

ON DEVELOPMENT OF LARGE CITIES IN CHINA

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ABSTRACT:The large cities in China have grown rapidly during the past 40 years. By the end of 1990, there were 59 large cities with a population of 0.5 million or more in the mainland China, of which 31 cities have a population of more than 1 million. Under the situation of controlling and developing, the characteristics of the large city growth may be generalized as follows: 1. Large cities have developed rapidly, but their proportion of number and population in the whole national urban system has dropped. 2. The proportion of coastal large cities somewhat dropped, the inland large cities increased rapidly. 3. Most of the provincial capitals have developed into large cities. Due to the concentration of Industry and population to the cities, especially to the large cities, the cities scales are expanding and the urban problems are strengthened. The economic efficiency in large cities is decreasing, the problems in infrastructure construction are becoming more and more serious. The coming 10 to 20 years are an important period for large city development in China. With the social and economic development, the large city growth will continue. The urban agglomerations—taking the extra-large and medium-sized cities as their centres will come into being in China. The Industries such as finance, trade, information and real estate will increase greatly and will form the major part of urban area, with the restructuring of industries in metropolitan regions.

KEY WORDS:Urban development, large city in China

The large cities in China have been developing under the special historic, social and economic backgrounds, showing their own characteristics and problems. Generally, they have been in the contradiction of developing and controlling in the past 40 years.

I. CHARACTERISTICS OF LARGE CITIES GROWTH IN CHINA

The large cities in China have grown rapidly during the past 40 years. By the end of

1990, there were 59 large cities with a population of 0.5 million or more in the mainland China, of which 31 cities have a population of more than 1 million. On an average, there were 0.06 large cities per ten thousand km². China is among the nations of the world with numerous large cities. There were 4 times as many large cities in 1990 as there were in 1949, while the total number of cities has increased only 2.5 times. From 1980 to 1990, the large cities developed even more rapidly, with an average increase of 1.4 per year, while from 1949 to 1979, the large cities increased per year.

However, the large cities growth has been in controlling. In the mid 1950s, the National Construction Committee proposed: "Don't develop large cities. The small cities and industrial towns should be the focus. The large city development will not receive support without particular reasons." Since then, although the social and economic situation has changed greatly, the basic policy of controlling large cities has been continuing. In April, 1990, the first urban planning law in China pointed out "the large city growth should be controlled seriously, and the medium and small cities should develop reasonably".

Under the situation of controlling and developing, the characteristics of the large city growth may be generalized as follows:

1. Large Cities Have Developed Rapidly, but Their Proportion of Number and Population in the Whole National Urban System Has Dropped

As pointed out above, the number of large cities in China has increased 4 times during the past 40 years, with a higher growth rate than the national average level, and has grown even more rapidly during the past ten years. But their number and population proportion in the whole national system has dropped from 20.2% and 63.3% in 1980 to 12.6% and 54.2% in 1990, while the small cities have increased steadily after a long dropping period (Table 1).

On one hand, large cities possess comparatively favorable urban infrastructure and relatively strong economic power and efficiency. In terms of output value per capita and per unit land and other criteria, the economic efficiency is of positive proportion to the city scale, that is to say, the larger the city scale, the higher the city efficiency (Table 2) and consequently, promoting the growth of large cities. On the other hand, the national policy of controlling large city growth slowed the large city developing. Meanwhile, because the natural population growth rate in large cities was rather low, and many people emigrated from some large cities, the proportion of large city population dropped:

Table 1 Changes of Chinese cities growth (%)

Year	Proportion of number				Proportion of population			
	Extra-large cities	Large cities	Mid-cities	Small cities	Extracities	Large cities	Mid-cities	Small cities
1949	3.8	5.3	13.6	77.3	36.0	18.8	19.8	25.5
1952	4.6	5.2	13.7	76.5	41.1	14.2	18.4	26.3
1957	5.7	8.0	21.0	65.3	42.8	18.5	20.4	18.3
1965	7.7	10.7	25.0	56.5	44.9	19.3	20.2	15.6
1980	6.7	13.5	32.3	47.5	38.6	24.6	23.8	13.0
1985	6.5	9.6	28.7	55.2	39.3	19.4	24.3	17.0
1986	6.5	8.5	26.9	58.1	40.4	17.8	23.7	18.2
1987	6.6	7.9	27.0	58.5	40.7	16.6	24.1	18.6
1988	6.5	6.9	25.3	61.3	40.8	14.8	23.7	20.7
1989	6.7	6.2	25.8	61.3	41.5	13.1	14.4	20.9
1990	6.6	6.0	25.1	62.3	41.6	12.6	24.2	21.5

Sources: Forty Years of Chinese Cities; Statistical Yearbook of Chinese Cities, 1990-1991.

