% of the total basic construction funds, and with third world countries where the housing investment is around 10% of the national basic construction investment (Yan, 1993), the Chinese government had not taken the urban housing seriously into consideration. In 1970, urban housing investment reached its nadir. Only 2.6% of the basic construction funds went into housing. Table 5. on page 14 shows the percentage of capital basic construction funds allocated to urban housing from 1963 to 1984.

There was no incentive for individual work units to develop residential housing for their workers because the cost of maintenance and repair became a hardship for individual work units. Many work units were more likely to use already reduced subsidies for "productive" investment items which can get higher profit than housing projects.

(3) The government's subsidy depended on the sizes of living space, but not on income or family sizes. The situation in

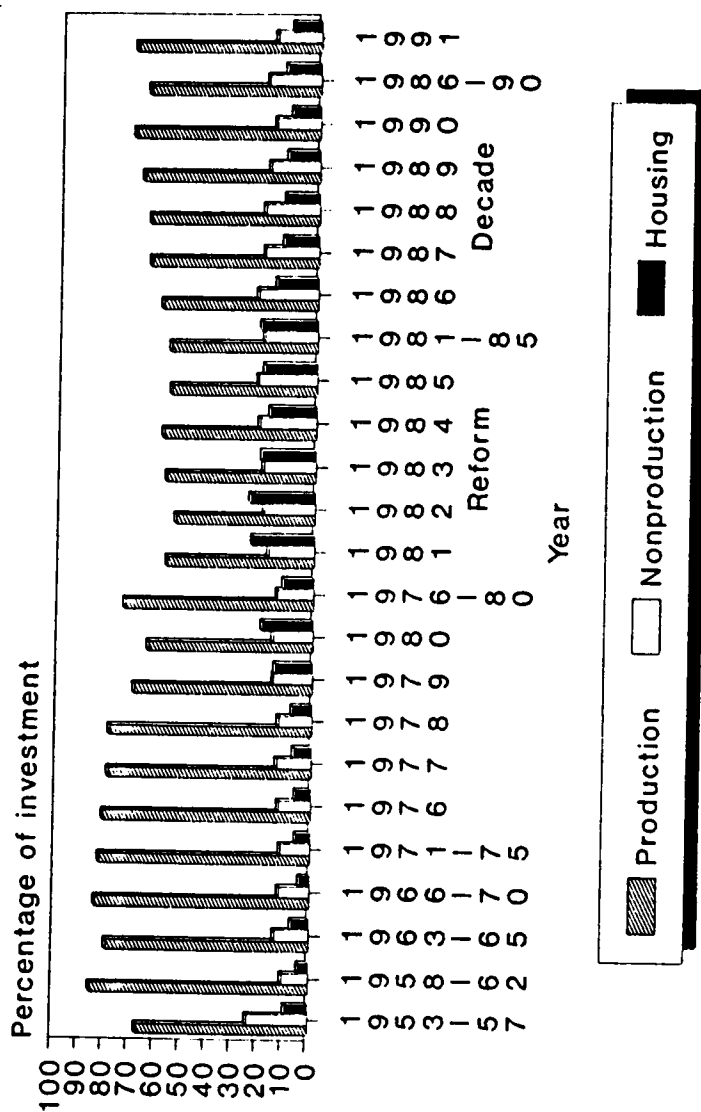


Figure 1. Basic Construction Fund in Production, Nonproduction, and Housing Sectors in Urban China, 1953-1991
 Source: Xiang Ming Chen and Xiao Yuan Gao, "Urban Economic Reform and Public-Housing Investment in China," *Urban Affairs Quarterly*, Vol. 29, No. 1, September 1993.

Table 5. Percentage of Capital Basic Construction Funds Allocated to Urban Housing Between 1953 to 1984

Year	% of Basic Construction Funds on Productive Items	% of Basic Construction Funds on Non-productive Items	
		Total	Housing
1953-57	67.0	33.0	9.1
1958-61	85.4	14.6	4.1
1962-65	79.4	20.6	6.9
1966-70	83.8	16.2	4.0
1971-75	82.5	17.5	5.7
1976-80	73.9	26.1	11.8
(1978)	79.1	20.9	7.8
(1979)	69.8	30.2	14.8
(1980)	64.3	35.7	20.0
1981	57.0	43.0	25.1
1982	54.5	45.5	25.1
1983	58.3	41.7	21.1
1984	59.7	40.3	18.1

Source:
Su Xing, The Urban Housing Problems of Our Country, 1987.

China was that the bigger house you got, the more subsidies you got (Lee, 1988). This situation stimulated people to occupy more living space than they could use. Further more, without standards to allocate housing, the allocation of housing was more influenced by the power and the positions of people rather than by the needs or by the government and economic regulations. People with high positions would have the chance to get more houses for their families and relatives without paying substantial rents. This situation increased tension between the demand for and the supply of housing. For example, last decade, the central government invested 230.2 billion Yuan to construct 1 billion square meters of residential housing for urban dwellers. According to the statistics, each urban dweller would have at least 4 to 5 square meters of living space (Wang, 1994). Actually, millions of people still lived in houses in which three generations share one room. In Shanghai, 0.4 million delayed their wedding because of the housing shortage, and 0.45 million households had less than 4 square meters per person in 1985 (Lio, 1996). At the end of 80's, more than 5.4 million urban households in China, which were 20% of the total urban population, were classified as "no room household" ("no room household" means that a family has to share a room with other family or has to stay separate in the public dormitory or stay with family members and relatives) (Cia, 1991). Moreover, the difference of benefits

between the state-owned work units and the collectively-owned work units created a unequal situation even in a same city. The state-owned work units had much better housing, healthcare and wages. On the other hand, the research shows that the government allocates much less or no subsidy to the collectively-owned work units for housing (Lee, 1988; Lee, 1993). The workers in collectively-owned work units, who also had lower wages and less job security, had to manage their own way to find houses or wait for the allocation from the local Housing and Real Estate Management Bureau.

(4) Population growth and migration of rural dwellers are the obvious factors causing housing shortage. China has a population of 1.2 billions. Compared with 1949 when only 10% of the population were urban residents, city dwellers now are 31% of the total population (Su, 1987; Chu and Kwok, 1990). Most of the urban residents are clustering in east coast area which includes metropolises like Shanghai, Tianjing, Guanzhou, Hunzhou, Qingdau and Dialian (see Figure 2. on page 17, The Distribution of Chinese Population and Chinese City). There were twenty cities in China where populations exceeded one million in 1984. Although millions of units were built for urban dwellers, the houses were still far less than enough. Furthermore, because of the influence of Mao's strategy "more people more power," the children of this era had "gradually entered the marriage and child bearing age and in 1986 an annual growth reached 25

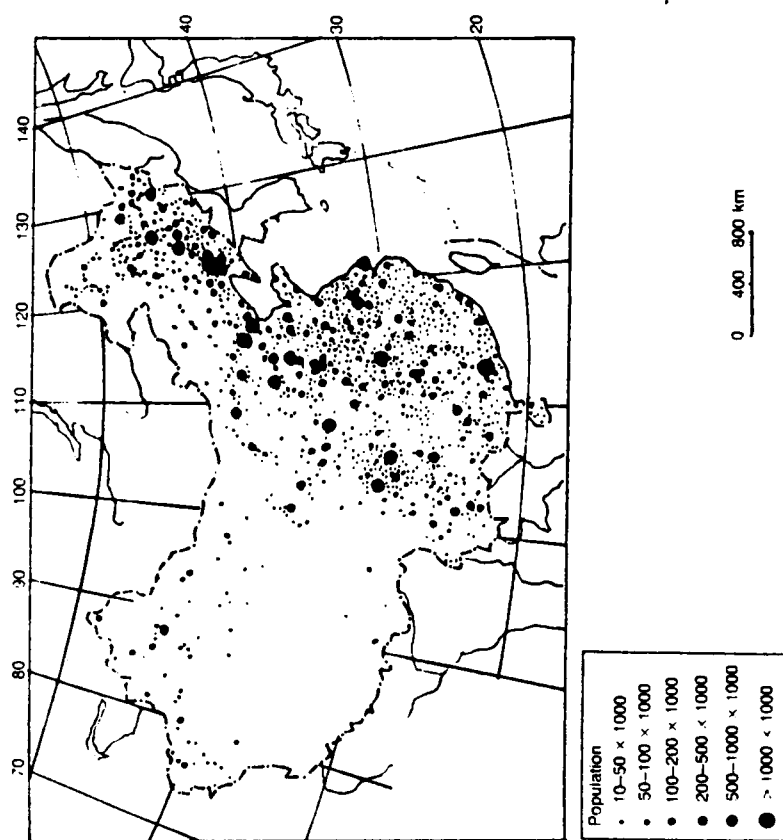


Figure 2. The Distribution of Chinese Population and Chinese City
 Source:
 Zhang Xing Quan, "Urbanization in China," Urban Studies, Vol. 28, No. 1-3, 1991

million" (Ji, 1995, p. 8).

The migration of rural residents has put more pressure on the demand for urban housing (see Figure 3. Annual Patterns of China's Total and Natural Urban Population Growth, and Net Rural-Urban Migration and Figure 4. Annual Growth Patterns of Chinese Total Population, Estimated Urban Population, and Urbanization level on page 19). After Chinese economic reform, 65% of the population growth of the twenty biggest cities in China was due to migration (Wu, 1994). From 1979 to 1981, Beijing had completed 9.85 million square meters residential housing. However, 64% of the residential housing was consumed by the increased population, only 36% of the housing could be used for increasing dwellers' per capita space (Zhang, 1988).

(5) The trend toward smaller households has increased the demand for housing. In recent decades, young couples are more likely to be separated from the parents whom they used to live with. According to the research conducted by the Qing Hua University, 60% of young couples wanted to have separate units from their parents but still within a short distance; only less than 1/3 of the couples wanted to live with parents (Zhang, 1988). In 1986 census, the average family member was 3.78 per household in urban China. Table 6. on page 20 shows the percentage of different generation household in cities Wuhan, Yantai, and Wuxi. As shown in the table, 60% to 70% of the urban household is two

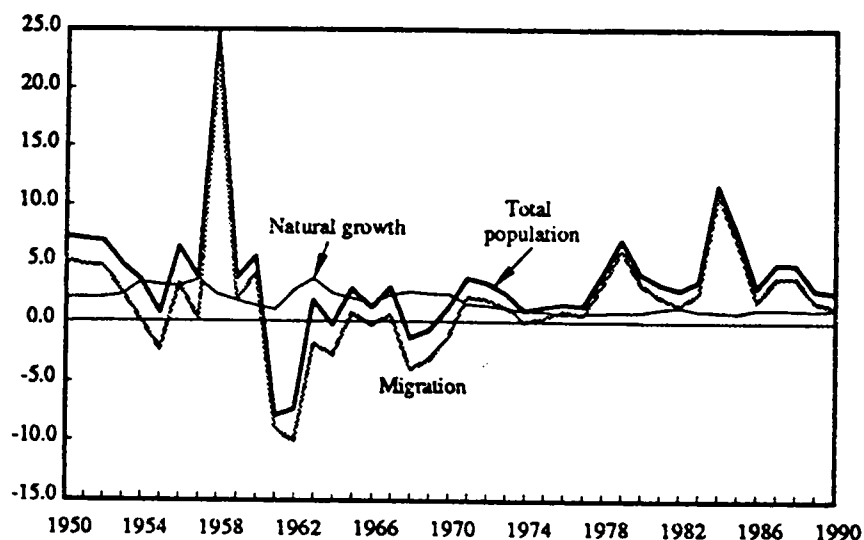


Figure 3. Annual Patterns of China's Total and Natural Urban Population Growth, and Net Rural-Urban Migration, 1950-90 (%)

Source:

Harry Xiaoying Wu, "Rural to Urban Migration in the People's Republic of China," The China Quarterly, September 1994.

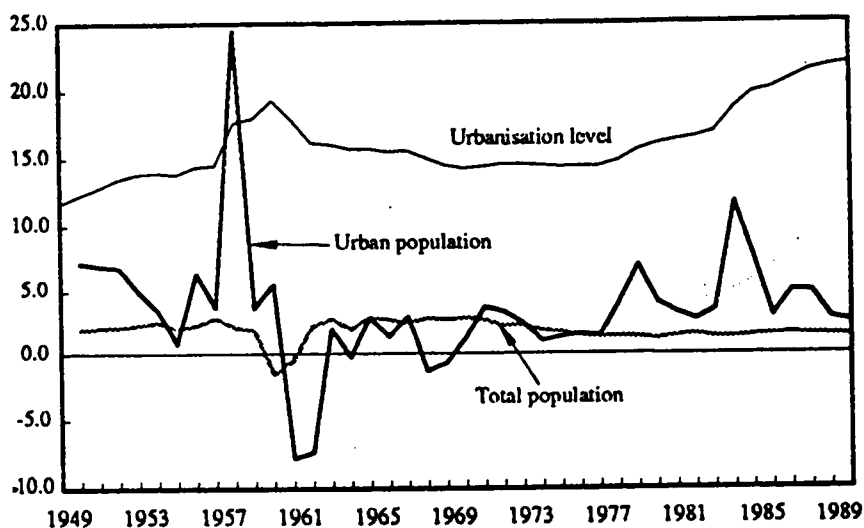


Figure 4. Annual Growth Patterns of Chinese Total Population, Estimated Urban Population, and Urbanization Level, 1949-90 (%)

Source:

Harry Xiaoying Wu, "Rural to Urban Migration in the People's Republic of China," The China Quarterly, September 1994.

