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China: Urban Development towards the Year 2000

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China

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China: Urban Development towards the Year 2000

Abstract

China's market-oriented reforms have brought about fundamental changes to its economy. The reforms have significantly changed urban development from its previous pattern which was largely determined by decision-makers at the central government. The development of various commodity and service markets is becoming the driving force of urban development. Economic reforms have also posed serious challenges to the previous policy framework under central planning. However, to be able to meet the challenges and opportunities brough about by the new reforms, markets must be developed in such key sectors as labour, land and capital.

In anticipating China's urban development towards the year 2000, the following themes are explored: (1) a new spatial urban structure; (2) urban integrated restructuring; (3) a breaking of systemic barriers between urban and rural areas and the formation of an integrated labour market; (4) affordable housing markets; (5) systematic land markets; (6) redevelopment of old cities; (7) municipal finance; (8) capital markets; (9) urban-rural integration; and (10) environmental protection.

China's urban development towards 2000 calls for talents to be harnessed for research and practical ends. Flourishing urban research in the 1980s has only laid a foundation for more rigorous research in the future. To be able to meet the challenges ahead, urban research itself needs to be reformed.

Introduction

International experience in the twentieth century shows that the economic modernization of developing countries is usually accompanied by rapid urbanization. After analyzing case studies of 111 countries, Bertrand Renaud concluded that the economic development and urbanization in a country have very strong positive correlation: when per capita GNP grows from 250 US dollars to 1,500 US dollars, then to 5,000 US dollars, the popula-

tion urbanization level also jumps from 25% to 50% and then to above 75%.[1]

China has now entered the process of economic take-off and rapid urban development. Urban population in 1990 had surpassed 300 million, accounting for 26.4% of the total population and 26% of the total work force. Sixty-six percent of GDP is concentrated in cities.[2] At the growth rate of the 1980s, urban population in China will reach 460 million by the end of the century, or about 35% of the total population.

One common sense question arises: Will the country's economic growth sustain the challenges of urbanization? The questions which concern us are: Why can't a country's economic development be separated from urbanization? What are the indispensable contributions urbanization makes to economic development? The main reasons that this paper has selected to replace the word urbanization with the phrase urban development are: The impact on national economy comes not from the size of municipalities but from the urban structure and functions. Urbanization is usually related to the general indicator of urban population, whereas urban development implies the changes and reform of urban structure and functions. Proceeding from this point of view, the most important factor for urban development is the concentration of positive forces in municipalities for economic and social restructuring in developing countries. How to cultivate and strengthen these forces and promote the country's restructuring — this is the unavoidable challenge facing developing countries when they make strategic choices.

China's Urban Development has its own Features and Urgency

Before the market-oriented reform began in 1978, China's cities developed along an anti-market road. Cities were able to develop at all simply because they provided space and environment for the implementation of the industrialization policy of giving priority to heavy industry. The central government conscientiously adopted a series of policies and systems that were discriminating against rural development and rejecting competition so as to achieve the objectives of social stability and industrial accumulation. Examples: (1) In rural areas, peasants were tied onto the farmland by strict residence registration control, grain rationing and land system. In the cities, population flow and job selection were effectively restricted by a package of policies such as residence registration, management of employment, welfare system, social security system and the rationing of basic necessities. (2) The unified purchase and marketing system for the supply of agricultural products had replaced trade with paying tribute to the centre, thus facilitating the effort for capital accumulation and industrialization on the basis of a backward economy. (3) In urban areas, technology and capital intensive industries were encouraged so as to ensure the development of productivity, while in rural areas, efforts concentrated on promoting labour intensive undertakings. Through this policy the government was able to contain the surplus rural labour to rural areas and to ensure the development of heavy industry in cities.

The unique way of industrialization and urbanization created many features in China's economy: (1) While the per capita income remained low, the level of industrialization was relatively high. In 1978, industry accounted for 49.4% of GDP. During the same period, the same statistics in Spain was 38.7%, Yugoslavia was 33% and Mexico was 35%. (2) Within the manufacture sector the proportion of supply to heavy industry was extraordinarily high (64.1%) while the production for final consumption was unproportionally low. (3) Industrial output value accounted for a very big proportion while the social employment structure remained true to the tradition of the agricultural state. In 1978, rural labour accounted for 76.3% of the total social work force (the 1952 figure was 88%).[3] Due to these features, China's success in fast industrialization did not bring about corresponding increase in GNP and population urbanization. From 1960 to 1978, the proportion of industrial output value to GNP increased by 14 percentage points. But during the same period urban population had

dropped by 1.8 percentage points.

The problem lies with the urban structure and functions. Before the start of reform, China's cities were merely self-reliant concentration venues of industries rather than centres promoting regional economic growth, trade and technological progress. Besides the strategy of giving priority to heavy industry and "surpassing Britain and catching up with the United States," factors contributing to this phenomenon also included the rigid urban land system, housing system, municipal finance system, employment system and planning system. Individuals were deprived of the rights to free job selection, self-accumulation and consumption. National economy and urban development were at the mercy of central decision-makers' preferences and the dictatorial economic structure. The state was fully occupied with providing food for every citizen, and the impediments in the systems blocking urban development were not too obvious.

The market-oriented reform that began in the late 1970s, particularly the success of the economic reform in rural areas, has brought about fundamental changes to China's economy. On the one hand, reform has brought the country into a new development period marked by the expansion of demand for non-essential commodities. On the other hand, it has changed the economy from a supply-motivated one to a demand-restricted one. In the past, the supply of necessities had been put under planned production, unified procurement and marketing, price control, rationing control and consumption subsidy. In a strict sense, they were not commodities under the old system. On such a basis, supported by the motivation of extraordinary growth of rural economy, the national economy has entered a new development period marked by the expansion of demands for non-essential commodities. And such an economy inevitably carries congenital deficiencies which are mainly reflected in the irrational relationship and structures between supply and demand, the separation of markets, identical structures of production and consumption, and the skewing of market indicators. These problems became more obvious in the late 1980s, rocking the economy between

inflation (1988) and stagnation (1989-1990).

The numerous drawbacks of China's market are related to the urban structure and functions. The market-oriented reform has invigorated the rural economy by changing the ownership relationship and the purchase and marketing systems. But in cities, the reform has concentrated on the readjustment of income distribution, administration streamlining and power decentralization, but has failed to fundamentally change a number of basic systems that restrict cities to perform their functions, such as land system, housing system, employment system, financial system, planning system, urban social security system, etc. If the economic growth of rural economy had been the chief motivation force for national economic development in the early 1980s,[4] the driving force for China's economic growth in the 1990s has to be the market development in cities. The key to urban development is market opening, including markets for key factors of land, labour and money, markets for urban and rural commodities, markets for technology as well as international markets.

This is the main content of China's urban development in the 1990s and this is also the main topic of this research. Around this main topic, this paper will discuss issues in the following areas:

1. Procedure and features of China's urban development. This section will describe the features of urban development through statistical analysis and exemplification.
2. Urban development under the planned system. China's urban development has many features which are closely related to the 30 years of planned system. This section will concentrate on the effects that the traditional planned system had on urban development.
3. Changes brought about by reform: market influence under planned system. Market-oriented reform has revitalized China's urban development, and it has also created new challenges. This section will proceed from the changes brought about by the introduction of market mechanisms and analyze the conflicts between the planned system and market forces.

4. Strategic issues of China's urban development at the turn of the century and development research topics. How will planning play a role on the basis of market readjustment? How could China promote urban development through the establishment of key factor markets for land, labour and capital? This section will summarize the strategic options for urban development and the main topics for development research on the basis of analysis of previous sections.
5. Evaluation of research efforts on China's urban development. This section will evaluate researches on urban development from topics, tiers, methods, financing and structure, and will project the future research orientation.

I. Features of China's Urban Development

China's urban development has its own unique features distinct from any other country. To study and summarize these features not only has a great significance to China's urban development in the future, but will also contribute to the international community.

On the basis of statistical analysis of China's urban development history, this section will attempt to summarize features of urban development from the following aspects: (1) relations between population urbanization and economic development; (2) effects on urbanization by the urban population's natural and mechanical increase; (3) urban development scale and structure and their effect on demographic changes; (4) the position of cities in the correlation between urban and rural areas; (5) scale and types of population movement between urban and rural areas; (6) the skewing of urban economic structure demonstrated by urban employment structure, production structure and income structure; and (7) inter-regional urban development.

1. The Sluggish Urbanization[5]

The urbanization of China's population can be divided into four stages: 1950-1960, 1961-1965, 1966-1978, 1979-1991.

Urban population increased quite rapidly during the first period (from 61.69 million in 1950 to 130.73 million in 1960). The proportion of urban population to total population increased from 11.2% to 19.7%. The second period was marked by the absolute and relative drop of urban population (from 130.73 million in 1960 to 116.46 million in 1963). In 1965, the urban population recovered to 130.45 million. The proportion of urban population had dropped from 19.7% in 1960 to 16.8% in 1963. In 1965, it increased to 18.0%. The third period saw a stagnation of population urbanization. The proportion of urban population gradually dropped from 18.0% in 1965 to 17.1% in 1972 but then rebounded to 17.9% in 1978. The fourth period saw a steady growth of urban population. It increased from 172.45 million in 1978 to 301.91 million in 1990. The proportion increased from 17.9% to 26.4%, averaging 0.71 percentage points a year.

In view of the forty years, China's urban population proportion increased from 11.2% in 1950 to 26.4% in 1990, an increase of 15.2 percentage points, averaging 0.38 percentage points a year. Compared with international statistics (see Table 1), as a developing country China's urbanization is particularly slow. During the 40 years between 1950 and 1990, the proportion of world's urban population has been increasing by 0.57 percentage points a year. Considering the fact the urbanization in developed countries has slowed down, the urbanization rate in developing countries is much faster.

Table 1 Comparison of China and the World in Urbanization Rate (%)

	1950	1960	1970	1980	1990	1950-1990
Yearly growth rate of China's urban population	11.2	19.7	17.4	19.4	26.4	0.38
Yearly growth rate of world's urban population	25.4	33.0	37.2	41.5	46.1	0.57

Sources: Chinese statistics: *China Statistical Year Book 1991*, p. 87.
World statistics: Bertrand Renaud, 1981, p. 13; Cohen et alii. 1991.

2. *Factors of Urban Population Growth*

There are two basic factors in urban population growth — natural growth and mechanical growth. During different periods, the impact of the two factors on urban population growth were different.[6] Between 1950 and 1960, the yearly increase rate of urban population was 7.8%. The mechanical increase rate was 5.37%, or 68.5% of the net increment of urban population. In the period of 1961-1965, urban population growth rate was -0.06% a year and that of mechanical growth, -2.42%. Between 1966 and 1978, the urban population grew by 2.1% a year, but mechanical growth during this period was only 0.83% a year, accounting for 38.25% of the total increment. During the period of 1979-1990, the yearly growth rate of urban population was 4.81%; mechanical growth rate was 3.40% a year, accounting for more than 70% of the total increment. An overall statistical analysis of the forty years between 1950 and 1990 shows that the urban population had been growing by 4.29 percentage points a year, of which mechanical growth was 2.46 percentage points, accounting for 57.4% of the net increment.

Compared with international statistics (see Table 2), mechanical increase had a rather weak effect on the population growth in Chinese cities. Later analysis will show that the mechanical increase of China's urban population has been achieved mainly by expanding cities or creating new cities.

Table 2 The Effect of Mechanical Increase on Urban Population Growth, 1970-1975 (%)

Country	Urban Growth	Mechanical Growth Proportion	National Growth
Papua New Guinea	10.1	74.3	2.8
Yemen	8.0	76.3	1.8
Tanzania	7.5	64.0	2.7
Indonesia	4.7	48.9	2.4
India	3.8	44.7	1.7
Poland	2.2	59.1	0.9
Soviet Union	2.4	62.1	0.9
France	1.8	55.5	0.8
China			
1950-1990	4.3	57.4	1.8
1950-1960	7.8	68.5	1.8
1960-1965	-0.1	-2.4	2.4
1966-1978	2.2	38.3	2.1
1979-1990	4.8	70.7	1.4

Sources: China: *China Statistical Year Book 1991*.
International: Bertrand Renaud, 1981, p. 30.

As pointed out earlier, China does not keep statistics on population movement between urban and rural areas, let alone classification of such migration. However, the conclusions can be proved by looking at the relationship between urban land use indicators and urban population growth: mechanical growth of urban population has been achieved mainly by the expansion of cities or the creation of new cities. In his research, Mr. Lin Zhiqun discovered that between 1981 and 1990, the urban population had jumped from 92.436 million to 147.521 million, an increase of

Table 3 Comparison of Urban Population and Urban Land Share between 1981 and 1990

	1981					1990				
	Land		Population		Ratio	Land		Population		Ratio
	Km^2	%	10,000	%	M^2/person	Km^2	%	10,000	%	M^2/person
All cities	6720.0	100.1	9243.6	100.0	72.7	11608.3	100.0	14752.1	100.0	78.7
>1 million	2329.0	34.7	3892.7	42.1	59.8	3655.4	31.5	6004.1	40.7	60.8
0.5-1 million	1357.7	20.2	1943.4	21.0	69.9	1673.2	14.4	2089.9	14.2	80.1
0.2-0.5 million	1731.0	25.8	2041.2	22.1	84.8	3003.5	25.9	3487.3	23.6	86.1
<200,000	1302.3	19.4	1366.3	14.8	95.3	3276.2	28.2	3170.8	21.5	103.3

Source: Lin Zhiqun, *Development of China's Urban Land Use in the 1980's*. The statistics used by Lin come from *China Urban Construction Statistical Year Book* published by the Ministry of Construction. The statistics are slightly different from those issued by the Statistics Bureau.

59.6%. During the same period, urban land had also expanded from 6,720 sq km to 11,608.3 sq km, an increase of 72.7%. Because urban land expansion rate had been higher than population growth rate, per capita share of land had increased from 72.7 sq m in 1981 to 78.7 sq m in 1990. The fastest expanding cities had been those with a population of under 200,000 (see Table 3).

3. The Scale of Urban Development

The concentration of population in "super metropolises" of more than one million people is a topic which commonly concerns urbanization researchers in all countries. B. Renaud listed the projection analysis of United Nations sources in his book (see Table 4) and gave a warning to developing countries: You can excel without concentrating population in big cities.

Table 4 World Urban Population Scale Structure (%)

City Size (Unit: 10,000 people)	1950	1975	2000
>500	12.1	19.9	29.8
200-499	45.1 { 18.6	51.4 { 16.4	62.7 { 18.6
100-199	14.4	15.1	14.3
50-99	17.6	15.8	12.6
20-49	21.7	20.2	15.3
10-19	15.6	12.8	9.4
Total	100.0	100.2	100.0

Source: Bertrard Renaud, 1981, p. 32.

China certainly did not "excel" by concentrating population in big cities of one million population and above. Population absorbed by big cities above half a million population level dropped from 67.9% in 1959 to 62.7% in 1978 and to 52.5% in 1990. In the thirty years, the total drop was 12.6 percentage points (see

Table 5). The world trend is just the contrary. Population proportion of big cities of half a million and above increased from 62.7% in the 1950s to 67% in the 1970s and is projected to reach 75.3% by the year 2000. In China, small and medium cities are playing an ever bigger role in population urbanization, and this trend has been most prominent since 1978. This can be attributed to China's policy of restricting the growth of big cities while encouraging the development of small and medium cities. On the other hand, credit should also go to the non-agricultural development in rural areas that has stimulated the growth of small cities and townships.

Table 5 China's Urban Population Scale Structure (%)

City Size (Unit: 10,000)	1959	1978	1987	1990
>200	27.2	25.2	23.6	20.5
100-199	63.6 15.2	62.7 12.4	57.4 17.2	52.5 18.2
50-99	21.2	25.1	16.6	13.8
30-49	12.9	14.9	14.4	31.3
10-29	19.7	20.0	22.8	16.2
<10	3.8	2.5	5.4	
Total	100.0	100.1	100.0	100.0

Note: The classification of 1990 is different from other years. The 300,000 to 490,000 group has been changed to 200,000 to 490,000; the 100,000 to 290,000 and the fewer than 100,000 groups are combined into <200,000.

Sources: *China Population Statistics Year Book 1988*; *China Urban Statistics Year Book 1991*, pp. 212-213.

4. Urban-Rural Relations: The Position of Cities

To regard urban and rural areas as a whole and look at their correlations from different angles can enrich our understanding of the position of cities (see Table 6). Statistics show that in 1979, urban population accounted for 19.0% of the total population and

24.4% of total work force. Yet cities accounted for 61.6% of total GDP. Asymmetrical contribution to GDP by cities is an outstanding feature of the correlation between urban and rural regions in China. The reform in the 1980s has corrected this to a certain extent. But cities, with only one quarter of the population and work force, still account for more than half of GDP. Other indicators are also quite significant. Fifty-five point three percent of total social retail sales is realized in cities, testifying to the city's position as the commercial centre. Cities are also information centres where 72.7% of post and telecommunication business volume is concentrated. Cities are also centres for science and technology development as 98.6% of universities and 63.7% of natural science workers are located and work. Cities represent economic growth as 63.9% of newly added fixed assets accumulate in urban zones. Hospital beds (53.2%) and medical workers (56.8%) tend to concentrate in cities, giving them a strong edge in the provision of medical care. Finally, nearly 60% of individual savings are in the hands of urban residents, a fact that shows the potential of cities to become financial centres and develop capital markets.

Table 6 Comparison of some Urban-Rural Indicators (%)

	1979	1985	1990
1. Population			
Urban	19.0	23.7	26.4
Rural	81.0	76.3	73.6
2. Labour			
Urban	24.4	25.7	26.0
Rural	75.6	74.3	74.0
3. GDP			
Urban	61.6	53.3	51.2
Rural	39.4	46.7	48.8

Table 6 (Continued)

	1979	1985	1990
4. Social retail sales volume			
Urban			55.3
Rural			44.7
5. Year end individual savings balance			
Urban			58.0
Rural			42.0
6. Post and telecommunication business			
Urban			72.7
Rural			27.3
7. Universities			
Urban			98.6
Rural			1.4
8. Science workers			
Urban			63.7
Rural			36.3
9. Hospital beds			
Urban			53.2
Rural			46.8
10. Medical workers			
Urban			56.8
Rural			43.2
11. Newly added fixed assets			
Urban			63.9
Rural			36.1

Sources: Items 1-2 are based on data of the *China Statistics Year Book 1991*; 4-11 are quoted from the *China Urban Statistics Year Book 1991*; the 1979 and 1985 statistics are quoted from Zhou Qiren et alii, 1988, p. 249.

5. Population Migration between Urban and Rural Areas

Statistics of population migration was first included in China's fourth population census. It was stipulated that among the people who were living at legal residences on July 1, 1990, those whose permanent residence before July 1, 1985, was at a location other than the place of legal residence at the time of census were regarded as migrant population.[7] The residence locations were divided into three categories — city, township and county (rural). All migrant people were defined by their current residence and permanent residence before July 1, 1985 (see Table 7). The figures in each column of the table show the floating population in cities, townships and counties. The figures in each row of the table show the permanent population living in current residence of cities, townships and counties. The last column and row are the totals. Given the defects of the statistical data, our interest is at the migration structure rather than the actual numbers. By dividing the figures in each item in a column by the total at the bottom of the column, the migration destination rates are derived (see Table 8). By dividing the figures in each item in a row by the total at the end of the row, the sources of the floating population are derived (see Table 9). By dividing the number of migrant people in each item by the total number of floating population, the national migration rates are derived (see Table 10).