2. The Proportion of the Coastal Large Cities Somewhat Dropped, the Inland Large Cities Increased Rapidly

In 1949, 8 large cities, or 66.7 percent of all large cities were located in the coastal region, while the others located in Sichuan, Hubei and Heilongjiang provinces. There was not a large city in the boundary area. Even more, all the five cities with a population over 1,000,000 were located in the coastal region. In 1990, there were 28 large cities of 47.5 percent of the whole in the coastal region. Among them, half of the cities with a population over 1,000,000 were located in the mid and west region (Table 3).

Besides above, there was difference between the southern and the northern area in the spatial distribution of large cities. The distribution pattern of large cities has changed much since 1949. In 1949, the number of large cities in the southern part is the same of the northern part, though the population in the southern area was a bit higher. In 1990, the large cities in the northern part exceeded the southern area much in terms of numbers and population (Table 4).

There is a strong relationship between the location of industry, resource distribution in the mainland China and the large city growth as indicated above. The main of the Chinese

Table 2 The economic efficiency of the cities in China (1990).

City size	National income per capita (yuan)	GDP per capita (yuan)	Agricultural and Industrial output value per capita (yuan)	Profit and tax per capita (10000 yuan)	Industrial output value per capita (10000 yuan)	Profit and tax by 100 yuan capital (yuan)	Profit and tax by 100 yuan fixed assets (yuan)	Industrial output value per industrial worker (yuan)
Average of whole cities	2183	2739	5364	0.1	0.93	14.2	14.2	27067
> 2.0 million	3733	5113	9608	0.12	1.04	18.9	18.9	33512
1.0-2.0 million	2934	3856	7624	0.11	0.90	15.9	15.8	27384
0.5-1.0 million	3125	3949	8144	0.105	0.97	13.5	13.5	27368
0.2-0.5 million	2239	2751	5537	0.09	0.94	11.0	11.0	25205
<0.2 million	1384	1600	3079	3079	0.82	12.7	12.7	23622

Note: ① Calculated by total population and the industrial output value of township and above in city proper.

② The population refers to the non-agriculture population.

Sources: The statistical Yearbook of Chinese Cities, 1991.

resources, especially the mineral resources was located in the northern part, so, many large and medium industrial items have been established there. During the "First Five-Year Plan" period, 73 percent or 104 of the 156 key items were located in the inland and 86.5% were established in the northern part^①. Meanwhile, the large city growth was connected with the international situation and national defence strategy. Before the 1970s, the development of "Three lines" was emphasized in the interior and northern region. This promoted the city development in the inland. For example, in 1949, Lanzhou City in Gansu Province was only a small city with a population of 180,000, by 1956, the population had reached 550,000 and by 1973, exceeded 1,000,000. On the contrary,, the coastal cities were under controlling, Shanghai was the most typical one. During 1950–1960 period, the emigrants from Shanghai exceeded 4,000,000, many factories and intellects moved to the inland, promoting the interior development. While Shanghai itself dropped to the national economic centre from the former Far East Metropolis.

Table 3 The Changes of large cities distribution in China (I)

City size	1949			1980			1990		
	Total number	Those in coastal region	Proportion (%)	Total number	Those in coastal region	Proportion (%)	Total number	Those in coastal region	Proportion (%)
>2.0 million	1	1	100.0	7	5	55.6	9	6	48.4
1.0–2.0 million	4	4		11	5		22	9	
0.5–1.0 million	7	3	87.1	28	13	46.4	28	13	46.4
Total	12	8	66.7	46	23	50.0	59	28	47.5

Table 4 The changes of large cities distribution in China (II)

Area	1949			1988			1991		
	Number	Population (million)	Proportion (%)	Number	Population (million)	Proportion (%)	Number	Population (million)	Proportion (%)
Southern	6	8.59	57.25	22	31.60	40.5	22	31.60	40.5
Northern	6	6.41	42.75	36	46.43	59.5	36	46.43	59.5

^① Sources: The Statistical Information of Capital Investment in China, 1950–1985, The Chinese Statistical Press, 1987.

3. Most of the Provincial Capitals Have Developed to Large Cities

In 1949, with the exception of Shanghai, Beijing and Tianjin, only 7 province capitals had reached large city status. By 1982, 23 provincial capitals had reached large city status and in 1990, 19 provincial capitals had reached extra-large city.