Table 6. The Percentage of Numbers of Generations in Urban Households in Cities of Wuhan, Yantai, and Wuxi*

Numbers of Generations in Household	One	Two	Three	Four and Up
1. City of Wuhan	13.5%	62.5%	24.5%	-
2. City of Yantai	14.24%	70.22%	15.26%	0.26%
3. City of Wuxi	17.88%	58.04%	23.08%	1.00%

Note:

* this research is based on the samples in these three cities, it is not based on the total population of the cities.

Source:

Zhang Xan Qiao, "The Analysis of Social Factors in Urban Housing," Sociological Studies, No. 4, 1988.

generations family. Also the number of one generation households is increasing in the urban sector. This fact requires that the housing market supply more housing units with a private bathroom and kitchen. It means that even though the size of units are smaller, the total floor space is increasing.

Moreover, it is estimated that about 3 million urbanites will get married each year. If each household needs a 50 square meters unit, the government should invest 35 billion Yuan every year just for the newlyweds (Cia, 1991).

B. BACKGROUND OF CHINESE REFORMS

Economic Reform

At the end of 1978, the Chinese central government established a massive nation-wide economic reform which started from the top level of the Chinese government. In the Third Plenary of the Party's Eleventh Central Committee, Deng Xiao Ping pointed out that the future development of China should emphasize the economy of the nation and gradually switch the planned economy to a mixed planned market economy; the idea of housing reform brought up by Deng was the first time it had been broached by anybody. The new strategies, then, were to "adjust, reform, reorganize and promote" to overcome the economic predicament which were caused by "The Great Leap Forward" and "The Cultural Revolution," and to balance the relationship between production and consumption, between agriculture and industry, between light industry and heavy industry.

The open door policy and the privatization policy, were the government's major approaches to economic reform. The goal of the economic reform was to recover and reinforce the national economic power and to promote the living standard of the Chinese people. The economic reform policy was first tried in the four special economic zones (SEZ), which were the Shengzhen, Zhuhai, Santo and Xiamen areas. In the special economic zone, the government, for the first time

since 1949, encouraged investment from foreign companies and private domestic enterprises. In the same year, the central government planned to constrict the budget for basic construction investment. The budget, about 9 billion Yuan, were mainly used to raise the urban workers' wages (The Economic Factor Analysis Group of Economic, Technical and Social Development Research Center of The State Council, 1990). The median incomes of urban workers had a significant increase after the economic reform, from 602 Yuan to 705 Yuan in 1978 and 803 Yuan in 1980 (Xu, 1996). The special economic zone was overwhelmingly successful on the level of economic promotion. Shengzhen, a seaside village, became a prosperous economic model city of China. Thus, the Central Government extended the economic reform to another 14 major cities which includes the largest city in China, Shanghai.

In 1984, The Third Plenary of the Party's Twelfth Central Committee passed a measure called "Regarding the Decision of Economic Administrative System Reform" (Association of Housing and Real Estate Estimation of China, 1995; Xu, 1996). The document indicated that price was the best tool for economic adjustment. Further development should be based on the regulation of the market economy and the regulation of price (Yao, 1989). The central government also determined that the housing market should also be set up on a commercial footing and housing reform should become

an inseparable part of economic reform. The traditional housing allocation system should be transformed from welfare-oriented to market-oriented to correspond to the economic reform and the transition of national policies.

Housing Reform

The goal of housing reform is not only to solve the urban housing problems but also to eliminate the allocation system and thoroughly transfer the Chinese economy into a market economy. The Chinese urban housing reform has two distinct periods. The "experimental reform" period, which emphasized the commercialization of housing, was between 1979 and 1986. After 1986, urban housing reform was a broader range experiment which combined different levels of rent adjustment and several schemes for privatization of housing (Association of Housing and Real Estate Estimation of China, 1995). In 1980, one year after the first suggestion of housing reform by the Third Plenary of the Party's Eleventh Central Committee, Deng Xiao Ping specified the commercialization of urban housing. "The Summary of the Document of the National Basic Construction Conference," which was passed by the congress in June, was the first published housing reform policy (Xu, 1996). Four medium sized cities, Xian, Liozhou, Wuzhou and Nanning, were selected by the central government to be the test markets. Residential housing was put on the open market to

individuals without subsidies from the government. Yet, the reaction of the residents was apathetic. The price of housing was too high for urban workers who were still under a low wage system. Two years later, the central government created a new strategy called the "one third policy" to deal with this difficulty. The "one third policy" means that the government, the work unit, and the individual are each responsible for one third of the housing payment. This experiment was executed in the cities of Zhengzhou, Changzhou, Siping and Shasi. In 1984, Beijing, Shanghai and Tianjing, three major cities, joined the housing reform. Ten years later, at the end of 1995, a total of 1,093 million square meters of commercial housing (commercial house is the house which can be sold), which means roughly 22 million units, were sold in 160 cities and 300 towns (Association of Housing and Real Estate Estimation of China, 1995).

However, without the second step of housing reform, rent adjustment, the reform itself was far from a success. The majority of urban residents had no incentive to buy a unit because their rents were insignificant, compared to their incomes and the market housing prices. After the economic reform, the workers' wages were doubled or tripled. Yet, rent remained the same. The ratio of rent to household income actually declined compared with the pre-economic reform ratio (see Table 7. on page 25).

Table 7. Average Households Income and Per Capita Living Space in Rural* and Urban China Between 1978 to 1990

Year	1978	1985	1989	1990
Average Wage of Urban Workers (Yuan)	615	1,148	1,935	2,140
Average Net Income of Farmers* (Yuan)	134	398	602	630
Average Per Capita Living Space in Urban Area (m ²)	3.6	5.2	6.6	7.1
Average Per Capita Living Space in Rural Area (m ²)	8.1	14.7	17.2	17.8

Note:

* the statistics of average net income of farmers was based on samples.

Source:

John D. Friske, China Facts and Figures Annual Handbook, 1978-1992.

Some households paid less than 1% of total family income for rent (Cia, 1991; Su, 1987; Zhang, 1988). In February of 1986, the central government formed a leadership group managed by the state council to manage and guide the further housing reform. The concern of the central government was to reasonably adjust the rent from a token fee to a rent which partially covered the government's previous investments. In The First National Housing Reform Conference, which was held by the state council in January 1988, the state council announced the resolution regarding the steps of national housing reform. In the meeting, the central government decided that rents should be increased to

10 to 12 percent of urban households' income (World Bank, 1992). In June 1991, the state council again confirmed that the goal of housing reform was to help the economy transformation. The Chinese government published an announcement, "The Announcement of Executing A Continuous and Stable Housing Reform," to encourage all cities and towns to join housing reform. Five month later, the office of the state council ordered that in the next two years housing reform ought to be established in all Chinese cities and towns.

C. SIGNIFICANCE OF THE STUDY

Chinese housing reform is a social and economic movement vital to the stability of the society, and both the government and the citizens are deeply concerned about improving urban housing situations. It is the first time after several decades, for the government to admit that the market economy is the only solution for the destruction caused by the centrally planned economy. The housing reform plays a absolutely necessary role in the restructuring of the urban sector to fit the Chinese economic reform. It not only protects the government from the unlimited financial burden of providing urban housing, it also gives millions of Chinese a great hope that they can rent or even own a place in which they wish to live.

The housing reform policy not only assures the stability of the society by providing housing to the people, it also promotes the mobility of workers in the planned economy to market economy transition period. The traditional housing allocation also became a great deterrent to the economic transition of China. After the economic reform, the central government encouraged the development of small towns and rural areas to reduce the distinctions between cities and rural areas. The reform policies stimulated rapid urbanization and provoked a great rural to urban migration. Research shows that in Shanghai 2.5 million people, which was about 14% of its total population, were migrants (Li, 1994). Under the former housing system, because of the strictly controlled "Hu Ko," the migrants did not have any chance to apply for a house from the government, and there were no other housing markets available for them. Thousands of them sought train stations as their shelters. The newly migrated rural population soon became a serious social problem (see Figure 5. Rural Population Flow Into Shanghai on page 28 and Figure 6. Unemployed Rural Migrants on page 29). As reported by Li Tan, about 80% of criminal activity in Beijing was committed by migrants (Li, 1994).

This thesis will provide a thorough analysis on Chinese housing reform for overseas scholars, Chinese planners and policy makers. The study will present observations on the impacts and results on reforms from the beginning of the



Figure 5. Rural Population Flow Into Shanghai
Source: "Population Flow Into Big Cities," Beijing Review, July 18-24, 1994.



Figure 6. Unemployed Rural Migrants

Source : Li Tan, "Population Flow Into Big Cities," Beijing Review, July 18-24, 1994.

reform era to the present. Because housing reform is an experimental movement involved with both politics and economy, the policies are adjusted continually by the government. It is intended that this thesis be useful to policy makers for providing better housing for the Chinese people. Also I wish my study will be valuable to the millions of Chinese who care about the economic transformation.

D. LIMITATIONS OF THE STUDY

The social, cultural and language differences between China and the United States are obstacles to this research. Some Chinese words and terms do not have synonyms here and it is very difficult to translate them into English accurately. Because of the difference between capitalism and socialism, people who have no experience or little knowledge of socialism find it hard to understand the way systems and situations work in China.

Second, statistical data can vary in China depending on what kinds of tools people use and what methods people apply in census research. For example, the urban residents under the government's category are those who have cities "Hu Ko" and get full benefits from the government. However, there are millions of people who live in the cities without cities "Hu Ko". Especially after the economic reform, the

incentive to own private businesses has stimulated rural population to pour into large cities. The urban populations in the government's census usually exclude those migrants, and it is hard to define the real population living in cities. Moreover, in "The Great Leap Forward" and "The Cultural Revolution" period, it was a fact that some people manipulated the data to create untrue results in order to get the favor of the central leaders. This situation has changed a lot, but one can not say that it does exist. Without modern technology and facilities, some research departments do not supply accurate data. Poor management and bureaucracy also result in the same consequences. Most of all, the limitation of this thesis comes from the limited research materials on Chinese housing reform available in the United States. Although some documents have been found regarding urban housing in China, the detailed statistical data that I need in the case study has to be obtained from Shanghai. For example, to test the satisfaction of Shanghai residents on the housing reform, I designed a questionnaire for one hundred subjects. Although I believe that more subjects would yield more accurate results, because of limited time and resources, the research is limited to this number.

CHAPTER II

METHODOLOGY

A. DEFINITIONS IN HOUSING REFORM

The final goal of housing reform is to "fit the wider reform agenda, given the interconnected nature of the two" (World Bank, 1992) and to deeply and broadly change the urban housing allocation and management system from a state controlled socialist construction into a commodification and privatization system (Chen and Gao, 1993). Interviewed by overseas mail, Xu Songkuen, a political engineer and a director of the Bureau of Shanghai Construction, who has worked on Chinese urban policies for more than forty years, confirmed that housing reform is "to reduce of the burden of government, and most of all is to safely move the Chinese economy from a central planned economy to a market oriented economy." He emphasizes that to solve the urban housing crisis is only one goal of housing reform. He says, the central government intends to encourage the privatization of commerce and to extend the privatization to a deeper level. Housing reform would open a brand new housing market to correspond to the needs of the transition period. The privatization of housing would set up a new and healthy

economic circulation and would control inflation which is caused by rapid economic growth. Without housing reform, economic reform would be a superficial reform. Xu also points out that housing is a key factor in the stabilization of Chinese society. In short, in the transition period, housing reform has a great influence on the overall economic reform of China.

The research conducted by the World Bank defined four broad themes of Chinese housing reform: "a. There is a need to develop strong central macroeconomic management institutions and a framework that encourages rapid, non-inflationary growth; b. Sectoral policies are required to guide the provision of physical and social infrastructure so as to lessen constraints on other economic agents, while promoting the wider use of beneficiary financing where equity objectives and the presence of externalities do not dictate otherwise; c. An adequate 'safety net' financed by the widest possible revenue base must be provided for the unemployed, the sick, the disabled, the retired, and the poor; and d. Economic transactions should be shaped, as much as possible, by market signals generated by competitive markets devoid of barriers to trade" (World Bank, 1992, p. X).

The contents of housing reform are also summarized as follows:

1. to ease the housing shortages and raise the quality of

housing in urban areas;

2. to increase the proportion of investment in new residential development and urban renewal projects in order to enhance urban living;

3. to restrict government's role to providing housing and to decentralize and diversify the investment in urban housing from the government to the government, enterprises, and individuals;

4. to transfer the ownership and responsibility of housing services from the government to individuals. Housing will be treated as a commodity and be managed and exchanged on a commercial bases. Individuals will be responsible for rents, maintenances, and housing payments from their income or savings;

5. the government's free and automatic subsidies will be converted into a compensation according to the workers' conditions. Compensations will vary in different areas. One popular method, which is used in Shanghai and most other Chinese cities, is the "1/3 policy" which indicates that the government, enterprises, and individuals each has the responsibility of providing 1/3 of the housing payment when individuals buy a housing unit at a market price;

6. the proportion of rent to household income will be increased up to 12 percent. This method of increasing rent will multiply the government's revenues as well as reduce the factors of inflation;

7. to improve the existing allocation, management and subsidy system of urban housing. The new housing market will correspond to the market economy and the mobility of urban workers at this period;
8. most of all, housing reform will be a powerful tool to transfer the Chinese economy from a constricted central planned economy to a market planned economy with socialist characteristics (Kirkby, 1985, 1990; World Bank, 1992; Chen and Gao, 1993; Xu, 1996; Lio, 1996; Xing Ming Wan Bao, various issues).