Table 7 Population Migration Determined by Current and Permanent Residence before July 1, 1985 (Sample Survey of 10% Population)

Current Residence	Permanent Residence before July 1, 1985			Total
	Cities	Townships	Counties	
Cities	195,938	87,915	342,256	626,109
Townships	47,238	44,112	140,848	232,198
Counties	31,204	18,089	176,028	225,321
Total	274,380	150,116	659,132	1,083,628

Source: *1990 Sample Survey on 10% Population.* Beijing: China Statistical Publishing House, 1991.

Table 8 Population Migration Destination Rates (%)

	Cities	Townships	Counties	Total
Cities	71.41	58.56	51.92	57.78
Townships	17.22	29.39	21.37	21.43
Counties	11.37	12.05	26.71	20.79
Total	100.00	100.00	100.00	100.00

Source: Table 7.

Table 9 Migrant Population Source Rates (%)

	Cities	Townships	Counties	Total
Cities	31.29	14.04	54.66	99.99
Townships	20.34	19.00	60.66	100.00
Counties	13.85	8.03	78.12	100.00
Total	25.32	13.85	60.83	100.00

Source: Table 7.

Table 10 National Population Migration Rates (%)

Into	Out of			Total
	Cities	Townships	Counties	
Cities	18.08	8.11	31.58	57.78
Townships	4.36	4.07	13.00	21.43
Counties	2.88	1.67	16.24	20.79
Total	25.32	13.85	60.83	100.00

Source: Table 7.

Table 8 shows that among all the migrant population, 57.78% moves into cities, 21.43% into townships and only 20.79% moves into rural counties. Among the people moving out of cities, 71.41% move into other cities, 17.22% move into townships and only 11.37% move into counties. Among the people moving out of townships, 58.56% move into cities, 29.39% move into other townships and 12.05% move into rural counties. Among the people moving out of rural counties, 51.92% move into cities, 21.37% move into townships and 26.71% move into other counties. These statistics show that cities are the main destination for the migrant population.

Table 9 shows that 25.32% of migrant population comes from cities, 13.85% comes from townships and 60.83% comes from rural counties. Apparently, the main body of migrant population comes from rural areas. Among the people moving into cities, 31.29% are from cities, 14.04% from townships and 54.66% from rural counties. Among the people moving into townships, 20.34% come from cities, 19.00% from other townships and 60.66% from rural counties. Among the people moving into rural areas, 13.85% come from cities, 8.03% from townships and 78.12% from counties.

Table 10 shows that among the total migrant population, 60.83% comes from rural areas and 57.78% enters cities. Obviously, rural regions are the main source of migrant population and cities are the main destination. Inter-city migration accounts for

18.08% of the total and inter-rural migration accounts for 16.24%. In the process of population urbanization, rural regions have been able to absorb more than 20% of the total migrant population. This must be attributed to the development of rural industries.

Table 11 Proportion of Temporary Population to Non-Agriculture Population in 15 Big Cities in 1981, 1985 and 1990

	1981		1985		1990		
	Size (10,000)	%	Size (10,000)	%	Size (10,000)	%	
Beijing	20	4.29	31.2	6.11	90.0	16.87	(1988)
Tianjin	15	3.39	41.7	9.92	81.3	18.40	(1988)
Shanghai			71.3	10.37	103.2	14.27	(1988)
Guangzhou	24.5	10.47	52.0	20.23	93.6	33.30	(1988)
Shenyang			8.6	2.64	32.6	9.18	(1989)
Wuhan			40.0	13.50	60.4	18.83	
Hangzhou	10	11.05	13.8	13.56	20.0	18.18	
Chengdu	16	11.65	28.0	20.13	45.3	26.44	
Nanjing	10	5.88	20.0	10.42	32.0	15.13	
Taiyuan	7.7	5.50	20.2	14.55	31.5	20.59	(1989)
Kunming	4.9	5.70	12.5	11.61	21.4	18.97	
Zhengzhou					37.4	32.28	(1989)
Xian			32.0	18.48	48.0	24.50	
Lanzhou					11.6	9.50	
Fushun					10.5	8.74	
Average	5.92		11.02		14.22		

Source: Lin Zhiqun, "Development of Urban Construction Land Use in China in the 1980s."

Temporary residents who are not included into the residence registration management system are a very important part of migrant population. In recent years, the China Urban Science Research Society has conducted a study on floating population in

big cities. The study covered 15 big cities of more than one million population — Beijing, Tianjin, Shanghai, Guangzhou, Shenyang, Wuhan, Hangzhou, Chengdu, Nanjing, Taiyuan, Kunming, Zhengzhou, Xian, Lanzhou and Fushun. With the support of localities, the survey turned up large quantities of data. This study is the most representative research results so far. Lin Zhiqun used the results to propose statistical amendments of urban population counts (see Table 11). He used the statistics of the 15 cities to calculate the proportion of temporary residents to urban non-agriculture population in three periods — 1981, 1985 and 1990. This proportion is of great significance. Research shows that in 1981, 1985 and 1990, the proportion of temporary residents to urban non-agriculture population was 5.92%, 11.02% and 14.22% respectively. The three figures can objectively reflect population migration in the past ten years.

The concept of temporary residents is different from floating population. The latter includes those who make short-term stays in cities for various purposes. Shanghai's survey of floating population in 1988 was quite revealing. The survey showed that among the floating population, those who came to the city for economic purposes (agriculture, industry and commerce) accounted for the largest proportion (see Tables 12a and b). This was very different from the pre-reform days when most people went to Shanghai to visit relatives, seek medical treatment or on business trips. The educational level of Shanghai's floating population seemed to be higher than permanent residents (see Table 13), and their illiteracy and semi-illiteracy level was 5.4 percentage points lower than permanent residents.

Table 12a General Purpose of Floating Population in Shanghai in 1988

	Total	Economic	Social	Study	Others
Number (10,000)	124.6	84.1	28.5	5.5	6.5
%	100.0	67.5	22.9	4.4	5.2

Table 12b Purpose of Floating Population in Shanghai in 1988

	Total	Commerce	Agriculture	Industry				
				Subtotal	Construction	Manual labour	House work	Others
Number (10,000)	84.1	13.5	4.4	66.2	29.4	10.2	1.7	24.9
%	67.5	10.8	3.5	53.2	23.6	8.2	1.4	20.0

Table 13 Comparison of Education Levels between Floating Population and Permanent Residents (%)

	Total	University	High school	Middle school	Primary school	Illiterate
Floating	100.0	5.2	15.6	43.9	24.2	11.1
Permanent	100.0	3.8	22.0	30.4	27.3	16.5

Source: Li Mengbai, et alii, 1991, pp. 153, 156.

6. *Urban Economic Structure: Leaning towards Manufacture Industry*

Indicators reflecting urban economic structure include employment structure, production structure, income structure, etc. According to the current statistical standards, cities are divided into five categories according to the number of their non-agriculture population — over two million, between one to two million, 500,000 to one million, 200,000 to 500,000, and fewer than 200,000. Non-agriculture population of the above five categories accounted for 23.9%, 18.7%, 12.6%, 24.2% and 21.5% of the total respectively in 1990.

(1) Urban employment structure

In urban areas, those who work in the primary sector account for 36.0% of the total labour force; those in the secondary sector, 38.7%; and those in tertiary sector, 25.3% (see Table 14).

Table 14 Employment Structure of Chinese Cities, 1991

Category	Primary		Secondary		Tertiary		Total	
	Number (10,000)	%	Number (10,000)	%	Number (10,000)	%	Number (10,000)	%
First	349.2	10.1	1,834.2	53.3	1,267.4	36.6	3,450.8	100.0
Second	2,431.0	43.0	1,973.0	34.9	1,245.3	22.0	5,649.3	99.9
Third	2,524.0	44.1	1,992.4	34.8	1,211.1	21.2	5,727.5	100.1
Fourth	1,198.8	37.4	1,178.3	36.8	827.4	25.8	3,204.5	100.0
Fifth	82.4	32.7	95.4	37.9	73.9	29.4	251.7	100.0
Total	6,585.4	36.0	7,073.3	38.7	4,625.1	25.3	18,283.8	100.0

Source: *China Urban Statistics Year Book 1991.*

Compared with international statistics, China's urban employment structure leans heavily on secondary sector (see Table 15).

Urban employment structure is related to the whole country's economic structure. The country's production model determines the urban structure (see Table 16). International experience shows that the link between urbanization and industrialization is rather weak.[8] But in China's case, the relationship is rather strong. This feature is also reflected in other urban economic structures.

Table 15 International Comparison of Urban Employment Structure (%)

City	Year	Primary	Secondary	Tertiary
New York	1982	0.1	16.2	83.7
Chicago	1979	0.1	24.2	75.7
London	1982	0.1	22.7	77.2
New Delhi	1980	1.2	34.2	64.6
Kobe	1981	0.1	27.0	72.9
Beijing	1990	5.2	49.3	45.5
Tianjin	1990	6.6	58.7	34.8
Shanghai	1990	1.5	61.3	37.2
Tangshan	1990	14.2	60.9	24.9
Taiyuan	1990	7.8	58.0	34.2
Harbin	1990	7.2	55.8	37.0
Nanjing	1990	7.0	57.4	36.6
Tongchuan	1990	18.9	59.7	21.4

Sources: Foreign statistics are quoted from *Statistics of Chinese and Foreign Cities*, China Statistics Publishing House, 1985.
Chinese statistics are quoted from *China Urban Statistics Year Book 1991*.

Table 16 Comparison of China and Other Countries Proportion of Manufacture Sector to GDP, 1988 (%)

	China (1979)	India	Low income countries	Mid-income countries	Developed countries (1960)
Industry and construction	47	26	24	34	37
Manufacture	35	16	13	25	27

Source: World Bank, *China's Economic Restructuring and Growth – Possible Alternatives*, Report No. 3391-CHA.

(2) Production structure and income structure

Production and income structures have the same features as employment structure. In view of GDP, the manufacture sector alone accounts for more than 60% of urban GDP (see Table 17). The tertiary sector is rather weak with commerce contributing only 10% to GDP. The backwardness of the tertiary sector is one major factor restricting the central role of Chinese cities.

Table 17 GDP Structure of Chinese Cities (%)

City Category	Agri-culture	Light industry	Heavy industry	Construc-tion	Transpor-tation	Ter-tiary	Total
First	4.76	30.15	38.10	6.69	6.45	13.84	99.99
Second	21.44	24.23	34.35	5.79	4.55	9.63	99.99
Third	22.64	23.87	33.84	5.98	4.44	9.22	99.99
Fourth	18.12	27.24	30.42	8.00	4.76	11.28	99.82
Fifth	22.69	16.55	30.33	9.24	6.98	14.22	100.1
Total	16.68	26.19	34.53	6.50	5.10	10.99	99.99

Source: *China Urban Statistics Year Book 1991*.

The further study of the structures of light and heavy industries within the industrial sector is an important aspect of understanding the formation of urban productivity. In urban industrial output structure, heavy industry accounts for 55.6% and light industry accounts for 44.4%. Compared with the national structure, urban heavy industry's proportion is five percentage points higher (see Table 18). Among the five categories of cities, the ratio between heavy and light industries is different. Heavy industry is concentrated more in big cities of 500,000 people or more. Their proportion of heavy industry is five percentage points higher than the average of all cities. For cities with a population of 200,000 or fewer, light industry accounts for a bigger proportion. Their heavy industry is less than 46%.

Table 18 Ratio between Heavy and Light Industries in Cities, 1991 (%)

	City Categories					City average	National average
	First	Second	Third	Fourth	Fifth		
Light industry	43.8	38.6	39.8	44.5	54.2	44.4	49.4
Heavy industry	56.2	61.4	60.4	55.6	45.8	55.6	50.5

Sources: *China Urban Statistics Year Book 1991.*
China Statistical Year Book 1991.

The concentration of industry in cities, particularly big cities, is an outstanding Chinese feature. J. Vernon Henderson demonstrated the industrial concentration level in Chinese metropolises (see Table 19). He compared Shanghai with the US's most industrialized city, Chicago, and the biggest city, New York. He also compared Beijing with the American capital city of Washington. He discovered that although Chicago was the most industrialized city in the US, its industry was not very concentrated. The other two American cities hardly had any industry, even less heavy industry. Even if compared with US's past, the proportion of Shanghai's manufacture output volume to the national total and the proportion of its population to the national total in 1981 were both four times higher than that of Chicago and New York in 1914. Henderson also studied the relationship between international industrialization and urbanization, and concluded that to concentrate industries, particularly certain heavy industries and the production of standardized products into big cities was not efficient. This was because, first, land cost and labour opportunity cost in cities were too high; second, it was more efficient to build resource-intensive heavy industries near resources deposits than in consumption centres; third, to concentrate heavy industry in cities meant putting the large population under the threat of pollution. However, some superficial

comparison and data on productivity seemed to have convinced Chinese decision-makers that it was most efficient to concentrate industry in cities and that urban industrial concentration would continue.[9] Henderson was puzzled. Why some international experience and already proved or being proved truth could not be applied in China? Why urban concentration of industry had been inefficient in other countries but seemed to be quite efficient in China? Henderson conducted his research on China's urbanization in the early 1980s. At that time, the Chinese were not used to the market concept, and there were no land and labour markets. How could they have the concept of opportunity cost? Had there been highly developed land markets as those in New York and Tokyo, the inefficiency of urban concentration of industry would have been more than obvious.

Table 19 Industrial Concentration in Big Cities

	1	2	3	4	5
Major Chinese cities (1981)				4.5	1.5
US metropolises (1914)				2.2	1.0
US metropolises (1972)				1.1	0.8
Shanghai (1981)				9.8	3.8
Chicago (1914)				2.6	1.2
New York (1914)				2.1	0.9
Chicago (1977)	3.4		4.6	1.4	1.1
New York (1977)	4.9		6.7	0.8	0.6
Beijing (1981)	5.1		2.7	4.7	1.6
Washington (1977)	1.4		7.0	0.2	0.2

Notes: 1 = Proportion in national industrial production;
2 = Proportion of urban population to national total;
3 = Proportion of big city population to urban total;
4 = 1/2;
5 = 1/3.
Source: J. Henderson, 1984, pp. 49-54.

We have used Henderson's method to analyze China's industrial distribution and have concluded that the centralization of industries into big cities is still continuing (see Table 20).

Table 20 Industrial Concentration in Chinese Cities, 1990

	City Category				
	First	Second	Third	Fourth	Fifth
Ratio of industrial output to non-agriculture population	1.11	0.97	1.04	1.01	0.63

7. Inter-Regional Urban Development

During the early stages after the founding of the People's Republic, China had six administrative districts above municipalities and provinces. The six administrative districts were Northern China District (Beijing, Tianjin, Hebei, Shanxi and Inner Mongolia); Northeastern China District (Heilongjiang, Jilin, Liaoning); Eastern China District (Shanghai, Shandong, Jiangsu, Anhui, Zhejiang, Jiangxi and Fujian); Central China District (Henan, Hubei, Hunan, Guangdong and Guangxi); Southwestern China District (Sichuan, Yunnan, Guizhou and Tibet); and Northwestern China District (Shaanxi, Gansu, Ningxia, Qinghai and Xinjiang). In 1958, the district administration level was eliminated and on the basis of the six administrative districts, seven economic cooperation zones were established. They were, Northern China, Eastern China, Northeastern China, Northwestern China, Southwestern China, Central China and Southern China. In 1961, the Central and Southern zones were merged to form Central-Southern Zone, thus reducing the number of economic cooperation zones to six. The urban development of these six zones is very imbalanced (Table 21).

Table 21 Comparison of Urban Development among Six Economic Cooperation Zones (1990)

	North	N.E	East	C.S.	S.W.	N.W.	National
Area (Km^2)	153	79	76	100	231	321	960
% to territory	15.9	8.2	7.9	10.4	24.1	33.4	99.9
Population (10,000)	13191	9993	33287	31486	18025	8018	114000
Pop. density (/Km^2)	88	127	438	315	78	25	119
% of pop. to total	11.5	8.7	29.1	27.5	15.8	7.0	99.6
No. of cities	55	67	136	116	45	48	467
No. of big cities (over 1 million pop.)	9	12	41	25	9	4	100
City density (/Km^2)	3.6	8.5	17.9	11.6	2.0	1.5	4.9
% of big cities	9.1	11.9	5.2	3.5	8.9	6.3	6.6
City density in 1953 (/Km^2)	1.6	2.8	6.1	4.0	0.8	0.5	1.7
% of urban non-rural to national total	16.3	20.0	28.1	20.3	8.4	6.9	100
% urban area to national urban area	11.4	19.4	14.4	13.3	7.1	34.4	100
% developed area to national total	18.2	21.1	24.3	20.5	6.9	9.0	100

Sources: *China Urban Statistics Year Book 1991.*
China Statistical Year Book 1991.

China's economic development history and geographical conditions have created a general feature in demographic distributions: high density in the east and sparsity in the west. There have been twists and turns in inter-regional urban development since the founding of People's Republic. From 1953 to 1978, influenced by the policy of building up the "third line" (interior regions), a general strategy of allocating cities according to mandatory

zoning was formulated. Under this strategy, urban development in the central and western regions accelerated while the potential of eastern cities was not brought into full play and the number of cities in the east was reduced by four, resulting in the dropping of the overall economic efficiency. The start of the reform enabled coastal cities in the east to gather development momentum. The establishment of four special economic zones and the designation of fourteen open coastal cities as well as the establishment of Hainan Province as a special economic zone in the 1980s has further accelerated urban development in the coastal regions. However, the general demographic feature of "high density in the east and sparsity in the west" has not been changed fundamentally.

Summary

Statistical analysis shows that China's urban development has some outstanding features: (1) Population urbanization is detached from economic development. Long-term rapid economic growth is accompanied by stagnation of urbanization. (2) Free movement of the population almost has not effect on urbanization. Mechanical urban population growth is brought about mostly by the expansion of cities. (3) Urban population growth is not occurring in big cities but through the increase of the number of small and medium cities. (4) Relative to urban population proportion, the cities enjoy more incomes and other benefits. (5) In the course of population migration into cities, the inter-rural and inter-city migration is of ever greater importance. And peasants without legal residence status are floating into big cities. (6) Urban employment structure, production structure and income structure are leaning heavily on industry, particularly on heavy industry, and the trend of the concentration of industry into cities is continuing. (7) Urban development in different regions is extremely imbalanced. Urban population is concentrating in the eastern part of the country. This section concentrates on statistical analysis. As for what factor has led to these problems in China's

urban development and the orientation of China's urban development at the turn of the century, the following sections will discuss in detail.

II. Urban Development under the Traditional Planned System

In the thirty years between 1949 and the end of 1979, China's urban development was controlled by non-market forces. The market-oriented reform that began in the early 1980s brought about new vitality and challenges to China's urban development. The traditional planned system could no longer "cage in" the expansion of market forces. Yet like a wild horse, the market without a plan could not embark on a correct road either. How to realize the integration of plan and market in urban development, this is the challenge China must face.[10]

The features of China's urban development are all related to the planned system that existed for more than thirty years. The market-oriented reform in the 1980s has introduced market mechanism, but because of the momentum of the past thirty years urban development cannot be diverted from the previous orbit immediately. Therefore, the point of departure to understand the issue should be the traditional planned system itself.

1. Basic Features of the Traditional Planned System

The basic features of the traditional planned system are: highly centralized economic decision-making power; resource distribution through administrative order; and the overlapping of enterprises and state.

(1) Highly centralized economic decision-making power

Polish economist F. Broos divides the decision-making of social economic activity into three tiers:

First, macro decision-making. The first tier of decision-

making affects the strategic issues of national economy — economic growth rate; the GDP distribution ratio between accumulation and consumption; allocation ratio of accumulated funds (investment) in various economic sectors and regions; selection of important investment projects; the distribution principle of consumption funds, etc.

Secondly, decision-making by enterprises on current economic activities, or simply, "enterprise decision-making." At this tier, decision-making affects the following — the output scale and structure, i.e., what to produce and how much; input scale and structure such the types of materials and technology, and the amount of materials and labour for production; marketing orientation and supply sources; decision on small scale investment; remuneration types, etc.

