

# *Study on the Influence and Mechanism of the Pilot Free Trade Zone on Industrial Upgrading -- A Case Study of Bengbu Area*

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**Abstract:** Industrial upgrading and structural optimization are inseparable topics for regional economic development. In recent years, with the strong support of Bengbu Municipal government, Bengbu has achieved fruitful economic development and continuously optimized its economic structure, but the phenomenon that economic growth is driven by resources and investment still exists. Nowadays, the trend of "anti globalization" is becoming more and more obvious. The purpose of establishing the free trade zone in Bengbu is to serve the strategic requirements of "innovation driven development" and "integration of the Yangtze River Delta", play an important role in promoting the construction of the "the Belt and Road" and the development of the Yangtze River economic belt, and create a new inland open highland. The establishment of the free trade zone in Bengbu not only brings more opportunities for the upgrading of the city's industrial structure, but also increases the risks and challenges faced by the economic operation. The establishment of Bengbu free trade zone has significantly promoted the industrial upgrading of Bengbu, which is mainly reflected in four aspects: Investment opening, trade facilitation, administrative system reform and innovative financial reform and innovation. Benefiting from the boosting effect of these policies, Bengbu has two main paths for industrial upgrading: one is the liberalization of commodity trade, and the other is the liberalization of service trade.

## 1. Introduction

### 1.1 Research background

In recent years, with the popularity of globalization and the rapid development of international

trade, the development of global free trade zones has also changed with each passing day, and has gradually become a common means for countries around the world to expand international trade, attract foreign investment and develop domestic economy. Under this background, in order to establish a set of innovative trade system in line with international standards and seek new economic growth points, China has also begun the exploration and construction of the pilot free trade zone.

Since 2013, China has set up pilot free trade zones in more than 10 provinces and cities, including Shanghai and Guangdong, in an attempt to reform and innovate the foreign economic and trade system and explore the establishment of an institutional framework compatible with the rules of international trade and investment. In September, 2020, in order to build the pilot free trade zone with high standards and quality, the State Council issued the notice on the overall plan of Beijing, Hunan and Anhui pilot Free Trade Zone, which is another major strategic measure to promote reform and opening up in the new era.

The establishment of Anhui pilot free trade zone is not only a major historical mission for Anhui, but also a major historical opportunity for Anhui. To promote the construction of Anhui pilot Free Trade Zone, the core task is to explore a set of replicable and replicable experiences and practices, fully implement the strategic requirements of "innovation driven development" and "integration of the Yangtze River Delta", play an important role as a node in promoting the construction of the "the Belt and Road" and the development of the Yangtze River economic belt, and create a new inland open highland.

Therefore, studying and analyzing the impact of Anhui pilot Free Trade Zone, especially Bengbu area of Anhui pilot Free Trade Zone, on industrial upgrading and its mechanism has important demonstration significance for the construction of pilot free trade zones in other provinces and cities and the institutional innovation of free trade zones nationwide.

## **1.2 Research status at home and abroad**

At present, the academic circles at home and abroad have conducted a lot of research on the construction of the pilot free trade zone and achieved fruitful results. Most of them believe that the construction of the pilot free trade zone has a significant positive role in promoting China's regional innovation capacity, local fiscal revenue, industrial transformation and economic growth. Although these studies have reflected the spillover effects of the pilot Free Trade Zone, it is undeniable that these effects can only be realized by relying on the core element of industry. Therefore, the research on the construction of pilot free trade zone should also focus on its impact on industrial upgrading. However, the existing literature has inconsistent conclusions on whether the free trade zone is conducive to promoting the optimization and upgrading of regional industrial structure.

It can be seen that although the current academic circles have analyzed the impact of the establishment of the free trade zone on regional industrial upgrading, they have not made further research on its internal mechanism. At the same time, the existing literature on the impact of the free trade zone on industrial upgrading has not reached a unified conclusion, and few studies have conducted in-depth analysis on the impact path of the free trade zone to promote industrial upgrading.

