

# Study on the Spatial Characteristics and Coordinated Development Countermeasures of Yancheng Regional Economy

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**Abstract:** Unbalanced regional development is a factor of economic law, but the large regional gap not only affects the development of national economy and society, but also affects the fairness and stability. The spatial characteristics and differences of Yancheng regional economy include: first, the absolute value of economy is high in the south and low in the north, and the relative value is "W" shape from south to north; Second, the relative economic difference is narrowing, and the absolute difference is expanding; Third, the central city has a low primacy, and the integration of industry and city is insufficient. The countermeasures to promote the coordinated development of Yancheng regional economy include: First, Qiaotou Bao, the gateway of Huaihe River in the north, with Binhai Port Industrial Park as the main body, and Dongtai Marine Economic Demonstration Zone as the pioneer area of Yellow Sea Wetland World Heritage Site in the south, to build a "T-shaped" spatial development pattern with one body and two wings; Second, relying on China-Korea (Yancheng) Industrial Park, enclave economic Demonstration Zone and Suzhou-Salt Coastal cooperative development Park, improve the carrier of "1+N" regional economic coordinated development platform; Third, we should innovate mechanisms for adjusting regional land indicators and production capacity indicators, mechanisms for fiscal sharing or sharing among counties and cities, ecological compensation and incentive mechanisms, and accelerate the integration of infrastructure and public services.

**Keywords:** One body and two wings, Platform carrier, Integration.

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## 1. Introduction

The 20th CPC National Congress proposed implementing the strategy of coordinated regional development and establishing a new mechanism for more effective regional coordinated development. Unbalanced regional development is a factor that plays a role in economic laws. However, the large regional gap is also a political issue that needs attention. It affects not only national economic and social development, but also equity and stability. Governments all over the world attach great importance to it, and it has become an important target of macroeconomic regulation. Yancheng is the largest provincial city in Jiangsu Province, with obvious regional economic differences, including the differences between the north and south counties, as well as the east and west differences between coastal and non-coastal counties. To promote the coordinated development of regional economy in Yancheng, it is necessary to enter the new stage, fully, accurately and comprehensively implement the new development concept, and strive to solve the basic contradictions of inadequate and unbalanced development. To improve the overall development level of Yancheng City has important theoretical and practical significance.

## 2. Current Status of Relevant Research

Unbalanced regional economic development is a common phenomenon in all countries. In 1965, Jeffery G Williamson first put forward the inverted U-shaped theory of regional economic differences in his article Regional Imbalance and the Process of National Development, that is, the emergence, expansion, reduction and disappearance of regional economic differences is a cyclical process. For a long time, promoting

the coordinated development of regional economy has been the focus of governments and scholars. In the 1980s, the European Union issued "structural policies" to guide and support the development of backward regions and other regions with economic structure problems, including the horizontal and horizontal regional balance policy of Germany and the backward regional support policy of Britain and France, aiming at narrowing regional differences and promoting regional coordinated development; The United States also attaches great importance to the construction and maintenance of the integration of the national space market, after the Second World War, the regional policy of the United States began to pay attention to the so-called "problem areas", and after the 1970s, it began to pay attention to the national unified land consolidation and regional coordinated development legislation. The Regional Redevelopment Act, the Public Works and Economic Development Act and the Recipient Areas and Recipient Communities Act have been enacted successively. Russia strengthened the federal government's control over the regional economy and coordinated development ability through the new federal district zoning system, further integrated the natural and economic resources in each district, and promoted the development of regional economic integration in Russia. The imbalance of regional economic development in China is mainly manifested as the differences between the three major regions of East, middle and West, as well as the differences between provinces and provinces. Since the 1980s, China has successively implemented regional development strategies such as the development of the west, the rise of the central region and the revitalization of the northeast, which play an important role in narrowing the economic differences between the three major regions of East, middle and West.