Thirdly, decision-making by households or individuals on their economic activities, or simply "individual decision." It mainly includes — the selection of jobs; whether to choose more income or more leisure time; how much of the income should be used for current consumption and for saving; what kind of consumption structure one chooses; the form of accumulation, whether to put money into financial assets (such as stocks, bonds or savings) or into fixed assets (such as housing, luxury furniture and durable consumer goods), etc.

Highly centralized economic decision-making means that not only macro decisions are made by central planning authorities, but "enterprise decisions" and "individual decisions" are also controlled by the central authority. What an enterprise should produce and how much, what an enterprises will use to produce commodities, how it will organize production, how it will arrange for procurement, how it will use depreciation fund, how it will manage production — all these big and small decisions can be detailed into in-kind plans. Household or individual's decision on jobs, income distribution and other options have all been blended into the plan for labour employment, rationing of consumer goods, benefit allocation of urban housing, and the state's unified plan for redistribution in the form of benefits and in-kind payment under the system of maintaining low wage income levels.

(2) Administrative readjustment

High level of power concentration in economic policy means the unification of policies at the national level. It does not mean that all quantitative balancing is achieved at the central level. By the end of 1952, China established the State Planning Commission under the central government. Meanwhile, planning authorities were also established by other government departments such as finance, economy, culture and education. The state used central planning systems of various departments (commonly known as vertical administration) and local planning systems (commonly known as regional administration) to direct and manage the planning work of all enterprises, institutions and work units in the country. Local governments and line ministries became links in materials balancing. The formation of the national economic plan had to go through a procedure from lower level to the top while the planned quotas were allocated from the top down through various levels to the production units. As for line ministries, provinces and other intermediary administrative levels, there were two forms of central planned control. One was that the centre "reached its hand down to the bottom," i.e., the centre directly controlled the enterprise, and the intermediary levels of administration had little decision-making power. The other was that the centre allocated quotas to different levels of administration. Ding Ningning believes that under China's traditional economic system, highly centralized decision-making accounted for only one-third of the time during the whole period.[11] If this conclusion is valid, it is fair to say that the comprehensive balancing of China's traditional socialist economy was realized more through the intermediary administrative levels of the line ministries and provinces. One feature of China's traditional socialist planned system was the scattering of balancing links. To a certain extent, it can be said that the national economic plan was formulated after it had been included into the balancing plans at various levels. Of course, the plans at various levels had to be formulated

according to the unified policy of the centre. Nevertheless, whether the balancing level was centralized or relatively scattered, one common phenomenon was the direction of enterprise economic activities through administrative orders.

(3) The micro basis of the overlapping of enterprises and government

Within an economy where resources are allocated through administrative orders, the enterprises cannot be an independent commodity producer but an outlet of administrative readjustment or a link in a huge administrative machine. Thus, the enterprise acquires two roles: the producer and the administrative branch. This is what is commonly known as the overlapping of enterprises and state.

As a link of the administrative machine, the top priority of the enterprise is to fulfil the material production quotas allocated through administrative order. Fulfillment of production quota is an important criterion that the authorities use to test enterprise leaders. If enterprise leaders excel in the test, they can expect promotions on the administrative rank ladder or even take positions at the department in authority or even higher leadership posts. Since the enterprise is a level of administration, it guarantees that enterprise leaders will obey unified orders for administrative planned quotas and abide by financial and economic disciplines on income distribution and investment. As a branch of the government, the enterprise also shoulders many financial redistribution functions. The enterprise becomes an important link in China's cover-all welfare system.[12]

Under the traditional planned system, the basic motivation forces affecting the urban formation and development such as individual's free choice of jobs and the enterprise's selection of business location based on investment opportunity cost were non-existent. Under this system, the driving force was the central decision-makers' preference.

2. *Central Decision-Makers' Preferences and Urban Development*

In the early years after the founding of New China, the central decision-makers were confronted with very narrow alternatives. Decades of war had drained the Chinese population into the agony of hunger and poverty. The most urgent task was to solve the problem of supplying the people with basic food and clothing. Domestic enemies, the cold war atmosphere in the world and the international economic embargo posed a serious threat to the survival of the new-born regime. Domestically, the new government faced devastating realities: backward traditional agriculture, weak industry, lack of funds, lack of technology and talents and a poorly educated population. Proceeding from the objective of consolidating the legitimacy of the new-born regime, the Chinese government had to resolve the supply of basic necessities and, on the other hand, quickly bring about industrialization so as to realize national independence and prosperity. Thus they formulated the social policies of ensuring the basic needs and equal distribution and the sectoral policies of giving priority to heavy industry.

As pointed out by a research report, China's social policies mainly aimed at ensuring the basic needs of the people: the supply of basic food and clothing, elimination of dire poverty and malnutrition, reduction of infant mortality rate, prolongation of life expectancy, elimination of various endemic diseases, popularization of public medical insurance system (in cities) and cooperative medical care (in rural areas), and free primary education.[13] Based on this policy preference, the Chinese government always are special attention to agriculture and rural regions. Following the historical tradition of regional circulation between the county seat and the township government as economic centres, rural regions developed commune and village based industrial enterprises to meet the local needs for agricultural production. On the other hand, the government adopted the policy of restricting the development of large cities while encouraging the development of

small and medium cities. This policy preference was an important factor helping China to realize balanced development of urban and rural regions.

Just like the Soviet Union, China regarded the priority of developing heavy industry as the only way towards industrialization. In his article "On Ten Major Relationships" published in 1956, Mao Zedong pointed out, "Heavy industry is the key of our country's construction. Priority must be given to developing the means of production. This is already decided upon. But this does not mean that the production of means of living, particularly grain production, can be ignored."[14] In the early years after the founding of the People's Republic, industry was plagued by not only problems of weak foundation, backward technology and incomplete sectors, but also by the legacy of colonial rule in terms of industrial allocation. At that time, more than 70% of industries was located in less than 12% of the total territory along the eastern coast. Heavy industry was concentrated in central Liaoning Province whereas light industry and machine tools industry were located a few cities including Shanghai, Wuxi, Tianjin and Qingdao. Under the policy of giving priority to heavy industry, the industrial structure was quickly changed. During the First Five-Year Plan (1953-1957), efforts were concentrated on the construction of more than 600 key projects (mainly heavy industry), thus laying the foundation for industrialization. Meanwhile, the state devoted more than half of capital construction investment to the development of interior provinces, where industry developed from scratch. In the first thirty years after the founding of New China, industrial output value of the interior increased 40-fold. Its proportion to the total national industrial output value increased from 28% at the time of liberation to 36%. The interior's fixed assets increased to more than one-third of the national total.[15]

The strategy of giving priority to heavy industry enabled China to realize relatively high level of industrialization with rather low per capita income. In view of the proportion of manufacture sector to GNP, the rate had reached 35% in 1979, 1.7 times higher than low income countries (whose rate averages

13%) and far higher than even middle income countries (25%) and industrialized market economy countries (27%).[16]

China's industrialization was realized within very narrow market conditions. Export of heavy industrial products before the start of the reform was limited, its proportion to the export total never exceeded 10%. Import and export trade volume was low anyway before the reform. Under these circumstances, products of heavy industry could hardly find sizable international markets. Domestically, in order to realize industrialization on the basis of low income level, the state had to use compulsory measures (under the prerequisite of providing basic consumption items) to ultimately restrict consumption and optimize accumulation rate. By this means, the country unconscientiously restricted the market demands for consumer goods, thus making heavy industry unable to support the development of light industry. Domestic and international restrictions forced heavy industry to create its own markets, i.e., internal circulation.[17] Because of all this, the manufacture sector leaned heavily towards meeting the demand of traditional heavy industry, and very little manufacture capability was devoted to the production of final products. Statistics of the late 1970s show that heavy industry accounted for more than 64% of all industrial sectors.

The strategy of giving priority to heavy industry and the closed self-servicing industrial structure had a direct impact on urban development. Tertiary sector was regarded as non-productive and its development was restricted. Cities gave priority to industrial development. Those cities that were backward in industrial production like Beijing, underwent rapid restructuring under the policy of changing consumer cities into production cities. J. Henderson compared China with the United States in the proportion of employment in tertiary sector. In 1900, 14% of US's total labour force and 23% of total non-agriculture workers were engaged in comprehensive commercial undertakings. But in China, by 1981 only 4% of the total labour force and 14% of total non-agriculture workers were in commercial undertakings. Henderson expressed the view that China's tertiary sector was

suffering a severe symptom of "anemia."[18] The basic motivation force of urban development in China was industrial development, whereas the driving force for industrial development was the expansion of heavy industry. As for the development of domestic and foreign commodity markets and service markets, their role was only secondary to China's urban development.

Industrial allocation was always swayed by political trends before the start of the reform. The main motivation for spreading industry into the interior was based on the consideration of balancing the development of coastal and inland areas and the safety of defense industries. The spreading of industry from coastal to interior regions also promoted the development of inland cities. For example, the number of cities increased from 69 before liberation to 225 in 1979. Many of the new cities were industrial and mining cities such as coal capitals (Kailuan, Datong, Fushun, Fuxin, Pingdingshan, Huainan, Huaibei, Fengfeng, Jixi and Liupanshan), iron and steel capitals (Anshan, Benxi, Panzhihua, Dukou, Maanshan, Daye, Baotou and Meishan), petroleum capitals (Daqing, Shengli, Maoming and Kolamai), copper capitals (such as Tongling), salt capitals (such as Zigong), porcelain capitals (Jingdezhen and Yixing), and tungsten capitals (such as Dageng). Meanwhile, a number of new comprehensive industrial bases or centres, including Chongqing, Chengdu, Dukou, Zigong and Guiyang, were established.

In China's urban development of the past, market force had hardly any levering effect on opportunity cost. The driving force was the original urban development motivation — political preferences for industrial development, in other words, the preferences of central decision-makers. Why could China maintain a certain kind of balanced development between urban and rural areas and between regions while giving strategic priority to heavy industry? Why did other countries experience rural decline and social disturbances when adopting the same policy? The determining factors were the policy environment for China's strategy of giving priority to heavy industry and a series of system arrangement.

3. Policy Environment and System Arrangements for the Realization of Decision-Makers' Preferences

In order to realize the strategy of giving priority to heavy industry, the three main problems China had to resolve were capital accumulation, labour allocation and control over consumption.

(1) Capital accumulation

Pricing policy played a leading role in capital accumulation for industrialization. Under the traditional socialist system, price was but an accounting tool which was used to facilitate in-kind exchanges. In order to calculate the volume of in-kind exchanges within a certain period and to eliminate the shocks of inflation in economic procedure, the plan-fixed prices was adopted as the pricing form. The plan-fixed prices under the traditional socialist system was a form to realize administrative orders in total disregard of market mechanism and the reality of economic structural changes. The main feature of the traditional pricing policy was to rely on the peasants to accumulate capital for industrialization.

To facilitate the implementation of this pricing policy, China began to establish the unified purchase and marketing system for basic agricultural produce beginning with grains in 1954. Unified purchase and marketing was a rather complete economic system. With prices being fixed by the state, this system suppressed the prices of agricultural products so as to ensure the state obtained agricultural produce at low purchase prices. The products were then distributed through commercial channels to urban residents and industrial enterprises at low prices so as to maintain the low wage level of workers and low material costs, therefore, urban industries could reap super profits. Finally, super profits were collected by the finance ministry through revenue remittance and taxation and were used as capital construction funds for the country's industrialization. This was how peasants' contribution became the main source of capital accumulation. Under the unified purchase and marketing system, market trading of basic

agricultural products such as grain was illegal and regarded as "black market" activities. The supply of agricultural products was often affected by natural factors and the supply varied from year to year depending on harvests. The unified purchase and marketing system reflected such fluctuations in a unique way. Take for example the award system for agricultural produce (first adopted in 1961). Under this system, sales in surplus of procurement quota would be awarded with the supply of certain commodities. This, in fact, was a supplement to the purchase price. The award range and quantity were flexible, apparently reflecting the influence of supply and demand.

The basic function of this system was to accumulate capital for national industrialization, ensure the supply of agricultural products and stabilize the general price level. Thirty years of implementing the unified purchase and marketing system made historical contributions to China's industrialization. It is estimated that peasants contributed up to 800 billion yuan to industrialization due to the price differentials between industrial and agricultural products.[19]

(2) Labour allocation

To strive for industrialization in a country with a huge population and limited arable land, one unavoidable issue was labour allocation. China adopted a unique policy. In urban areas, technology and capital intensive industries were encouraged while in rural areas, efforts concentrated on promoting labour intensive undertakings.[20] Through this policy the government was able to contain the surplus rural labour in rural areas and to ensure the development of heavy industry in cities. One difference between China and the Soviet Union was that China had more people and little arable land whereas the Soviet Union had more arable land and fewer people. Against this backdrop, the adoption of the Soviet policy created more complicated and acute problems in labour arrangement. However, China successfully tackled the problems within the framework of its planned system.

The success can be explained by the strict residence registration control in cities, the food rationing system and the state controlled employment system. First, anyone without formal urban residence registration did not have a chance to survive in cities for he would be regarded as belonging to the "floating population" and subject to repatriation. Secondly, no grain could be obtained through non-official channels. "Black markets" were banned. Grain handling departments were strictly prohibited from supplying grain without authorization. Restaurants would not serve anyone who failed to produce grain coupons. Thirdly, employment plans were formulated by the state. The plan was based on the size of the current urban population and industrial investment scale. When the urban population could not meet the labour needs of investment, the state would recruit workers from peasants for specific projects, enabling them to "change their rural resident status to non-rural." The concept of free migrant population was absolutely excluded from such plans. The three factors of residence registration control, grain rationing and employment system combined to form a very strong system barrier between cities and rural areas. There were two factors contributing to the necessity of this system barrier: one was the urban residents' superior social status and livelihood safeguards which made them privileged to peasants; the other was the relative surplus of rural population. So long as the two factors existed, system barrier was absolutely necessary, otherwise, large numbers of people would have flooded into cities.

Of course, the most important task was to allocate rural labour. Under China's traditional system, non-agricultural production activities were restricted and abandoning agriculture in favour of commerce was discouraged. In rural areas, the emphasis was on grain production and the sectoral structure was leaning heavily on grain farming. Intensive farming tied down quite a large number of labourers on farmland. Large scale irrigation construction and water conservancy projects, land reclamation on barren hills, grasslands or even on sea also became major means of absorbing extra rural labour. Many of these projects such as land reclamation on sea became useless later but at the time,

they did allocate tens of thousands of labourers. Later, commune and village based enterprises that used local materials and organized production and marketing locally also became labour absorption measures.

The allocation of rural labour was also supported by the system. In the mid 1950s, peasants had relatively more freedom in seeking industrial jobs, moving and other income making undertakings. They formed vast streams of "floating population" into the cities. But later changes basically eliminated the "floating population" problem.[21] The gradually perfected people's commune system effectively restricted peasants' movement. This restriction was enforced by the grain rationing, work point and residence registration systems. These systems made it very difficult for peasants to leave farmland. Since the people's commune combined administration and government functions, all these restrictions acquired a certain degree of mandatory force.

(3) Consumption control

The prerequisite for realizing the strategy of giving priority to heavy industry was high accumulation. In a sense, high accumulation required effective control over consumption. Under the planned system, controlling consumption was relatively easy, because the consumption income level was controlled by the central government. "Consumption income" was an accurate phrase to describe the concept. Before the reform, any kind of asset revenue was illegal or negligible. The people's main income was that obtained under the principle of "to each according to his work." And such income was carefully calculated. The standard for the calculation was ensuring the basic needs. One telling example was that by 1978 the urban and rural residents' savings balance averaged only 21 yuan per person.[22] Remember, this was the savings of nearly thirty years. The control over peasants' consumption was realized by setting the purchase prices of agricultural products and the sales prices of manufactured goods. As for the control of consumption by urban residents, it was reflected in low wage income level, rationing of daily necessities and

widespread in-kind distribution. In-kind welfare distribution was a form of state's collecting capital accumulation rather than the reflection of socialist superiority. Because in the final analysis, this was a government means to effectively control the people's consumption. At present, people commonly regard the in-kind welfare distribution such as price subsidies and housing as privileges of urban residents and they criticize the practice from the point of view of a two-tier social structure. But in fact, the practice was also a government means to raise funds. For example, by 1978, the per capita share of housing in urban areas had decreased from 5.4 sq m in the 1950s to 3.6 sq m. Another example is that supply through coupons, price subsidies and rationing were all measures to restrict consumption when supply was in shortage. They were not indicators of the welfare level.

Summary

China's urban development had many features and all of them carried trademarks of the traditional planned system: the political orientation of non-market forces and the preferences of decision-makers were the main factors slowing down urbanization. Urban development excluded the labour absorbing tertiary sector and preferred capital and investment intensive heavy industry. Moreover, a self-servicing industrial system with heavy industry in the lead was formed, and all this inevitably led to industrial concentration in cities. It restricted the exodus of agricultural population in a country where rural population was far in surplus due to limited farmland, and realized fast industrialization by restricting labour movement; this was not something that could be achieved through a simple plan but required a whole set of clever and complicated policy and system arrangement. It provided the basic guarantee to the urban and rural people's livelihood; it ultimately controlled the people's consumption income, particularly the consumption of non-essential commodities; and it ultimately increased the people's dependence on the government; these were the necessary conditions for the realiza-

tion of the urban development strategy of giving priority to heavy industry. Under China's traditional planned system, not only markets of key factors such as labour, land and capital did not have much impact on the formation and development of cities, even the commodity market became insignificant since the circulation of commodities was realized through planned allocation.

III. Opportunities and Challenges Brought about by Reform

The market-oriented reform that began in the late 1970s has strongly rocked the highly centralized decision-making system, the mandatory allocation of resources and the enterprises' attachment to the government. The rural reform featuring household responsibility system and the opening of markets for agricultural products have greatly promoted the development of agricultural and industrial production in rural areas. The urban economic system reform centring on power decentralization and allowing localities and enterprises to retain more profits has given a powerful injection to urban development. The resources allocation reform centring around restructuring the pricing system has cleared the way for market mechanisms. The most fundamental changes brought about by the reform are reflected in two interrelated aspects.

First, China has now basically resolved the problem of meeting the basic needs of food and clothing, and its economic development has entered a new stage in which the expansion of the demand for non-essential commodities is the main motivation. The research conducted by Zhou Qiren and others indicates that the main difficulty China faces in the new stage of development is how to rely on the demand for non-essential commodities to propel economic growth while avoiding the demand going beyond the country's resource capabilities, thus adversely affecting sectoral development. The main economic problem in the new development period is how to combine the efforts to meet the

demand for non-essential commodities with sufficient employment of vast population under severe resource restrictions.[23] The fundamental issue of the change is that, during the period of resolving the basic needs for food and clothing, the planned control had been an effective means to mobilize resources to ensure the supply of basic needs, but in the new development period marked by the expansion of demands for non-essential commodities, the main motivation force has to be the development of markets.

Secondly, China has been basically transformed from a supply-propelled economy into a demand-restricted economy. The preference of consumers have replaced the preference of central decision-makers as the driving force of economic growth. The main problem with the new economic pattern is the irrationality in the demand and supply structure caused by the skewing of prices and the similarity of production and consumption structures. The main operational problem for the new economic pattern is how to rationalize prices for key factors and commodities to bring the economy into a self-sustainable circulation under the condition of limited inflation.

The problems arising from the two aspects of change are fundamental. China's future economic development depends on the scale of market development. The main issues for realizing the development objectives are: how to develop markets and what kind of markets should be established. Fundamental changes brought about by the market-oriented reform have presented new opportunities and challenges to China's urban development in the 1990s.