## **1.3 Research purpose**

With the release of the "fourteenth five year plan" of Anhui Province, the high-quality construction of Anhui pilot free trade zone has become a hot topic. The report pointed out that it is necessary to benchmark international advanced rules, make good use of greater reform autonomy, build a new open economic system at a higher level, and create a new inland highland of reform and

opening up in the new era. As a key measure to enhance the comprehensive competitiveness of China's economy, industrial upgrading plays a significant role in promoting economic growth. According to the data of the National Bureau of statistics, in 2019, the added value of the three industries accounted for 7.1%, 39.0% and 53.9% of GDP respectively, and the industrial structure continued to be optimized. Compared with last year, the proportion of the tertiary industry increased by 0.6 percentage points, 14.9 percentage points higher than that of the secondary industry, and the contribution rate to GDP growth was 59.4%. How will the construction and development of the pilot Free Trade Zone affect the industrial upgrading? What is its mechanism of action?

Based on the existing public information, this project selects Bengbu City, the core city in the North Anhui area of Anhui pilot Free Trade Zone, and first evaluates the status of Bengbu pilot free trade zone and industrial upgrading through investigation by using the methods of data collection and case analysis, and analyzes the existing achievements and problems. Secondly, combined with the construction and development of the pilot Free Trade Zone, this paper explores the mechanism through which the pilot Free Trade Zone promotes the rationalization and upgrading of industrial structure, promotes regional economic growth, and alleviates economic fluctuations in the process of development. Finally, using the method of summary and induction, this paper puts forward valuable suggestions for Bengbu to make full use of the advantages of the pilot Free Trade Zone in the transformation and upgrading of industrial structure, and also provides reference for the industrial upgrading of other provinces and cities.

## 2. Research content

### 2.1 Overview of free trade zone

#### 2.1.1 Definition of free trade zone

The term "free trade zone" refers to a free trade zone established within the territory of the country and outside the customs territory, with preferential tax revenue and special supervision policies of the customs liberalization of trade. Multi-functional special economic zones with facilitation as the main purpose.

#### 2.1.2 Evolution of free trade zone

Table 1: China's free trade zones at a glance

time	batch	province
2013	The first batch (1)	Shanghai Free Trade Zone
2014	The second batch (3)	Guangdong, Fujian and Tianjin Free Trade Zone
2016	The third batch (7)	Liaoning, Henan, Zhejiang, Hubei, Chongqing, Sichuan and Shaanxi free trade zones
2018	The fourth batch (1)	Henan Free Trade Zone
2019	—	Lingang New Area of Shanghai Free Trade Zone
2019	The fifth batch (6)	Shandong, Jiangsu, Guangxi, Hebei, Yunnan and Heilongjiang Free Trade Zone
2020	—	Hainan free trade port
2020	The Sixth Batch (3)	Beijing, Hunan and Anhui free trade zones (Zhejiang expansion)

#### 2.1.3 Characteristics of free trade zone

##### (i) Increasing quantity

Take the United States as an example. In the 1970s, the economic hegemony of the United States began to shake, resulting in the continuous depreciation of the dollar and the continuous growth of unemployment. In order to curb the economic downturn and stimulate the development of foreign trade, the governments of various states have set up foreign trade zones. By 1980, the number of

free trade zones in the United States had increased to 77. By the end of 1994, the number of free trade zones was close to 200.

**(ii) Functional trend synthesis**

The functions of free trade zones are often enriched with the growth of their number. Since the 1970s, free trade zones with import and export and entrepot trade as the main functions and export processing as the development focus have begun to merge with each other, and the functions of free trade zones tend to be integrated. Therefore, most free trade zones in the world usually have many functions, such as import and export, entrepot trade, processing, warehousing and so on.

**(iii) Management continuously strengthened**

At the initial stage of the establishment of free trade zones in various countries, due to different conditions and functions, the management level is also uneven. However, after years of development and accumulation, the management of free trade zones in various countries has gradually become standardized. At the same time, with the progress of science and technology, the infrastructure and management means of the free trade zone are becoming more and more perfect, forming their own unique management systems.

