

Analysis of the Causes of the Decline of the Industrialized Cities in Northeast China

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Abstract: The industrial development in northeast China is characterized by regional characteristics. The main characteristics are precocious and leap-forward development, which is a typical resource-dependent development model. Meanwhile, industrial development is closely related to government power intervention, which is a government-led industry characteristic. Therefore, these characteristics are very damaging to resources. This paper states the causes of urban decline in northern China from the concept of urban decline, analyzing the influence of decline of social environment and population, summarizing that the main cause of urban decline. (1) The old industrial system could not adapt to the new economic system; (2) The industry's over-dependence on raw materials has caused a shortage of resources; (3)Transport networks are underdeveloped and transport costs increase; (4)Lack of infrastructure; (5) The population is aging and the population migration.

1. Introduction

The northeast region became an important strategic place for national industrial construction due to its close proximity to the Soviet Union, after the founding of the People's Republic of China. Industrial development in Northeast China started much earlier than in other places. The first stage - Qing government began to mine coal in Northeast China in order to pay war reparations after China was defeated in the First Sino-Japanese War in 1895s. Secondly--Japan's participation in World War II required military supplies, so they established industrial production bases here. The purpose was to extract large quantities of minerals in the Northeast, produce them locally into industrial goods, and ship them to the front to support the war effort. The third stage--the North East once again played the role of military supplies because of its geographical location. The fourth stage--the famous First Five Year Plan was carried out. The central focus on the First Five Year Plan is to develop heavy industries such as machinery industry. Northeast China naturally has to play a major role. This is the brief history of the formation of Northeast industrial base. Northeast China was developed in agriculture and most important industrial base, for example, Changchun was rated as the most advanced international city in Asia with the most advanced infrastructure, even more advanced than Tokyo; Harbin has also become the second largest international city in Asia, with as many as 1,809 foreign commercial establishments. The region's urbanization level reached 52.1%, which was the fastest growing economy in Asia and the world at that time. However, the northeast has experienced an economic downturn, at the end of the 1990s. The total GDP of the three Northeast provinces is

only 57,946.34 trillion yuan, accounting for only 44.88% of Guangdong Province at present[1].

The amount of investment in Northeast China reached 3.4 billion yuan, which means 71.4% of the Soviet-assisted construction projects were in Northeast China during the recovery phase of the national economy period, Chinese industrialization mainly gives priority to the development of heavy industry, which leads to the imbalance of industrial proportion. The northeast is still a strictly forbidden frontier land, in the late 19th century. But it became a region with a higher degree of industrialization in modern China until the mid-early 20th century. The Northeast region has already exceeded the indicators of the fourth stage of Hoffmann industrialization. Obviously, it does not conform to the general law of economic development. It is a typical resource-dependent development model because of its precocity and leapfrog development model.

2. Industrial City Decline in China

The agricultural society transforms into an industrial society, which makes a lot of environmental pollution problems. Urbanization affects the transformation of urban economic structure, which is the transformation of the economic structure from heavy industry economy to high technology industry and service industry. Therefore, the original heavy industry city has caused serious city failure. The northern coastal cities were the earliest industrial cities established after the founding of New China. But, a large number of factories were closed, with the reform of economic structure and the migration of economic center. However, the new economic foundation failed to fill up and the original economic foundation of the city was not restored. However, the new economic model has not been fully established, and the original economic foundation has no longer existed. As a result, the city has a decrepit district and a large number of industrial wasteland. For example, the very high unemployment, poverty, environmental pollution and a lot of social, economic and environmental problems

2.1 The concept of Industrial City Decline

Urban decline is an important stage of urban life cycle. It refers to the process of damage, stagnation, decline and disappearance of the original urban functions of the whole city or local areas when the internal and external environment of a city changes. The typical symptoms are deindustrialization, population decline and structural change, economic transformation, increased derelict buildings, high unemployment, broken families, loss of political power, increased crime, and deserted urban landscapes. The reason for the overall decline of Northeast China is not a single one, but the result of multiple factors such as global industrial iteration, the evolution of economic geographical pattern, population and international environment. The combination of various factors has hindered the development of new industries in Northeast China, which is making it completely miss the successive industrial waves in the past two decades.

2.2 Causes of Industrial City Decline

The causes of urban decline vary in different regions. If the quality of the city's environment does not meet the needs of people's living standards, it will not attract new investment in industry or business, then, Urban decay is appear. There are many reasons for the decline of Northeast industrial cities, such as: economic structure, policy, population loss, environmental problems and so on[3].

2.2.1 Limited industrial structure

The industrial structure of many old industrial areas in the north is mainly based on traditional industries, and the industrial structure is relatively unitary. However, the single industrial structure is difficult to adapt to the market demand, resulting in the decline of enterprise competitiveness.

2.2.2 Location limiting factor

Due to the implementation of the reform and opening up policy. Especially after China's accession to the WTO, a large number of raw materials and energy need to be shipped to China through seaports. There are no long-distance waterways in the northern region. Overland transportation costs are high. Therefore, the economic center began to migrate to the southeast coast.