First, the changes in the motivation of urban development. In the past, central decision-makers' preferences and political economic considerations were the main motivation force of urban development. Since the start of the reform, market development has become the basic driving force of urban development. The special economic zones of Shenzhen, Zhuhai, Shantou, Xiamen and Hainan and more than a dozen coastal open cities have thrived under the influence of international and domestic market

forces. Of course, the impetus of market mechanisms on urban development is mainly reflected in the increase of the cities' function as centres of commodity trades, the prospering of various service trades and the market-stimulated development of production and service undertakings. The revival and development of small cities are the most telling examples. Before the reform, some counties and tow ships already developed some capabilities. But at that time, they were restricted by the policy of "using local resources, organizing production and marketing locally," and they had to settle for local small commodity circulation. Market capability decides development potential. Since the start of the reform, rural industries have been developing at full speed, and the local circulation pattern has been replaced by exploration of national and international markets. Between 1981 and 1988, municipal and township population increased by 1.7 times, but the township population increased by 2.9 times. The proportion of township population to municipal and township total went up from 31.2% in 1981 to 44.6% in 1985.[24]

Secondly, drastic changes have occurred in the urban employment channels and structures. The employment rate of floating population outside population control has increased sharply. Rough estimate shows that in 1990 employment of non-registered floating population in cities accounted for more than 20% of total urban employment.[25] The rates vary sharply among different cities. Take Shenzhen for example: its formally registered population is less than 700,000, but the city's real population has constantly been more than two million. Out-of-town population has been the main labour force in the city. Guangzhou is another example. In past years, the floating population has accounted for around 45% of the city's total. These migrants who move to cities without any planned arrangement have become an important force of urban development. In Shenzhen and other small cities and towns, authorities have adopted a measure allowing peasants to settle in their cities after paying fees for urban infrastructure construction. This practice is in fact an official recognition of population migration.

Thirdly, the capital source for urban development has changed. In the past the only source for urban development fund was the state budget allocation. Due to decision-makers' preferences, the construction or urban infrastructure was long neglected and many cities had only production functions. The urban economic reform featuring power decentralization and allowing localities and enterprises to retain more profits has made initial distribution and re-distribution leaning towards consumers. The proportion of people's income to GDP has increased from 53% in 1978 to 76.2% in 1990. Correspondingly, the people's savings in total national reserve had also jumped from 4% in 1978 to more than 40% in 1990. The changes in national income distribution and accumulation pattern are eventually reflected in the deepening of China's finance. If the deepening of finance is defined as the proportion of people's capital assets to GNP, then it is fair to say that China's changes are fundamental. The rate has increased from 10% in 1978 to 60% in 1990, reaching the level of market economy countries (Table 22). Increasing the depth of China's finance is of great significance. The development of Chinese cities and the national economy in the future depends mainly on the financing capability.

There have been many other positive changes. China has introduced market mechanism without fundamentally changing the planned system. To let market mechanisms play a role within the framework of the planned system will inevitably create many conflicts and frictions.

Table 22 International Comparison of People's Assets

Country	Year	People's Assets to GNP (%)	Country	Year	People's Assets to GNP (%)
Indonesia	1978	17	China	1978	10
Thailand	1978	42		1979	12
South Korea	1978	42		1980	15
The Philippines	1978	41		1981	18
India	1978	43		1982	20
Britain	1978	56		1983	24
Japan	1978	116		1984	28
France	1978	87		1985	30
USA	1978	66		1986	36
				1987	41
				1988	44
				1989	50
				1990	60

Sources: Foreign statistics are quoted from Bertrand Renaud, 1985.
Chinese statistics are based on data provided by the Readjustment and Statistics Department of the People's Bank of China and *China Statistical Year Book 1991*.

1. Industry Continues to Concentrate into Cities and Specialization of Urban Production Remains Low

The concentration of industry into big cities in the 1980s has been completely different from pre-reform days. In the past, the concentration was the result of decision-makers' preferences and the procedure carried a flavour of mandatory administrative order. The industrial concentration in the 1980s has reflected the role of market mechanisms within the framework of the planned system. The decentralization-oriented urban reform of the 1980s has been

a process of administrative power decentralization. All provinces, autonomous regions and municipalities have redrawn their spheres of jurisdiction in the reform process. Due to the skewing of the price system, various protectionist barriers have been erected along the borders of administrative jurisdictions. The previous unified commodity allocation market has been replaced not by an integrated and unified market, but by big and small separated markets. Within the jurisdiction of a province or a municipality, the departments in authority have all sought to establish "big and complete" or "small and complete" systems. All cities have regarded the establishment of a production city with complete sectors as the reward for success. When refrigerators, colour televisions and washing machines became profitable, all cities rushed to build production factories, resulting in redundant production capabilities. Within three to five years, production capability far exceeded market demands. For example, the production capability for refrigerator is two-thirds more than market demand.

The problem does not lie with the introduction of market mechanisms. Strictly speaking, the continuation of management through administrative order, a legacy of the traditional planned economy, is the cause of the problem. The opportunity for urban development rests with the exploitation of relative advantages and all directional development of markets. Within the jurisdiction after power decentralization, the desire to exploit relative advantages has been replaced by the motive to establish self-reliant production systems. Thus, an all-direction development of markets has been replaced by sealed-off markets.

Administrative interference in the economy, or the response of administrative leaders to market skewing, is only one aspect of the problem. When an entrepreneur chooses an investment venue, does he select a venue near a big commercial centre under the current circumstances? The answer is yes. Then where does the problem lie?

The problem lies with the market. Chinese cities do not have fully developed labour and land markets. This is the root cause of

industrial centralization in cities. In a market economy country, the living cost in big cities is several times higher than in small and medium cities. Ordinary industrial enterprises cannot afford such high labour opportunity cost and they usually choose smaller cities or even townships to establish production bases. In big cities, land cost is astronomical and the huge investment opportunity cost is more than enough to scare away most enterprising entrepreneurs. But China's situation is different. Commodity prices are similar in all cities, and big cities usually offer better bargains for industrial products and agricultural produce. This is because big cities are more accessible by transportation and have their own production bases of vegetables and other produce. Therefore, the prices of such products can be even cheaper than in small townships. Labour wages are of similar standards nationwide. Big and small cities are under the same wage policy. Labour opportunity cost is almost the same in all cities irrespective of their size. So long as the authority's approval is obtained, land is free and perpetual use. Therefore, the cost of establishing a factory is quite cheap. Moreover, since big cities have better infrastructure, investment cost is usually lower than in smaller cities.

It can be concluded that without the development of markets for key factors, industries of various sectors will continue to concentrate in cities, making them self-sufficient industrial production centres.

2. *Rural Industrialization and Township Development: Historical Contribution Plagued by "Rural Disease"*

Before the reform, peasants who accounted for 80% of the population were shut off from the direct process of industrialization. A series of policies and systems had barred peasants from becoming active forces for China's economic restructuring. At that time, commodity exchange between urban and rural areas was: rural areas supplied cities with primary agricultural products (such as grain and cotton) and cities provided the countryside with processed products (agricultural and industrial) and primary industrial products (such as coal and other means of production). After the reform, the development of rural industries shattered the old economic pattern. The commodity trading pattern between rural and urban areas has changed. In the past it was the exchange of primary agricultural products for basic industrial products. Now the countryside is providing basic industrial products (such as minerals) and simple or secondary processed products as well as primary agricultural products in exchange for medium and expensive industrial and capital products. Moreover, technical and personnel exchanges and mutual investment between rural and urban areas are becoming more and more significant. Rural industrialization and development of small townships in the 1980s have no doubt made historical contributions to the transfer of surplus rural labour and national economic restructuring. Particularly in the Pearl River Delta region, a large number of new cities have emerged from paddy fields and banana farms, making the area the largest urban concentration region in China. The small cities there have done away with the traditional urban and rural residence registration control system by throwing their city gates wide open to rural peasants and allowing them to come in and establish shops and factories or buy commercial housing. These new and up-coming small cities have also established a new urban system in construction financing, construction and management of urban infrastructure, population movement control and market supply. The outstanding feature of these cities is that their expansion solely depends on the establishment of industrial development zones and the growth of commerce. In these cities, outside population usually accounts for more than half of the total, and they can be described as towns of migrants. The social structure of these cities is also different from that of traditional planned economy. Managers, skilled workers and service traders (finance, insurance and security, hospitals) are the backbones of these urban societies. Enterprise establishments are the foundation of these cities and, naturally, entrepreneurs have become the powers that be. These cities can also be described as enterprise cities. The most active and powerful social elements in

these cities are enterprises.

However, as rural industrialization and the development of small townships accelerate, the "rural disease" is also spreading. Gu Yikang and his colleagues believe that the "rural disease" is a social disorder comparable to "urban disease." The main symptoms are: (1) The scattering and localization of township and village enterprises. Take Zhejiang Province for example: almost every village in the province has factories. (2) Agriculture has become the profession for the old and ailing, and a sideline undertaking to industry and commerce. There is a saying that all the able bodied are running commercial businesses, women are working in factories and only the old and weak are tilling the land. (3) Industrial pollution is worsening and the rural ecological environment is deteriorating. (4) Township and village enterprises, an upsurge of housing construction by millions of households and the increasing number of small towns have become three "fierce tigers" overtaking farmland. And the development of small towns is becoming less orderly and more inefficient.[26]

The "rural disease" is not necessarily a symptom of rural industrialization and development of rural towns. In some coastal provinces like Guangdong, Jiangsu and Zhejiang, as well as in the suburban areas of big cities like Shanghai, Beijing and Tianjin, small towns have truly spread urban civilization to rural areas. They are also producing some high quality and technology-intensive products to compete with urban industries. To a certain extent, these successful towns have helped divert industries away from big cities and readjust industrial structures of big cities. In these areas, townships are also numerous and almost every village has factories. But their economic and ecological efficiency are better. The main reasons are these areas have better transportation, communication, water supply and drainage systems. They are closer to big cities and have been more advanced than other rural areas to begin with. And they have more technical talents. Therefore, the "rural disease" is apparently a regional "epidemic." Areas with more serious symptoms of the "rural disease" are the ones with poor infrastructure. So it can be concluded that the

"rural disease" is directly caused by blind development of township and village enterprises in areas without adequate infrastructure.

Then why were efforts made in the first place to develop township and village enterprises in areas without adequate infrastructure? The answer is the market forces. Under the current distribution system that links pricing, taxation and financial relationship, industry can generate larger benefit than agriculture. Industrial undertakings generate more revenue than agricultural production. As for peasants in undeveloped areas who are more concerned with making some quick money, higher income certainly weighs heavier than issues like environmental pollution and land waste.

The administrative structure formed under the traditional system also hardens this trend. The county magistrate is most concerned with industrial development in his county town. The township head gives priority to industrialization of his territory. And the village head also likes to see his village thrive industrially. County to county, township to township and village to village — everybody is vying to launch projects before others. Such competition launched by administrative bodies (it is in fact a competition among administrative leaders for promotion rather than economic competition) has contributed to the blind development of rural industries.

A deeper analysis shows that the system barrier separating cities from rural areas is more responsible for the "rural disease." The existence of the barrier has eliminated the possibility of peasants moving into cities and forced peasants to "digest their investment locally," thus the abnormal development of rural industrialization.

Of course, for China's rural areas, the "rural disease" is also an "illness of the rich." It reflects the accumulation of capital and technology in rural areas and the desire to reap higher benefits. This capital-backed desire is not present in all rural areas.

3. *The Soaring Price of Commercial Housing: Opportunity Cost of Labour and Housing Benefit Distribution*

Before the start of the reform, housing funds were allocated by the state. After the housing was completed, it was allocated to individual workers through enterprises. The state determined construction costs. Housing construction price had increased from 50 yuan per sq m in the 1950s to 89 yuan per sq m in 1978. After the reform, the responsibility of housing fund raising and usage has been diverted more and more into the hands of enterprises. Housing continues to be allocated to workers as in-kind benefit. But quantitative change has led to qualitative change. Because of the ever increasing space and quality standards, housing has become a welfare distribution in a true sense. Newly built housing is usually 70 sq m per unit. In some provinces and cities, the unit space has exceeded 100 sq m. On the other hand, housing price is rising rapidly. Statistics show that the 1990 average housing construction cost was 316 yuan per sq m. This is only the structural construction cost, not the housing price. When enterprises buy housing, the price is over 1,500 yuan per sq m in big cities, and in Beijing and Shanghai housing in some areas can sell for 4,000 yuan per sq m. This price has to be born by work units (enterprises or administrative institutions) which then allocate housing to their workers after subsidizing management and maintenance. The fund that work units use to purchase housing comes from state budgetary allocation or revenue retention. There should not be too serious a problem if the public ownership sector makes such an investment when the workers' wage income remains low. However, the reality is that the workers' wage income is increasing sharply and income distribution is heavily biased towards the individual. This has raised a problem of welfare distribution going beyond national strength. Housing reform was first proposed in the early 1980s. But no substantial progress has been made in the past ten years or more. One important factor has been the lack of affordability on the part of the people.

International experience shows that when the ratio between

housing price and household yearly income is between 3 to 8, the household can afford purchasing through mortgage lending. The ratio between housing price and household yearly income in China averages 20:1, with the highest exceeding 30:1 (Table 23).

Table 23 International Comparisons of Housing Price/Household Yearly Income Ratio

Country	Ratio	Year	Per Capita GNP (US$/Person)
India	6.2	1985	270
The Philippines	4.5	1985	580
Egypt	7.2	1985	610
Thailand	2.5	1985	800
Malaysia	6.0	1985	2,000
South Korea	5.5	1986	2,150
Britain	2.4	1985	8,460
France	2.8	1982	9,540
Japan	6.7	1983	11,300
United States	2.8	1988	16,690
China A	4.2	1990	304
China B	8.0	1990	304
China C	20.0	1990	304
China D	33.3	1990	304

Notes: (1) China's per household yearly income is set at 4,500 yuan. This includes only the wage income, excluding in-kind payment and income through subsidies.

(2) One housing unit is set at 60 sq m, lower than the average standard of 65 sq m for commercial housing and higher than the state control standard of 55 sq m.

(3) China A sets housing construction cost at 316 yuan/m^2. See *China Statistical Year Book 1991*.
China B sets housing construction cost at 600 yuan/m^2 to include on-site infrastructure.
China C uses the mean of commercial housing price, 1,500 yuan/m^2.
China D sets the housing price at 2,500 yuan/m^2.

(4) Statistics of other countries are quoted from Wu Mingxiong, 1990.

As indicated in the table, people cannot afford to buy commercial housing at such high prices and, therefore, the public ownership sector has to continue to shoulder the burden even if it can hardly afford it. At first glance, it seems the introduction of market mechanisms into housing development has pushed up housing prices and increased the people's dependence on the public ownership sector. But the truth of the matter is that consumers who are bound by a hard budget have not been pushed into the commercial housing market, the relationship between the buyer and the seller in the housing market has not been rationalized, nor has the housing supply and demand system. Yet affordability is a major barrier to pushing consumers into the housing market. No solution has been found. People may want to ask what kind of market mechanism has been introduced into housing development? Since there is no solution to the Catch-22 situation within sight, should we not widen our vision and expand the space of selection?

The market mechanism introduced into housing development is not really a market in its true sense. The determining factor is not market signals but some non-market forces. First, housing planning and designing seldom consider the land price, or the people's affordability at present stage, or the demand level and structure. The determining forces are: first, a confused asset relationship has induced the enterprise to expand workers' welfare; then the planners' preference which has become habitual under the supply-driven economic model. Thus, housing standards are exceeding national strength.[27] Secondly, in the formation of housing prices, some extra-economic factors have played a pivotal role. Commercial housing accounts for only a limited proportion of housing development. In new development zones, commercial housing may take up a bigger proportion, whereas in old city redevelopment zones the proportion would be smaller, or about 50% in usual cases. Residents of non-commercial housing either obtain their units by paying only the construction costs or nothing at all. Yet residents of commercial housing must pay the total cost that has accured during housing development. Actually,

50% of the total cost has nothing to do with housing construction. That proportion goes to off-site infrastructure. Theoretically, the expenditure on off-site infrastructure should be covered by urban land use fees. But now the burden is completely put on the shoulders of commercial housing buyers. In other words, commercial housing buyers who use less then 1% of urban land must pay for 100% of land use fees.[28] The two arguments are enough to prove that the consumers' lack of affordability in housing procurement does not stem from the introduction of market mechanism into housing development; rather, it is a result of serious interference by administrative means under the planned system into the functioning of market mechanisms.

If this conclusion is correct, then the solution to the Catch-22 situation seems to be quite obvious: a transformation of the urban housing planning method and a full-scale implementation of payment-based land use system.

The logical "solution" to the problem is based on the following assessment: at present, prices of commercial housing in big cities are too high and have exceeded the housing opportunity cost under market mechanism conditions. Since markets are lacking, there is not enough evidence to prove the truth of this assessment. But it should be pointed out that some presumptions of this assessment are worth reconsidering. The assessment includes the following presumptions: (1) The current industrial allocation in cities is rational and the large scale industrial concentration in big cities is correct. (2) It is rational to have the same labour opportunity cost in big and small cities. (3) The current surcharges contained in housing construction cost have exceeded the true price of land. These presumptions are all groundless. Assessment based on groundless assumptions is doubtful.

But we can raise another presumption: at present, the commercial housing price in big cities is not high enough to cover true land prices. This presumption is based on the suspicion of the above presumptions and it also reflects some practical considerations: (1) Comparison of commercial housing price in Chinese big cities and the price of similar cities in other countries will show a

big difference. Of course, it is rather risky to make such a comparison in disregard of economic development levels of individual countries; such a comparison should not be used as evidence for the presumption. But the difference does provide a reference for analysis. (2) The practice of scale land leasing in Shanghai. From 1988 to 1991, the Shanghai Pudong Development Zone had leased six pieces of land under the scale leasing scheme. Two of them were leased through open bidding and they would be used to put up multi-purpose buildings of commercial housing and offices. The prices for the two pieces of land were US$2,174 per sq m and US$2,300 per sq m respectively. The unit price of construction space (calculated on the basis of their volume rates of 5 and 7.2) was US$434 per sq m and US$316 per sq m respectively. At the exchange of 1:5, those prices would be 2,170 yuan/per sq m and 1,580 yuan/per sq m.[29] If we compare the prices of commercial housing in big cities with these land prices, we cannot say that the housing prices are too high.

The new presumption has completely changed the concept of commercial housing price. The issue now is no longer that housing prices are too high and that measures should be taken to reduce the prices. The issue now is how to transform the *status quo* to accommodate the high prices of housing. Abandoning traditional thinking certainly opens up new horizons for option. But at the same time, a more fundamental problem in urban development has been touched: labour cost with housing price included will be four times higher than present levels.[30] This will force most industrial enterprises into loss-making. But if labour cost does not cover housing prices, then labour cost will never be true. In order to survive, enterprises will have three options: first, increase product prices; secondly, maintain the loss-making or marginal profit status; thirdly, move out of big cities where housing prices are too high. In China where township and village enterprises now account for 40% of industrial output value, the first option will be powerfully challenged by rural industries. The second option is not only unbearable to enterprises, but the finance ministry will never agree to let it happen. The third option has been

proved to be a good solution from experiences in other countries, but it is too costly and difficult to implement, therefore, rather impractical given the current economic and management level of China.

Difficult as it is, the option has pointed to an orientation: how to abandon traditional thinking and learn to use market mechanisms to tide over difficulties during the restructuring period — this is an unavoidable challenge facing China's urban development.

4. *The Distortion of Urban Land Market: Hampering the Effective Usage of Land while Hardening the Motive to Seize Land*

Economic efficiency and the quality of life in cities depend to a large extent on the efficiency of the land market. The above mentioned confusion in urban industrial allocation and housing market is related to the skewing of the urban land market.