**2.2 Current situation of industrial structure development in Bengbu**

**2.2.1 Industrial structure of Bengbu City**

As one of the three central cities in Anhui Province and the central city in Northern Anhui, Bengbu has a good overall trend of regional economic development. By 2020, the Annual Gross Regional Product (GDP) will be 208273 billion yuan, an increase of 3% over the previous year at comparable prices. By industry, the added value of the primary industry was 25.501 billion yuan, an increase of 2%; The added value of the secondary industry was 83.519 billion yuan, an increase of 3.6%; The added value of the tertiary industry was 99.253 billion yuan, an increase of 2.6%. The three industrial structures are 12.2:40.1:47.7. Higher than the average level in Northern Anhui, the industrial structure takes priority over other cities in Northern Anhui.

**2.2.2 Development characteristics of Bengbu industrial structure**

**(i) Continuous optimization of industrial structure**

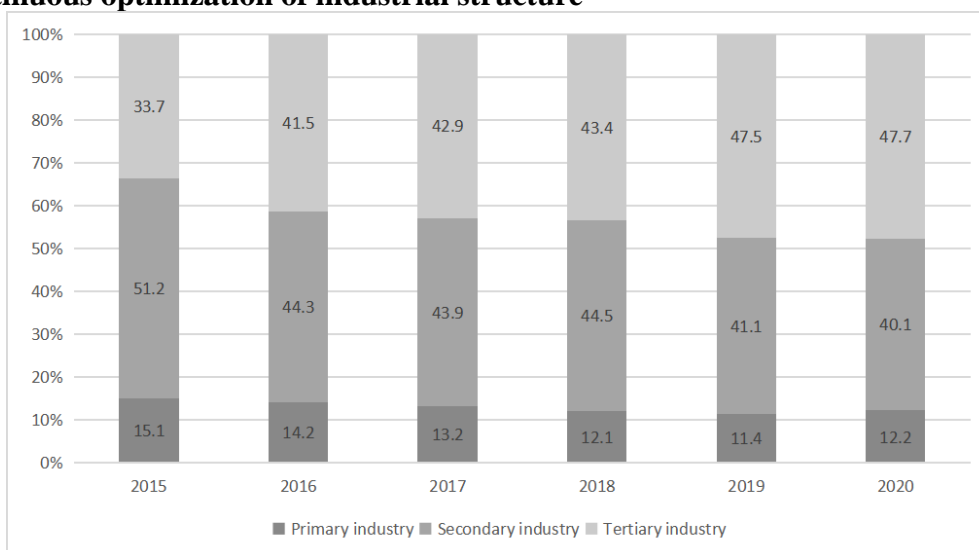


Figure 1: Bengbu's tertiary industrial structure during the 13th Five-Year Plan period (Unit: %)

During the 13th Five Year Plan period, Bengbu's industrial structure continued to be optimized.

The proportion of three industries in Bengbu was adjusted from 15.1:51.2:33.7 in 2015 to 12.2:40.1:47.7 in 2020. The proportion of service industry in GDP exceeds that of the secondary industry, and a situation has been formed in which the secondary and tertiary industries jointly drive economic growth.

**(ii) The service industry holds up half of the country**

Bengbu Municipal government has taken many measures to speed up the improvement of quality and efficiency in the service industry. After years of development, Bengbu is in a historical exchange period when economic development is increasingly relying on consumption, service industry and domestic demand. Modern logistics, financial services, quality consumption... These words have become the "key words" to describe Bengbu's development. In 2020, the city's for-profit service industry will grow by 27.6% year-on-year, The growth rate ranks among the top 3 in the province.

**(iii) The short board problem still exists**

The "fourteenth five year plan" of Bengbu City points out that Bengbu's innovation ability does not meet the requirements of high-quality development, the problems of poor industrial structure, weak factor agglomeration ability, weak anti risk ability and weakening traditional comparative advantage are becoming increasingly prominent, the gap between urban and rural regional development and income distribution is large, the environmental capacity is tightening, and it is increasingly difficult to coordinate ecological protection and economic development.

## **2.3 Opportunities brought by the construction of the free trade zone to Bengbu's industrial upgrading**

The opening of China's free trade zone is mainly aimed at promoting the opening of the service industry, reforming finance, the transformation and upgrading of foreign trade and the government's streamlining administration and delegating power, covering many fields such as finance and investment. The reform and opening-up and innovation of the free trade zone have greatly promoted China's industrial upgrading, especially the opportunities brought by the free trade zone's investment opening, trade facilitation, administrative system and financial reform and innovation.