B. RESEARCH QUESTIONS

The main questions in the thesis are focused on the influence and effectiveness of Chinese housing reform. In this thesis, first, the questions are "what, why, who, where and when" about Chinese housing reform. What is Chinese housing reform, and why does the Chinese government conduct housing reform? What is the previous housing policy and what were the problems? When did it happen, and what has happened after the reform policy was carried out? What are the strategies of the government? Does reform result in progress? Who are its supporters? Is housing reform accepted by the Chinese people? The overall problems before and after the housing reform are also stated in this research. Analyzing post-reform and pre-reform data will

clarify whether or not housing reform has improved the urban housing situation. The different types of commercial housing available on the market will be examined in the cast study. The questions of the affordability of owning and renting and of financial assistance from the government will also be examined in the next chapter. The questions of housing quantity, quality, and equity will be raised and answered. The effectiveness and influence of housing reform will be measured by the statistical data gathered from various research. The criterion for measuring effectiveness of the reform is the satisfaction level of Chinese urban dwellers. A questionnaire has been designed for this purpose (see page 93).

C. LITERATURE REVIEW

The writer has obtained some literature regarding the Chinese housing problems in English which were written by American and Chinese scholars who have experience in U.S. academies. Dr. R. J. R. Kirkby's Urbanization in China: Town and Country in a Developing Economy 1949-2000 deeply analyzes the urbanization process in China and the housing situation. He studied the impact of the housing program which is housing "commodification" in China. In Social Change and Social Policy in Contemporary China, scholars at the University of Hong Kong studied a series of reforms in

China which included housing reform in China's social context. Peter Nan-shong Lee's paper "Housing privatization with Chinese Characteristics" analyzes the suitability of privatization of housing during the reform era by "focusing on the policy formation, pilot schemes of implementation and policy outcomes." Another source of literature is periodicals of housing and urban studies and Chinese government published magazines such as Zhong Guo Guo Qing Guo Li and Beijing Review. There are many reports in these periodicals regarding Chinese reform policies as well as the housing policy. Also, many documents and resources are written in Chinese. Cia De Rong's second book of housing reform Urban Housing in China---Theory, Fulfillment and Reform is the masterpiece of the research of urban housing policy problems. He clarified ten major problems existing in urban housing directly generated from the previous housing policy. He studied housing policy from the economic angle. In the book's chapters 11 through 16, he focused on reform strategies and planning. Su Xing's Urban Housing Problems of Our Country discussed the rent and the prices of houses. Several schemes were promoted to fulfill the goal of housing commercialization after his scientific analysis. Most importantly, political engineer Xu Song Kuen and chief editor of Shanghai Housing Lio Chuen, two interviewees in Shanghai, support this research by providing the articles, newspapers, and other published materials, and "party member

study documents" such as Deng Xiao Ping's speech. Lio also dedicates the book: Shanghai Housing(1949-1990) to this research.

D. RESEARCH METHODOLOGY

This thesis is divided into four parts: introduction, methodology, the case study, and conclusion. The introduction summarizes the various resources related to the topic of this research. It includes a statement of problems which explain the general conditions of urban housing in China, the significance of the study, and the limitations of the study. The second chapter, methodology, includes the background statement and the definitions of Chinese economic reform and housing reform. Since most American readers have little experience of socialism, and are unfamiliar with the strategies and policies of a socialist country, there is a need to explain the socialist government policies. Thus, in the case study, chapter three, the content and the context of the reforms will be further explained.

The research is conducted in two ways: (1) gathering information from existing literature through the available facilities; and (2) interviewing policy makers or officials in the urban sector in China to obtain related data which is not available here. The related literature are obtained from the following resources: (1) the library of the

University of Tennessee, Knoxville; (2) the interlibrary loan provided by the UT library; (3) computer research provided by internet services; and (4) information provided by the United Nations' publications.

Chapter III, the case study, is the most important part of this thesis. Information and data was collected through various sources in China. The interviews were conducted through the overseas mail, fax, and telephone conversations. Xu Song Kuen, a senior political engineer, a director of the Bureau of Shanghai Construction, who lives in Shanghai and has worked on urban policy for more than forty years, was selected to be a interviewee of this study. Experienced in both urban policy making and urban residential construction, Xu Song Kuen has profound observations on housing reform. Lio Chuen, a former editor director of the largest newspaper firm, the Liberation Daily, in Shanghai, a chief editor of Shanghai Housing and China's Cities Leaderette, contributes his research to this thesis. Currently, Lio Chuen agreed to share his published and unpublished statistical data, including the book Shanghai Housing(1949-1990) with this study.

The largest and most important city of China, Shanghai, has been selected to be a test market for housing reform. Shanghai is the most important economic center of China, also the city has the largest population of the nation, 12 million. Overcrowding and severe housing shortages are the

conspicuous characteristics of Shanghai. The selection of Shanghai as a city for case study is based on the following assumption: if Shanghai, the city with the country's most serious housing crisis, can show significant improvement in urban dwellers' living conditions through reform, housing reform will also work well, and perhaps better, in other Chinese cities. In the case study, the two major schemes of housing reform, housing commercialization and rent adjustment, are investigated. The various types of commercial housing available in Chinese market are clarified. The steps and strategies of rent adjustment are examined in the case study.

Most of all, the effectiveness of the reform movement is judged by the satisfaction level of Shanghai residents. One hundred interviewees were selected on the busiest road in Shanghai, Nanjing Road (see Figure 7. on page 41), the mails non-stop shopping street which is called "the window of Chinese economy." The site of interview was chosen to be the Nanjing Road, since Nanjing Road was the favourite spot of both residents and tourists. Four of volunteer assistants spent two weekends to help this research project. To test Shanghai residents' satisfaction level under these conditions may produce bias; however, this overseas interview reflects some level of Shanghai residents' considerations. A series of questions were designed for this interview (see page 93, The Questionnaire). The

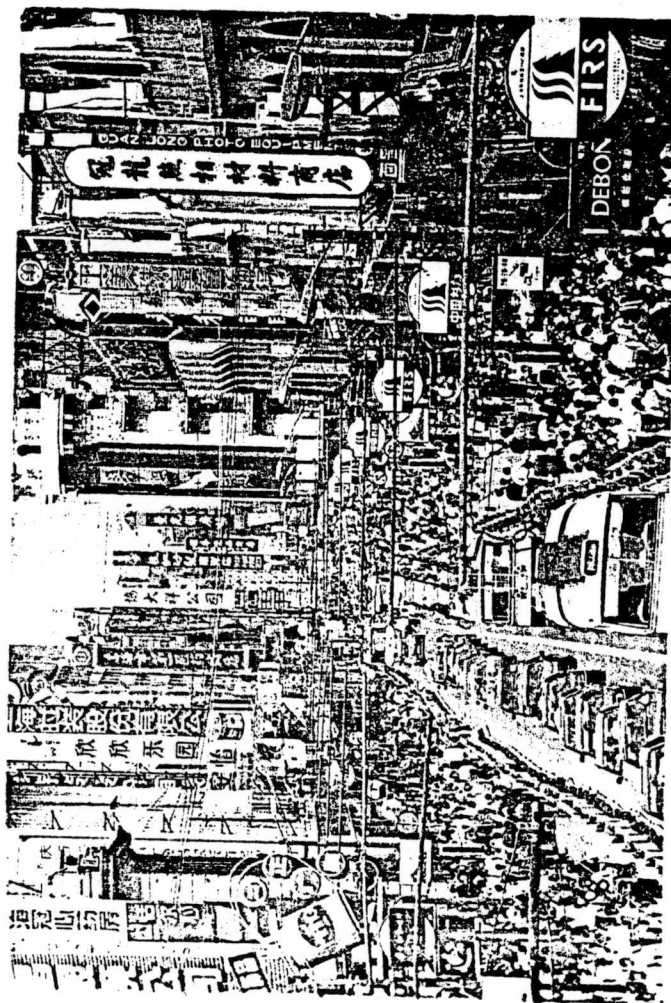


Figure 7. Shanghai Nanjing Road, the window of Chinese economy.
Source:
Sun Shuqing, "The Changing Shanghai," China Pictorial, Vol. 567, No. 9, 1995.

results are studied in the next chapter, and the conclusion on the satisfaction level of Shanghai dwellers is drawn based on the results. The ratio of satisfied to unsatisfied residents is the criterion of the test. The assumption is that if more than 50% of interviewees confirm the improvement, then, the results of housing reform could be said to be effective. However, a hundred interviewees are a small number for a large city like Shanghai. More subjects would yield more accurate results. But because of limited time and limited resources, the research must be limited to this number. By careful design the poll questions and careful choosing of the interview place, one hundred people can represent fairly accurate reactions of residents of Shanghai.

In the conclusion chapter, the overall improvements of housing reform are summarized based on the research.

CHAPTER III

THE CASE STUDY

A. BACKGROUND CONTEXT

"China's urban housing reform began in the late 1970's and early 1980's as a part of the overall urban economic reform to introduce the market economy into a centrally planned system" (Chen and Gao, 1993, p. 124). After the Third Plenary of the Party's Eleventh Central Committee, the government decided to focus its attention on economic reconstruction. Chen Yen, a vice chairman of China spoke in the same year to confirm that the market economy also works for socialist countries. He declared that "there must be two types of economy through the socialist period: planned economy and market regulated economy" (Chen, 1986). He said "over the past 60 years, there has been an important defect in the planning systems of both the Soviet Union and China. Namely, they have focused their attention on planned and proportionate development while neglecting market regulation, regulation according to the law of value which the socialist system cannot do without" (Chen, 1986). Economic reform's policies have been a stimulant of China's economic growth. The urban workers' wage and urban cost of

living rose sharply after economy reform (see Table 8. on page 45, Annual Incomes of Urban and Rural Chinese, 1982-1990). In 1987, the average living cost of urban areas was increased 10.7% compared to 1986 (World Bank, 1992). The annual Gross National Product growth rate of China at post-reform period was 9.6% on the average, compared with 1.5% pre-reform period, and it reached \$500 billion in 1993 (Xu, 1996). As The Gross National Product increased, the consumption of durable goods and daily expenditure also increased dramatically (see Table 9. on page 46, The Numbers of Durable Goods Owned by Urban Households). However, as the urban households' average income increased, the proportion of the expenditure on housing decreased. In 1951, urban households spent 6% to 8% of their income on rent. In 1980, the rent was 3.7% of their income, and urban households only spent 1.55% of their earning in 1984. At the end of the 80's, urban Chinese paid less than 1% of their income (0.73%) on rent, which was only half of their utilities cost (Cia, 1991; Su, 1987). On one hand, this distortion of consuming pattern created a illusion of prosperity for the Chinese economy, on the other hand, the Chinese government had to augment the proportion of basic construction investment in urban housing in order to solve the housing crisis. From 1950 to 1983, the government had put 93.5 billion Yuan into basic construction investment in the development of urban housing. Nothing could be

Table 3. Annual Incomes of Urban and Rural Chinese Households, 1982-1990

Year	Per Capita Annual Income of Urban Households (Yuan)	Per Capita Annual Income of Rural Households (Yuan)	% of Urban Households' Income Increased over 1982	% of Rural Households' Income Increased over 1982
1982	535	270	0	0
1983	573	310	7.10%	14.82%
1984	660	355	23.36%	31.48%
1985	749	398	40%	47.41%
1986	910	424	70.09%	57.04%
1987	1,012	463	89.16%	71.48%
1988	1,192	545	122.80%	101.85%
1989	1,388	602	159.45%	122.96%
1990	1,523	630	184.67%	133.33%

Source:
John D. Frisk, China Facts and Figures Annual Handbook, Volume 18, 1994.

Table 9. The Percentage of Durable Goods Owned by Urban Households.

Item	1981	1985	1989	1990
Bicycle	1.36	1.52	1.85	1.89
Watch	2.41	2.75	2.90	2.99
Electrical Fan	0.43	0.74	1.29	1.36
Washer	0.06	0.48	0.76	0.78
Refrigerator	0	0.07	0.37	0.42
Sofa	0.89	1.32	1.50	1.57
Black & White TV Set	0.57	0.67	0.56	0.52
Color TV Set	0	0.17	0.52	0.59
Tape Recorder	0.13	0.41	0.67	0.80
Camera	0.04	0.08	0.17	0.19

Source:
Xu Song Kuen, The Party Members' Study Documents, 1996.

recovered from rent, yet, the government had to put another 1.2 billion Yuan each year for the regular maintenances (Cia, 1991). To release the Chinese government from the fiscal encumbrance, to control inflation under such rapid growth economy, and to transform the nation's economy to a commercialized base, China needs a balanced expenditure and consistent policies to secure the growth.

Further more, a several thousand years' history and culture have given housing and land an important meaning among the Chinese. After 1949, The Liberation, all the private land and a majority of private housing were confiscated by the government. Especially in the 10 years of "The Cultural Revolution" period, private housing owners suffered from their economic loss as well as the political threat and mental anguish. After the reforms, bold foreign investors and domestic private businessmen engaged in the growing market. However, for millions of Chinese who cautiously observed Chinese political changes, the commercialization of housing was the sign of guaranty of privatization from the government. Therefore, housing reform not only transformed household expenditures from daily goods into housing, but also set up a role model for commercialization of the Chinese economy (Liu, 1996).

