

On the Impact of Factor Flow on Urban-rural Integration at County Level based on Panel Data of the Yangtze River Delta

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Abstract

Urban-rural integration and rural revitalization promote each other, and factor flow, as an important driving force of urban-rural integration, is more important in the further development of rural revitalization. With the deepening of the construction of new urbanization, the county, as an important part of China's urban system, is the key to the integration of urban and rural development. Therefore, in order to realize the free flow and optimal allocation of elements between counties and villages, China issued a series of policies in 2022, emphasizing "promoting urban-rural integration development with counties as the basic unit". Long-term urban-rural dual system barriers have led to serious imbalance in China's urban-rural development, which has seriously restricted China's socialist modernization. Therefore, based on the actual development situation, this paper strives to provide feasible suggestions for promoting the gradual elimination of the urban-rural dual system, thus promoting the integration of urban and rural development at the county level and then promoting rural revitalization.

Keywords

Two-way Flow of Urban and Rural Factors; County Urban-rural Integration Development; Rural Revitalization.

1. Introduction

In 2022, the report of the 20th CPC National Congress proposed to comprehensively promote rural revitalization, adhere to the priority of agricultural and rural development and urban-rural integration development. Smooth the flow of urban and rural factors, and firmly promote the revitalization of rural industry, culture, ecology, and organization. The report highlights the importance of the flow of elements between urban and rural areas for the integrated development of urban and rural areas [1]. In 2017, the 19th National Congress of the Communist Party of China put "urban-rural integration development" into the Party's literature for the first time, which is a major decision and deployment to establish and improve the urban-rural integration development system and mechanism and policy system, marking that China's urbanization construction has entered a new stage. As an important part of China's urban system, county is the key to urban-rural integration and development. Therefore, in order to realize the free flow and optimal allocation of elements between counties and villages, China issued a series of policies in 2022, such as the Key Tasks for New Urbanization and Urban-Rural Integration Development in 2022, the Implementation Plan for New Urbanization in the "Fourteenth Five-Year Plan", and the Opinions on Promoting Urbanization Construction with Counties as the Basic Unit as the Carrier. These policies emphasize "promoting urban-rural integration development with counties as the basic unit". On the basis of connecting the first five-year plan of the rural revitalization strategy, the main objectives and tasks of rural

revitalization during the "Fourteenth Five-Year Plan" period were further clarified. The next step will be to solidly promote the comprehensive revitalization of rural areas, and promote the rural areas to be richer, happier and more beautiful. Exchange and complement each other in the flow. The combination of various elements can improve the efficiency of resource allocation and maximize economic benefits. The combination of various elements can improve the efficiency of resource allocation and maximize economic benefits. For simple and low-level factor flow, it is replaced by two-way integration with high value-added to achieve integrated development between urban and rural areas.

The major strategic deployment of the CPC Central Committee and the State Council to promote urban-rural integration with counties as the basic unit is the basic path to promote rural revitalization and the internal requirement to achieve common prosperity. Based on the summary of previous research results, this paper focuses on the research of urban-rural integration in the Yangtze River Delta, in order to broaden the research scope of deepening urban-rural integration and explore new ways to promote the further development of county rural revitalization.

2. Literature Review

2.1. Research on Urban-Rural Relationship

(1) Domestic urban-rural integration research. Urban-rural integration means that urban and rural areas achieve urban-rural integration in terms of infrastructure, factor flow and public services, and take urban and rural areas as a community of shared destiny, giving full play to the interaction and mutual promotion between them [2]. The Marxist theory of urban-rural relations reveals the overall trend of urban-rural relations from separation to integration. In the new era, China's urban-rural relations have also entered the stage of integrated development [3]. At the same time, a series of problems also appeared in the process of urban-rural integration. For example, first of all, people do not fully understand the concept of urban-rural integration [4]. For a long time, the urban-rural dual mechanism has gradually led to the emergence of thinking patterns that deny the existence of links between urban and rural areas. Secondly, a series of problems, such as the unsmooth agricultural population transfer mechanism, the integration of urban and rural infrastructure and public services, and the institutional mechanism for the development of urban elements in the countryside, have led to the inadequate integration of urban and rural development in China [5]. In the new era, to solve the problems in the urban-rural relationship and promote the urban-rural integration development, we should do something in promoting the urban-rural industrial integration, the flow of factors, the equalization of public services, and the increase of farmers' income [6].