The coordination of China's regional development has been significantly enhanced, but the problem of regional development imbalance has not been fundamentally solved [1, 2]. Entering the new stage, China is focusing on implementing three major strategies: the Belt and Road Initiative, the coordinated development of the Beijing-Tianjin-Hebei Region, and the Yangtze River Economic Belt. The common feature of these three strategies is that they transcend administrative divisions and promote coordinated development among regions. With a vast territory and a large population, China not only has large differences among provinces (regions and cities), but also within many provinces (regions and cities), the differences among cities are also large. The regional development difference of Jiangsu is mainly manifested as the difference between the three major plates of southern Jiangsu, Central Jiangsu and Northern Jiangsu. Through the implementation of the strategy of "four along" (along the Yangtze River, along the Shanghai-Nanjing Line, along the Donglonghai Line, and along the coast) and the strategy of "1+3" important functional areas, the revitalization of Northern Jiangsu, the rise of Central Jiangsu, and the lead of Southern Jiangsu are vigorously promoted. A multi-level, multi-object and multi-purpose regional development strategy and policy system [3-7] has been gradually formed. Looking at the experience of coordinated regional economic development at home and abroad, it mainly includes: a clear regional development plan, a sound system of laws and regulations for coordinated regional development, preferential fiscal, tax and financial policy support, a unified factor flow market, a support plan for infrastructure construction, technological innovation and industrial restructuring.

### 3. Yancheng Regional Economic Spatial Characteristics and Differences

Yancheng is located in the middle coastal area of Jiangsu Province, with a span of about 250km north and south, accounting for about half of the province's north and south span. It has jurisdiction over 3 districts of Tinghu, Yandu and Dafeng, 1 city of Dongtai and 5 counties of Jianhu, Funing, Xiangshui, Binhai and Sheyang. There are 9 counties, cities and districts under its jurisdiction, second only to Nanjing (11) and Xuzhou (10) among the 13 provincial cities in the province. By the end of 2023, the registered population is 7,899,900, ranking second in the province; The permanent resident population is 6.689 million, ranking sixth in the province. In 2023, the city's GDP is 740.387 billion yuan, ranking [8] eighth in the province. The spatial characteristics and differences of Yancheng's regional economy are as follows:

#### 3.1. The Absolute Value of The Economy Is Higher in The South and Lower in The North, And the Relative Value Is "W" From South to North

For a long time, the difference between the north and the south of Jiangsu Province's regional economy is obvious, and the economic gradient difference within Yancheng city is even more significant. In 2023, among the nine counties and urban areas of Yancheng City, the regional GDP decreases from south to north, with Dongtai City's GDP reaching 111.848 billion yuan and Xiangshui County's GDP reaching

50.061 billion yuan, which is equivalent to 45% of Dongtai City's GDP. As the south of Jiangsu and areas along the Yangtze River have been the core areas of the Yangtze River Delta for a long time, with the increase of distance, the radiation of the core areas of the Yangtze River Delta has gradually weakened, so the level of economic development has also been affected [9]. In recent years, with the deepening of the coastal development strategy, especially the Huaihe River Ecological Economic Belt has been elevated to the national strategy, which has injected new impetus into the economic development of the north of Yancheng City. Therefore, the economic development of Xiangshui and Binhai counties has accelerated. In 2023, the per capita GDP of Xiangshui County has reached 109,495 yuan, close to the average level of the whole city, ranking the second among the five counties under its control. With the rise of economy in the north, the per capita regional product of the city shows a "W" shape from south to north.

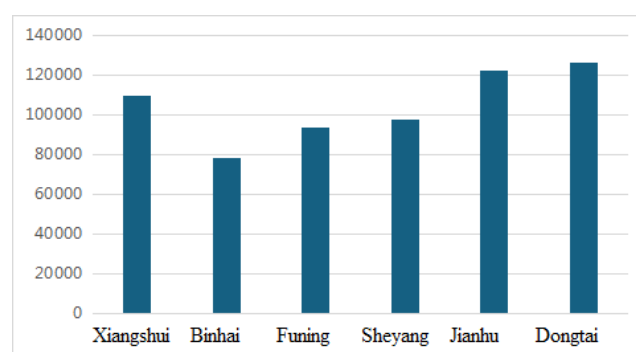


Figure 1. Per capita regional product of Yancheng in 2023 (Yuan)