Under the traditional planned system, urban land in China belonged to the state and was allocated for permanent and free usage. The biggest problem with this system was the artificially stimulation of land demand and the distortion of land supply. To be more specific, the problem is reflected in two aspects: an inadequate capability to develop and maintain urban land and low efficiency in land usage.

In developing countries, the supply of land is restricted not only by natural factors but also by the capability to develop and maintain urban land. Urban land is different from farmland. It includes service infrastructure and conditions. The shortage in the supply of urban land with effective services is usually not caused by the lack of land but by the lack of funds and organizational and managerial capabilities to provide such services. And this problem is worsened by the practice of lower-than-cost land fee collection or free land use.

The traditional land allocation system encouraged enterprises to occupy more and better land. This was because the occupation

of land not only cost nothing but also enhanced the firm's monopoly status. So why not grab it! A survey of land use in Guangzhou City conducted in 1982 showed that idle land accounted for 19% of the total urban land. In Yuexiu District at the centre of the city, 103 work units had occupied but idled 75,823 sq m of land between 1978 and 1980. In Fushun City, when land fee was introduced, some work units returned 105,000 sq m of excessive or idle land. In Hefei City, after land fee collection began in 1983, the land requisition dropped by 35% a year.[31] The examples of Fushun and Hefei have reflected the huge waste under the traditional system and the potential of urban land supply.

In view of the reform measures already adopted, China's urban land use reform is less than thorough. This can be illustrated by the following points:

First, land use tax rates are low; they cannot fully reflect the lease differential between different urban lands, and the exemption range is too wide. The State Council has made the following stipulations on land use tax rates: (1) 0.5-10 yuan per sq m in big cities; (2) 0.4-8 yuan per sq m in medium cities; (3) 0.3-6 yuan per sq m in small cities; (4) 0.2-4 yuan per sq m in county towns, administrative townships and mining/industrial zones. But in reality, the highest land use tax rate in the whole country has not exceeded 8 yuan per sq m. Compared with the lump sum payment for land use for a number of years, this tax rate is far too low. Presume the discount rate is 0.08, the collection of fifty years of land use tax at the highest rate (10 yuan per sq m) will amount to only 122 yuan per sq m. Land leasing practices in Shenzhen and non-core area of Shanghai show that land price has exceeded 10,000 yuan per sq m. Apparently, land purchase is far more costly than paying land use tax.

Secondly, state land as a whole lacks clearly defined title rights. To practice land leasing, or the capitalization of land use rights, requires a clear definition of title rights over every piece of land so that the representative of the title and the land user can sign a "land use contract." This is in conformity with the law and the demands of a commodity economy. But in reality, the contract

over the use of state land is signed by different authorities. In some places it is the state land management administration, in other places, it could be the management authority of the development zone, or the construction commission, or the housing management authority, or the mayor. The confusion stems from the inadequacy of land management system. The multi-channel authorization of land leasing will eventually result in departments rather than the government obtaining land lease benefits.

Thirdly, the distribution of state land benefits lacks coordination. There are two major sources of land related revenues: land use tax and land transfer fee. The Ministry of Finance regulations stipulate that the former must be shared 50/50 between the central and local governments and the sharing rate of the latter should be 32% for the centre and 68% for the locality. This sharing arrangement dampens the locality's enthusiasm in land leasing. Since the locality must hand over 50% of the land tax revenue to the centre, it will arbitrarily reduce the land use tax. Meanwhile, the locality is likely to impose strict conditions on land use taxation on central enterprises while giving generous tax exemption and reduction terms to locally owned enterprises. All this will result in the reduction of land tax revenue. Since the municipal government is required to remit 32% of land transfer fee to the centre, it simply levies in-kind rent so as to evade the remittance responsibility.

Fourthly, there is too much "personal interference" in land leasing. Land leasing is a market activity. The amount, location and price of land leasing should be determined by the market. Adherence to this principle will ensure the realization of one of the reform objectives: the creation of a fair competition environment for potential land users. But under the current system, whoever holds the maximum power will have the final say as to who gets what land. For example, in one coastal city, the price of some not-so-attractive land has reached 3,000 yuan per sq m while better located land is leased for a little over 300 yuan per sq m. Personal interference is the obvious reason. Another indication of personal interference is that contract land transfer accounts for too

big a proportion. There would not be any problem if the contract land transfer is based on market prices. But under the cover of "contract," many pieces of land are leased out under the influence of "personal" preference. And naturally, the prices are unbelievably low.

Fifthly, the land supply plan is vague. According to China's Land Management Law, the non-agricultural land use must be approved by a land management authority. The state land management administration issues quotas for the non-agricultural use of farmland every year. But the supply for non-agricultural land use has gone far beyond the occupation of farmland. Activities such as old city redevelopment and the establishment of new economic and technology development zones have greatly increased the volume of land supply, making it exceed land demand and generally reducing land prices. This is not in conformity with China's reality of severe land shortage. On the other hand, the state lacks a clearly defined land supply plan, making it difficult for the investor and the government to accurately assess the land market, and for that reason detrimental to the rational allocation of land.

The market-oriented reform has already touched on the issue of establishing standardized land markets. Shenzhen City has established such a market. But nationwide, effective and standardized land markets have yet to be established. Land trading already exists. Large volumes of land asset revenue has fallen into the hands of land occupiers through the land "black market." Investigation shows that the current black market trade of land includes the following forms: a trade in land in the name of housing trade; pure land or space transfer; a trade in land for housing or joint housing construction; land development companies illegally selling land earmarked for housing development; equity participation with land as stocks; land purchase in the name of enterprise merger; charging high land lease rents in the name of housing rent.[32]

Who should collect land revenue is a rather controversial issue. A land occupier often tries to monopolize the right to land

revenue on the basis of investment on the land during the period of occupation. In fact, the difference between land and other commodity is that its value is not determined solely by the local investment but, to a larger extent, by the urbanization of the surrounding environment. Land value is an indicator of the area's economic prosperity rather than the amount of input in itself. Here is an example. Suppose 100,000 yuan has been invested to prepare a piece of land. Then the urban activity centre moves elsewhere because of natural disasters such as flood, the value of this piece of land will drop and it will not sell for 100,000 yuan even though the land remains intact. Conversely, if urbanization has brought economic activities to the area of this piece of land and made it the centre of prosperity, then its value will soar and it may sell for more than a million yuan. Since land asset/revenue is determined by the investment into urban infrastructure, land revenue should be used as much as possible for re-investment into urban infrastructure. The monopoly of land revenue by land occupier not only hampers land value circulation but also adds to the unfairness of enterprise competition.

"Land black market" or the existence of land asset revenue is the basic reason arguing for the establishment of standardized land markets and the implementation of payment-based land use system. But the factor also poses practical difficulties. Because the issue is no longer simply one of raising land price but one of readjusting a complicated structure of vested interests, such an attempt will certainly meet strong resistance from monopolizing interest groups of land occupiers. The establishment of standardized land markets will also require a readjustment of industrial allocation. Overall planning is also needed to determine where those urban enterprises that can no longer survive should go. In fact, to force those enterprises to move is an important objective of establishing land markets. Great importance should also be attached to the formulation of a land market organizational structure, legal framework and information network. Another issue is land speculation. What efforts should be made to strengthen the government's interference in and guidance to land speculation

under the prerequisite of recognizing its investment risk and taking rationality into account? The establishment of land markets should become a tool to readjust urban industrial allocation. But the mushrooming of "land black markets" has in fact strengthened the competitiveness of loss-making enterprises. Black markets have enabled them to reap sizable revenues without improving their performance.

5. *Chaotic Urban Financing: Problem-Ridden Urban Finance and Finance-Created Problems*

Corresponding to the highly centralized economic system, urban finance did not have any independence. It did have its own revenue and expenditure, but these responsibilities were only accounting functions within the state finance framework in cities. As one level of finance in the local fiscal structure, urban finance acquired some substantive responsibilities only after the start of the reform. The decentralization-oriented fiscal system reform began in 1978. At that time, the central government conducted an experiment of fixing revenue sharing rates through contract with Jiangsu province and decided that the rates would remain unchanged for ten years.[33] Later, the central government adopted four different forms of fiscal contracting according to various conditions of provinces: (1) for 25 provinces including Liaoning and Sichuan, the method of "separating revenue and expenditure, and multi-tier contracting" was adopted;[34] (2) for the eight minority-populated regions including Tibet, Xinjiang and Ningxia, the central government retained the previous practice of providing subsidies but fixed the term at five years, during which the localities were entitled to retain all revenue increments; (3) for Guangdong and Fujian provinces, the central government adopted the revenue and expenditure separation, the methods of quota remittance (for Guangdong) and the quota subsidy (for Fujian); (4) for the three directly centrally controlled municipalities of Beijing, Tianjin and Shanghai, the arrangement of "total amount sharing and annual rate fixing" was retained.

Beginning in 1985, the central government decided to adopt a new multi-tier contracting system, i.e., "separating taxes, verifying revenue and expenditure, and multi-tier contracting" (1985-1989). Since 1989, the central government has again readjusted the fiscal contracts with provinces and adopted the practice of a multi-level budget. The country will now have five kinds of budgets: state budget, central budget, provincial (autonomous regional or municipal) budget, city (county) budget, and township budget. By now, urban finance has acquired some form of independence.

Before the start of the reform, the cost of urban infrastructure construction was covered in full by the central government. It did not matter if this sector did not produce any profit because the government could use other revenues to make up for the losses in this area. At that time, profit was meaningful only when used as an accounting tool. Due to the existence before the reform of the commodity and material allocation system and the decision-makers' preference for large scale production-related investment to smaller non-productive investment, the construction of urban infrastructure had never acquired its adequate status on the economic planning agenda, and inadequacy was very serious. Since the start of the reform, the development of commodity economy has been more and more restricted by the inadequacy of urban infrastructure. Meanwhile, although the municipal government has not completely withdrawn from investment in capital construction, its access to budgetary allocation from higher authority has been greatly reduced and it can no longer allocate resources at will. Yet infrastructure projects usually require large amounts of investment and will not generate benefits immediately, so they cannot attract investment from production enterprises. Thus the government has been forced to make investment despite its inability.

The municipal governments have chosen to collect in-kind land rent. In-kind land rent is a rather vague concept. It refers to the government's collection of various revenues other than ordinary taxation in the course of urban real estate development. This revenue is not budgetary income and the larger part cannot even

be counted as extra-budgetary. In-kind revenue can take the form of on-site and off-site infrastructure, roads and pipe lines, public utility facilities, or housing. It can take the form of reducing financial subsidy or demanding remittance from administrative institutions. In-kind land rent directly benefits the municipal government and its functioning departments. And the burden is born by the central finance and new land users. The emergence of in-kind land rent has a fundamental system background.

The market-oriented economic system reform began with administrative power decentralization. The introduction of commodity/monetary relationship is not based on the enterprise legal person system, but on the re-zoning of spheres of administrative jurisdiction on the basis of the old vertical and regional planned management system. As soon as the reform began, the blending of the government and enterprise had been identified as a barrier to revitalizing enterprises. But China has time and again missed the opportunity to separate government from enterprises. The drive to adopt contracting system at all levels in the mid 1980s had further reinforced the blending of government and enterprise. And once the contract system became an established fact, the new interest structure also hardened. To readjust the contract system that had been promised to remain unchanged for a number of years would require a series of interest readjustments. This involved high risks and the centre had to repeatedly stress that the contract system would remain unchanged so as to reassure people.

The mix of government and enterprise and the contract system that was to remain unchanged for the next few years provided conditions for the tendency of in-kind revenue collection and payment. In order to reap the ultimate benefits, the best strategy a subordinate work unit could adopt in negotiating a contract with its superior authority was to cover-up its true financial strength and reduce the transparency level of its accounts so as to improve its bargaining position. This practice has led to in-kind payment for workers and the collection of in-kind land rent.

Under the contract system, the specialization of sectoral

departments has become separation and monopoly of sectoral departments, which in turn has led to the emergence of "duke economies" of various sizes. As a level of government, if the municipality does not show its part of the revenue in its account but directly deducts it from expenditure, then the department will not have the trouble of difficult bargaining with the superior for fiscal contract terms and base number readjustment. As a functioning body, if a department under the municipal government can make its income invisible, it will be able to avoid monetary supervision by departments in authority and realize its objective of expanding its spheres of influence.

At first glance, in-kind land rent seems to be the contribution of the real estate development unit. The unit is the rent payer and the government is the rent collector. The distribution relationship seems to be quite simple. But in fact, the in-kind land rent relationship and the redistribution effect are far more complicated. In-kind land rent actually reflects very complex interest relationships among the municipal government, district governments under the municipality, the government's functioning departments, real estate development enterprises and new housing purchase units and individuals.

Users of new urban land, including commercial housing buyer units and individuals and investors in new industrial, commercial and service projects are the true bearers of land rent. Real estate development companies transfer all the in-kind and monetary responsibilities into the development cost and charge it to the final user. Even the interest for investment is borne entirely by the final user. The final user undertakes the in-kind land rent responsibility through the intermediary link of the real estate development company. Of course, the final user pays cash to the real estate development company to cover in-kind land rent.

The municipal government seems to be the only rent collector of land rent. Through the deal, the government will not only obtain infrastructure such as roads, pipe lines and green areas but also public facilities such as primary and middle schools, kindergartens and police stations. It can also ask real estate

development companies to pay subsidies that should have been allocated from budget or obtain cash directly from the development companies. Incomplete statistics show that municipal governments can directly obtain revenue from real estate development companies under nearly 40 items.[35] Actually, even though the items are many, the scale is limited. Real estate development companies usually reap 40% sale profits. If real estate companies are normal operating enterprises, the government can be ensured of 55% income tax revenue from their profit. Other revenues such as land rent, energy and transportation funds will add up to another 20%. But what the government is actually getting is far less than that. In-kind rent amounts to no more than 10% of the development company's sale profits. The revenue from all the 40 items added up, the amount is less than 20% of sale profits.[36] The relationship here is rather complicated. Municipal government's revenue through in-kind land rent and various charges is in a sense the conversion of normal taxation and fee revenue stipulated by the central government. The normal procedure should be, in the initial distribution, the government obtaining normal taxation revenue from the profit of enterprises and sharing it with various levels of finance. Municipal government uses its share to re-invest into urban infrastructure, thus realizing redistribution. But the current practice is that the municipal government does not collect normal tax revenue in the initial distribution but uses the development company to compensate the expenditure that should occur in the redistribution cycle in the form of in-kind land rent, i.e., infrastructure obligations. In other words, the expenditure that should occur in redistribution is transferred into the initial distribution. The conversion has obscured the municipal government's revenue account and also saved the trouble of bargaining for retention rate with the higher financial authority.

In the conversion from redistribution to initial distribution, government revenue is reduced. The price the buyer pays and the actual cost for housing construction have a 70% difference which has nothing to do with cost. The government gets only 20%. So

where has the remaining 50% gone?

The government is not the only beneficiary of in-kind land rent. Functioning bodies under the municipal government, such as the construction commission, economic commission, housing and real estate management bureau, the municipal public utilities management bureau will all benefit by establishing non-profit development companies. Development companies are non-profit oriented and they are a branch of functional departments. Therefore, the revenue of the development company will become more or less the in-kind or monetary asset of the functioning departments. Of course, the asset will be reflected in the cost of real estate development and be cashed in by charging commercial housing buyers. This type of development companies have in fact become mini-banks for the functioning departments. Their revenue is the "super extra-budgetary" income for these departments.

Development companies are the main body of housing and real estate development. And they are the biggest beneficiaries of the distribution of revenue from real estate development. The above mentioned 50% of profit is largely taken away by development companies. Development companies' books will show that their profit rate is not very high, usually around 5%. For example, the Hangzhou Municipal Development Company has an official profit ceiling of 3.5%. In many cases, development companies only have 1% or less than 1% profit. Besides revenue from the collection of project management fee and unpredictable fees, the main revenue of the development company comes from invented cost. Specialists from Guangzhou and Shanghai predict that the account books of development companies contain about 30% of "water," and the most "watery" cost item is in-kind land rent. Development companies all welcome the municipal government to levy in-kind land rent for the following reasons: First, commercial housing buyers are mostly enterprises whose budget restrictions have been softened. In coastal cities, many buyers are overseas Chinese. The price elasticity of the demand of these buyers is small and they can afford high prices. Therefore,

development companies do not worry about government levying fees since they can always include them into costs and recover the money from high prices. Secondly, in-kind land rent comes in a wide variety of forms and large numbers, and it is difficult to quantify. This has created opportunities for development companies to increase the "water content" of the cost. Thirdly, some cities have imposed hard regulations on profit rate of development companies. For example, the Hangzhou Company's profit rate must not exceed 3.5%. But since in-kind land rent is large, the base number of cost becomes larger, thus the expansion of total profit. Apparently, development companies will always get more than they lose in paying in-kind land rent.

The levying of in-kind land rent is the first step towards recognizing the land value, and it is a step in the wrong direction. In-kind land rent does not reflect the distributional relationship between land owner and land user. It is rather a reflection of the skewed interest relationship in the period of system transition. The main feature of in-kind land rent is low transparency and exclusive of competition. This practice is detrimental to developing competition-based land markets and increasing land use rate and economic efficiency. It hardens the interest of land-occupying monopoly groups and worsens the unfairness between enterprises and households. It may induce corruption and confuse distribution relations among various levels of finance, functionary departments, the government and the enterprises.[37]

The collection of in-kind land rent is in fact the continuation of the traditional planned system under new situations. This kind of levying is in nature a form of administrative allocation. It inevitably conflicts with the functioning of market mechanisms. One important measure for rationalizing urban financial relationship is to cash in-kind land rent. To cash in the rent does not mean direct conversion of the current scale of in-kind rent into money. It means a series of readjustment of economic relations and it is a rather complicated task. This reform will not mean a simple readjustment of distribution ratio under the current system framework but will require the establishment of a new system suitable for the

functioning of market mechanisms, and on this basis the interest relationships will be readjusted.

Corresponding to the readjustment of land prices, the prices of public utility services should also be readjusted. The principle is whoever uses the service should pay, so that funds can be raised from users and be invested into expanding urban utility facilities and improving service quality and capability.

To raise funds for urban construction is not simply an issue of increasing financial revenue and reducing expenditure. The market-oriented reform has already created some opportunities. To grasp these opportunities, one must first abandon traditional thinking. There are two wrongs in the current urban construction fund-raising measures. First, funds for urban infrastructure to be used by all the land users are borne by 1% of commercial housing buyers. Secondly, investment in urban infrastructure to be used by several generations has become a responsibility to be fulfilled by the government in three to five years. To cash in land rent can correct the first wrong. The solution to the second requires exploration of new avenues.

The fast expansion of the people's monetary assets and the deepening of financial reform have created possibilities for resolving urban construction fund shortage. Many successful methods have emerged through practice to tab the people's monetary assets and accelerate the construction of urban infrastructure. For example, to finance the construction of Sichuan-Xinjiang highway that began in March 1992, long-term bonds were issued to the public and within 15 days enough funds were raised. Another example is the Nanpu Bridge in Guangzhou city. The bridge was built in 1980. Since then the daily toll revenue has been 90,000 yuan and within one and a half years the total investment were recovered. These experiments show that urban infrastructure can generate asset/revenue, and directing people's assets towards direct investment can resolve the problem of investment fund source.

