Theoretical Exploration on How to Realize the Shrewd Contraction and Planning Theory of Old Cities in China

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Abstract: In 2019, the National Development and Reform Commission officially promulgated the Key Tasks of New Urbanization Construction in 2019, in which the term “shrinking city” appeared for the first time. For some old cities in China, the population has been shrinking for many years due to industrial transfer, urban-rural division, policy constraints and strong competitiveness of emerging cities. This phenomenon is particularly serious in the old industrial base cities in Northeast China. In view of this, this paper points out that in the process of “smart shrinkage” in old cities of China, it is necessary to establish the concept of “smart shrinkage”, improve the distribution and distribution of urban population, and reform the mode of urban land use. In the specific implementation process, the government can proceed from three aspects: changing the path of urban development, cultivating endogenous power and enhancing the level of regional support.

1. Background of the Study

1.1 Literature review

In recent years, urban “smart growth” has become a hot vocabulary in China. Its goal is to improve the intensity of land development and output efficiency, which can play an important role in the process of land urbanization. However, urban expansion supported by land finance is often accompanied by many social and environmental problems. Some urban development is no longer suitable for simply seeking the increase of land indicators. Compared with the expansion of the relative amount, how to revitalize the stock and improve quality and efficiency is more important. Therefore, some cities should change from “smart growth” to “smart shrinkage”. Discussions on “smart shrinkage” have focused on rural human settlements in the past. Zhao Min, the hunter and others pointed out that in the process of urbanization, rural human settlements need to be “shrewdly contracted” unlike urban human settlements which need to be increased. Based on this understanding, Zhao Ming and others first quantitatively analyzed the changes of rural population and human settlements, and according to the actual situation, explained them in theory. Then the rural planning strategy based on “smart contraction” orientation (Zhao et al, 2016) is discussed. In the view of hunting, with the realization of China's two hundred-year goals, the urban population continues to increase and the rural population continues to shrink, which is an inevitable trend in China's long-term development. Based on the empirical study on the contraction of rural human settlements, the concept of spatial inertia is introduced, and the basic principles and key points of smart contraction are further discussed (You, 2018). Zhang Junjie and Ye Jie pointed out that promoting new urbanization is a major strategy for China's development, and the contraction of villages on the edge of cities is an inevitable trend. The two scholars took the rural areas of Guangzhou as the specific research object to demonstrate the synergistic effect of the development of urban fringe villages and “smart contraction”, and put forward the analysis from three aspects of living space efficiency, scenery and livability (Zhang and Ye, 2018). Around the “smart shrinkage” of cities, some scholars have carried out research. Sato and Wang have also focused on the phenomenon of “smart shrinkage” of Japanese cities. They have also made an in-depth analysis of the two systems of “Regional Public Transport Network Formation Plan” and “Site Applicability Plan” formulated by the Japanese government in response to the current situation of “urban shrinkage”. Actual utility. On this basis, taking the residential guidance policy of Fengqiao City in

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Aichi County as an example, the impact of site equilibrium model proposed by Fengqiao City in Aichi County on future population distribution (Toshio and Wang) is simulated and analyzed. Yellow Crane studies the planning strategies of smart urban contraction in the United States. On the basis of summarizing and analyzing its application effect, it explores the reference significance for Chinese cities (Huang, 2011). Zhao Jiahui, Li Chenggu and others believe that the old industrial base cities in developed countries shrink normally. Most European and American countries adopt the strategy of transformation with the value orientation of streamlining, which has great enlightenment significance for the evolution and planning of the old industrial base in China (Zhao et al, 2017).

1.2 Purpose of the study

Unlike developed countries, most of China's cities are growing. However, the problem of urban contraction, which is typically characterized by population loss, has also emerged. Population loss and the growth of material and cultural needs have become a problem plaguing many small and medium-sized cities, especially the old ones. By reviewing the existing literature, it can be found that the current research on smart contraction mainly focuses on rural areas, and there are few studies on urban contraction. Even if there are, most of them take developed countries abroad as the research object, and few studies specifically focus on urban contraction in China. The research on “smart shrinkage” of Chinese cities is still in its infancy. Under this background, it is of great practical significance to study the smart shrinkage and planning of Chinese old cities.

2. Cause Analysis of “Smart Shrinkage” in Old Cities of China

2.1 Industrial transfer

According to the research results released by Wu Kang, an associate professor at Capital University of Economics and Trade, 84 cities in China experienced a three-year decline in permanent population, i.e., a “contraction” in 2007-2016 (Du et al, 2018). Among them, the cities with “smart shrinkage” mainly concentrated in Heilongjiang, Jilin and Liaoning provinces. In the past three years, there are 6, 5 and 5 Shrinking Cities in the three provinces, respectively. The shrinking cities account for 73% of the total number of cities in Northeast China. Most of the “shrinking cities” located in these areas are resource-based cities. Because of the rise of resources, after decades of resource development, resources are almost exhausted, and the original industrial industry can not support enough labor market. Such as Heilongjiang Jixi, known as the “Centennial Coal City”, and Daqing, where the oil and gas industry is declining. According to the data, from 2014 to 2017, the urban GDP of Daqing declined by 34%, and the population per square kilometer decreased by 450 people. This type of heavy industrial city can not meet the needs of industrial transformation, and population outflow is an inevitable trend.