Moreover, housing has been a central interest of Chinese society. Statistics conducted in 1985 shows that in Shanghai more than 85% of urban residents complained that

their living situations were not satisfactory (Lio, 1996). The average living space for urban residents in China was only 3.6 square meters per person in 1978, compared to Japan which has 13 square meters per person and more than 18 square meters per person in the United States. By 1981, there were still 800 thousand households which had average living space under 2 square meters per person (Lio, 1996; Xu, 1996). The predicament of the urban housing sector became a defect of Chinese economic reform and diminished the progress of the reform. Thus, since Deng Xiao Ping's first suggestion on housing reform in 1978, the Chinese government has carefully designed and executed housing reform policies to fully conduct the commercialization policy. Because housing affects the livelihood of every family and is vital to stability and order of society, the processing of reform is slow and cautious. The policies of reform have adjusted by the reactions of urban residents of experimental cities each time. However, the goal of the reform, which is commercialization of housing, is always clear. Under rapid growth in the national economy, the central government and planners established three policies, listed below, to accelerate housing reform process (Tong, 1987, p. 39):

1. Different sources and types of investments, such as overseas investments and joint venture investments are urged to invest in housing. Residents in small and medium cities

are allowed to build private houses in accordance with comprehensive plans of cities. This policy allows the Chinese government to reduce the basic construction investment in the urban housing sector and also allows the Chinese economy to enter a positive circulation.

2. Not only the new construction units but also the old apartments should sell to the dwellers at different levels of discount according to the buyers' incomes, the ages of the units, and the qualities of the units (The high income families, which means double incomes families whose three years of total incomes could afford to buy market price housing, will purchase houses at market prices; the median income families, which means double income families whose three years of total incomes is lower than the market price housing, can buy "comfortable housing" at the "standard" prices which exclude profits; the low and moderate income families will have the privilege to purchase standard sized units provided by the government at special discounts).

3. Rent adjustment should be the urban policy corresponding to commercialization of housing. To promote the private ownership in urban areas, rent will gradually move to a market-determined base. First stage, rent should cover the costs of maintenance, management, and housing depreciation. In the second stage, the costs in the first stage, the cost of land, and the profits, which includes taxes and interests, will be included.

The Chinese government will provide and enhance its services in four areas to secure the housing reform: "(a) a local regulatory environment conducive to the emergence of diversified sources of production; (b) a legal framework that redefines property rights; (c) a local planning framework that helps extend affordable serviced land development in suburban areas while promoting infill development, upgrading and redevelopment in core areas of a city; and (d) a mortgage finance framework that is consistent with macroeconomic priorities and allows for the emergence of financing mechanisms that are self-sustaining and require no subsidization" (World Bank, 1992, p. xvi).

Lio Chuen, the executive editor of the Shanghai Housing and the Chinese Cities Leader newspaper, and former vice chief executive of the Liberation Daily, pointed out that "the purpose of urban housing reform can be concluded as improving urban housing quantity, quality, design, allocation and management systems. Also the purpose of reform is to reduce barriers to labor mobility to assist the economic reform." "Although reform policies might change time by time," said Xu, "two major strategies, housing commercialization and rent adjusting by a commercial economic regulation, will always be consistent. We have two steps in reform. The temperate goal for the 1990's is to settle all the 'extremely difficult households' who have

living space under 2 square meters per person to a better environment. By the year 2000, we are aiming at 8 square meters per person." (Xu, 1996)

B. HOUSING REFORM EVALUATION

Evaluation of housing reform focuses on four areas: availability of commercial housing, quality of housing, affordability of rent, and financial accessibility. Housing reform is not a clear cut activity but a continuous and constant economic and political movement adjusted by the reality. For almost twenty years since housing reform started, the Chinese government has cautiously carried out a number of housing policies and has constantly modified these policies. However, because it is the first time that the central government has loosened its control and has released its power to local government after long-time restriction, because of the nature of distinctions of cities, there are no certain standards set up for the subsidies on rent and the quality related price on commercial housing. A few regulations have been established in reform with broad contents. Only one specific proposal was made in 1988 to regulate rents. It suggested that rent subsidies to compensate wages should not exceed 25% of urban workers "basic wages" ("basic wage" is a wage excluding bonus and other subsidies) (World Bank, 1992).

Without a comprehensive plan and detailed rules and regulations, local governments and enterprises have generated policies depending on their own conditions. Chaos became a new obstacle of reform. There are at least seven types of commercial housing on the markets and numerous subsidy schemes involved with rent. In the same city, even on the same street, rents for similar units can vary. For instance, the rent of the writer's apartment building is 2% more than the buildings surrounding it because of the different ownerships. Moreover, the ownerships of commercial housing includes "using right" which entitles one to use the unit, and "owning right" which entitles one to use and sell. From the management and allocation system, existing housing stock is divided into three categories: "directly managed housing" which is managed by the local Housing and Estate Management Bureaus, "self-managed housing" which is allocated, managed or sold by the individual enterprises, and private housing which is already owned by individuals. A standard has not yet been set for a comprehensive management. If classified by the housing prices, commercial housing can be seen in two broad types: "house built for foreign residents" and "house built for domestic residents" The first type houses could be sold by U.S. dollars and the prices could be more than ten times higher than the later type.

As one can see, the chaos of the housing market and

management have caused much confusion and disorder. It is hard to say that housing reform is flawless. Therefore, the evaluation will be based on the progress and improvement of housing reform rather than determining the terms of success. However, the writer suspects that this confusion and disorder are the unavoidable consequences of a mixed planned and market economy. As China's economy totally transfers to the market economy, the prices and rents of housing will be determined by the economic regulations such as supply and demand.

Availability of Commercial Housing

Currently, there are seven categories of commercial housing on the market. Commercial houses refer to either those built by the government-owned enterprises and are sold to their own employees or those that are available through private construction companies. The first type, according to Xu, is called "welfare housing." This type of housing is sold to individuals under the "one third policy." The home owners only pay 1/3 of the market price for the house. It is the most affordable house and several thousand Yuan can buy a unit. The demand for this type of housing is extremely high. The next type is the second cheapest called "comfortable housing." This type of housing usually sells by the "standard" price which includes its construction cost, on-site infrastructure cost and compensation for land

requisition. The price of this house is about 5 years' income of an average working class family (Su, 1987). However, demand for the house also exceeds the supply. Young white collar couples are the basic customers of this type of house. The third type is "minimum profit housing." The profit of housing is up to 15% of housing cost after tax. The "pure commercial housing" usually has better design and better quality than the above. In Shanghai, the price of this type of house goes from under a thousand to three thousand Yuan per square meter. The "classic commercial housing" is sold in the Shanghai market for more than five thousand Yuan per square meter. They are usually high rise and close to the central business district. A single detached house with a yard is called "Bie Su." Consumers of this type of house are mostly businessmen of foreign companies and newly rich Chinese. This house is sold by U.S. currency. The price of the housing runs from a thousand to several thousand U.S. dollars per square meter depending on its location. The last type of commercial housing is "office-residential housing." This type of housing unit is in a high rise building, having a good appearance and a good location which is in the city core or near by. The price is similar to the "Bie Su."

The average living space of urban Chinese increased from 3.6 square meters in 1978 to 7.1 square meters in 1990 (Friske, 1992) (see Figure 8. 9. 10. on page 55, 56, 57)

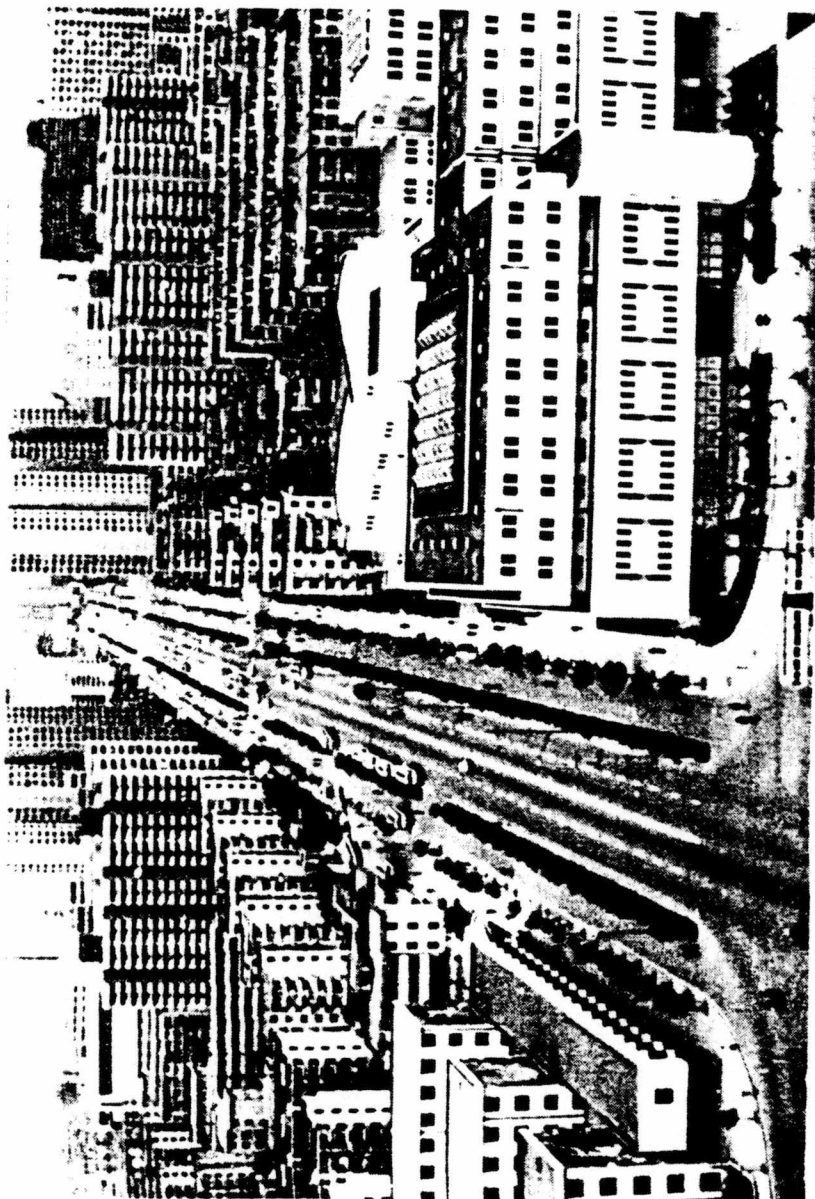


Figure 8. The New Apartments in Shanghai

Source:

Bian Hui, "Is China An Economic Superpower?," China Today, August, 1993.



Figure 9. The Newly Constructed Residential Housing in Guandong.
Source:
Xiao Liang, "Family Consumption Trends In China," China Today, January, 1995

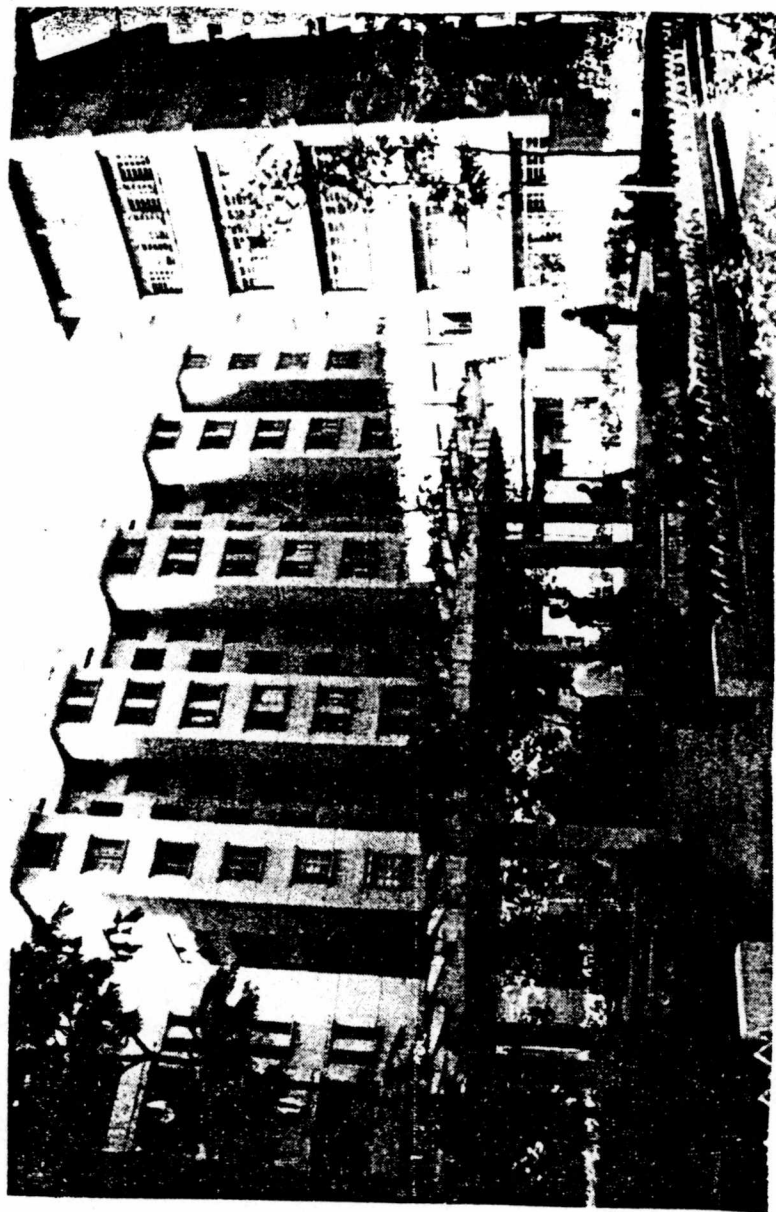


Figure 10. Apartments Are Surrounded With Gardens.
Source:
Bian Hui, "Is China An Economic Superpower?," China Today, August, 1993.

Although the Chinese housing market has many newly constructed houses waiting to be sold to the private enterprises and individuals, the prices of houses are out of reach for the majority of Chinese. In 1981, the average construction cost for a square meter of floor space was 140.2 Yuan. Including infrastructure, tax and other costs but profits, a square meter cost 197 Yuan. The average income of urban workers was 60 Yuan per month. A 50 square meter unit of "comfortable housing" would cost a typical "double income household" seven years of income, or it would cost the family's 20 to 40 years savings (Su, 1987).