(2) Research on urban-rural integration abroad. European and American countries are the countries with the earliest start of industrialization. With the continuous advancement of the industrial revolution, the typical urban-rural integration development model of developed countries led by the United States, Germany and Japan has been formed. Both the urban-rural integration models in Europe, America and Japan emphasize the promotion of urban-rural integration driven by industry, and attach great importance to the strategic position of "feeding the countryside with cities" [7]. However, each of them has its own characteristics. The United States emphasizes the development model of urban-rural integration [8], Germany emphasizes the development model of urban-rural equivalence [9], and Japan emphasizes the development model of supporting rural areas with cities [10].

2.2. Research on Urban-Rural Integration at County Level

Accelerating the urban-rural integration development within the county is an important way to solve the imbalance between urban and rural development in China, the fundamental need

to promote agricultural and rural modernization, the practical need to continue to consolidate the results of poverty alleviation, and the inevitable choice to stimulate the space for economic development [11], but the urban-rural dual system has not been eradicated, and the further development of urban-rural integration within the county needs to promote the liberalization of urban-rural factor flow, Promote the improvement of urban-rural industrial linkage and common interest mechanism, accelerate the coupling of new urbanization and rural revitalization, improve the urban-rural development system and mechanism, and build a community of shared future for urban and rural areas [12].

2.3. Research on Factor Flow

The flow of urban and rural elements runs through the whole process of urban and rural development, and is the core of building whether urban and rural integration can be achieved. Exploring the mechanism of the flow of urban and rural physical elements on urban and rural integration development can provide scientific guidance for the breaking of urban and rural integration development [13]. The urban-rural dual economic structure in different regions in space has become a shackle that hinders the high-quality development of China's economy. Promoting the flow of factors will effectively weaken or even eliminate the urban-rural dual economic structure [14].

2.4. Literature Review

To sum up, on the research of urban-rural integration development at county level, the literature has formed a consensus on the necessity of urban-rural integration development at county level, while the issues and paths of urban-rural integration at county level are relatively simple. Therefore, for the study of urban-rural integration in the county, the academic community is very weak in its connotation, theoretical framework, development dilemma, path practice and system design. By analyzing the current situation, understanding the development dilemma, taking the development of urban-rural integration in the Yangtze River Delta as an example, this paper explores the practical path and system design, and strives to provide feasible suggestions for the further development of urban-rural integration in the county.

3. Current Situation and Problems of Urban-rural Integration Development

3.1. Current Situation of Urban-Rural Integration Development

From the perspective of the economic cycle, "urban economic cycle", "urban and rural economic cycle" and "policy economic cycle" jointly constitute the county economic cycle system, which embodies the interrelation of the county economic subject and space [15]. Therefore, in the context of the continuous promotion of rural revitalization, it is very important to promote the high-quality development of county economy, and breaking the barriers of factor flow between urban and rural areas by taking cities and towns is an important means to promote rural revitalization. In the 21st century, promoting the rapid and high-quality development of urban-rural integration to promote the comprehensive construction of a modern socialist power has also given full attention to the idea of promoting the high-quality development of the county economy. County is the most widely distributed and relatively independent administrative region unit in China [16], and plays an important role in promoting rural revitalization and achieving common prosperity. Therefore, China has issued a series of policy documents to promote the integrated development of urban and rural areas at the county level.