6. Urban Planning: Conflict between Efficiency and Model

Urban planning in China has experienced a number of ordeals. During the First Five-Year Plan period, China adopted the Soviet experience to set a series of principles such as "for state industrialization," "for production," "serving the working people." Different cities were categorized according to different industrial development needs. The policy gave priority to key construction projects and steady progress. The State Planning Commission was to take charge of factory venue selection and overall planning. These principles were first challenged by the "Great Leap Forward" (1958-1959). Then they were shunned in the early 1960s when the policy of "three years without any planning" (1960-1962) was adopted. Then came the challenge of "interior construction" (1962-1965). During the Cultural Revolution, the principles were first condemned as a "black programme" and were later replaced by the policy of "stick in a pin wherever there is room" (1966-1978). Only after 1978 did urban planning see a new spring. The programme was able to improve on the basis of the First Five-Year Plan structure, and a number of urban planning models were established.[38] However, though the concept of urban planning has been changed from "the continuation and extension of national economic planning" of the First Five-Year Plan period into "the basis for urban society, a design for economic development strategy and urban construction and development," it again faces new and more powerful challenges, this time from the market-oriented reform.

China's economic activity has already begun to change from supply-driven to demand-restricted. But in urban planning, "supply-driven" still has a strong influence. Planning continues to proceed from the total volume of state investment, and not much thought has been given to the preferences of consumers and investors. Planning habits still lean towards unified state allocation for construction, and little attention is paid to the problems brought about by pluralization of investment sources. Not much importance has been attached either to the demands on housing and urban infrastructure by the floating population. Planning still proceeds from a static concept with little attention paid to basic economic concepts such as inflation, land rent prices, the supply and demand of land market, labour cost, land value increase and shortages.

These drawbacks have damaged the authority of urban planning. The master plan of a city is always set aside without actual implementation. Some cities like Fuzhou make plans almost every year but those plans are abandoned just as often. Floor area ratio is often breached. At present, ratio is rather low. The floor area ratio of the old city area of Tianjin is only 0.6% and even in its new development area the rate is only about 1. The low rate usually stems from the habit and illusion of city planners.[39] Without a correct understanding of rate, land price is meaningless. And without a correct understanding of land price, rate will certainly be breached.

Apparently, the solution to the problem of urban planning is not just the legislative guarantee of its authority but how to formulate urban development plans according to the changes of economic activities and the needs of consumers and investors. Demand-driven urban planning should attach importance to the changes in the market of key factors of labour, land and capital as well as changes in the commodity, cultural and service markets. Without understanding the trends in these markets, it would be difficult to let urban planning be the "locomotive" of urban construction.

Summary

While effecting fundamental changes to China's economy, the market-oriented reform has also brought opportunities for urban development. The reform has detached urban development from the original circle according to which the central decision-makers' preferences determined everything. The development of various commodity and service markets is gradually becoming the motivation force of urban development. The concentration of the

migrant population in big cities has created labour markets which are rather coarse at present but are of great significance to the enhancement of urban sectoral structures. The accumulation of monetary assets by urban residents has laid a solid foundation and created a wide arena for urban development in the future. Such accumulation will enable urban development to cater more towards the inspirations of consumers and investors rather than being swayed by arbitrary preferences.

Meanwhile, the adoption of a market system has also posed serious challenges to the policy frameworks and systems under the traditional planned economy. These challenges differ in form but the background of their emergence is surprisingly similar. For example, industries continue to concentrate into big cities with very low efficiency. Relative advantages have gone to those industrial sectors that have more complete functions. At first sight, this trend seems to be stimulated by comparative benefits and it is a problem of market system. But in reality it is the result of the failure to play a readjustment role by the basic market forces such as labour opportunity cost, land price and the preferences of investors and consumers. The "rural disease" of blind development of rural industries is not because peasants do not understand economics. It is a result of lacking unified labour and capital markets between urban and rural areas. The soaring of urban housing prices is often blamed on wanton levying of fees and surcharges and wrongdoings of real estate development companies while the economic rationale of housing price increase has become obscure. In a sense, the housing price increase reflects the urban labour opportunity cost levels. The emergence of black markets for land and the elimination of land asset benefits testify to the importance of developing standardized land markets. The chaotic municipal finance and the trend towards in-kind payment in financial expenditure have also highlighted the significance of developing standardized land and capital markets. Municipal planning authorities are encountering difficulties which have put the plan-based economic foundation into question. The foundation is no longer the state's total investment but consumer and

investor preferences based on land prices and the opportunity cost of labour.

In short, to deal with either opportunities or challenges brought about by the market-oriented reform requires the development of markets, particularly the markets for key factors such as land, labour and capital. Market development is not simply the expansion of commodity markets. It involves a series of fundamental systemic and structural changes.

IV. Main Themes of China's Urban Development towards the Year 2000

When urban development is regarded as a general indicator, it has the same implication as urbanization. Proceeding from this point of view to consider urban development at the turn of the century, the focal point is the urbanization level by the year 2000 — whether mechanical growth or natural growth is more important, whether big cities or smaller cities are more important, etc. Considering rural surplus labour and China's economic strength and considering the urbanization speed and determining factors in the 1980s, we can easily project the population urbanization rate by the year 2000 to reach 35% and the basic ways for its realization to be the expansion of both townships and cities and greater mechanical urban population growth.[40]

For a country to maintain a stable urban structure, a study of general indicators is of great significance. Results can be used as important references to long-term planning. But China's urban structure is undergoing radical changes and such a study can hardly have any policy significance, since the projection of general indicators must be based on radical changes. For example, if the pattern of industrial concentration into cities is to be changed and the labour opportunity cost and land price be allowed to play a role in investment venue selection, what kind of changes will occur to the city scale and urban population structure? If all the system barriers between urban and rural areas are to be

eliminated and the labour market is allowed to readjust the flow of labour, what kind of urbanization will emerge? All these motivation forces to urbanization are rather changeable. Different combinations of such factors as land market, labour market, capital market, industrial structure and other structural changes of social economy will lead to a new ordering of urbanization level and realization. Urban development is a structural concept in this paper. The concept implies the improvement of productivity of cities and the national economy as a whole through a series of structural changes of the urban economy, allowing cities to fully perform their functions.

In terms of China's urban development at the turn of the century, the more important task is to decide on the orientation and intensity of structural change. In the past, industrial concentration into cities had restricted cities from performing their central functions. Urban development at the turn of the century will by accompanied by industrial reallocation and the strengthening of the tertiary sector in cities. It will make big cities to become true pillars of national economic development. Priority in structural change will be different from that of the 1980s. In the previous decade, the priority was to introduce the market mechanism into the planned system and let market play an ever greater role. In the 1990s, the priority should be to develop a market system for land, labour and capital as the centre and let the market mechanism become the basic readjustment force in the national economy and particularly in urban development. It is fair to say that the urban restructuring is the key to China's economic development at the turn of the century, whereas the development of markets for land, labour and capital is the only way for urban restructuring.

The difficulty does not lie in grasping the orientation of urban structural reform but in controlling the intensity and effects of urban restructuring. The dilemma is: at present, many factors involved in urban restructuring such as land, housing, labour, financial revenue and expenditure, capital market, planning and management, are all rather vague terms; yet at the same time,

there is an urgent need to have an accurate understanding of the overall urban structure. Without a correct understanding of the overall urban structure, individual structural reforms are out of question.

Apparently, more research must be conducted on how to grasp the overall urban structure and have a full understanding of the implications of individual restructuring items. This is the basis for formulating the overall reform strategy. But the current sources for reaching adequate understanding cannot meet the demands of the reform. The research method is particularly important. The approach must not be restricted to the general orientation but must be based on the concept of the quality and quantity of structural changes and capital flow. It must also produce practical system arrangements and supplementary policy measures. Research on any area must go deep enough to cover all these three related tiers.

The main topic of urban development at the turn of the century is the overall restructuring of cities. Around this main topic, the research on urban development during the 1990s should be conducted in the following areas.

1. Developing a New Urban Structure in the Course of Reform

The basic pattern of China's urban development has been strongly influenced by the history of opening up to and exchange with the outside world. In modern history, a number of unequal treaties had been imposed on China to open up its ports and, as a result, coastal cities had become bases of colonial expansion to rob China of its resources. In the thirty years after the founding of New China, an international blockade and the cold war again forced China to adopt a close-door policy. The country enforced the strategy of building minor and greater "third lines" west of the Beijing-Hankou railway, and of locating its industries "in mountains, in a scattered manner and in caves." All this literally stopped the development of coastal cities while interior cities

could not quickly develop in scale. Since the start of the reform, particularly since the establishment of special economic zones and open coastal cities and the mushrooming of rural industries, China's coastal cities have developed rapidly in the 1980s, which in turn have stimulated the rapid growth of national economy as a whole.

China's urban development at the turn of the century will display a new momentum in the course of deepening reform.

- All directional opening will be the driving force for urban development. Instead of one-sided opening along the coast as seen in the 1980s, the opening trend will spread from coastal regions to all border regions, the Yangtze River banks and along the trunk transportation lines from south to north.
- The Yangtze River Delta with Shanghai as the centre, the Pearl River Delta with Guangzhou, Shenzhen and Hong Kong as key players, the Shandong Peninsula with Qingdao, Yantai and Jinan as central cities, and the East Liaoning Peninsula with Dalian as the key outlet will become major urban groups. And they will be key social and economic development bases of the country.
- The development of the urban group in the Pearl River Delta will be worth particular attention. After their return to China, Hong Kong and Macau will continue to play roles as international central cities. The region's exchanges with Taiwan are also becoming more and more active, thus creating a favourable social environment for the reunification of the country.
- Cities in the Yangtze River region (including the down-stream areas of its major tributaries) will become development priorities. Shanghai, Nanjing, Wuhan and Chongqing will become four central cities in the region. The four cities in combination with the construction of railways, ports and bridges along the river, new industrial allocation, the development of tourism resources and the development of numerous smaller cities including Nantong, Zhangjiagang, Zhenjiang, Xinzhen, Liuhe, Maanshan, Wuhu, Tongling, Guichi, Anqing, Jiujiang, Huangshi, Yueyang, Shashi, Yichang, Wanxian, Yibin, Tukou, etc., will make the Yangtze River Valley a highly developed region.

In the west, a group of new cities will be built according to the resources development and transportation construction in particular regions. Major resources development will take place in Inner-Mongolia, Shaanxi and Ningxia (the northwest coal fields), western Guizhou and northern Yunnan coal fields, hydro power exploitation on the upper reaches of the Yellow River, terraced hydro power exploitation along the Hongshui River and Wujiang River, the Turfan and Tarim oil fields, the lead and zinc mining zones of Lanping in Yunnan province, the phosphorus mine of Wengfu in Guizhou province and the sulphur iron ore mine in southern Sichuan. Besides, the old silk road leading towards the northwestern border will display new vitality and stimulate the development of service trade and the whole region's economy.

Regional economic development will continuously strengthen the role of central cities at different levels in stimulating economic growth. After the return of Hong Kong in 1997, the ordering of the five levels of central cities will be sequenced as the following:

At the first level, the Beijing-Tianjin-Tangshan urban group, the Shanghai-Nanjing-Hangzhou urban group, the Hong Kong-Shenzhen-Guangzhou urban group will be centres of international exchange with the highest growth rates.

At the second level, there are 13 regional (inter-provincial) central cities. They are Tianjin (northern China economic centre), Wuhan (central China economic centre), Guangzhou (southern China economic centre), Chongqing and Chengdu (southwestern economic centres), Xian and Lanzhou (northwestern economic centres), Shenyang, Dalian and Harbin (northeastern economic centres), Fuzhou, Shanghai and Qingdao (eastern China economic

centres).

At the third level, there are 35 provincial (autonomous regional) central cities. Some of them, such as Wuhan, Guangzhou, Chengdu, Chongqing, Lanzhou, Shenyang, Dalian and Qingdao, are also regional central cities. The provincial central cities are Shijiazhuang and Tangshan (Hebei province); Zhengzhou (Henan province); Jinan and Qingdao (Shandong province); Taiyuan (Shanxi province); Huhehot and Baotou (Inner-Mongolia Autonomous Region); Nanjing (Jiangsu province); Hangzhou and Ningbo (Zhejiang province); Hefei (Anhui province); Nanchang (Jiangxi province); Fuzhou and Xiamen (Fujian province); Changsha (Hunan province); Nanning and Liuzhou (Guangxi Zhuang Autonomous Region); Haikou (Hainan province); Kunming (Yunnan province); Guiyang (Guizhou province); Lhasa (Tibet Autonomous Region); Urumchi (Xinjiang Uighur Autonomous Region); Xining (Qinghai province); Yinchuan (Ningxia Hui Autonomous Region); Harbin (Heilongjiang province); and Changchun (Jilin province).

The fourth level includes ordinary cities other then economic central cities. Most of them are small cities.

The fifth level includes all county towns and there are more than 2,200 of them across the country.

Under the new situation brought about by reform and opening, to study and develop a new pattern of urban system at the turn of the century is of far-reaching significance but the effort also involves tremendous difficulties. Research on urban development must not be restricted to defining state land plans, but should concentrate on analyzing problems blocking the realization of plans and finding solutions. Proceeding from this concept, the formation of a new pattern of urban development at the turn of the century must give ample priority to research.

First, urban development at the turn of the century will continue to concentrate population and economic growth in the east and some central cities. Coastal cities and central cities in the interior will see rapid development as pillars of economic growth. The concentration of technology, capital and labour in these cities

will inevitably magnify the issue of equity between regions and between rural and urban areas. Under the traditional planned economic system, the balancing chips to resolve equity and efficiency problems were the regional allocation of state key construction projects. Under the market economic system, readjustment and control measures depend on the creation and maintaining of a fair competition environment. Under the new situation, the key to the equity and efficiency problems lies in the creation and maintenance of a free environment with a full supply of information. In the final analysis, it is a question of the establishment and development of markets.

Secondly, full scale opening to the international market is a basic strategy of bringing Chinese economy into the new international economic order at the turn of the century. This strategy is different from the abnormal development of coastal cities and the decline of interior cities under the influence of colonialism. To be emphasized are the full scale opening towards the international market *and* full-directional opening between sectors and regions of the national economy. However, the market-oriented reform will further weaken the national planning authority. This authority will be replaced by the most active and most powerful entities — enterprises with self-determination rights. One research priority is to find how to use micro policies to guide the self-organizational activities of enterprises onto the road of full scale opening.

2. *Urban Integrated Restructuring*

Any structural reform cannot be detached from the overall concept. For example, to change the pattern of industrial concentration into big cities so as to let cities better perform their central functions, one must study the cost and motivation of moving industries out of cities, the need to form a unified national market of labour with price differences according to the sizes of cities and the need to let land prices reflect the increased labour cost. This means one must deal with the issue of establishing land and

labour markets. Land price and land market should always be a factor that enterprises must consider when deciding on investment venues. The development of land market will lead to restructuring of urban finance and the financing of urban infrastructure, thus the question of the development of urban capital market. In the course of reallocating industries, the urban planning system and method need to be reformed too. There are many other issues involved. To grasp overall urban restructuring, one must form an overall concept of all these complicated and inter-related factors.

If we analyze each restructuring item (as done in the previous section), the concept becomes quite clear: To conduct urban restructuring proceeding from an overall concept means to form a comprehensive urban development strategy that links the development of labour market, land market and capital market into one big project. This is a rather challenging research topic.

So far, most research has concentrated on the development of one type of markets and few efforts have been made to study the joint development of markets for all three key factors. Markets for the three key factors must be developed in a comprehensive and coordinated manner. Otherwise, they will not be able to play a leading role in sectoral reallocation in cities, and for that matter not conducive to urban restructuring.

3. Break System Barriers between Urban and Rural Areas and Form an Integrated Labour Market

Industrial zoning, the outbreak of "rural disease" and "urban disease" and the readjustment of income distribution all have inseparable links to the lack of an integrated labour market for urban and rural areas.

Conditions are ready for the formation of an integrated labour market for urban and rural areas. First, prices of industrial and agricultural products are generally formed under the influence of market supply and demand. State regulated prices affect only 25% of agricultural products, 30% of industrial consumer goods and

45% of industrial means of production. And between 1990-1991, state regulated prices of some products were even higher than market prices.[41] Secondly, the supply of grain and food has been detached from planned allocation and the supply is abundant in the market. One telling example is the price of grain coupons. In the past, the price of 1/2 kilogram grain coupon was between 0.4-0.5 yuan. Now the price has dropped to 0.05 yuan. Thirdly, the development of rural industry has enhanced urban/rural trade from simple exchange of final products to the key factors such as capital, technology, talents and labour. This is the foundation for forming a unified labour market for urban and rural areas.

The integration of commodity and material markets between urban and rural areas has been an important research topic. But not much importance has been attached to the formation of a unified labour market for urban and rural areas. At present, the labour flow remains random and unorganized. The floating population either blindly selects a destination or depends on relatives and friends for such a selection. This is of course incompatible with economic restructuring. The random labour flow has also created a series of social problems.

The study of a unified labour market must proceed from labour resources investigation and categorization, labour prices in different regions, the organization and coordination of labour markets and the establishment of institutions. Particularly, efforts should be made to study what macro supplementary reform measures should be adopted to facilitate the formation of the unified labour market and what kind of effects such measures may have.

4. Develop Commercial Housing Markets

Housing system reform in urban areas and the development of a commercial housing market (leasing and sales) are a solid step towards materializing labour cost and they are also an important part of eliminating barriers to labour flow.

The commercial housing market can be divided into two

parts, the commercial housing property market and the commercial housing service market. The housing property market can also be divided into two parts: the home owner property trading market and the title holder leasing market. The housing service market can likewise be divided into two parts, the home owners internal purchasing services and tenants purchasing services from property holders. The development of a tradable commercial housing market does not mean the establishment of a single function housing property market. The existence of a housing service market or a housing rental market is of great significance to the establishment of a modern economy. The two parts of the market are both independent and inter-related. One must not substitute one market with another.

Research on housing reform began in the early 1980s. In the beginning, attention was focused on the nature of housing — whether it was a commodity or a welfare benefit and whether it was a means of production or a consumer item. As housing reform experiments continued, people began to realize the capital flow volume issue in the process of housing commercialization. Issues involved in this respect included: the formation of housing rent and price, the price ratio between rent and purchase, the housing component of wage and the scale of housing subsidy. Later, system establishment for housing commercialization became the focal point. Topics discussed included: housing privatization, housing finance system, housing supply system, housing distribution system and housing management system. More than ten years of research has reached a consensus on market-oriented housing system reform. But more efforts need to be made on the capital flow volume and system establishment.

Analysis of the volume of capital flow is a system engineering topic. The first issue to be dealt with in system transformation is scale, or the total volume of capital flow. In order to determine the total scale, housing price, land price, capital cost, housing rent structure and the scale and structure of public housing must be rationalized. System transformation requires a clear structural concept, i.e., the housing subsidy source structure and the final

distribution structure. After the determination of the capital turnover volume and structure, efforts must be made to identify capital loss scale and channels in the course of capital turn-over and the redistribution effects and problems capital turn-over may bring about. Finally, capital flow in housing, land, basic infrastructure, finance, taxation and pricing areas must be integrated so as to facilitate any kind of readjustment to the interest relationship between the three economic entities of individual, enterprise and government, thus creating a comprehensive concept.

System establishment in the course of housing commercialization is another topic that needs further study. During the initial stage, outstanding issues can be regarded as the strategic priority. But in actual implementation, any factor can acquire a leading status in a particular environment. Therefore, while concentrating efforts on developing competitive markets of housing assets and services, an overall reform plan must be worked out and supplementary reforms must be carried out on the land system, the financial system, the fiscal and taxation system, the employment system, the social security system, the pricing system, the real estate development system and the planning and management system.

5. Develop Standardized Land Markets

A standardized land market is indispensable to industrial zoning, municipal construction financing, effective usage of limited land resources, and the establishment of fair, transparent and competitive markets.

In the 1980s, research on urban land concentrated on the theory and implementation methods of urban land use based on payment. Later, a target pattern of urban land market and secondary markets was considered. Since 1990, researchers and decision-makers have concentrated their attention on the system of land use and management. Consensus has been reached on the necessity of establishing urban land markets (including secondary land

markets) and planned readjustment of land markets under the framework of state ownership. However, not enough attention has been paid to some more fundamental questions concerning land market development.