#### 3.2. The Relative Economic Difference Is Narrowing, While the Absolute Difference Is Widening

During the "14th Five-Year Plan" period, Yancheng gave full play to the location advantages of the intersection of the "Belt and Road" and the Yangtze River Economic Belt, firmly grasped the opportunities of the Yangtze River Delta integration, Huaihe River ecological economic Belt and coastal development national strategies, adhered to the "industrial revitalization of the city, ecological development of the city, rich people and strong city", and promoted the "two seas and two green" development path, and all counties and urban areas gave full play to their location advantages. Economic strength improved significantly. Compared with 2015, the relative difference of economic aggregate between Dongtai City with the highest regional GDP and Xiangshui County with the lowest was reduced from 2.74 times to 2.18 times, a reduction of 20%; Per capita GDP, the relative difference between Dongtai City with the highest and Binhai County with the lowest narrowed from 1.77 times in 2015 to 1.64 times, a decrease of 7% (see Table 1). However, in terms of absolute difference, the regional GDP of Dongtai was 42.59 billion yuan more than that of Xiangshui County in 2015, and 45.57 billion yuan more than that of Xiangshui County in 2019; Similarly, the per capita GDP of Dongtai was 29,557 yuan more than that of Binhai in 2015, and 33,911 yuan more than that of Binhai in 2019. The absolute difference showed a widening trend (see Table 2). The absolute difference between the per capita disposable income of urban residents and rural residents of the city also widened (see Table 3), reflecting that relatively backward areas must

break through path dependence and achieve extraordinary development.

**Table 1.** Gross regional Product of Yancheng City in 2015 and 2023 (unit: 100 million yuan)

|      | Xiangshui | Littoral | Funing | Sheyang | Jianhu | Dongtai |
|------|-----------|----------|--------|---------|--------|---------|
| 2015 | 244.30    | 361.30   | 363.20 | 407.61  | 431.05 | 670.23  |
| 2023 | 500.61    | 639.52   | 738.56 | 740.04  | 742.96 | 1118.48 |

**Table 2.** Gross Regional Product per capita of Yancheng City in 2015 and 2023 (unit: Yuan)

|      | Xiangshui | Littoral | Funing | Sheyang | Jianhu | Dongtai |
|------|-----------|----------|--------|---------|--------|---------|
| 2015 | 48646     | 38359    | 43315  | 45737   | 58483  | 67916   |
| 2023 | 109495    | 78229    | 93441  | 97772   | 122278 | 126197  |

### 3.3. Low Primacy of The Central City and Insufficient Integration of Industry and City

Yancheng City includes three districts, Tinghu, Yandu and Dafeng. Among the 13 provincial cities in the province, the number of districts under its jurisdiction is only larger than Suqian City (2) and equal to Huai'an City (3), which is not commensurate with Yancheng City's position as the first in the province's area, the second in the province's population and the eighth in the province's economic total. In 2023, the population of the three districts in Yancheng metropolitan area (including Dafeng District) will be 2.3737 million, accounting for 35.5% of the total population of the city, and the gross regional product of the three districts will be 292.371 billion yuan, accounting for 39.5% of the city. While the total economic volume of Nantong accounted for 50.1% of the city, Xuzhou accounted for 49.5%, Yangzhou accounted for 59.1%, Taizhou accounted for 42.2% of the city. Yancheng city is not the first city, and the central city's economic driving capacity is not strong. Yancheng Economic Development Zone covers an area of 200km<sup>2</sup>, with a permanent population of 1.04 million and a gross regional product of 38.45 billion yuan in 2023. The total amount of Yancheng Economic Development Zone is obviously small among the state-level development zones in the province, resulting in the disconnection between industry and city and low population concentration.

## 4. Suggestions on Coordinated Development of Yancheng Regional Economy

The causes of regional economic spatial differences in Yancheng include not only natural aspects, such as climate, hydrology, soil, etc., but also human and social aspects, such as industry, population, transportation, history, policies, etc. Since the 14th Five-Year Plan, Yancheng has accelerated its integration into the Yangtze River Delta, constantly upgraded the level of the central city, and vigorously promoted the construction of grass-roots facilities and public services.