Table 1. Policy documents and main contents to promote the integrated development of urban and rural areas in the county

Year	File name	Main Content
2017	<i>Several Opinions of the Office of the State Council on County Innovation Driven Development</i>	The document defines the basic principles for promoting innovation and development in the county, namely, innovation-driven, talent priority, demand-oriented and differential development. The main objectives have been set. By 2020, the county innovation-driven development environment will be significantly improved, and the innovation-driven development capacity will be significantly enhanced. By 2030, the county innovation-driven development capacity will be further optimized, and the innovation-driven development capacity will be significantly improved.
2019	<i>Opinions of the CPC Central Committee and the State Council on the establishment and improvement of the system, mechanism and policy system for urban-rural integration development</i>	The overall requirements for achieving urban-rural integration should be guided by the idea of socialism with Chinese characteristics for a new era, resolutely break through the shortcomings of the system and mechanism, adhere to the rules, grasp the direction, adhere to the overall planning and key breakthroughs, adhere to the local conditions, step by step, adhere to the bottom line, prevent risks, adhere to the farmer's main body, and share development.
2019	<i>Guiding Opinions of the State Council on Promoting the Revitalization of Rural Industries</i>	Emphasis was placed on strengthening the overall planning of the county. In the county, urban and rural development should be considered as a whole, rural industrial layout should be reasonably planned, urban infrastructure and basic public services should be extended to the countryside, and urban and rural infrastructure connectivity and public services should be realized.
2022	<i>On promoting the urbanization construction with the county seat as an important carrier</i>	Take the county as an important carrier, scientifically grasp the functional orientation, and guide the development direction of the county by classification; Cultivate and develop characteristic and advantageous industries, and steadily expand employment in the county; Improve the system of municipal facilities and consolidate the basic support of county operation; We will strengthen the supply of public services and improve the people's well-being of the county seat.
2022	<i>Outline of the Strategic Plan for Expanding Domestic Demand (2022-2035)</i>	We will improve the system and mechanism of urban-rural integration and development, strengthen the use of industry to supplement agriculture and cities to guide rural areas, and promote the formation of a new type of urban-rural relationship between industry and agriculture that promotes each other, complements urban and rural areas, develops in a coordinated way, and enjoys common prosperity.

The report of the 20th National Congress of the Communist Party of China pointed out that to comprehensively promote rural revitalization and build a socialist modern country, the most arduous and onerous task is still in rural areas, adhere to the integration of urban and rural development, and smooth the flow of urban and rural elements [17]. Since the 16th National Congress of the Communist Party of China (CPC) proposed "developing the processing industry of agricultural products and strengthening the county economy", the Party has attached great importance to promoting the high-quality development of the county economy and promoting the urban-rural integration. The third plenary session of the 16th CPC Central Committee further proposed "to vigorously develop the county economy." Taking the county as the basic

carrier to promote the urban-rural integration and then promote the rural revitalization and promote the construction of a socialist country.

Driven by relevant national documents and policies, China's urban-rural direct factors continue to flow, making the urban-rural gap gradually narrow and the urban-rural integration more fully. According to the data released by the National Bureau of Statistics on October 11, 2022, the income gap between urban and rural residents in China has continued to narrow over the past decade. In 2021, the per capita disposable income of rural residents reached 18931 yuan, an increase of 125.7% over 2012. The data shows that from 2013 to 2021, the average annual income growth rate of rural residents was 1.7 percentage points faster than that of urban residents. China's county economy has achieved rapid development and thus promoted the rural revitalization to achieve major achievements. In the five years from 2018 to 2022, the agricultural supply-side structural reform has been deepened, the national grain output has been stable at more than 1.3 trillion jin, and the supply of cotton oil pond, meat, eggs and milk and other major agricultural products is abundant. The contribution rate of agricultural scientific and technological progress has reached 61%, the comprehensive machinery rate of crop cultivation and income has exceeded 72%, which is 3.5% and 6% higher than that of 2017, respectively. The national agricultural product processing rate has reached 70.6%. The primary, secondary and tertiary industries in rural areas have been deeply integrated, new industries and new forms of business such as leisure tourism and rural e-commerce have flourished, and the innovation and entrepreneurship vitality of agricultural training has been constantly bursting. The per capita disposable income of rural residents nationwide increased by 28.9% in the century, and the income gap between urban and rural residents decreased from 2.71 to 2.5.