### **2.3.1 Investment and opening opportunities in the free trade zone**

Under the legal background of the foreign investment law, Bengbu actively implemented institutional innovation, copied and popularized the construction experience of the free trade zone, and accelerated the improvement of the openness and transparency of investment in the free trade zone. Foreign investment showed a rapid growth trend. With the continuous opening up of the service industry, Bengbu's "14th five year plan" points out that it is necessary to fully implement the regulations on optimizing the business environment, continue to carry out the upgrading activities of the business environment for creating excellence, rely on the "Internet + business environment monitoring" system, give full play to the role of the business environment in "promoting reform through evaluation and promoting excellence through evaluation", and promote the formation of a market-oriented, legal and international business environment.

At the same time, the increase of foreign investable industries and the enhancement of legal protection have made it possible to attract foreign investment into government supported industries and high value-added industries, accelerated the development of China's emerging service industry, increased the proportion of Bengbu's tertiary industry, optimized the allocation of resources in related service industries, and finally realized the structural optimization and upgrading of Bengbu's tertiary industry.

### **2.3.2 Opportunities for trade facilitation in the free trade zone**

The "inside and outside the customs" mode adopted by the free trade zone is different from the "inside the customs" mode adopted by the bonded zone. Under the "domestic and foreign customs" mode, the policy of "first entering the zone, then declaring" is implemented for enterprises. The declaration, inspection and release of goods are completed at one time, which simplifies trade procedures, reduces trade costs, continuously improves logistics efficiency, and enhances the facilitation of product entry and exit.

Furthermore, the import of raw materials, energy and advanced equipment that enterprises in Bengbu are short of will also benefit from the facilitation of goods import, thus promoting the development of relevant industries in Bengbu. The facilitation of service trade plays an important role in promoting the establishment of top large service-oriented enterprises in the industry, strengthening the service export capacity and optimizing and upgrading the service trade structure.

### **2.3.3 Opportunities for reform and innovation of the administrative system of the free trade zone**

2017 We will transform government functions, deepen streamlining administration and delegating power, innovate ways of supervision, enhance the credibility and executive power of the government, and build a service-oriented government to the satisfaction of the people. The reform and innovation of these administrative systems can not only greatly improve the service level and regulation ability of the government, but also promote the efficiency of enterprises and industries, and finally form a sustainable development model with low operating costs, excellent operating environment and high profitability, so as to promote the optimization and upgrading of industrial structure.

### **2.3.4 Opportunities for financial reform and innovation in the free trade zone**

Compared with other fields, the reform of China's financial industry is relatively backward, and the degree of marketization is low. Therefore, the key to financial reform and innovation in the free trade zone is to optimize the banking structure and promote the transformation and upgrading of financial services; Realize the stratification of the capital market and the diversification of financing channels, and establish a direct financing system; Reshaping financial elements and innovating financial instruments; Guided by technological progress and industrial upgrading, we will improve financial policies and improve the efficiency of capital use. Due to the lack of financial innovation and low level in Bengbu, it is of great significance to formulate corresponding financial reform measures to promote the optimization and upgrading of the financial industry structure.

## **2.4 Challenges faced by Bengbu's industrial upgrading under the free trade zone strategy**

### **2.4.1 Challenges brought by investment opening**

Under the strategy of the free trade zone, great efforts have been made in investment and development, and a large amount of foreign capital has been injected, providing sufficient funds and technology for enterprises in the free trade zone. At the same time, the entry of foreign-funded enterprises has added vitality to the competition among enterprises in the free trade zone. However, the huge amount of capital may also cause the enterprises in the free trade zone to absorb and compete for the high-quality labor force of enterprises outside the zone, resulting in the damage of enterprises outside the zone and the weakening of their competitiveness, thus further widening the gap between enterprises inside and outside the free trade zone, which is harmful to the balanced

industrial development of Bengbu City. With the influx of foreign-funded enterprises, the impact on local enterprises in Bengbu can not be underestimated. The decline in the competitiveness of local enterprises will lead to the loss of their economic sovereignty and control, which is not conducive to industrial transformation and upgrading.