Research also states that the constructors' profits are still extremely high. The average profit on housing is 30% in China, compared to the average housing profit of some developed countries which is 6% to 8%. Even the "minimum profit housing" on which profit is the lowest of all, the return of profit still counts 15%. In most market economies, the ratio of annual household income to housing will not exceed 1:6 (Xing Ming Wan Bao, May 19, 1996). However, an average apartment in China could cost 10 times the family's annual income. In the big city like Shanghai and Beijing, the cost could be tripled. Only 0.2% of commercial housing was sold to individuals in Beijing in 1989 (see Table 10. on page 59, Commercial Housing and Its Sales Conditions in Chinese Major Cities in 1989).

Table 10. Commercial Housing and Its Sales Conditions in Chinese Major Cities in 1989

City	Residential Housing on the Markets (10 thousand m ²)	Total of Residential Housing Sold (10 thousand m ²)	Residential Housing Sold to Individuals (10 thousand m ²)	Average Sell Price (m ² /Yuan)
Beijing	196.40	142.20	0.40	945
Shanghai	58.41	48.07	5.00	831
Tianjing	121.46	70.90	6.67	733
Guanzhou	80.44	77.31	30.15	882
Wuhan	32.55	9.53	0.63	513
Qingdao	35.00	28.52	1.70	574
Shenzhen	79.73	67.95	33.82	834

Source:
The Committee of Almanac of China Economy, 1989 Zhonggou Jinji Nianjian, 1989.

According to May 19, 1996 Xing Ming Wan Bao, 4.13 million square meters of commercial housing, which was 1/10 of total commercial housing on the market nationwide, remained empty in Shanghai last year (Xing Ming Wan Bao, 1996). These vacant units would house more than 5 million people if they were sold to the residents.

This situation raises questions of affordability. Millions of units have been built. But how many people can afford them? The "1/3 policy" and the policy of selling old units on a discount price are the strategies confronting this difficulty. However, the discounted houses are usually provided for workers by their work units. If the work units have no profit or have a very low revenues, the chances for providing housing to their workers are small. Moreover, since the discount housing price is much lower than other market housing prices, the majority of urban dwellers would rather wait for their work units to sell them the discount housing. Work units and the government would lose 2/3 of investment. In Beijing, up to 20% of the commercial housing stock was restricted to sell by the "1/3 policy" which means the government and work units would lose 0.2 billion Yuan per year (Su, 1987).

The emphasis of future development of commercial housing, should be on relatively small, low cost affordable units. The construction of luxurious housing should be reduced, as a proportion of discount housing. The

government ought to initiate regulations to limit the profits of construction companies in the transition period in order to stabilize the price of housing and the price of the materials.

Quality of Housing

There is no doubt that the quality of housing has been improved significantly after housing reform was initiated (shown on page 55, 56, and 57, Figure 8., 9., and 10.). According to the statistics, not only the size of units but also the facilities of residential housing units had great gaps between western countries and China at the early reform stage. At the end of the 1980's, the unit size of West Europe and North America exceeded 90 square meters. The unit size in China are usually around 50 to 60 square meters (Yan, 1993). Ninety-eight percent of housing units in West Europe and North America have private water facilities and 95% of them have private bath rooms, more than 80% of houses have central heater or heating systems (China Statistical Bureau, 1981-1990; Yan, 1993). In China, however, according to 1985 statistics, 63% of units had private kitchen, 30.5% of units had no private kitchen and 6.3% had public kitchen. About 66% of units had no private bath, and 10% of the total had public bath, only 24% of units had private bath. About 27% urban housing had no private water facilities, 57% of units had private water facility and 16% units shared water

facilities with other families. Five years later, in 1990, the private water facilities increased to 82.1% and private bath increased to 46.9%. About 40% of units owned gas and 54.3% of units owned heaters (China Statistical Bureau, 1981-1990; Yan, 1993).

Further more, to control the quality of urban housing, the State Planning Committee, which is focused on the long term and large scale development, and the State Construction Committee, which emphasized short term and small scale development, started to function after long time paralysis after reform. In 1987 The First National City Planning Management Conference was held in Weihai. Two years later, "The Regulations of City Planning of China" were passed by the state council to guide and manage the future development of the urban sector in order to secure and enhance the living standards of urban dwellers. The regulations state that "comprehensive planning, rational layout, mixed development, correlative construction" will be the guideline of residential development. It is confirmed by the government that development must "rationally utilize every inch of land." All new subdivisions at the fringe area are encouraged to combine with shopping facilities, schools, kindergartens, hospitals or clinics and green areas. The regulations regulate that urban core renewal be authorized by the local governments above county level. And urban renewal must be carried out in a way which is coordinated

with the comprehensive development of the cities. Also under the supervision of the State Planning Committee and the State Construction Committee, two regulations, "The Complement of the Regulation Which Regarding to the Design Standard of Urban Housing," and "The Regulation Which Regarding to Strictly Control the Standard of Urban Housing," were passed to restrain the construction of under-standard-sized units as well as to limit over-standard-sized units (Association of Housing and Real Estate Estimation of China, 1995; Su, 1987).

Affordability of Rent

Rent adjustment is the key factor to the success of the government's promotion of commercial housing. Before the adjustment, rents were too low to stimulate urban residents to own a unit, even at the discount price. In 1980, the ratio of annual rent to construction cost of a unit was 1:145, compared to the developed countries where the ratio of annual rent to sales price of a unit is less than 1:8 (Xing Ming Wan Bao, various issues). The extremely low rent impelled people to continue to rely on the government's allocation. The purpose of housing reform is, to end the housing allocation system. Increasing rent was the only way to commercialize housing. To break this distorted welfare relationship between the government and urban residents was the key point of the housing reform. After 1986, the rent

reform was a "trial-and-error" experiment with limited rules and regulations. Local government and enterprises were allowed to carry out their own methods of adjustment. To avoid social turbulence, rent adjustments are usually combined with different levels of wage compensation. Therefore, the simultaneous increase in rents and wages guarantees that the rents stay affordable for urbanites and reduces extensive housing demand. Common methods have been used, including: "(i) making a minimum amount of floor space per capita available at rents that cover current maintenance and management expenditures without wage adjustments; (ii) setting rents on per capita space greater than the 'lifeline' (basic needs) base and up to some standard level, at phased-in higher rents, compensated in part or in full by wage adjustment; (iii) establishing rents on per capita space above that level at rates meant to cover investment costs without any compensation in wages" (World Bank, 1992, p. xviii).

Table 11. on page 65 shows one of the rent adjustment schemes. The rent shown is based on 0.16 Yuan per square meter. The expected rent is set at 10 times the basic rent. According to this method, the government subsidizes rent by the basic needs of living space. In this case, the basic needs of living space is the average living space of the 10 households. In the table, Household E has 4.8 square meters per person (which is usual in Chinese urban areas).

Table 11. A Rent Adjustment Based on the Per Capita Living Space

House hold	Per Capita Living Space (m ²)	Basic Rent (Yuan/m ²)	Expected Rent (Yuan/m ²)	Increasing of Rent (Yuan/m ²)	Rent Allowance (Yuan/m ²)	Changing of Income (Yuan/month)
A	1.50	0.24	2.40	2.16	7.7472	+5.5872
B	2.50	0.40	4.00	3.60	7.7472	+4.1472
C	3.50	0.56	5.60	5.04	7.7472	+2.7072
D	4.00	0.64	6.40	5.76	7.7472	+1.9872
E	4.80	0.768	7.68	6.912	7.7472	+0.8352
F	5.50	0.88	8.80	7.92	7.7472	-0.1728
G	6.00	0.96	9.60	8.64	7.7472	-0.8928
G	6.50	1.04	10.40	9.36	7.7472	-1.6128
I	7.00	1.12	11.20	10.08	7.7472	-2.3328
J	12.50	2.00	20.00	18.00	7.7472	-10.2528
Average of A to J	5.38	0.8608	8.608	7.7472	7.7472	0

Source:
Su Xing, Urban Housing Problems of Our Country, 1987.

After the adjustment, E will pay 7.68 Yuan per month instead of 0.768 Yuan as before. The rent of Household E has increased 6.912 Yuan per month person. The quarter allowance is 7.7472 Yuan each month for each person. Therefore, each person in household E will have 0.8352 Yuan income after paying for the rent. In the case of household J, which has per capita living space 12.5 square meters, after the rent adjustment, every person in household J will pay an extra 10.2528 Yuan every month for their spacious units.

Other adjustment strategies are also used. In the cities of Yantai and Benbo, rents are increased ten times after the adjustment and a "housing coupon," which is worth 23% of a tenant's monthly income, is issued to subsidize the rents. In Shanghai, rent for a 60 square meters unit in 1990 was 10 Yuan. It was increased to 20.10 Yuan three years later. Since 1995, Shanghai's rent for residential housing has been increased 50% each year (increase level could be different according to different work units) and will continue to increase until rents reach the commercial rents.

The greatest concern of the rent reform is the affordability of rent for the dwellers. Statistics also show that the expenditure for housing in urban China is still quite low after several years adjustment. It has been substantiated that in 1990 the average expenditure for

housing by urban Chinese (0.73%) was still much lower than the expenditure for housing in developed countries, which is 15% to 20% (Yan, 1993). As Table 12. on page 68 shows, a person would spend twice as much for utilities as for rent, and eighteen times as much for clothing as for rent.

However, there are degrees of affordability. Low income people derive fewer benefits from rent adjustment than people who work for profitable work units. Especially the workers in non-profitable work units have to pay much more expensive rents for private housing because their work units are unable to provide housing, while the workers in the profitable work units recapture their rent subsidies. To assist the "extremely difficult households" and low income families, the government and local level Housing and Real Estate Management Bureaus have been continuously investing in public housing.

Financial Accessibility

Financial accessibility is examined in two areas: the accessibility of investors and the accessibility of private home buyers. Although The People's Construction Bank started to participate in domestic commercial housing development after 1984, the financing of urban housing still largely relies on government investments and state owned enterprises. To mobilize all the possible resources, the government strongly encourages investment from foreign

Table 12. The Expenditure of Chinese Urban Households Between 1981 to 1990 (Yuan)

Item	1981	1985	1987	1989	1990
Total	456.84	673.20	884.40	1210.95	1278.89
Clothing	67.56	98.04	121.09	149.15	170.90
Daily Consuming Items	43.68	71.88	100.57	133.97	129.66
Books and Magazines	4.32	6.12	7.48	10.59	11.15
Medicine	2.76	6.24	8.87	15.98	19.65
Fuel	8.88	11.52	12.27	18.23	20.31
Foods	258.84	351.72	472.93	659.69	693.77
Rent	6.36	6.48	7.74	8.82	9.43
Utilities	5.28	7.44	11.67	18.27	22.43
Education	2.64	7.68	11.28	25.24	28.33
Transportation	6.12	6.72	9.10	10.16	13.52
Entertainment	2.88	2.28	3.01	3.62	4.53
Medicare	1.44	1.92	2.56	4.92	6.02
Others	72.72	95.16	115.83	152.04	149.19

Source:
Xu Song Kuen, Party Members' Study Documents, 1996.

investors, collective investors, joint-venture investors, domestic individual investors. The Chinese government has promoted individual investment from 1.4% in 1979 to 17.03% ten years later in order to gradually reduce the share from the government (see Table 13. The Composition of Chinese Urban Housing Investment Between 1979 to 1988 on page 70).

However, there were no mortgage systems and financial organizations to help individual home buyers in the early reform stage in China. Individuals had to use their own savings to pay for their houses in one payment. Recently mortgages have been provided by the banks through the construction companies. The minimum down payment is at least 30% of the unit price and the maximum loan maturity is 15 years (Lio, 1996). For most Chinese, a 30% down payment will cost them many years of income. This writer concludes that the lack of mortgage availability is the weakest link in the commercialization of the urban housing sector. Chinese banks have little experience in providing loans to individuals. Apart from opening a savings account, the majority of Chinese have no idea how to get assistance from bank. But the situation is improving. Recent information indicates that Chinese banks now typically provide home and estate equity loans to individuals. Individuals can borrow up to 70% of house and estate value but for no more than five years. For people without houses and estates, banks require that borrowers deposit a minimum amount of money to

Table 13. The Composition of Chinese Urban Housing Investment Between 1979 to 1988

Year	Total Investment on Housing (billion Yuan)	% of Basic Construction Investment	% of Urban Renewal Investment	% of Collective Investment	% of Individual Investment
1979	7.878	98.6	/	/	1.4
1980	12.736	87.7	6.6	2.6	3.1
1981	14.51	76.6	14	4.1	5.2
1982	18.765	75.2	15.3	4.9	4.6
1983	18.80	66.5	22.4	5.7	5.4
1984	19.59	69.3	17.5	6.2	6.9
1985	29.09	73.9	11.4	5.8	8.8
1986	29.109	65.0	18.4	6.5	10.0
1987	31.116	58.3	21.3	6.8	13.5
1988	37.13	53.3	21.2	7.0	18.0

Source:
The Committee of Almanac of China Economy, 1989 Zhonggou Jinji Nianjian, 1989

be eligible (Association of Housing and Real Estate Estimation of China, 1995).

C. The Case Study

General Information of Shanghai

Located on the East coast of China at the Yangtse estuary, Shanghai is the largest and the most important economic, trading, technological, and cultural center of the nation (see Figure 11. on page 72, The Geographical Location of Shanghai, and Figure 12. on page 73, The City of Shanghai). Shanghai has twelve urban districts and nine suburban counties. The land coverage of Shanghai in 1985 was 6341 square kilometers. The urban district had 158 square kilometers land coverage. The population of Shanghai's urban districts totaled 6.32 million (Lio, 1996). Although Shanghai had the second lowest growth rate of population and the highest economic output in 1989 in the nation (see Table 14. on page 74, Level of Economic Development and Total Birth Rate in Chinese Major Cities and Provinces in 1989), Shanghai now still has the largest urban population of China, which is more than 13 million (Xu).