3.2. Issues of Urban-Rural Integration and Development

With the implementation of a series of policies, the gap between urban and rural areas in China has been narrowing and the integration of urban and rural areas has been advancing. However, at present, the urban-rural dual system and mechanism has not yet been eradicated. The following problems still exist.

(1) The resource elements of urban-rural integrated development within the county are not equally distributed. In terms of economy and society, China has obvious dual structural characteristics, which leads to obstacles in the cross-regional flow of labor, capital and material factors in rural areas, and the impeded flow of factors seriously restricts the process of factor marketization reform in rural areas. In recent years, China has continued to increase financial investment in health care, social security, basic education and other aspects, and achieved relatively significant results, achieving full coverage of basic public services in urban and rural areas. Governments at all levels have also increased their investment in rural infrastructure construction, but there is still a large gap between the basic public services that rural residents receive and urban residents in terms of strength and quantity.

(2) The concept of urban-rural integrated development within the county is not fully understood. For a long time, the dual separation of urban and rural areas has led to people's inadequate understanding of the concept of urban-rural integration and development, coupled with the attraction of the city itself to resource elements, which has seriously affected the implementation of relevant policies, and is not conducive to the high-quality development of the county economy, thus seriously affecting the further development of rural revitalization.

(3) The county with urban-rural integration and development within the county itself lacks initiative. Resources themselves are profit-seeking, and high-quality development environment is easier to attract high-quality resources. Therefore, when we turn our eyes from resources themselves to the environment, it is not difficult to find that the small space for resource development and profit creation in rural areas will make it difficult for resources to flow from

the mainstream to the countryside, hindering the high-quality development of the county economy.

4. Mechanism of the Impact of Factor Flow on Urban-rural Integration Development

The development of urban-rural integration in China is characterized by both the planned transition of the economic system to the market and the transformation of the economic structure from dual to dual. The two-way flow between urban and rural areas is the key to achieving urban-rural integration and the most effective way to break the dual structure. Economic entities allocate resources based on the rate of return of factors, which not only improves the efficiency of resource allocation, optimizes the structure of factors, but also improves the spatial economic layout, laying the foundation for urban-rural integration development [19].

4.1. Adaptation Mechanism of Human Resources Elements and Urban-Rural Integration

Economic and social development cannot be separated from the support of labor force, which is the most important resource element to promote urban-rural integration and development. The flow of labor factors between regions or departments is not only a simple quantitative flow, but also accompanied by the flow of information, technology, capital and other factors. The two-way flow of labor factors between urban and rural areas has a positive impact on promoting the integration of urban and rural development. The rural surplus labor force will play a positive role in many aspects. The mobility of labor factors promotes the optimization of human resource allocation structure, improves labor efficiency, and provides conditions for the convergence of urban-rural income gap. Human resources are the more valuable and important resource elements of China's social development in the new era, and the key to urban-rural integration. Like capital, labor force is profit-seeking in nature. Because of this malignancy, it can form an effective human resource urban-rural circulation mechanism.

4.2. Adaptation Mechanism of Material Resources Elements and Urban-Rural Integration

The flow of material resources has strong cumulative benefits. Land resources are very rich production resources in rural areas, and are the most important factor for the development of rural areas. Due to the natural weakness of agriculture and the influx of a large number of rural surplus labor into cities, the problem of idle land in rural areas has become increasingly prominent, and the phenomenon of resource waste is more serious. At this time, the government needs to optimize the allocation, activate the land elements, encourage reasonable development, combine the rural idle land with the urban surplus land, improve the land use efficiency and create more value. The progress and innovation of technology flow elements are also generated in the flow. As the flow carrier of technological factors, labor factors accumulate human capital in the flow and improve high-quality talents for urban-rural integration and development; On the other hand, it has promoted the spread of advanced technology and production methods in urban and rural areas. Technological progress is the core power to promote agricultural modernization, and backward production technology has become the bottleneck restricting agricultural transformation and upgrading. The flow of technological elements not only meets the basic innovation needs of rural development, but also provides high skills and rich capital for rural areas, and promotes the integrated development of urban and rural areas.