#### **2.4.2 Challenges brought by trade liberalization**

Trade liberalization is a double-edged sword. While it brings development to industrial upgrading, it will also increase trade frictions in multiple fields such as trade in goods, services, technology and intellectual property rights. Especially in terms of intellectual property protection, the increase in the number of trade friction cases has greatly restricted the implementation of Bengbu's innovative development strategy. Moreover, with the continuous promotion of trade liberalization, the influx of a large number of foreign goods and service products has also brought risks and challenges to the development of enterprises and industrial upgrading in Bengbu.

#### **2.4.3 Challenges brought by government management mode**

Although Bengbu has innovated and improved the current management mode of the free trade zone, these innovations are mainly about the learning and application of international rules and precedents, and there are few local management concepts. At the same time, the innovation of the management mode of Bengbu free trade zone itself also has the legal risk of lack of national clear legislative guarantee. It can be seen that the management mode of Bengbu free trade zone is not mature, and the effectiveness of the measures has yet to be tested.

#### **2.4.4 Challenges brought by financial reform**

Financial innovation under the free trade zone strategy may also bring various risks, among which the most common risks are interest rate, exchange rate and capital flow. Under the current construction environment of the free trade zone, the promotion of Bengbu's industrial upgrading through financial innovation is still in the initial exploration stage, and the financial institutions' grasp of the credit policy and support for emerging industries are also lacking. It is difficult to try to achieve the comprehensive industrial upgrading of Bengbu.

### **2.5 Mechanism for the free trade zone to promote industrial upgrading of Bengbu**

The construction of the free trade zone has provided a platform and springboard for Bengbu's industrial upgrading. Through the organic combination with strategic emerging industry clusters, such as silicon-based new materials and 5g communication, it has played an important role in optimizing the industrial structure and opening up innovative economic growth points. The impact path of the establishment of Bengbu Free Trade Zone on its industrial upgrading is mainly reflected in the following two aspects: first, the impact path of the liberalization of trade in goods on industrial upgrading; The second is the impact path of service trade liberalization on industrial upgrading.

#### **2.5.1 Impact path of goods trade liberalization on industrial upgrading**

At present, Bengbu's trade modes mainly include general trade and processing trade. General trade follows the "product research and development - packaging design - production and manufacturing" mode, and enterprises enjoy independent intellectual property rights, which is quite different from the "OEM production" mode of processing trade. Therefore, general trade helps to promote product research and development, improve the innovation ability and comprehensive

competitiveness of enterprises, and effectively promote the economic growth and industrial upgrading of the region. At the same time, under the conditions of liberalization of trade in goods, general trade is more likely to be biased by the free trade zone in terms of policy and financial support. This will undoubtedly facilitate the development of general trade enterprises, increase the proportion of general trade imports and exports and the transformation of processing trade, and promote the transformation and upgrading of related industries.

Bengbu's processing trade generally follows the "processing with supplied materials" model to obtain the low-end income of the "smile curve". However, in recent years, Bengbu's demographic dividend has been reduced rapidly, and the transformation of processing trade enterprises is imminent. To increase the proportion of general trade and reduce the proportion of processing trade, so as to promote the transformation and upgrading of processing trade, Bengbu needs to make good use of the great opportunity of the free trade zone for its economic development. Under this policy environment, most processing trade enterprises adopt the mode of extending the industrial chain and upgrading the processing and manufacturing, in order to achieve the coverage and control of the whole industrial chain, so that the enterprise profits extend from the middle of the low end of the "smile curve" to the high end of both sides, and give full play to the technology spillover effect.