### 4.1. Promote the "One Body and Two Wings" And Optimize the Spatial Pattern of Regional Development

We will comprehensively advance the strategy of integrating the Yangtze River Delta, Huaihe River Ecological Economic Belt, and coastal development, and ensure that Yancheng is fully covered in the national regional development strategy. A T-shaped spatial development pattern

of "one body and two wings" has been established, with the metropolitan area as the main body, the northern bridgehead at the gateway of the Huaihe River, led by Binhai Port Industrial Park, as the north wing, and the southern Yellow Sea Wetland World Heritage Site, led by Dongtai Marine Economic Demonstration Zone, as the south wing (see Figure 4). Among them, the greater urban area speeds up the integrated development of Yanfeng, and promotes the integrated territorial space planning and industrial and economic layout of Dafeng urban area and the main urban area. According to the actual conditions of coastal areas, a new urban system with central city, county seat, port area (key park) and new township (community) as the main body will be built. In accordance with the urban hierarchical system, the functional orientation of all types of cities and towns shall be established. To polarize the central urban areas, break the administrative boundaries, and realize the concentration of high-quality resources to the central cities. At present, Yancheng has only three districts: Yandu, Tinghu and Dafeng. According to the requirements of the central area of the Yangtze River Delta, the number of districts will be increased as soon as possible. Improve the functions of the municipal development zone and high-tech zone, expand the development space, promote the combination of population, occupation and residence in the park, speed up the upgrade to an administrative region, and implement the integration of government and district; Accelerate the northward expansion of the main urban area, and on the basis of the reconstruction and upgrading of the north area of the city, promote the integration of Jianhu Shanggang Town into the main urban area, strengthen the north gate of the main urban area, smooth the northbound passage of the main urban area, increase the population and economic scale of the main urban area, and upgrade the energy level of the main urban area.

North coastal port industrial Park Huaihe gateway bridgehead, first to speed up the port construction, upgrade the port level. Through the Huaihai waterway waterway upgrading project, open up the Huaihe River into the sea shipping channel, undertake the middle and upper reaches of the Huaihe River materials to the sea, and build the Huaihe River basin's largest port. Relying on Yansu-Huai-Xu Railway, it will expand to the west and connect Suzhou, Fuyang and Xinyang to build a new channel along Huaihe Railway into the sea. Second, we should increase the construction of the port park, focus on building steel, petrochemical, energy industrial clusters, accelerate the transfer of steel, petrochemical and other industries along the river, and build a new heavy petrochemical base along the coast of Jiangsu Province and the whole country. Third, we should speed up the integrated development of the Huaihe River Delta, relying on the Huaihe River Ecological Economic Corridor and the

Huaihe River Delta, to build transportation interconnection, industrial division of labor and cooperation, environmental co-governance and co-management, and personnel flow to the nearby Binhai into the central city of the Huaihe River Delta. South Dongtai Marine Economy Demonstration zone, first to speed up the Marine industry cluster, to create new energy, advanced manufacturing, seawater desalination, Marine biology as the leading modern Marine industrial system. Second, we should strengthen the construction of World Heritage sites, accelerate the creation of national parks of coastal wetlands, and establish a system of protected areas with national parks as the main body. Vigorously develop ecotourism, promote the development of health and wellness industry, fully enlarge the brand effect of World heritage sites, and speed up the joint application with Shanghai Chongming Island for the South Yellow Sea Wetland (Phase II) World Heritage project. Third, strengthen cooperation and linkage with Taizhou and Nantong, accelerate integration into the North Yangtze River railway network, and build Dongtai into the core city of Yantongtai City cluster.

#### **4.2. Speed Up The "Southern Expedition to The North" And Strengthen the Platform Carrier of Coordinated Regional Economic Development**

Relying on the China-Korea (Yancheng) Industrial Park, National Economic Development Zone, National High-tech Zone and other opening carriers, as well as Suzhou-Salt Coastal cooperation Development Park, Changzhou High-tech Zone Dafeng Industrial Park, Binhai Port Industrial Park and other cooperation platforms, we will build a new pattern of all-round opening up at home and abroad. It takes the initiative to undertake the transfer of industrial projects in Shanghai and southern Jiangsu, and builds a "1+N" enclave economic spatial model with the Shanghai-Jiangsu Dafeng Industrial Linkage Cluster as the guide and multiple parks advancing, leading the province in North-South cooperation and co-construction. Vigorously promote the incorporation of Yancheng Enclave into the overall plan of spatial coordination of Shanghai metropolitan Area, strengthen the connection between the enclave and Shanghai in terms of functions, industries, policies, etc., create a new area to remove non-core functions of Shanghai by referring to the model of Xiongan New Area, learn from the Shenzhen-Shantou Special Cooperation Zone created by Shenzhen in Shanwei, and the Ninghuai Special Cooperation Zone built by Nanjing and Huaian, and explore the innovation of the economic mechanism of the enclave. To share and build the enclaves in terms of profit sharing and infrastructure construction. Integrate the economy of Shanghai enclave into the overall spatial planning of Yancheng City and put it in a prominent position, take the initiative to meet the strategic needs of Shanghai, focus on the tasks of "one district and three bases" of North Shanghai Enclave Economic Demonstration Zone, Shanghai science and innovation achievements transformation base, Shanghai quality agricultural products supply base, and Shanghai eco-tourism health base, formulate and implement the timetable and road map, and on the basis of the project stock, Expand the project increment, promote the company + park model, and build the whole industrial chain economy of R&D and manufacturing in the enclave.