Besides its economic and political position in the world, Shanghai has its distinct characteristics: overcrowding, massive dilapidation of housing and severe housing shortages. The population density of Shanghai is

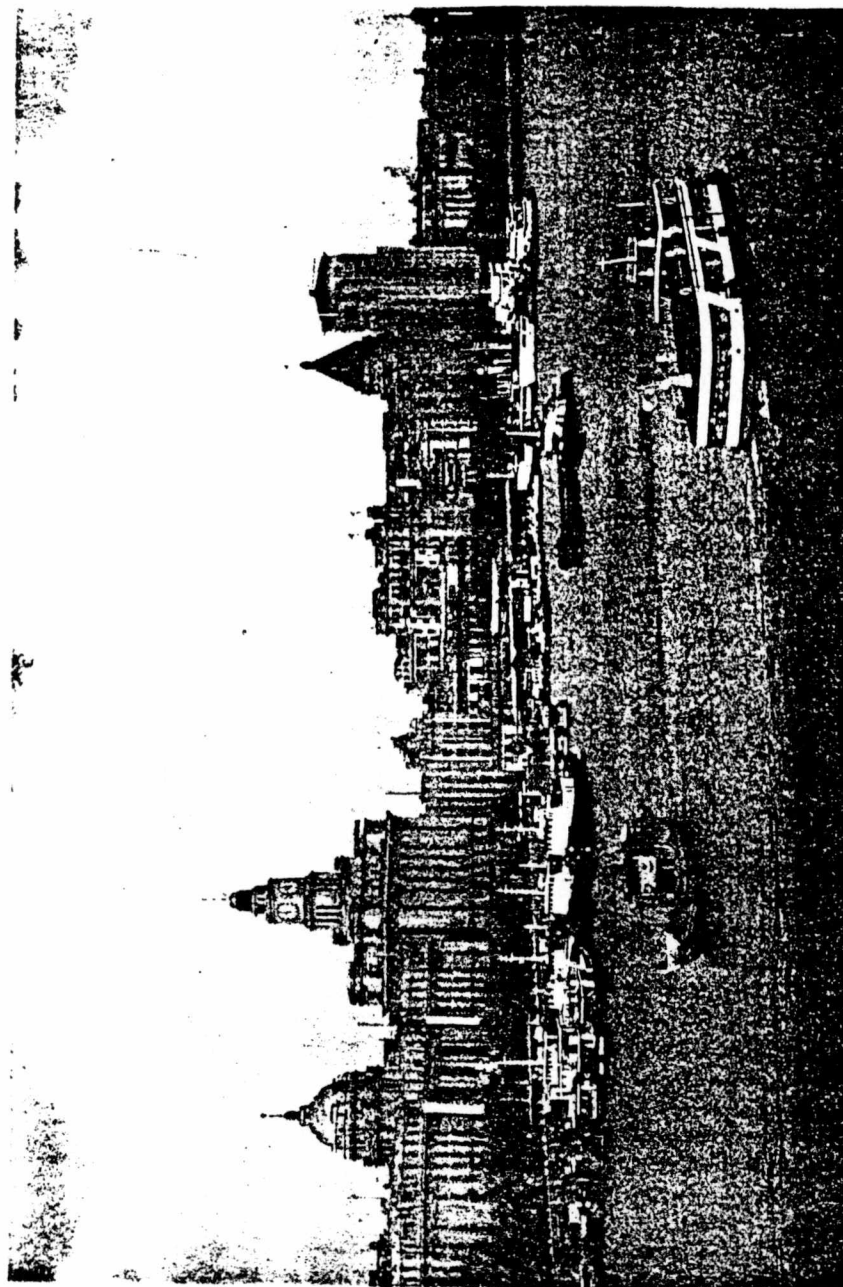


Figure 12. The City of Shanghai

Source:

The Chinese Academy of Social Sciences, Information China---The Comprehensive and Authoritative Reference Source of New China, 1989.

Table 14. Level of Economic Development and Total Birth Rate in Chinese Major Cities and Provinces in 1989

City	Per Capita Industrial and Agricultural Gross Output Value (Yuan per capita)	Total Birthrate
Shanghai	12,350.3	1.34
Tianjin	8,025.7	1.66
Beijing	7,419.5	1.33
Guangdong	3,644.5	2.51
Zhejiang	3,901.4	1.40
Shandong	3,025.9	2.12
Sichuan	1,564.5	1.76
Jiangsu	4,635.4	1.94
Fujian	2,413.3	2.36
Tibet	763.9	4.22

Source:

John D. Friske, China Facts and Figures Annual Handbook,
Vol. 17, 1993.

the highest in the nation (see Figure 13. on page 75, The Overcrowded Street in Shanghai). In the urban districts of Shanghai, the density is about 44 thousand people per square kilometer (Lio, 1996). Although 99.4 % of Shanghai families have only one child, research shows that one out of two Shanghai families has some level of housing problem (Lio, 1996).

The poor base condition of the urban housing sector and the increasing rural to urban migration have caused the most severe housing problems in Shanghai.



Figure 13. The Overcrowded Street in Shanghai
Source:
Wang Yongyao, "Solving Urban Problems in Shanghai," China Today, August 1993.

In 1984, the State Council agreed that Shanghai, Beijing, and Taijing, three major cities of China, should start housing reform. Commercial housing was put on the newly opened market and rent was increased along with workers' wages. Because the stability of Shanghai is vital to the whole country, the government cautiously has monitored the reform process. It was not until February 1992 that the State Council officially approved the Shanghai housing reform scheme and transferred Shanghai housing reform from an "experimental" stage to a "official" stage. "Shanghai Housing System Reform Scheme" was the official document of The Ninth Plenary of Twenty-four Shanghai People's Representatives Committee Meeting. The new housing policies for Shanghai included five tactics:

(1) to adjust rent to the standard along with housing coupons or housing subsidies. The housing coupons or housing subsidies can be used as incomes if the families have under-standard-sized apartments. Occupants of private housing and public dormitory of enterprises will not have rent subsidies. For some typical families such as "single-parent" households, "old couple without children" households, and "extremely low income" households, the extra rent after subsidies will be exempted, if there is any extra rent. This policy insures the smaller the per capita living space the more the subsidy for households.

(2) to eliminate allocation system and to encourage home

ownership by the sale of both new and old units at discount prices. The old units have more discount than the new units. In 1991, the basic price for new units was 250 Yuan, which was 1/3 of average construction cost. The sale prices of both old and new units should be determined by their basic price, location, and quality. Home buyers who purchase units by cash are entitled to a 20% discount. For new units, the minimum down payment is at least 30% of the unit price and the maximum loan maturity is no more than 15 years. The maximum term for old units is no more than 10 years. The discount units can not be sold to others within 5 years after the homeowners finish all their payments.

(3) to promote housing investments from different sources in order to reduce the proportion of the government's investment and increase the shares of individual, enterprise, and joint-venture investments. One scheme encouraged by the Shanghai government is to set up a "common trust fund." A work unit deducts a certain percentage of an urban worker's wage (which was 5% in 1991), along with same amount of allowance, to set up a trust fund for housing development. The fund belongs to the worker but can only be spent on construction, purchasing, and maintenance of housing.

(4) to issue the construction housing bond with allocated housing. The tenants of newly allocated apartments agree to buy the construction housing bond as well as to pay the

monthly rent. The construction housing bond is issued by the government in order to support and promote the housing construction development of the country. The total amount of bonds purchased will be determined by the sizes, qualities, and locations of the apartments. The bond has a 5 year term without compound interest. For some households which have difficulty to purchase the bond in one time, they will allow them to buy the bond overtime with payments;

(5) to institute a Shanghai Housing Committee to plan, execute, manage, and supervise the urban housing reform in Shanghai. The Shanghai Housing Committee also advises and inspects the housing markets to guarantee the housing quality and the fair price.

The case study will examine the improvement of residential housing conditions in Shanghai by comparing the early reform period to the late reform period. The survey of Shanghai residents' satisfaction level will also be examined.

The Improvement of Shanghai Residential Housing

The Shanghai census conducted in 1985 shows that there were 0.55 million households in Shanghai which were in the "inconvenient households" category. In this category, the "three generations share one room" type households were 0.12 million, the "parents and grown up children share one room" type were 0.31 million, the "grown up children share one

room" type were 0.08 million, and the "two families share one room" type were 0.04 million. There were 12.7 thousand households in the category of "no room households." The majority of families counted as "no room households" (98.9%) were newly weds (Shanghai Census Bureau, 1985).

To solve these problems, the Shanghai government aimed the early stage of reform at the "extremely difficult households." The "extremely difficult households" had per capita living space under 2 square meters. In 1981, there were 15,259 "extremely difficult households" in Shanghai. By 1987, the number of "extremely difficult households" had been reduced to 4,100. After 1988, all the "extremely difficult households" had been properly settled in better units; most of the families moved into new satellite villages built for the urban renewal projects (Shanghai Housing(1949-1990)Desk, 1993).

The Shanghai government has made many efforts to help the "extremely difficult households." To further improve the living condition for Shanghai residents, the second step of the Shanghai government was to set up a goal: before the end of this century eliminate all the "difficult households" whose per capita living space is under 3.5 square meters and eliminate most of the "difficult households" which have living space under 4 square meters per person. In 1985, the households which had living space between 2 square meters to 4 square meters per person were 199,900 in Shanghai. The

situation had been improved by 1990. Because the effort of the Shanghai government, 67,377 families had new homes. From 1990 to 1996, the number of this type of households has reduced 51.3%. In 1996, only 74,534 Shanghai families remained per capita living space under 4 square meters. The Shanghai government put 15,000 of these households on the schedule for improvement in 1996. Sixty-three percent of the scheduled households, which total 9,472 families, have already relocated to their new residences. These families have a per capita living space above 7 square meters (Lio, 1996; Shanghai Housing(1949-1990)Desk, 1993; Xing Ming Wan Bao, various issues, Xu, 1996)

The quality of housing has also been improved. The Construction Bureau of Shanghai government organized a residential housing design competition in 1991 in order to enhance the Shanghai housing quality (Figure 14. on page 81 shows the layout and floor plan of a traditional residential house of Shanghai). A total of 15 design institutes entered the contest. In Shanghai's Caohejin district, which is located at the southwest corner of Shanghai, 17 experimental houses (15 types) were built on a 2.3 hectares site (see Figure 15.,16.,17.,18., and Figure 19. on page 82,83,84,85, and 86, The 1991 Residential Housing Competition in Shanghai) (www.arch.cuhk.hk/main/chinapro/ShaSitPg.htm). The census data also shows that in 1985 only 49.2% of Shanghai families had private water facilities. There were

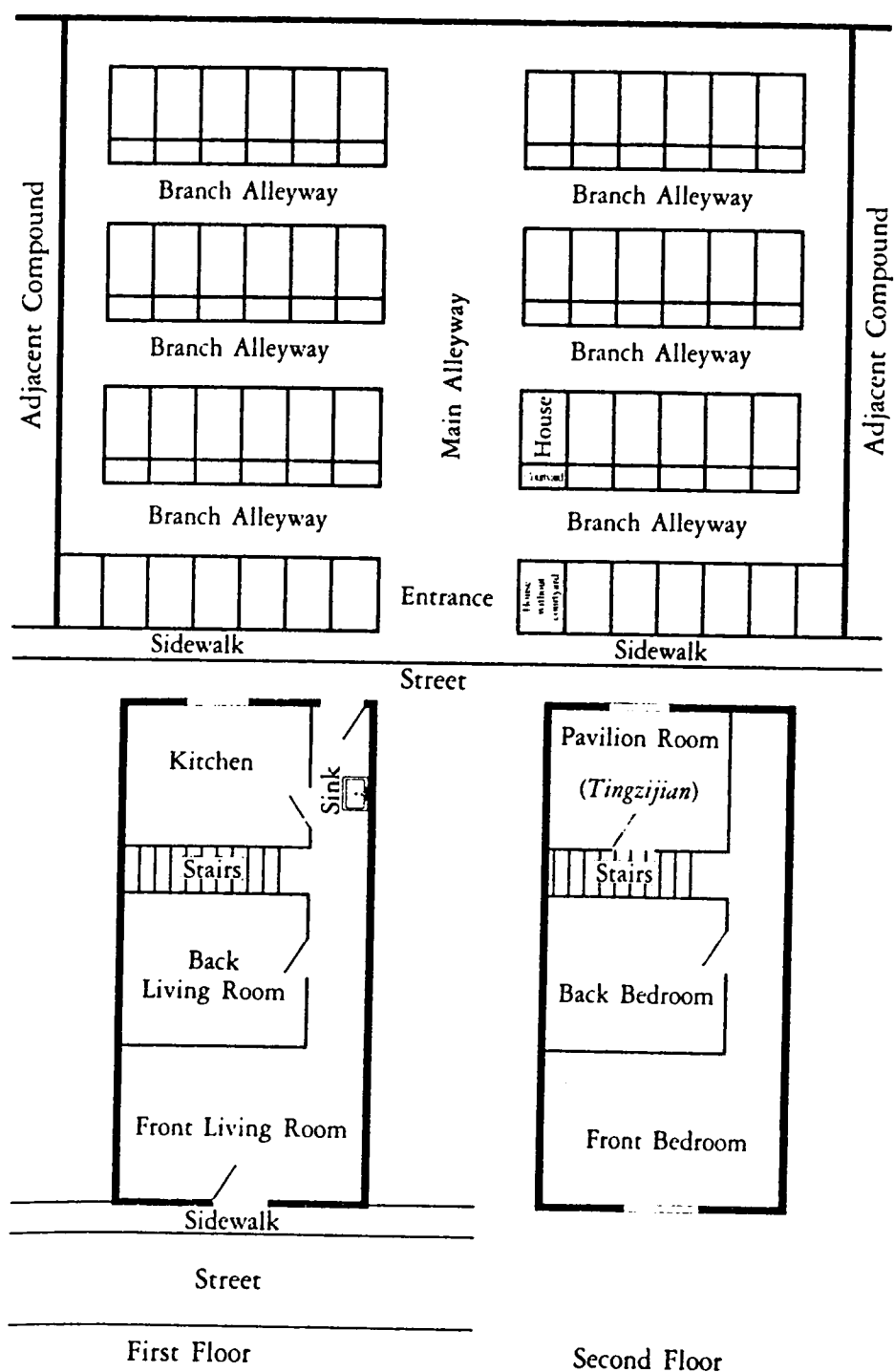


Figure 14. The layout and Floor Plan of Traditional Shanghai Residential House.