There is a strong relationship between the development of provincial capitals and the structure of Chinese political economy. Provincial capitals, as the political centres, are the focus of economic, cultural activities and the emphasized construction area of industries. Transportation and tourism facilities. Consequently, on one hand, the functions of the provincial capitals have changed from administrative management to comprehensive center. On the other hand, the cities scale rose rapidly. Beijing, the national capital, is the typical of the development pattern. For a long time, Beijing had been the cultural and political centre, while Tianjin focused on light industry and harbour and Tangshan centred on po and heavy industry. They all formed a typical urban agglomeration. But since 1949. the economy in Beijing has developed rapidly, even more, it has become one of the national heavy industrial bases, only behind shanghai during a time. Beijing's population had grown from 1,350,000 in 1949 to 6,485,000 in 1991 (the nonagricultural population), increasing 3.8 times, while Shanghai had increased only 0.9 times and Tianjin 1.7 times.

II. THE PROBLEMS FACED BY CHINESE LARGE CITIES

The large cities' important role in the national economy and urban system is obvious. In 1990, the large cities took only 12.6 percent of the total cities and 8.7 percent of urban land in China, but support 54 percent of the total urban population, and produce 50 percent of GDP, 47 percent of the national income, 56 percent of the total industrial output value, 62 percent of the profits and tax, 62 percent of the local fiscal incomes, 64 percent of the industrial and commercial tax. But they are facing many problems.

1. Due to Concentration of Industry and Population to the Cities, Especially to the Large Cities, the Cities Scales Are Expanding and the "Urban Problems" Are Strengthened

From 1980 to 1990, there were 13 cities with a population from 0.5 to 1 million moving to extra-city class, taking over 40 percent of the total extra-city number. Generally, the larger the city scale, the faster the population growth. During the past 10 years, the cities, with a population of 2 million, expanded 60 to 100 thousand in population per year. The population of the largest city in China—Shanghai increased 140 thousand. Those with a population between 1 million and 2 million, increased 30 thousand per year. Those with the

population of less than 1 million only raised the population of 10 thousand or so. For the natural growth rate is in reserve proportion to the city scale, the population increasing is mainly the result of the large flow of immigrants.

The expanding of city scale made the urban environmental problems more serious. The population density in the built-up area of Chinese cities is very high, on average, over 10 thousand person per km². The most dense area—Jingan district in Shanghai City has reached 64 thousand per km². This has caused resident environment degraded, housing shortage. The residence area of large cities is below the nation urban average level. The content of the "the three kinds of wastes" produced by the large cities occupies over half of that by the total national cities. Those cities with a population of 1 million or more produce 7 to 8 times SO₂ of the whole national cities average level per km².

The traffic problems are even more serious. Although the road area per capita is 1m² large in large cities than in medium and small cities, the traffic is heavier and the traffic accidents is more in large cities because of the more vehicles. In 1990, the injured or died persons per 100 thousand persons in the traffic accidents of large cities were 30 percent to 40 percent higher than that of the medium cities and 1 times higher of the small cities.

2. The Economic Efficiency in Large Cities Is Descending, the Problems in Infrastructure Construction Are Becoming More and More Serious

For a long time, the higher efficiency in large cities has resulted from their former relatively completed infrastructure, which lowered the investment of infrastructure. For example, Shanghai had established rather modern water-supply, electric power, telecommunication, gas and trolley bus systems in the 1880s, and continued their construction, allowing the industrial programs established from the 1950s to 1970s pursuing rather high economic returns for about 30 years.

During the 1980s, due to the increasing urban construction in large cities, the infrastructure had exceeded its capacity. However, for a long time, not enough attention has been paid to the basic infrastructure construction and there has been little investment. In the first 35 years after 1949, the amount of central government investment given to Shanghai accounted for only 1 percent of its total public funds turned over to the state. For the country as a whole, the investment in urban infrastructure accounted for only 4 percent of all investment funds. As a result, the infrastructure in the cities throughout the country is much back ward.

The small amount of investment in urban infrastructure has effected the urban eco-

conomic development and efficiency. Since the 1970s, the new construction in Shanghai must rely on the newly constructed infrastructure, lowering the ratio of industrial input to output, from the former 1:10 to 1:1.

The other reason for the lower efficiency in large cities is the concentration of state-owned large and medium enterprises. In the conventional planning system, the large and medium enterprises may obtain high efficiency from the raw materials sold by the government at rather low prices. After adopting opening and reform policies, the state-owned large and medium enterprises gained lower profits in the competition with the small ones. Accounted by the urban nonagricultural population, the GDP and national income per capita of some cities with a population of less than 200 thousand ranks the highest, accounted by the built-up area those of large cities are not higher than small cities (Table 5).