The formation of land revenue and its distribution is an urgent issue to be resolved. Massive land asset/revenue loss contrasts sharply with the current practice of free usage of state land. To identify the types and scales of current urban land revenues and to analyze the restructuring of land revenue distribution and cost/benefit ratio are of particular significance to developing standardized land markets.

The land market system is a research topic that needs to be specified. In the past, people were keen to let the government monopolize land leasing so as to ensure that the government obtained the largest share of land related revenue. Practices of land leasing in Shenzhen, Shanghai, Guangzhou, Fuzhou and Zhuhai show that there are problems in letting one government body monopolize land leasing; namely, the practice can easily induce corruption among some government officials, such as personal influence on the determination of land price in the course of contract leasing. These problems undermine the equity of land markets. How to increase transparency of the land lease process and strengthen competition mechanisms — these are the first issues to be resolved in the establishment of a land market system. Besides, questions like how to train land brokers and how to restrict land speculation, how to establish a land evaluation institution, how to establish competitive land development firms, how to plan a land planning system distribution according to land market needs and how to establish corresponding fiscal and taxation systems need to be answered.

6. Redevelopment

The basic method of urban restructuring is old city redevelopment. Since the main topic of urban development at the turn of the century is restructuring, old city redevelopment is of great importance. In view of China's realities, old city redevelopment can take the following forms: (1) redevelopment through municipal government financial allocation; (2) redevelopment through allocation for relocation of urban infrastructure; (3) redevelopment by land occupation units; (4) private redevelopment with support from the public sector; (5) redevelopment through fund raising; (6) renovation of dangerous housing; (7) development of commercial housing; and (8) comprehensive development of old and new zones. The last two forms best correspond to the modern market economy. The solution to old city redevelopment lies in rationally changing the land use purpose of old urban areas and increasing the land rent differential, thus making the old core area a source of revenue.

In the early 1980s, research on old city redevelopment was restricted to planning and construction circles and the topics mainly concerned the protection of historical and cultural relic cities. Comprehensive research on the issue did not begin until the latter half of the 1980s when the proportion of old city redevelopment to urban construction gradually increased. The main topics concentrated on measures and implementation methods of specific redevelopment projects, such as fund sources, ways to realize simple reproduction and expand reproduction, the readjustment of old city land use planning, the determination of cost structure and prices, resettlement of old residents and the supply of land for housing, etc. In the early 1990s, research on old city redevelopment began to incorporate the development of new urban areas (such as Shanghai and Beijing) and the research emphasis included the comprehensive benefits of old city redevelopment and the development of new urban areas, the sharing of value-added land after old city redevelopment and supplementary measures for overall urban reform.

Research on old city redevelopment at the turn of the century should be regarded as a system engineering project, a project that combines relocation of urban industries, reshaping the city skyline, and relocating enterprises and residential zones. Therefore, it should be conducted by proceeding from the development

of land, labour and capital markets. Indeed, old city redevelopment must avoid arbitrary decision-making and should be conducted through the development of key factor markets.

Old city redevelopment cannot be separated from new urban zone development. The topic should be approached by combining old city redevelopment with new urban zone development. Redevelopment of old urban areas in big cities should be planned in conjunction with the development of satellite cities or even more distant areas. One strategic issue that must be dealt with in old city redevelopment at the turn of the century is how to breach the existing administrative boundaries and formulate inter-regional plans for the redevelopment of old urban areas of major metropolises.

7. Municipal Finance

Municipal finance is of vital importance to urban development. It is the decisive factor to the quality and quantity of the provision of urban infrastructure and public service needed by urban development. In view of Chinese cities that are undergoing change from a planned economy to a market system, municipal finance is an important foundation for the smooth transformation of urban structures.

Research on municipal finance had been rather weak in the 1980s. Research emphasized the following topics: comparison of the features of municipal finance, the problems and reform orientation of current system, current difficulties facing municipal finance and solutions, the development pattern of municipal finance, urban financial credit and the scale of extra-budgetary revenues, etc. Most research efforts remained in the general analysis of the state financial system.

The research on and formulation of municipal finance policies at the turn of the century should concentrate on the following four areas:

First, the establishment of a relatively independent municipal finance system and the realization of complete tax separation at all

levels of finance will enable municipal finance to become a truly independent level of finance. The establishment of a completely separated fiscal system at all levels naturally requires the reforming of the current chaotic fiscal order. Therefore, more realistic research in this area should be conducted. Research efforts should concentrate on the evaluation of the types and scale of in-kind financial revenues and expenditures. A clear quantitative concept of the problem is the basis for further actions to resolve the problem.

Secondly, municipal financial expenditures. Under the prerequisite of having basically completed enterprise system reform and the reform of the initial distribution system of national income, municipal government's functions should be transformed correspondingly. The municipal government should no longer be the "mother-in-law" (direct authority) of enterprises. It should no longer undertake the responsibilities of launching, running and developing productive enterprises. It should also shed its responsibility of being the "all caring parent" of urban residents (a role it plays now). By so doing, the government can drastically reduce the amount of various subsidies. After completing these reforms, the municipal government's functions will be mainly to create an adequate production and living environment for its people, and to ensure humane living conditions for all urban residents. Its expenditures will concentrate on city-wide infrastructure, the improvement of education and culture, and the provision of various humane social security safeguards.

Thirdly, municipal financial revenue. Once the municipal government's functions and expenditure structure have changed, its revenue structure will also be adjusted. Provided that all the current informal income and extra-budgetary revenue are included in the budget as much as possible, and that only a small proportion of the current budgetary revenue will be retained by the city, then the future municipal financial revenue will mainly come from "benefit style" taxation and surcharges. To be specific, taxes on commodities, taxes on wages (transformation of the current collection of social security insurance funds), taxation on

properties (transformation of the current land use tax, housing property tax, resources tax and large numbers of surcharges and fees related to urban infrastructure and services), and fees on public utility services (after price readjustment of various utility prices) will become the main source of municipal revenue. Besides, municipal bonds will be a supplementary source of revenue.

Fourthly, the adoption of a double-entry budget. The purpose of adopting a double-entry budget is to more effectively allocate funds paid by tax payers when revenue is limited. Although most countries that had adopted a double-entry budget since the 1970s have now switched back to a new type of single-entry budget at the central level, a double-entry budget is still widely used at the local level, particularly at the municipal government level. The main reason is that when there is no such interference as overdraft from financial intermediaries or the issuing of money bills (municipal government does not have such rights), a double-entry budget can clearly reflect the government's fund usage efficiency, effectively restrict the government and enable it to balance revenue and expenditure. Therefore, under the fiscal system of tax separation at all levels, the adoption of a double-entry budget is a very good arrangement to enable most cities to realize true balance of budgetary revenue and expenditure.

8. Develop Capital Markets

The significance of capital markets to China's urban development can be compared to the importance of the invention of steam engine to the industrial revolution. Capital flow usually reflects the preference of resources allocation. The establishment of unified urban capital markets will play a leading role in the reallocation of urban and rural economic resources.

The 1980s was a period when marked progress was made in financial research. In the early 1980s, the research concentrated on the effect of finance to the economic system reform and the target pattern of China's financial system. After the mid 1980s, research

emphasis shifted to the development of financial instruments and the optimization of the people's monetary assets. Since 1990, the storm of stock trading has swept the country and researchers have concentrated their attention to the development and management of long-term capital market. Compared with the fast development of reform, theoretical research in financial area is not deep enough.

One important aspect of the research on the development of urban capital markets is the household financial asset structure and the ways to optimize the asset. The formation of urban residents' monetary asset and its optimization are the basis for developing capital markets.

To establish housing asset markets and the related housing finance markets is an effective way to optimize the urban residents' monetary asset and it is also a growing base for urban capital markets. Urban land markets and the formation of land asset revenue are also important factors to the development of capital markets. Another important aspect in the research on the development of capital markets is how to handle the relationship between housing finance and land asset revenue on the one hand and capital markets on the other.

9. Urban-Rural Integration

China's urban and rural development cannot be achieved in a sealed-off system. It has to be an open system that facilitates extensive exchanges between urban and rural areas. Such exchanges must not be restricted to ordinary commodity trade but should also include reallocation of key production factors (capital, labour, land, technology, information and resources). This is the true content of China's urban and rural economic development, and this paper uses urban-rural integration to describe this process.[42]

Urban-rural relations have always been a research topic for theoretical circles and researchers of political, economic, historical and social issues. Research on this topic has long concentrated on

the following issues: the concept of urban-rural relationship, the functions of cities and rural areas, the structure of urban-rural double-tier society, historical procedure of urban-rural relationship, the symptoms and causes of the current irrational urban-rural relationship, measures for development a new urban-rural relationship, etc. Mention should be made of Wang Yukun's research conducted in 1985 and Deng Yingtao's research conducted in 1986.

Wang Yukun's research on urban-rural integration conducted in 1985 proceeded from the recombination of key production factors between urban and rural areas. On the basis of summarizing the realities of urban-rural relationship, he proposes a system for urban-rural integration, a functioning system and relevant implementation measures. He believes that urban-rural integration should have three components: The desire of independent enterprises to seek excellence through competition is the initial motive for integration. The comprehensive development of various aspects of rural economy and the renewal of the economic function of cities are the ignition factors of integration. The convenience provided by infrastructure is the medium for integration. The functioning mechanism of urban-rural integration is reflected in the three basic requirements: systemization of state land use, popularization of internal opening, the direct linking and networking of economic exchange. The implementation measures for urban-rural integration also has three components: measures on structural usage, measures on management and measures on organizational construction. Wang also puts forward a proposal on developing unified markets for key production factors between urban and rural areas. Wang Yukun's research is pioneering but he fails to go deeper into the volume flow analysis and the specifics of the development of the unified urban-rural markets for key factors. Nor has he emphasized the regional concept of urban-rural integration.

Deng Yingtao proceeds from the topology analysis of urban-rural relations and puts forward the development model of urban-rural coordination and regional coordination. He believes

that the feature of this model is that some urban industries (such as traditional industries) should be relocated to rural areas, the newly expanded part of some industries should also be placed in rural regions and so should the manufacture process of some industries. Urban industries and rural industries should develop contract and coordination relations. Some technology know-how should be shared and disseminated. Some already developed products that cannot go into mass production because of space and time limits should be produced jointly with rural capabilities through joint ventures. Urban industries should move to new sectors, the production of key parts and general assembly. This proposal not only requires coordination of regional allocation, such as the transfer of high energy-consumption industries from advanced regions to resource-rich but backward regions, but also requires planned and systematic reallocation of urban and rural industries.[43] Deng Yingtao's research centres on the relocation of industries. He proposes a new model of coordinated development of urban and rural areas. This model is closer to reality. However, he has restricted himself to prospect analysis and has failed to go deeper into the flow changes and system readjustment stemming from industrial relocation.

The prospect of urban-rural integration depends on research. Quantitative analysis of the effects produced by the unified urban-rural key factor market should be a major part of the research. Meanwhile, plans should be made to study the establishment of supplementary systems needed for the development of the unified urban-rural markets.

10. Environment Protection

The urban environment problem emerged almost simultaneously with urban development. In developed countries, the urban environment worsened as they moved through historical stages of handicraft industry, industrial revolution and modern large scale production. The road they travelled is one of "pollution first and clean-up later." By the 1980s, the urban environment problem was

basically resolved and attention shifted to global environmental issues such as acid rain and global warming. Compared with developed countries in the west, China has been rather slow to realize the seriousness of environmental problems. Specifically, China's urban environmental problems have had a delayed emergence. Generally speaking, China has been quite successful in urban environment protection by avoiding pollution increasing at the same pace as economic growth. However, evidence from monitored statistics does not leave any room for optimism. Sulphur dioxide in the atmosphere and acid rain are on the increase. So are organic pollutants in water, reducing the quality of drinking water sources. Solid waste dumping is also increasing every year. And noise pollution is becoming serious. Urban environment pollution is becoming an ever bigger barrier to urban development. In some cities urban pollution is quite serious and cities like Shenyang, Xian and Beijing are already listed among world cities with serious atmospheric pollution.[44] Therefore, how to effectively control urban environment pollution and improve urban environment quality has become an urgent strategic task of the 1990s.

The major tasks in environmental protection are to control the spread of pollution, to strengthen efforts to reduce pollution from key industries and to build urban infrastructures, to protect drinking water resources, and to maintain the quality of air and water in residential, cultural and educational zones as well as scenic spots. The objective of environmental protection efforts of the 1990s is that by the year 2000 urban pollution will have been controlled, environmental quality in most cities will improve, a large number of cities and urban districts with high environmental standards will be built and the quality of urban environment in general will correspond to economic development level and the "well-off" status of the people's livelihood.

In order to realize these environmental protection objectives, research must be conducted on the following policy issues.

First, the relationship between urban economic restructuring and environmental protection. The rapid economic growth of

Chinese cities in the 1980s can be attributed to a large extent to the expansion of resources-intensive industries. In the 1990s, some areas will continue to develop heavily polluting industries (such as thermal power plants, cement, iron and steel and machine building industries). This is determined by the current urban economic structure in China. In order to protect the environment, the first task is to change the economic structure that is pollution-prone. However, the difficult issue is that the economic restructuring cannot be carried out in the early 1980s manner of simply moving polluting projects to sparsely populated rural areas. Rather, the measure must be based on the introduction of new technology, the development of advanced pollution control skills, and on the concentration of polluting industries and the treatment of their emissions. This requires guarantees in financing and technology and some sacrifices to be made by losing some productivity in exchange for higher environmental quality. That these efforts, consuming large amounts of manpower, materials as well as technology and financial resources, will not bring direct material benefits to the enterprises involved, will undoubtedly create additional difficulties to the restructuring. The research on urban development at the turn of the century should try and find a policy basis under such difficult conditions.

Secondly, the relationship between strengthening institutions and a comprehensive improvement of the environment.

Generally speaking, China has already established a legal framework for environmental management and protection and it has played a quite effective role in this field. However, the institutional arrangement and the legal framework were formulated on the basis of a plan-oriented economic system. The market-oriented reform in the 1990s will make market mechanism the basic means of economic readjustment. It will control and effect changes to a number of basic areas such as the fiscal system, finance, market, price and investment. Therefore, urban environment management institutions and the legal system must also be reformed accordingly. The reform effort should concentrate on the gathering of resources and their effective usage in addition to

comprehensive environmental improvement. The objective of a comprehensive urban environmental improvement is to allow maximum performance of comprehensive functions of cities. Legal, economic, administrative and technological means must be applied to rectify, control, protect and improve the urban environment. Comprehensive improvement is a complex engineering project. It requires not only a set of regulations but also good coordination among various sectors for the treatment of key pollution sources. An economic system featuring "polluting units bear the cost or beneficiaries pay for the cost" must be put in place and there must be institutional guarantees.

V. Studies of China's Urban Development: Current Status and Possible Trends

China's urban development at the turn of the century has put forward challenges to the country's talents. The profoundness of the challenge lies in the fact that decision-makers have no existing experience to fall back on, nor can they find answers from results of current research on urban development. This section will give a general assessment by looking at the realities of the research on China's urban development so as to reach a better understanding of the profoundness of the challenge.

The ups and downs of urban development research are closely related to the position that cities occupy in a country's economy. In the thirty years and more from the early 1950s to late 1970s when the traditional planned economic system prevailed, cities existed only because they provided space for industrial production. During that period, researchers concentrated their attention on the process of industrial production. In many basic aspects, the existence of cities did not have much meaning. For example, the basis of urban functioning — urban infrastructure — was basically ignored as a non-productive sector. And there was no research made in this area. Urban housing was regarded but a part of national economic investment plan. Housing investment was

determined according to its proportion of the investment in fixed assets. Housing design was also fixed according to nationally unified regulations. After completion, housing was provided to urban residents as public property. Under this system, the role of supply and demand was non-existent, nor was cost-benefit analysis, or for that matter, research on housing. Urban land was administratively allocated by a certain level of government for free use to land users. There was no such concept as first level or second level land market. The driving force was the preference of decision-makers who did not give much, if any, heed to economic factors and urban planning. Municipal finance did not have any independence and was but an accounting instrument under the planned economy. And of course, there was no need to conduct research on municipal finance. The highly centralized management system surrendered all aspects of urban development to the preferences of decision-makers and the unified mandatory economic plans. Under these circumstances, it was difficult for any realistic urban research to exist. At that time, research was directed to two aspects. One was to explain classic Marxist and Leninist theories and verify the superiority of socialism over capitalism. The other was to study geographical planning. Thus making urban scientific research the monopoly of geographers and planners.

True urban development research began at the end of the 1970s and gathered momentum after the mid 1980s. The thriving of urban research was brought about by the reform and open policy adopted in the late 1970s. Reform and opening which started by introducing market mechanism into China's economy and exposed the country to international market reasserted the importance of cities in the national economy and magnified the problems and the significance of urban functioning. Indeed, the market-oriented reform made the simple economic relationship of the past become a rather complex one. Planners and practitioners who were used to the operation under the traditional planned system, felt at a loss in dealing with the repercussions of the market forces, thus leading to the realization of the need for re-

search on the issues and the thriving of urban development research.

The first indicator of the thriving of urban development research was the emergence of numerous research institutions.

Incomplete statistics of 1986 show that there were 213 government research institutions devoted to urban studies.[45] If new cities and institutions established in the later half of the 1980s are included, there should be no fewer than 500 government sponsored or directly supported urban research bodies across the country. These institutes are usually funded by government departments and their research topics are jointly determined by government agencies and institutes themselves. In other words, some topics are determined by government departments and others are selected by the management or researchers of institutes. These government research facilities came into being to satisfy the need of urban management. The research topics tend to be application-oriented. Since these institutes have easy access to the government's day-to-day work and various practical information, and since most of their members belong to the new generation of university graduates, they are now the leading force in China's urban development research.

Meanwhile, a large number of non-government research institutes have been established. And they have brought in new vitality to urban research. In the 1980s dozens of national non-government institutions were established. These included the Urban Science Research Society, the Urban Economics Society, the Urban Housing Research Society, the Urban Land Scientific Research Society, the Urban Sociology Research Society, the Urban Planning Research Society, the Urban Comprehensive Fiscal System Research Society, the Urban Finance Research Society. Each of the national research institutions has a series of special topic research groups and branches in different cities. For example, under the Urban Land Scientific Research Society, there are more than a dozen subordinate research bodies like the Urban Land Evaluation Research Society, the Urban Land Planning Research Society and the Urban Land Management Research Society. In fact, the

society has corresponding research bodies in each province (except Taiwan). That means, in urban land research alone, there are nearly 300 institutes. Under the Urban Housing Research Society, there are national topical research bodies such as the Urban Housing Social Science Society, the Housing Law Society, the Housing Finance Research Society, the Housing Management Research Society and the Real Estate Federation. With all the branches in various cities included, housing research bodies also total more than 300. The funding of the research bodies usually comes from the following sources: government sponsorship for research on special topics; revenues from consultation services; donations from domestic and foreign enterprises, organizations and individuals; and membership fees. The responsibilities of the research bodies usually include: to organize academic exchanges; to hold national or international academic seminars; to undertake government research projects concerning urban development issues; to provide consultation services; to publish books and journals; to organize symposiums and training courses; to arrange for international academic and personnel exchanges. Non-government research organizations that have emerged in force are now a powerful branch of urban research in China.

The second indicator is the spreading of research efforts on urban development.

Urbanization has long attracted the attention of researchers. The rural reform started in the late 1970s has greatly stimulated the peasants' initiative and has enhanced agricultural productivity. A job that required four people to accomplish in the past can now be realized by one person. The process also created a large number of surplus rural labour. As a basic way of absorbing surplus rural labour, urbanization has become a popular research topic. Research on urbanization has concentrated on such topics as China's way of urbanization, the general rules of urbanization, the historical role of the development of small cities and towns, and the functions of central cities.