2.2 Urban-rural segmentation

Due to historical and geographical reasons, some old cities naturally form scattered towns, such as Muling City in Heilongjiang Province.The location of its urban area is still a distance from the main traffic corridors, resulting in the new high-speed railway and highway can not connect the surrounding counties (Wang et al, 2017). The unfavorable traffic between the city and its surrounding areas makes it impossible for the surrounding areas to feed back the development of the city, and the employment rate of the city is on the low side. One of the main problems of population reduction in some old cities is the serious division of urban and rural areas and the lack of attractiveness of cities to the population of surrounding towns. Especially in rural villages and towns where the main source of income is agriculture, migrant workers are only the second choice. Farmers'willingness to enter cities is insufficient, and with relatively rich agricultural subsidies, the income level of rural residents is not low. In the absence of obvious opportunities for urban development, it is not necessary for township residents to leave the countryside.

2.3 Emerging cities have strong competitiveness

With the further development of China's economy, emerging cities are constantly emerging. Compared with some old cities in China, these new cities have better climate environment and great potential for development. Taking the three northeastern provinces where the phenomenon of “urban contraction” is most obvious as an example, from the point of view of natural geography, the northeastern region has a long winter and a cold climate. The formation of some old cities mainly depends on historical reasons. From a historical point of view, the population composition of Northeast China mainly includes refugees and immigrants. To some extent, Northeast residents'recognition of their hometown can not be compared with that of the central region. With the rise of other cities, people prefer to live in places with better climate and living environment. In these respects, the competitiveness of old cities is obviously weaker than that of new ones.

2.4 Policy constraints

Generally speaking, urban contraction is inevitable. In terms of administrative system, the long-term government appraisal mechanism aiming at economic growth has led to large-scale expansion of enrollment in some cities, large-scale construction of debt, and serious waste of infrastructure (Wu, 2014). One thing to be clear is that not all cities are better off with larger scale. In fact, China's cities are in urgent need of less efficient use of land resources. Zhou Qiren, an economist, made it clear that in the next 30 years, the focus of government development should be shifted from capital construction to popularity construction, and a compact city ruled by law should be built. Therefore, in recent years, the government has introduced a series of assessment mechanisms, population policies and so on, the purpose of which is to control the size of the city. For example, the impact of family planning policy on Northeast China is more obvious. Because there are more state-owned enterprises in the old cities of Northeast China, the implementation of the policy is strong, and the characteristics of the elderly and young children are obvious, which makes it difficult for the population to grow.

3. The Thought of “Smart Shrinkage” in Old Cities of China

3.1 Establishing the development concept of “smart contraction”

Over the years, the vast majority of Chinese cities have sought to expand their scale and blindly strive for new projects. In the future, some old cities in China will set up the development concept of “smart contraction” based on their own characteristics and seeking truth from facts. Get rid of tradition and pursue the road of land expansion blindly. In the specific process of development, we can learn from the experience of urban contraction in developed countries, such as Japan, the United States, Europe and other countries, aiming at the old industrial base cities in China, “smart contraction” as a new way of revitalizing. The goal of urban development is defined as curbing the disordered urban spatial development pattern, focusing on the development of land stock, and realizing the redistribution of spatial structure.

3.2 Improving the dispersion and distribution of urban population

The core of the development and reform of old cities in China is still to be recognized. Urban transformation must be people-centered and meet the needs of social development. As far as the old industrial base cities are concerned, reducing the carrying population is an inevitable choice, which is conducive to the long-term development of cities. This requires the state to make a good strategic layout ahead of time and guide the population of old cities to transfer to the outside world by formulating reasonable policies. To a certain extent, at present, the population transfer from small towns to large and medium-sized cities is a major trend, and knowledge lacks strong policy support. Therefore, the state should continue to strengthen policy support, do a good job in propaganda, dilute the traditional concept of “homeland is inseparable”, comply with market behavior, and promote population to emerging cities or other well-developed large and medium-sized cities.

3.3 Reform of urban land use model

In the process of smart urban contraction, complex land problems are involved. In the process of contraction of old cities in China, it is necessary to formulate rational land use planning of land stock, optimize the spatial distribution of existing land, and ensure the full development of urban land on the basis of controlling the total scale of land. For example, for a city of moderate scale and suitable location, it can be developed into urban green space, or refer to Beijing 798 to establish a unique tourism and leisure area. Some scattered waste gas industrial land should be reorganized for land use planning. Some of the land in stock will be converted into ecological land to enhance the attractiveness of the urban environment.