Table 5 City size and economic efficiency (1990)

City size	Per capita (yuan)		Per km ² (built-up area) (100 million yuan)	
	GDP	National income	GDP	National income
Average of total cities	6026	4802	0.63	0.55
> 2 million	6016	4392	1.10	0.8
1-2 million	5252	3996	0.65	0.49
0.5-1 million	5187	4104	0.56	0.44
0.2-0.5 million	5855	4765	0.64	0.52
< 0.2 million	7389	6391	0.62	0.54

Even accounted by the total population of the urban area, the national income and GDP per capita of the mine city—Daqing and the opening cities—Xiamen and Fushan ranks the highest. The large cities reach only one-third to one-fifth of them.

Thirdly, in the new situation of opening and reform, the expanding controlling of large cities is losing. Their plans are difficult to be undertaken. In the new situation of opening and reform in the 1990s, the urban fringe is expanding, difficult for planning and management. On one hand, expansion, because of the continuous concentration of population and industry and functions expansion, the cities need new space. On the other hand, taking the advantage of their close location with large cities, the urban suburbs develop multi kinds of enterprises around the central cities, in order to pursue larger urban market. The rapidly increasing mobile population accounts for one fifth of the total urban population,

making the urban infrastructural problems more serious.

Since 1992, with the industrial restructuring and deepened opening, many cities, especially the large cities, establish many kinds of new development district (economic development zone, high-tech zone, etc.), occupying large area, many over dozens of km². Some even exceed the former built-up area. The Pudong New District in Shanghai, with an area 350km², is equal to the present built-up area in Puxi. Some counties located in the cities without their own county towns such as Wuxian in Suzhou city, Wuxixian in Wuxi City, Wujin in Changzhou City, Tongshan in Xuzhou City, have established or have planned to build up new towns close to the old urban built-up area. The area of planned Suzhou-Singapore Industrial park exceeds the total of present old and new towns. As a result, the land controlling is becoming more and more difficult, and the urban planning lagged behind the demand of new town development, causing many potential problems for further urban development.

III. THE TENDENCY OF LARGE CITY DEVELOPMENT

The coming 10 to 20 years is an important period for large city development in China. Firstly, with the social and economic development in China, the large city growth will continue. The Chinese economy is lying on a key point. The further opening and reform is stimulating the power of the local units, causing the economy development more rapidly. The large cities in China are becoming more and more attractive for further development, because of their solid economic and technological base, modern facilities and rich professional personnel. The continuous concentration of population and the expansion of urban areas, with their functions adjustment are the objective needs of development. Furthermore, many extra-large cities have planned to move towards international metropolis, in order to enter the international urban system and urban market. Some medium sized cities will rank in large ones with the reform of household policies, and more and more peasants moving to work in cities. Therefore, the large cities in China will develop greatly in terms of both number and size. It's estimated that the number of large cities in China may reach 90 to 100, of which 40 will exceed 1 million persons. Meanwhile, the proportion of large cities population and number in the whole national urban system will continue to decrease. With the adoption of "along three lines" policies (along coastal line, Changjiang (Yangtze) River, and boundary line), there will emerge a lot of small cities. At the same time some counties will be changed to cities. With the local economic development, these will greatly raise the comprehensive level of the city development in China.

Secondly, the urban agglomerations-taking the extra-large and medium-sized cities as their centres, will come into being in China. Because of the historic, economic and social

reasons, Zhujiang some city areas have been formed, such as the middle and southern parts in Liaoning Province, Beijing-Tianjin-Tangshan area, Shanghai-Hangzhou-Nanjing, the Zhujiang (Pearl) River Delta, Jinan-Qingdao-Yantai in Shandong Peninsular, the southeast in Fujian Province and Wuhan, Eastern Hunan, Middle Henan, Chengdu-Chongqing area in the midland, etc. To play the central role of the extra-large city, to coordinate the relationships among cities at various levels and between urban and rural areas, and to integrate the urban and rural areas, the regions indicated above will see a special sort of urban spatial organization form—urban agglomeration or megalopolis. These urban agglomerations are the main body of the national social and economic development. Meanwhile, they are the centres of the national urban system and the pioneer areas of urban internationalization.

Thirdly, the industries such as finance, trade, information and real estate will increase greatly and will form the major part of urban area, with the restructuring of industries in metropolitan regions.

The low proportion of the workers engaging in the tertiary activities is one of the symbols of cities lacking living power. Particularly, some pillar industries of modern cities such as finance, information and real estate is not so strong. In the next 10 years, stipulated by the land market and real estate, the tertiary, especially the modern tertiary will develop rapidly, when the international trade strengthened, construction of development zone quickened, and the foreign funds widely imported. Meanwhile, while infrastructure such as transportation, electricity, water-supply, gas and telecommunication, etc. is being emphasized, the large cities in China will improve much in solving present problems and moving towards modernization, becoming the back bone of the national economy and leading the whole national economy into a new stage.

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