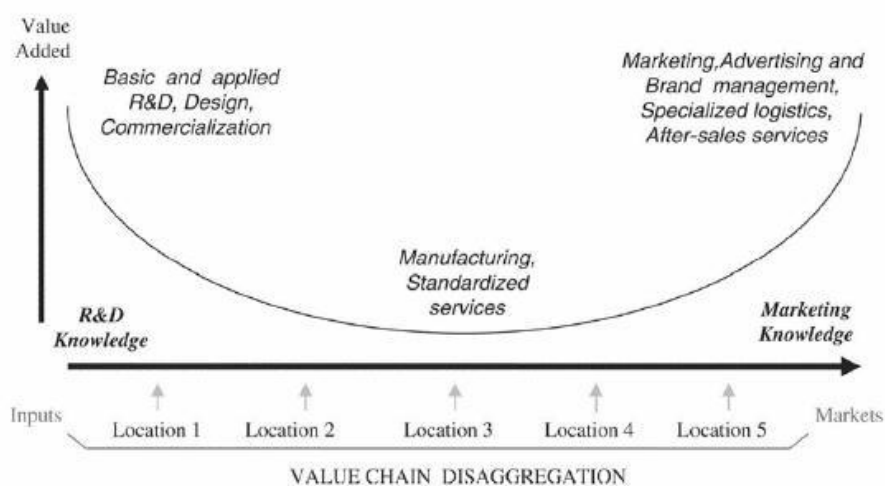


Figure 2: Diagram of smile curve

### 2.5.2 Impact path of service trade liberalization on industrial upgrading

On the one hand, the liberalization of trade in services can accelerate the flow of production factors. For example, the flow of production factors represented by labor factors and capital factors is conducive to improving the operation efficiency of technology and capital, and strengthening the spillover effect of technology; On the other hand, the liberalization of service trade can improve the quality of workers, fully disseminate advanced management experience, create more jobs for the society, improve the level of regional economic development, and accelerate the optimization and upgrading of the tertiary industry structure.

At the same time, the facilitation of service trade can also improve the service level, prevent the monopoly of service industry, and make the competition between service trade more benign, so as to reduce product prices and create higher benefits. Taking the communication service industry as an example, based on national security considerations, this field is basically monopolized by governments at all levels, which virtually hinders the innovative development of the communication service industry. However, in the context of the liberalization of trade in services, the greater opening up of the communication service industry can not only greatly improve the level and efficiency of the industry, but also give play to the external scale effect of the industry, accelerate its



marketization process, and promote the reform and innovation of the industry.

At present, under the policy of liberalization of service trade, Bengbu free trade zone is gradually implementing a large number of high-end service industry operation points, covering new energy, electronic information, high-end equipment, biomedicine, cross-border e-commerce and other industries. Furthermore, Bengbu free trade zone has shifted its focus to the construction of comprehensive service trade enterprises and the building of local service brands through pilot projects, with a view to further expanding its international influence.

### **3. Policy suggestions on industrial upgrading of Bengbu under the strategy of free trade zone**

#### **3.1 Highlight key points**

Over the past 40 years of reform and opening up, Bengbu has made considerable achievements in the development of its service industry. Especially in the past 10 years, the scale of the service industry has been growing, the total amount has reached 100 billion, and the modern service industry is booming. At present, Bengbu's service industry has become the main force to promote economic and social development, the main channel to increase employment, the main space to carry market players and an important area to attract investment. Looking at the whole country, manufacturing has always been the "foundation" of the country. If Bengbu can achieve the "two hands" of manufacturing and service industries and organically integrate the two, Bengbu free trade zone will play a more important and far-reaching role.

#### **3.2 Deep fusion**

The promulgation and implementation of the "the Belt and Road" strategy is one of the important symbols of the "third opening up". Promoting the deep integration of the free trade zone strategy and the "the Belt and Road" strategy is another major opportunity for Bengbu's industrial upgrading. Therefore, the construction of Bengbu free trade zone should serve the "the Belt and Road" strategy, reduce access restrictions, increase transparency and openness, attract foreign investment, improve legal protection, build a cooperation platform, innovate management mode, and upgrade "going out".

#### **3.3 Optimizing the environment**

In the 2021 government work report, it is proposed to build a new open economic system at a higher level and build a global network of high standard free trade zones. Its essence is to emphasize the need to break down institutional barriers and build a management model consistent with international high-standard investment and trade rules. This requires Bengbu to strengthen the construction of foreign trade development carriers, integrate into the overseas retail system and reform the customs supervision.

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