New meanings have also been added to the research on urban-rural relationship. In the past, research on urban-rural

relationship concentrated on the interpretation of classic Marxism on such relationship. After the start of the reform, researchers began to realize the inequity problem between cities and the countryside in socialist China. Looking at China's urban-rural relationship from the point of view of a bipolar social structure became a research theme. Later, the research emphasis shifted to the reallocation of urban and rural key production factors.

Urban management also attracted wide attention. Urban industrial structure, the functions of urban service sector and urban infrastructure, urban planning management, urban management system, and urban market organization and management can all be included into this category. Before the reform, "a production system with all sectors" was the ultimate objective of city construction. The development of a commodity economy changed the people's concept of industrial allocation. The long ignored service sector was now an important pillar of the city's central role. And research emphasis shifted from pure industrial allocation to the study of the root cause of irrational industrial structure. The development of a commodity economy also changed the municipal government's economic management functions. And researchers conducted extensive discussions on how to scientifically identify the government's economic management functions.

The emphasis of urban research in the 1980s also changed along with the shifts of reform priorities. Real estate system reform was a main theme of urban reform in the 1980s. Likewise, research on issues concerning real estate also gathered momentum. In the early 1980s, research was concentrated on the necessity, feasibility and methods of urban housing and land system reform. In the later years of the decade, the emphasis shifted to the establishment, functioning and management of real estate markets.

In the 1980s, importance was also attached to the study of the impact of the urban environment and urban ecological balance on the economy. Major topics included urban ecology and coordinated economic development; major issues of urban environmental protection in China and causes and factors restricting the

self-sustainable urban ecological circulation; improvement of China's urban ecological balance; feasible ways to improve economic efficiency; the development of "ecologically balanced enterprises" and "ecologically balanced cities," etc.

During the 1980s, China's urbanization developed rapidly and the size of cities also expanded. Social lives in cities also became livelier. These developments provided rich research contents. In the 1980s, China's urban science researchers conducted full scale and comprehensive investigations and research. Topics covered a wide area, such as the characteristics of Chinese urban societies, urban culture, urban mentality, urban social issues (including social impact effected by population migration, urban crimes and urban transportation), urban social security, etc.

As urban research widened, a series of new schools of research were established, such topics included population urbanization, rural industrialization, the development of small townships, urban-rural relationships, urban development models, the role of central cities, urban housing, urban land, municipal finance, urban infrastructure, old city redevelopment, public participation, development strategy, social security, population, environment, culture and social issues. As the research scope widened, some new research areas were created such as urban economics, urban sociology, housing economics, housing sociology, urban land science, urban ecology, urban fiscal science, urban management science and urban planning science.

The third indicator was that China's urban development research attracted the attention of international organizations. International organizations such as the World Bank and the Ford Foundation showed a keen interest in China's research effort and gave a lot of support.

The World Bank conducted a rather comprehensive research on China's urban issues. In 1983-1984, the World Bank organized a study on China's urbanization and produced the research report *China: Long-Term Development Issues and Options*. Another report *Urbanization: International Experience and China's Prospect* written by J. Vernon Henderson analyzed the industrial concentration in

cities in China and scientifically outlined problems of and prospect for China's urbanization. In 1986-1987, as part of a loan project to help the development of medium cities in China, the World Bank again organized research on several cities in Zhejiang province. The World Bank mission led by Andrew Hamer produced a research report *China Zhejiang: Challenges of Rapid Urbanization*. Hamer's research went deep into several basic aspects of urban functions such as urban infrastructure, urban housing, urban land and municipal finance. His contribution helped deepen China's research on urbanization.

In 1988-1991, the World Bank again organized research on housing system reform. With the support of relevant departments in China, the Bank's research group headed by Andrew Hamer produced the research report *China Urban Housing: Issues and Implement Options*. Proceeding from market economy functioning, the report gave a rather comprehensive, thorough and systematic analysis of China's urban housing system reform. The report has incited a strong reaction within China. Many feasible proposals of the report have been or will be applied in China's housing system reform.

In 1991-1992, the World Bank organized another research on urban land management in China. The research group led by Andrew Hamer produced a research report *China Urban Land Management: Options for an Emerging Market Economy*. This report is based on investigations in Shenzhen, Guangzhou, Shanghai, Hangzhou, Fuzhou, Chengdu, Beijing and Tianjin. Since the first draft of this report has just been completed, Chinese scholars have yet to have a chance to make a comment.

Besides, the World Bank also organized researches on China's urban environment and municipal finance as part of loan projects.

The Ford Foundation has also showed an interest in China's urban issues. In 1988-1991, the Ford Foundation provided funding for the Chinese Academy of Social Sciences (CASS) to conduct research on China's urban land use and management. The Finance, Trade and Materials Research Institute of CASS and the American Public Relations Research Institute jointly produced a

research report *China's Urban Land Use and Management*. The report gave an instructive assessment of the issues based on comparison of international experience and the analysis of China's urban land management practices. In 1992, the Ford Foundation financed this research project: *China: Urban Development at the Turn of the Century*. This is the first attempt up to now at a comprehensive research on China's urban development.

The fourth indicator is the regular publication of statistical data and numerous academic journals. In terms of statistics, the most authoritative ones are the *China Statistical Year Book* and *China Urban Statistic al Year Book* published by the Statistical Bureau. The two year books provide quite rich data on urban statistics. They include not only comprehensive data but also statistics of individual provinces and cities. The data cover wide areas including population, labour force, production, income, distribution, finance, budget, culture, infrastructure, education, public health and household survey. The Fourth Population Census conducted in 1990 provided detailed statistics on various aspects of the population. Now all provinces and municipalities are compiling their own statistics year books according to the national standards. Besides, the Statistical Bureau has sent its urban survey teams to conduct surveys among urban residents on their living standards, expenses and income. The survey results are published on a regular basis. Journals specializing in urban issues now number several hundreds and tens of thousands of academic papers are published each year.

The fifth indicator is the diversification and deepening of the research. Since the mid 1980s, quantitative analysis has been adopted and the method has played a positive role in both international comparative studies or in case studies, thus leading to the deepening of the research (with both qualitative understanding and quantitative concepts).

It is fair to say that the 1980s was a decade of prosperity for China's urban studies. The main reason is the deepening of the market-oriented reform and the decision-makers and the people's mounting interests in urban issues. Mind emancipation brought

about by the reform will further free the researchers from the shackles of old thinking patterns formed under the traditional planned system, and it will contribute to a thriving urban development research.

However, research on urban development in the 1980s also had its limitations.

First, urban development had never been researched as a whole system. Those who concentrated on population urbanization tended to ignore some basic functions of cities such as land system, housing system, municipal finance and basic infrastructure. Those who specialized in basic urban functions tended to play down the importance of studying the urban development motivation and methods. Such biases weakened urban research efforts and negatively affected the depth of research. For example, the unnatural industrial concentration into big cities was a phenomenon noticed by researchers specializing in population urbanization. But they either regarded it as an inevitable result of industrialization or a by-product of the decision-makers' negligence of the tertiary sector. They failed to find the root cause of this phenomenon — the basic economic factor of skewed urban land market and labour cost. On the other hand, researchers specializing in urban land, urban labour income and housing always proceeded from set prerequisite (enterprise and worker's affordability) to study the possibility of land, housing and labour markets. They failed to proceed from the concept that the urban industrial allocation had to be readjusted, that if existing industrial enterprises could not afford the increased labour cost and land prices, they had to move out. Therefore, it is very important to regard urban development as a whole research project. To study urban development as a whole system, one must look at the topic with a view of the general framework of the national economic development, the relationship between urban and rural areas and the various aspects of urban restructuring.

Secondly, research needs to be deepened. Studies of urban issues must be carried out at three levels: first, qualitative and theoretical analysis at the macro level; secondly, quantitative

analysis of capital flow and effects; thirdly, system establishment for actual implementation. At present, most research efforts have remained at the first level. Though some have entered the second level, some projected conditions and hypotheses are not accurate. Analysis at the third level is often ignored by theoreticians. But as a matter of fact, only when a scholar enters the third level of research can he verify the correctness of his hypothesis and proceeding basis, and thus strengthen his analytical ability.

Thirdly, in the research process, the accuracy of analysis is usually played down while emphasis is being placed on finding short-term solutions. There is a strong tendency of achieving quick success in the research on urban development. Some people are eager to propose solutions even before the problems are accurately identified and recognized. Indeed, a clear analysis of issues requires time, efforts and patience. Yet this kind of painstaking efforts are not always appreciated by decision-makers. But the truth of the matter is, solutions proposed before problems are accurately identified can always become sources of damage to the nation and people. One western economist once said: politician's motivation is distilled from economists; and the motivation of economists comes from self-made legend. One proof to this statement is the Chinese economists' discovery that, as the city scale expands, industrial production's scale efficiency (such as per capita output value and tax and profit remittance) increases as well, thus leading to the decision-makers' preference for industrial concentration into big cities. But the fatal weakness of that conclusion is that the difference of labour opportunity cost and land prices in cities of different sizes are being ignored.

Obviously, the flourishing of research on urban issues in the 1980s has only laid a foundation for the research on urban development at the turn of the century. To meet the new challenges, urban research itself must undergo reforms. Loose ended topical research must be changed into systematic research. The previous practice of shallow study to find problems and propose solutions must be changed into comprehensive study by combining qualitative and quantitative analyses with implementation feasibility

analysis. The previous trend of trying to achieve quick success must be stopped and serious and pragmatic research attitude must prevail. Only when the above mentioned changes have taken place, can studies on urban issues meet the challenges of urban development at the turn of the century.

Notes

1. Bertrand Renaud, 1981, pp. 17-18.
2. Current statistics do not have urban and rural GNP proportions. The figure here is derived by determining the proportions of three industries (primary industry 20%, secondary industry 80% and tertiary industry 90%) in cities according to available statistics.
3. China Rural Development Research Group, 1987, pp. 10-14.
4. For example, between 1979 and 1984, the total social output value had been increasing at an average rate of 9% a year. Out of the 9%, five to six percentage points were contributed by the increase in primary agricultural products, or more than 60% of the increment. In 1985, industrial output value increased by 27.6%, of which more than 50% was contributed by township and village enterprises. The above statistics were derived from data contained in the following two books: China Rural Development Research Group, 1987, p. 4; Zhou Qiren et alii, 1988, p. 50.
5. Since the 1950s, China has conducted four population censuses. But the standards used in each census were different. Here the "urban population" statistics of the fourth population census is used. The fourth census in 1990 defined "urban population" as total population of cities with districts and non-agricultural population in counties and townships that do not have districts. Specialists predict that 28% of the urban population counted in the 1990 census was actually rural. See Zhou Yixing, 1991.
6. China does not have statistics on mechanical growth of urban population. Natural growth statistics are not complete either. For example, such data were missing from statistics of 1950-1953, 1967-1970, 1982-1990. The statistics listed here are obtained by the following methods: (1) Mechanical growth = yearly urban population growth – natural growth of the year. (2) Urban population natural growth rate is estimated by referring to the national population natural growth rate and the urban natural growth rates of the previous and following periods. For example, the natural growth rate of urban population in 1950-1953 period is determined by adding the differential between national natural growth rate and urban natural growth rate in the 1954-1956 period (1%) to the national natural growth rate of 1950-1953 period.
7. This statistical standard is rough. There are two shortcomings: first, many illegal residents cannot be listed in the census; secondly, it fails to register people who moved after July 1, 1985.
8. J. Vernon Henderson discovered that "the relationship between economic development and urbanization is rather strong, but the link between urbanization and industrialization is rather weak. Observation of developed countries shows that urbanization could be rather rapid during a certain period of time while industrialization progresses only modestly. For example, the urbanization rate in the United States in 1880 was 27%, but the increase rate of manufacture sector was 19%. In 1970, U.S. urbanization rate reached 73%, but its employment rate in the manufacture sector increased by only 25%. During the middle of this century, the same trend had been displayed in middle-income countries. After 1950, these countries had experienced rapid urbanization, but the employment rate in the manufacture sector only increased from 14% to 19%." See J. Vernon Henderson, 1987.
9. J. Vernon Henderson, 1984, pp. 49-54.
10. This challenge is a worldwide one. In its 1991 world development report entitled "Challenges of Development," the World Bank claims that "development is the most important challenge facing humanity." It says "the core issue of development is the mutual influence between the government and market," and it is a question of combining plan with market. See *The World Bank Report on Development – 1991*.
11. Ding Ningning also analyzed the historical reasons for China's relatively low level of centralization in economic system. These included: first, the low level of economic organization determined that centralization level of planning could not be too high; secondly, influenced by the revolution experience of using the countryside to surround cities and fighting their own battles by

base areas, the central planning administration was severely restricted; thirdly, after the split between China and the Soviet Union, the Soviet planned management was regarded as revisionist models of restriction and became the target of criticism; fourthly, under the influence of leftist philosophy, a large number of intellectuals were labelled as belonging to the alienation force, yet the formulation and implementation of central plans required the participation of many intellectuals. See Ding Ningning, 1991.

12. China's welfare system, including housing, medical care, education and various production related subsidies, is realized through the link of the enterprise. For details see Wang Yukun and Chen Gongyan, 1989; and Wang Yukun, 1990.
13. Lu Xueyi and Li Peilin (eds.), 1991, p. 90.
14. Mao Zedong, "On Ten Major Relationships," in *Selected Works of Mao Zedong*, Vol. 5, p. 268.
15. Chen Dongsheng, 1984, p. 327.
16. China Rural Development Research Group, 1987, p. 13.
17. Of course, internal circulation of industry will inevitably produce final products. Before the start of the reform, military industry constituted a major share of demands for the production of heavy industry.
18. J. Vernon Henderson, 1984, p. 61.
19. Zhou Qiren and Gao Xiaomeng, 1988, p. 106.
20. Bertrand Renaud also commented on this technology policy adopted by the Soviet Union in its urbanization process. See Bertrand Renaud, 1981, pp. 156-158.
21. On December 30, 1956, Premier Zhou Enlai signed his approval by issuing "The State Council's Instruction on Preventing the Exodus of Rural Population." On March 2, 1957, Premier Zhou Enlai again approved the issuing "The State Council's Additional Instruction on Preventing the Exodus of Rural Population." On September 14, 1957, the State Council issued the "Circular on Preventing Peasants Randomly Entering Cities." On December 18, 1957 the Communist Party Central Committee and the State Council jointly issued the "Instruction on Stopping Random Exodus of Rural Population." In January 1958, the National People's Congress Standing Committee adopted the "People's Republic of China Regulations on Residence Registration" which marked the implementation of residence registration control. The "Great Leap Forward" movement at the end of the 1950s led to the returning of nearly 20 million people to rural homes. By then, the population urbanization ended.

22. *China Statistical Year Book 1989*, p. 719.
23. Zhou Qiren et alii, 1985.
24. Lu Xuezhi and Li Peilin (eds.), 1991, p. 17.
25. Calculation method: (1) using data from the *China Statistical Year Book 1991* to calculate the proportion of urban labour force to urban non-agriculture population, the 1990 figure was 48.8%; (2) using data from *Impacts of Floating Population* by Li Mengbai et alii to calculate the proportion of employable people to the floating population (48.3%) and the proportion of floating population to population of big cities (22.8%), we derive the proportion of floating population employment rate to urban employment. Data collected by Li Mengbai et alii were based on statistics of 25 big cities including Shanghai, Beijing, Tianjin and Guangzhou. See Li Mengbai, Hu Xin et alii, 1991, pp. 11, 69, 97, 98.
26. Gu Yikang et alii, 1990, pp. 195-202.
27. For details, see Wang Yukun, 1992a and 1992c.
28. See Wang Yukun, 1992b.
29. See Wang Yukun, 1992d.
30. International experience and China's practice seem to indicate a ratio between housing price and monthly rent: 100:1, i.e., when housing price is 100 yuan/m^2, then the monthly rent is 1 yuan/m^2. Presume that housing price is 2,500 yuan/m^2, then the monthly rent for a unit of 50 m^2 would be 1,250 yuan. The current household wage income (with two wage earners) averages 400 yuan per month. The monthly rent would be 3.1 times as high. If the wage is to be increased to cover rent without substantial compromise of living standards, it should be four times as high as current wage so that each household has at least 350 yuan of surplus after paying rent.
31. See "Research Report on the Theory and Practice of the Collection of Urban Land Use Fee," by Wuhan Municipal Research Group on Payment-based Urban Land Use.
32. For details see Wang Yukun, 1992d.
33. The fixed revenue sharing means that, on the basis of previous local revenue and expenditure records, the remittance and retention rates are determined in the form of contracts and the rates remain unchanged for a number of years.

34. This method means that central and local revenues are determined according to the subordination relationship of enterprises. In terms of revenue, there are three types: fixed revenue of various levels of government, shared revenue for the centre and province at a fixed rate and readjusted revenue. On the basis of the revenue and expenditure classification, the 1979 budgetary revenue and expenditure is used as the base number. If revenue exceeds expenditure, the province is required to hand over the surplus. If expenditure exceeds revenue, the central government provides subsidies to make up for the shortfall.
35. Wang Yukun, 1992d.
36. These statistics are calculated on the basis of the author's investigation. Development company's 40% sale profits is the conclusion reached after investigation in Shenzhen, Guangzhou, Shanghai, Sanshui and Chengdu. Government's 20% revenue is based on analysis of various data. It is a deduced figure.
37. For details see Wang Yukun, 1992b.
38. For details see Zhang Bingchen, 1991.
39. Andrew Hamer, 1991.
40. Many excellent researches have been conducted in this area such as Meng Xi and Bai Nansheng, 1988; He Daofeng et alii, 1990; Zhou Yixing, 1991.
41. See Wu Jinglian and Wang Yukun, 1992.
42. See Wang Yukun, 1986.
43. Deng Yingtao, 1987.
44. See World Resources Research Institute (ed.), 1990, pp. 230-241.
45. *China Urban Economic and Social Development Year Book 1986*, China Urban Publishing House, 1986, p. 1260.

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中國：世紀之交的城市發展

王育琨著

（中文摘要）

二十世紀的國際經驗證明，發展中國家在實現國民經濟現代化的過程中，通常伴隨着高速度的城市化。通常的問題是，一國的經濟增長能否應付城市化的挑戰？我們關注的問題則是：一國的經濟增長為什麼離不開城市的發展？城市發展對經濟增長有什麼必不可少的貢獻？我們用城市發展替代城市化是基於這樣的考慮：對整體國民經濟發揮作用的，不是城市的規模，而是城市的結構和功能；城市化往往被理解為城市人口的比例這樣一個總量指標，而城市發展則蘊含了城市結構的變遷和功能的演化。

本文圍繞着中國城市結構的演化，實證地描述了傳統社會主義體制下的城市發展格局與方式，具體分析了八十年代市場取向改革為中國城市發展所帶來的機會與挑戰。在此基礎上，作者提出，世紀之交中國城市發展的主題是以工業為中心的城市結構的整體變革，變革的基本途徑是勞動力市場、土地市場、資本市場、技術市場等要素市場的開拓。

作者認為，世紀之交的中國城市發展向中國的傳統智慧提出了挑戰。挑戰的深刻性在於決策者無法在既有的經驗中獲得現成的答案，也難以在現有的城市發展研究中找到適宜的解法。要真正迎接挑戰，城市科學研究本身必須實行一系列變革，即從以前鬆散的研究轉變到城市發展的整體研究上來；從以前淺嘗輒止、滿足於找出問題、提出對策方向，轉變到把性質分析、流量分析與操作分析一體化研究上來；從以前近期功利主義色彩較強的研究，轉變到務實求真的嚴肅學術研究上來。