Source:

Han Chao Lu, "Away From Nan King Road: Small Stores and Neighborhood Life in Modern Shanghai," Journal of Asian Studies, 1995.

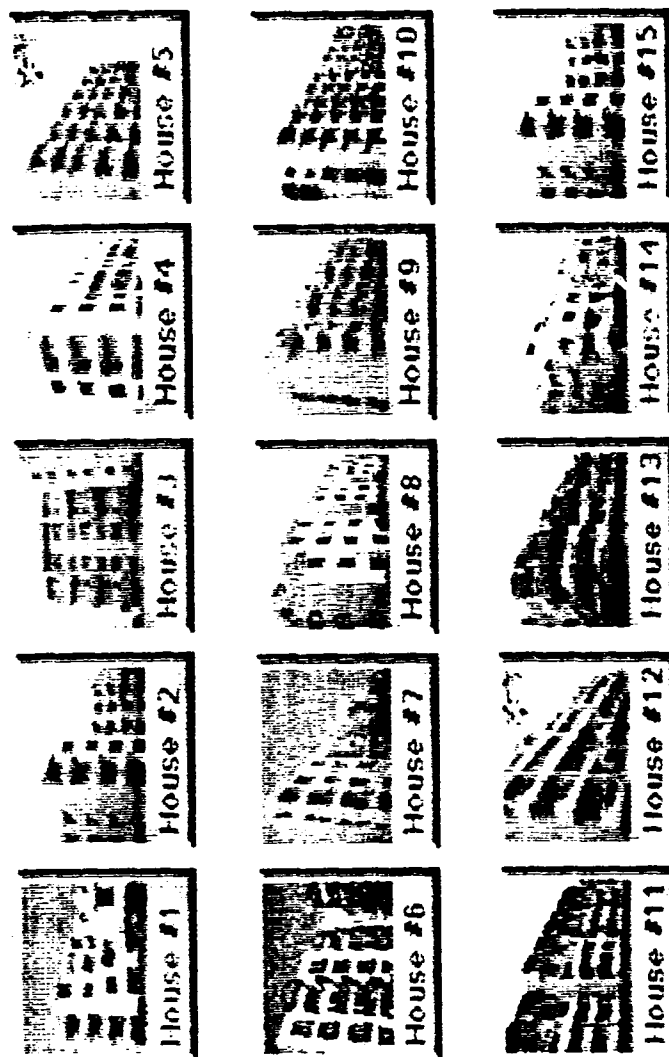


Figure 15. The Fifteen Housing Designs in The 1991 Shanghai Residential Housing Competition
 Source: www.arch.cuhk.hk/main/chinapro/Shal5Pg.htm

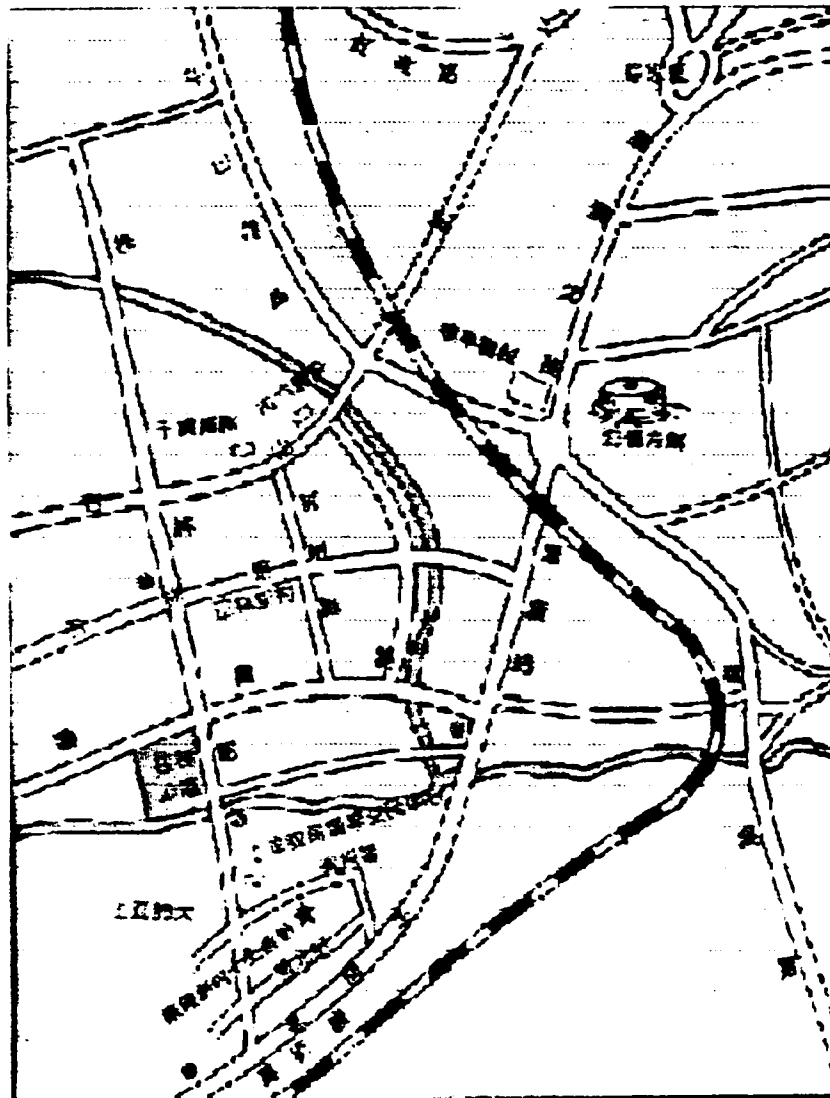


Figure 16. The Location Map of the Site of Competition

Source:

www.arch.cuhk.hk/main/chinapro/ShalocPg.htm

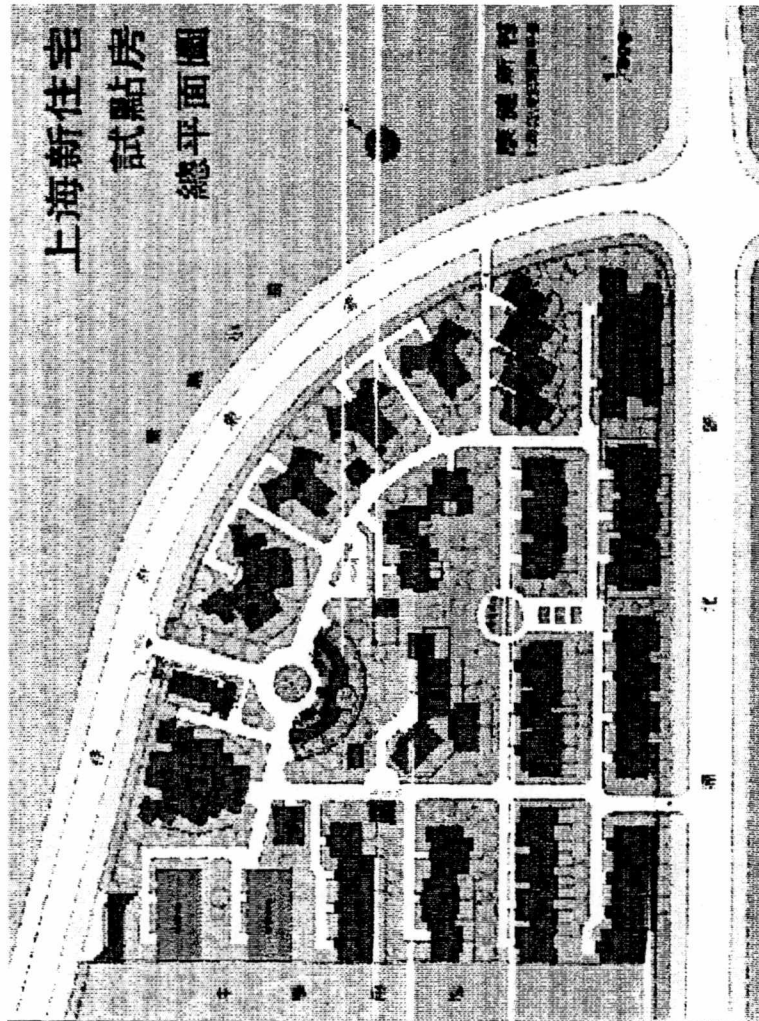


Figure 17. The Site Plan of the Project
Source:
www.arch.cuhk.hk/main/chinapro/ShasitPg.htm

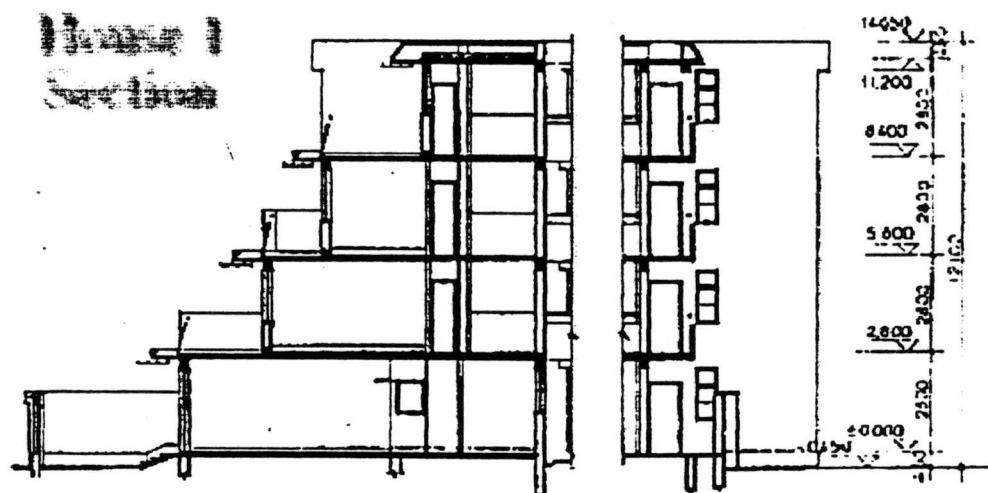


Figure 18. House Design #1 and Its Section
 Source:
www.arch.cuhk.hk/main/chinapro/Shahs1Pg.htm

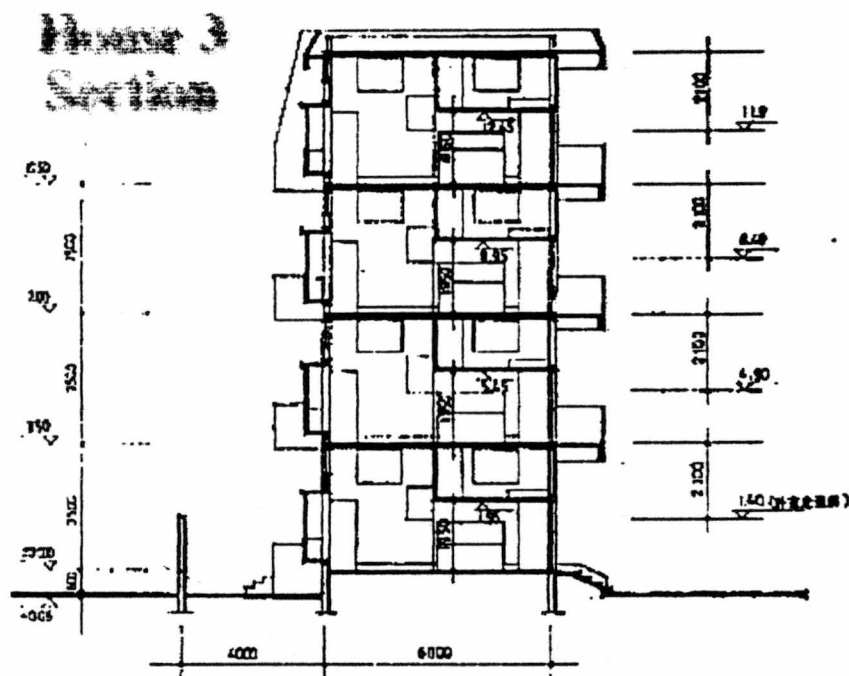


Figure 19. House Design #3 and Its Section

Source:

www.arch.hk/main/chinapro/Shahs3Pg.htm

31.2% households which had no kitchen, 45.2% households had no flush toilet, and 74.1% had no shower facilities (Lio, 1996). Now, the newly constructed apartments are much better in material and in design. Private kitchens, private baths and flush toilets, and, sometimes, built-in cabinets are the necessary components of apartments. In 1988, 28.6% Shanghai households owned private kitchens with gas stoves and private bathrooms which had both flush toilets and shower facilities (San and Zhong, 1991). In 1994, 44.8% of Shanghai housing had private bathrooms and private kitchens. In 1996, 50.7% of Shanghai's households own private kitchens and private bathrooms (San and Zhong, 1991; Xu, Party Members' Study documents of Shanghai Housing Development Bureau). Furthermore, not only do gardens and green areas surround the neighborhoods, but also hospitals, nurseries, kindergartens, primary and middle schools, fresh markets and department stores, and recreation centers are within walking distances from the new subdivisions (Xing Ming Wan Bao, various issues).