4. Planning Strategies for "Smart Contraction" in Old Cities of China

4.1 Changing development path

Under the background of "smart shrinkage" of old cities in China, the future development path will change from pursuing speed and scale to pursuing quality and benefit. The contraction of cities does not mean the decline of cities, but the transformation of development paths and the pursuit of higher quality improvement. Specifically, first of all, we should change from serving the economy to serving the people, which means that the focus of investment has shifted from enterprise investment to the promotion of public facilities and cultural environment. Combined with the cases of Japan, Europe and America, we can see that for the shrinking small and medium-sized cities, the per capita allocation of public services is higher, which in turn will enhance the attractiveness of the city. High-quality public services can also activate the cultural atmosphere of the city and improve the quality of the local population. Secondly, we should realize the effective flow of production factors in urban and rural areas. With limited funds, we should focus on identifying investment areas, improving investment efficiency and enhancing the utilization rate of stock space. Finally, we should transform to consumption and innovation-driven, develop green eco-industry and service industry, and actively promote industrial upgrading.

4.2 Cultivating endogenous motivation

The rise of old cities may be due to historical or resource reasons. In addition to these factors, the government should have a sense of anxiety and actively cultivate the endogenous power of the city. Taking Muling City of Heilongjiang Province as an example, besides industry, the local agriculture and forestry industry also has great development potential. The government should combine its own characteristics, build an industrial system, promote industrial integration and development, vigorously develop the processing industry, and enhance the level of value chain. Moreover, the government needs to build an innovative platform, introduce high-quality talents, and promote manufacturing enterprises. Technological upgrading. At the same time, college students are encouraged to return home to start their own businesses, promote the return of intellectual resources, and develop from scale-driven mode to intelligent and technological refinement. Efforts should be made to foster the integration of agriculture and tertiary industries, such as service industry, healthy diet and pastoral complex, to form supporting enterprises, to enhance the visibility of cities and to foster the endogenous power of urban development.

4.3 Enhancing regional support level

The degree of urban contraction and spatial scope are closely related to the level of regional development. The experience of urban contraction in Japan and the United States shows that urban contraction is not a large-scale contraction, but an active contraction to enhance urban development capacity. This ability depends not only on the city itself, but also on the supporting ability of regional development level. Therefore, at the same time of urban contraction, provincial governments must make overall plans for regional development and cultivate the ability of employment and factor aggregation. At the same time, we should improve the function of urban "land storage center", improve the built environment of urban reserved land, transform it into public

space such as urban green space, and improve the quality of life of urban residents. For industrial land requiring certain investment, developers can be introduced, the nature of land can be stipulated in advance, and the economic transformation and reform needed by urban contraction can be financed by land auction.

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References

[1] Peng J. (2016) Research On Teaching Reform of Business English Major Under The Demand of “The Belt and Road”. Journal of Huanggang Polytechnic College, 18 (3), 40-42.

[2] Zhao M., You L., Chen C., Et Al. (2015). On the “Smart Contraction” Orientation and Planning Strategy of Rural Human Settlements. Urban Planning, 39(7), 9-18.

[3] You L. (2018). The “Contraction” And “Smart Contraction” of Rural Human Settlements – Empirical Analysis, Theoretical Interpretation and Value Selection. Urban Planning, 42 (02), 69-77.

[4] Zhang J.J, Ye J., Liu Q.Z., Et Al. (2018). The Spatial Planning Countermeasures of Guangzhou Chengbian Village Based on the Theory of “Smart Contraction”. Planner, 25(7), 77-85.

[5] Toshio Sato, Wang Y.. (2018). Japan's Friendly City Policy - Smart Contraction and Urban Transport Development Strategy. Urban Architecture, 15(12).32-40.

[6] Huang H. (2011). Smart Contraction, Planning Strategies for Dealing with Urban Recession and Its Practice in the United States. Urban and Regional Planning Research, 9(3), 157-168.

[7] Zhao J.H., Li C.L.G., Ma Z.Y., Et Al. (2017). City Shrewd Contraction and Transformation of China's Old Industrial Base. Urban Development Research, 24(1), 141-144+158.

[8] Du R., Wu M., Zhang W., et al. (2018). Characteristics of “Shrinking City” and Planning Strategies in Muling City, Heilongjiang Province. Planner, 34(6), 118-122.

[9] Wang Y.C., Wang Y.Y, Tu H.J. (2017). Rural Sun Space Development Strategy in the Perspective of Smart Contraction Theory. Planner, 33(1), 39-44.

[10] Wu K. (2014). On the Planning Response to Urban Fringe Problems from the Perspective of Smart Growth. Urban Architecture, 11(11), 65-66.