The high-quality development of China-Korea (Yancheng) Industrial Park requires, first, the leadership of high-end industries, the creation of a modern industrial cluster, the

interconnection of the most advanced modern industrial system in South Korea, the acceleration of the development of new energy vehicles, intelligent connected vehicles, a new generation of information technology industry, and intelligent manufacturing industry clusters, and the layout of industrial chains for the world; Second, the integration of industry and city, docking with the Shanghai Free Trade Zone, realizing the integration of development regions and administrative regions, promoting the urbanization process of the industrial park, copying and promoting the reform experience of the pilot free trade zone, and carrying out innovative practices in investment and trade facilitation, easing foreign investment access policies, cross-border e-commerce trials, cross-border financial investment settlement and other fields; Third, we should give priority to green development and ecology, rely on innovation to drive, "attract investment", set up a China-South Korea joint university in Yancheng, highlight the ecological background of the park, build a resource-saving and environment-friendly park, and build a China-South Korea Yancheng Eco-City with reference to the Sino-German Eco-Park and Sino-Singapore Tianjin Eco-City.

#### **4.3. Open The "Last Mile" And Promote the Integration of Infrastructure and Public Services**

With the main urban areas as the core and relying on developed infrastructure networks such as transportation and communication, compact spatial organization, close economic ties, and ultimately a high degree of urban integration are the basis for promoting coordinated regional development. Relying on the Xusuhuai Yancheng, Yantong and Yanqing high-speed railways and the actively built Yantai Xi-Changyi high-speed railways, speed up the construction of Yanhuai and Yantai high-speed railway new cities and industrial belts, promote the extension of high-speed railways to node areas such as Dafeng Port, Binhai Port and Dongtai Fuindi, improve the intercity comprehensive transportation network and enhance the radiation capacity of comprehensive transportation hubs. Relying on big data industrial Park and Gigabit light network city, build a high-speed, stable, convenient, covering urban and rural information infrastructure, accelerate the integration of education, medical care, transportation, employment and other services between urban and rural areas, and accelerate the realization of the city and Shanghai and southern Jiangsu city traffic information and social services "one card"; Promote the integration of factor markets and public service cooperation, and accelerate the construction of a unified market. We will promote the rational flow of land, labor, technology, capital and other resource factors, explore a mechanism to adjust regional land and production capacity indicators across provinces and cities, and give priority to ensuring the implementation of key trans-regional projects. To innovate the incentive mechanism of profit distribution, explore the fiscal and tax sharing mechanism, and try a new model of financial sharing or sharing between local and municipal coastal ports. We will improve the municipal ecological compensation mechanism, and provide ecological compensation and incentives for important wetland ecological functional areas and major grain-producing areas.

High-speed rail has a highly compressed effect on time and space, which is both an opportunity and a challenge for third-tier cities like Yancheng. We should establish a sense of crisis and actively cope with the "siphon effect" brought by high-

speed rail. First, it is necessary to strengthen the connection with the developed cities in the Yangtze River Delta region through high-speed rail, harvest the effect of urbanization brought by high-speed rail, fully attract the innovative and technological factors of Shanghai and southern Jiangsu, accelerate the introduction and exchange of talents, and enhance the innovation ability and industrial level; Second, we should give full play to the significant impact of the accessibility of high-speed rail on the service industry, especially tourism, express transportation, information transmission and circulation of commercial and business services, vigorously develop the service industry and the tertiary industry, and promote the optimization of industrial structure. Third, we should give full play to the driving role of high-speed railway in urban structure, speed up the reconstruction and optimization of urban functions, rely on the hinterland role of high-speed railway hub stations, complete supporting infrastructure, develop hub economy, build new high-speed rail cities, and drive the development of new urban centers.

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