The ownership of Shanghai residential housing has also been shifted during the reform period. The government increased its investment in the urban housing sector at the early reform stage to correct the distortion between investments in productive items and consumption items.

However, the responsibility for housing financing has to be transferred from the government to enterprises and

individuals to eliminate the housing allocation system. In 1978, the investment in "directly managed housing," that which is built and managed by local Housing and Real Estate Management Bureaus, was 33.4%; its share in the urban housing financing was reduced to 24.1% in 1984 nationwide. On the contrary, the investment in "self-managed housing," that which is built and managed by the state-owned enterprises and the collective enterprises, had increased from 46.1% in 1978 to 58.8% in 1984 (Chu and Kwow, 1990). From the statistical data one can see that at the end of 1995 the Shanghai urban sector had 0.221 billion square meters residential housing; it was 11.93 million square meters more than 1994 (Xu, 1996). However, the "directly managed housing," was 55.26 million square meter, only 25% of the total housing stock in 1996. The percent of total "directly managed housing" is 7.2% lower than 1994 (Xing Ming Wan Bao, May 12, 1996). In 1996 the private housing sector is 41.47 million square meters. The percentage of private housing in China has risen from 10.77% in 1984 (Su, 1987) to 24.2% in 1987 (Cia and Zhong, 1991; Xing Ming Wan Bao, May 12, 1996; Xu, Party Members' Study Documents of Shanghai Housing Development Bureau and Shanghai Housing and Real Estate Management Bureau, 1996).

The greatest improvement in reform is the increasing of per capita living space from 4.3 square meters in 1979 to 5.4 square meters in 1985. It exceeded 7 square meters in

1993, and it is about 8 square meters at present (China Statistics Bureau, 1994; Shanghai Housing(1949-1990)Desk, 1993; Xing Ming Wan Bao, various issues). Shanghai dwellers almost doubled their living space after reform.

From 1987 to 1992, 0.65 million people had new homes. By the end of 1992, 33 new residential areas, whose combined size is like a medium city, had been built by the Shanghai Housing Development Center (Lio, 1996). From 1991 to 1995, 35 million square meters of residential housing were built for Shanghai dwellers, which was a 56% increase over the previous five years (Huang, 1996). According to the Xing Ming Wan Bao's report in July 17th 1996, Shanghai received the international award for "Human Habitation" last year for the improvement of "difficult households" living conditions; this year The United Nations again granted Shanghai "The Best Model of The United Nation" award (Xing Ming Wan Bao, July 17, 1996) (see Table 15. on page 90 and 91, The Statistics of Shanghai Housing From 1950 to 1990). If Shanghai practices housing reform with this speed and attitude, the problem of "difficult households" (per capita living space under 4 square meters) will be solved in 5 years.

High rise building is the efficient way to improve the overcrowding condition in a high density area. Shanghai's residential development after 1978 has mainly followed Singapore's model, which is constructing good quality high

Table 15. The statistics of Shanghai Housing

Year	Construction space (million m ²)	Living space (million m ²)	Urban population (million)	Per capita living space (m ²)
1950	2,360.5	1,611.4	414.1	3.9
1951	2,391.9	1,634.5	473.7	3.5
1952	2,488.8	1,697.5	497.7	3.4
1953	2,575.0	1,758.6	535.3	3.3
1954	2,655.9	1,818.7	566.9	3.2
1955	2,668.4	1,827.5	523.7	3.5
1956	2,687.1	1,839.0	563.5	3.3
1957	2,769.3	1,894.8	604.7	3.1
1958	3,298.3	2,197.2	578.1	3.8
1959	3,299.1	2,199.4	587.3	3.7
1960	3,602.4	2,404.4	641.3	3.8
1961	3,630.6	2,424.4	641.2	3.8
1962	3,641.0	2,424.9	635.8	3.8
1963	3,649.8	2,429.7	639.0	3.8
1964	3,681.5	2,445.4	642.8	3.8
1965	3,740.6	2,479.0	643.1	3.9
1966	3,762.2	2,489.8	636.2	3.9
1967	3,793.1	2,503.5	638.8	3.9
1968	3,815.5	2,517.3	633.7	4.0
1969	3,837.9	2,531.0	608.6	4.2
1970	3,871.4	2,551.5	580.2	4.4
1971	3,888.1	2,560.8	570.7	4.5
1972	3,909.6	2,570.7	564.7	4.6
1973	3,740.4	2,296.6	562.5	4.3
1974	3,781.4	2,308.5	562.0	4.1

Year	Construction space (million m ²)	Living space (million m ²)	Urban population (million)	Per capita living space (m ²)
1975	3,848.5	2,349.5	557.0	4.2
1976	3,906.7	2,385.0	551.9	4.3
1977	3,991.6	2,436.9	547.1	4.5
1978	4,117.0	2,513.4	557.4	4.5
1979	4,216.4	2,548.0	591.5	4.3
1980	4,402.0	2,647.0	601.3	4.4
1981	4,607.4	2,755.0	613.4	4.5
1982	4,945.5	2,968.0	626.8	4.7
1983	5,229.9	3,129.0	639.0	4.9
1984	5,508.9	3,266.6	688.1	4.7
1985	6,444.3	3,782.1	698.3	5.4
1986	7,342.5	4,270.6	710.2	6.0
1987	7,709.1	4,442.5	721.8	6.15
1988	8,091.5	4,625.5	732.7	6.3
1989	8,535.2	4,756.4	747.1	6.4
1990	8,900.5	5,018.8	758.2	6.6

Source:
Shanghai Housing(1949-1990)Desk, Shanghai Housing (1949-1990), 1993.

rise buildings (above seven stories) to provide more livable space on high density areas. In 1995 Shanghai had the most achievement in constructing high rise building in its history. Two hundred nineteen high rise buildings were built in Shanghai, which were 15.4% of the high rises built since 1949 and totaled 3.78 million square meters. Now, Shanghai has 1,523 high rise buildings. 68% are residential buildings, which provide 18 million square meters for Shanghai residents (Xu, Party Members' Study Documents of Shanghai Housing Development Bureau and Shanghai Housing and Real Estate Management Bureau, 1996)

Satisfaction of City Residents with Reform Policy

A reform desired by citizens that is implemented is a successful reform. Research of the satisfaction level of residents is essential to adjust policies for the future. After all, it is the urbanites who finally judge the reform. To determine levels of housing satisfaction, eight questions were asked in Nang Jing Road, which is the central business district of Shanghai, on the weekends (see Table 16. The Questionnaire on page 93).

Chosen residents answered the questions with enthusiasm. The results shows that of 100 respondents, 90 of them answered that their housing condition had become better after reform, 10 people answered that there were no changes, and nobody responded that they had become worse off after

Table 16. The Questionnaire

Question	Answer
1. Have your living condition been improved or been degenerated after the housing reform? (If your answer is "improved," please answer Question 2.; if your answer is "degenerated," please answer Question 3.)	(90) Improved (0) Degenerated (10) No Change
2. Is the improvement a result of housing reform? (For example, if you moved into a bigger house because you inherited your parents' house, it is not a result of housing reform)	(81) Yes (9) No
3. Is the degeneration resulted from housing reform? (For example, you move into a smaller apartment because the rent is too high for you, and your and your family income have not changed)	(0) Yes (0) No
4. Please describe your present living condition	(8) Very Good (above 15 square meters per person) (18) Good (15 to 10 square meters per person) (56) Average (9 to 6 square meters per person) (18) Poor (5 to 3 square meters per person) (0) Very Poor (2 square meters per person or less)

5. Please describe your living condition before housing reform	(0)Very Good (above 15 square meters per person) (4)Good (15 to 10 square meters per person) (44)Average (9 to 6 square meters per person) (32)Poor (5 to 3 square meters per person) (20)Very Poor (2 square meters per person or less)
6. Do you think housing reform will improve your living condition in the future?	(90)Yes (10)No (0)Not Sure
7. Would you prefer to buy or rent a unit if you can afford both?	(8)Buy (76)Rent (16)Not Sure
8. What do you think of overall housing reform?	(6)Very Effective (48)Effective (32)Not Very Effective (8)Not Effective (6)Not Sure

reform. Of the 90 people whose housing condition became better, 90% of the total stated that the improvements were related to the housing reform.

Of the 100 respondents, no one had per capita living space above 15 square meters in the pre-reform period. Also, 20% of the respondents were classified "very poor," which had per capita living space under 2 square meters, and 32% of them were in "poor" condition which had per capita living space between 3 to 5 square meters. Only 4% of the total respondents answered that their per capita living space was "good", defined as between 9 to 14 square meters.

The per capita living space has been increased by some amount for most of the subjects after the reform. Eight out of 100 say that they are now living with per capita living space above 15 square meters per person. 18% of the total are classified as "good," which is a 16% increase after the reform. The majority of the respondents (56%) are in "fair" housing condition, which is a 12% increase from the pre-reform period. On the contrary, the percentage of "poor" condition decreased, from 32% pre-reform to 18% post-reform. And no one is under the "very poor" category.

When the respondents were asked the question about whether or not the reform will improve their housing conditions, 90% of them firmly gave the positive answer. The writer's assistants surveyed 10 people who did not think the reform was going to improve their housing condition; they are currently government officials, and ex-government officials who "retire with honor."

When the subjects were asked the question "if you have money, would you prefer to buy a unit or to rent a unit?," surprisingly, 76% of the subjects picked "rent," and only 8% of the subjects answered that they would rather buy a unit; and 16% answered "not sure." Curious about this response, the assistants did further research among those 76 subjects. The respondents all immediately agreed that they would buy a "one third policy" housing unit even though they did not have the money. But the "market price" houses were too

expensive for them and they would rather wait for the discounted housing. This research suggests that the majority of Chinese still desire to rely heavily on the government allocation as they did previously. If there is a way to get discount housing, people have no incentive to buy "market priced" housing. Xing Ming Wan Bao reported that there were 42 million square meters of commercial housing which did not sell in China last year. Shanghai had 10 million square meters of commercial housing on the market of which only 5.7 million square meters were sold. Besides 0.5 million square meters for rental, the other 4.1 million square meters of commercial housing in Shanghai remained empty, of which 10% was the "Bie Su" and high priced residential housing (Xing Ming Wan Bao, various issues).

The last question was intended to test the overall impression of housing reform of Shanghai residents. Close to half of the respondents (48%) agreed that the housing reform was "effective," and 32% thought the reform was "not very effective;" 6% of the subjects answered "very effective," and same amount of people did not know much or did not care much about the reform and gave the answer "not sure," 8 out of 100 thought that the reform was a good practice but needed lots of improvement.

CHAPTER IV

CONCLUSION

Since Chinese housing reform is still an ongoing process and housing policy will be continuously modified by the Chinese government, it is too early to reach final conclusions about the whole reform process. However, it is obvious that the Chinese government has made a great deal of progress in improving urban housing conditions, and urban dwellers have received a great deal of benefit from housing improvements. The per capita living space of urban Chinese has been doubled since housing reform. The "extremely difficult households" whose per capita living space under 2 square meters per person were eliminated in the 90's. From 1981 to 1985, 600 million square meters of residential housing, 12 million units, equal to the total residential housing built for the previous 15 years, were completed. Ten years after the reform, 1.4 billion square meters of new units had been built, which is 2.6 times the total construction units for the last 30 years before the reform (Cia, 1991). During the last two years of the 80's, 13.6 million square meters of residential housing units sold to individuals nationwide, in which 7.1 million square meters were new units and 6.5 million square meters were old units.

Nearly 3 billion Yuan had been collected from the transactions. Three ultimate purposes of housing reform (a. reducing the government's share of investment and responsibilities in the housing development, allocation, and management; b. promoting private housing; and c. adjusting rent from a "token fee" to a market-priced rent) all have some level of effect on the improvement of urbanites' housing and on the planned to market economy transition. Only two years after reform, the privately built housing in Chinese cities and towns totaled 13 million square meters; 1.8 billion Yuan were saved for the government. From 1979 to 1989, the basic investment in housing by the government was reduced from 98.7% to 57.2%; private investment was increased from 1.3% to 17% (Cia, 1991). From 1981 to 1984, the investments on the urban housing were 51.2 billion Yuan, in which up to 60% of the investments were public funded (Su, 1987).

However, the writer has become aware that after almost 20 years of reform, most of the urban residents still rely on the allocation system because of the sky-high price of commercial housing. The future success of housing reform will mainly rely on the improvements of three areas: policy making, housing market managing, and financing.

To guide and lead the reform, policies should be consistent. The government should set up more detailed rules and regulations in the area of commercial housing

profits, housing subsidies and rent subsidies. The distinction of income and housing price should be reduced to a reasonable range. For the future completion of housing reform, the allocation from the government should be totally discontinued to secure the economy transition. The housing market should be managed by a special group such as Housing Reform Leader Group and the newly initiated Housing Management Committee to determine the classification and price of commercial housing. The future development of residential housing should focus on the low cost and low profit housing for ordinary urban residents. The ratio of rent to purchase price of a unit should also be controlled in a reasonable range to encourage the home ownerships. The nation's bank system should provide more assistance through mortgages with longer terms and smaller down payments.

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