2.2.3 Serious environmental pollution

With the improvement of environmental protection requirements, many enterprises are difficult to meet environmental protection standards and are forced to close or transform, which also leads to the decline of old industrial areas.

2.2.4 Demographic changes

Aging population and population in the southern economy developed rapidly, while the development of the northeast slowed down, after the reform and opening up policy. As a result of the decrease in employment, many people face unemployment or cannot find a job. China's earliest place of aging is the northeast, people may be old machines can replace people to work, efficiency can also be improved, the output of society will not be reduced. In order to have a better life, many young people in the Northeast choose to leave their hometown after graduation and go to the south to find job opportunities. Northeast China is the earliest region of industrialization, urbanization and modernization in China, so it is also the region with the most serious aging in China. Due to the backward development of the old industrial areas, the population has moved out seriously. Many young people choose to leave the old industrial areas and go to the economically developed areas, which also aggravates the decline of the old industrial areas.

2.2.5 Policy impact

The reasons for the North-East's decline include policy issues. The northeast region has always been a key area supported by the Chinese government, but these policies have not played a sustained and effective role in promoting the development of the Northeast region in the past decades. The Central Committee of the Communist Party of China and The State Council officially issued the "Several Opinions on the Implementation of the Revitalization Strategy of Old Industrial Bases in Northeast China", which was the beginning of the revitalization of old industrial bases in Northeast China by the Central Committee in October 2003; The State Council issued Opinions on Several Major Policies and Measures to Support the Revitalization of Northeast China in the near Future, in 2014s. The National Development and Reform Commission issued the Three-year Rolling Implementation Plan for Promoting the Revitalization of Old Industrial Bases in Northeast China.

However, in terms of total GDP, the share of the three Northeast provinces in the national GDP dropped from 11.4 percent in 2002 to 4.8 percent in 2022, a drop of more than half.

The northeast has become more dependent on the national government's supportive policy development in the past few decades. On the one hand, due to the support of the policy, it leads to the waste of resources and unreasonable allocation of resources; On the other hand, the government in Northeast China has low efficiency and serious corruption problems, so it can not effectively attract foreign investment to promote economic development.

2.3 Characteristics of Industrial City Decline

Urban decline is a dynamic process, involving urban economy, social society, culture, architecture and other aspects. The concept of urban decline is the process of damage, stagnation, decline and disappearance of the original urban function of the whole city or a local area. For example, deindustrialisation, population decline and structural change, economic transformation, increase in

abandoned buildings, high unemployment, increase in broken families, loss of political power, increased crime and ruined city scapes. Urban decline mainly includes four aspects: economic decline, social decline, cultural decline and environmental decline

Economic recession

The main economic systems and traditional industries have migrated or declined. The economic growth rate of the city is stagnant or negative. Job loss or low employment rates.

Social decline

The characteristics of social decline are as follows: Population decline, Spatial transfer of population; Inner city decline; Slum growth; Increased levels of family breakdown; Social disintegration.

Environmental degradation

Degradation of built environment and site function; Infrastructure degradation; Environmental pollution.

Cultural decline

The city is full of evil, fear and panic. Urban vitality, innovation and other positive spiritual forces are degraded. Psychosocial distance is growing. For example, the decline of the American city of Detroit increase the segregation and lost its position as a leader in technological innovation.

2.4 Conclusion

Although the implementation of the northeast revitalization strategy, the effect has not reached the expectations. The proportion of GDP and population of the three provinces showed a significant decline trend. The GDP of the three Northeast provinces once accounted for nearly 20% of the total GDP of the country, accounting for 1/5 of the country, after the founding of New China. However, it fell to 9.0% in 2002 and again to 4.68% by the end of 2022, less than 1/20 of the national rate. A series of population problems such as population outflow and aging aggravation caused by economic downturn.

Urban planners have recognized that preventing urban decline is more important than treating it. If take effective measures to prevent urban decay, it also can avoid the waste of resources, human poverty and a series of serious social economic and environmental issues[2]. Although China has not experienced the transformation from an agricultural society to an industrial society, its industrial economy is still quite developed, and a lot of heavy industry is located in the north part of China. We learn some experience from developed countries that Urban planning needs to pay attention to the permanence of the change of the whole economic structure and its impact on the city, and take some preventive measures as soon as possible. Chinese planners should not only learn from the useful experience of the West, but also pay attention to the existence of a large number of urban problems and reasons in Western countries.

References

- [1] Xidong Tao. (2015), *Living in a city, do you know what urban decay is? In-depth good article to analyze.*[pdf] *China City News*, 15. OECD publishing. Available at: <<https://mp.weixin.qq.com/s/s60uo7Oef2OWZH-BRV9uVA>> [Accessed 20th April 2023].
- [2] Hong Wang.(1991),*Urban decay in Britain.*[pdf]*Foreign Urban Planning*, Available at: <<https://bar.cnki.net/bar/download/order>> [Accessed 21th April 2023].
- [3] Baozhong Yi, Wei Ma.(2015),*The historical source of the decline of the old industrial base in Northeast China and the countermeasures for its revitalization.*[pdf]*Journal of Changchun Finance College*. Available at: <<https://xueshu.baidu.com/usercenter/paper/show?>> [Accessed 20th January 2024].