4.3. Adaptation Mechanism of Financial Resources Elements and Urban-Rural Integration

The liquidity of financial capital can play a good self-reinforcing mechanism. The flow of capital elements between urban and rural areas has broken the closed capital circulation mechanism between urban and rural areas, greatly improved the efficiency of capital allocation, filled the shortage of rural funds, and provided capital support for the integrated development of urban and rural areas. In the early stage of economic and social development, due to the profit-seeking nature of capital, a large amount of capital flows from rural areas to cities in order to pursue higher returns. With the influx of capital and the surge in the number of urban financial institutions, it is difficult for capital elements to carry out self-appreciation in urban areas. At this time, rural areas began to show a high investment rate and capital began to flow back from cities to rural areas.

4.4. Factor Flow Improves the Efficiency of Resource Allocation

The flow of factors should be subject to the basic law of the operation of market economy, that is, factors always flow from areas with low marginal productivity to areas with high marginal productivity to obtain the best benefits. The profit-seeking nature of factors drives the circulation of production factors in different regions and industries, and seeks the benefits matching the expected endowment and its own efficiency, so as to optimize the resource allocation and improve the efficiency. The improvement of resource allocation efficiency can effectively improve total factor productivity, increase economic output and stimulate economic endogenous power. The free flow of factors will make all regions and departments face unified competition. The result of competition will lead to the convergence of efficiency and return of factors. Only the most efficient factors can obtain the highest marginal income. This competition among factors provides conditions for market participants to choose the optimal combination of factors to improve the efficiency of market allocation of resources. The improvement of the allocation efficiency of production factors means the improvement of enterprise production efficiency, thus promoting the improvement of social labor productivity, thus promoting the improvement of social labor productivity, bringing about the rational allocation of overall social resources, narrowing the gap between urban and rural development, driving the development of rural economy, and accelerating the process of urban-rural integration.

To sum up, this section demonstrates the impact of two-way flow of factors on urban-rural integration development from four aspects: human, material, financial and resource allocation efficiency.

5. The Path Choice of Factor Flow to Promote the Development of County Economy

5.1. Strengthen Publicity and Promote the Concept of Urban-Rural Integration Development in the County to Take Root

Concept is the guide of action, and reasonable and correct concept can provide correct guidance for people's action. Therefore, first of all, we should strengthen publicity and promote the establishment of the concept of urban-rural integration development within the county. First of all, we should adhere to the people-centered concept, ensure the reasonable interests of farmers, and emphasize the equality of human rights. Secondly, it is necessary to fully and accurately understand the situation of the county. Only on the basis of understanding the county can correct decisions be made, so that the decision can benefit the people and thus establish the concept of urban-rural integration development in people's minds. Finally, we should follow the law of urban-rural integration and development, and pay attention to gradual progress. The objective law cannot be changed and eliminated. We should follow objective laws.

It is a long process to completely eliminate the gap between urban and rural areas. Both the macro system and the micro behavior affect the effect of urban-rural integration. Therefore, in the process of urban-rural integration, we should put our mind in the right place, respect the laws, clarify the goals, and make steady progress towards achieving rural revitalization and building a socialist modern country.

5.2. Break the Institutional and Institutional Drawbacks That Hinder the Two-Way Flow of Urban and Rural Elements

Because of the profit-seeking nature of resource elements, China's resource elements are inclined to cities at present. In order to change this situation, we should promote the two-way flow of factor resources between urban and rural areas in terms of human and material resources, so as to form a pattern of supporting rural areas with cities and supporting agriculture with industry. First of all, in terms of human resources, we should accelerate the reform of the registered residence system, speed up the improvement of the labor market, and actively guide all kinds of talents to return to their hometown for employment and entrepreneurship. We will provide institutional guarantees in medical and health care, old-age education and other aspects to solve the worries of talents returning home from their hometown. We will provide preferential policies for returnees to start businesses in the countryside, reduce the pressure on them to start businesses in the countryside, and attract talents to return home. Secondly, in terms of material resources, we should increase investment in urban and rural infrastructure, establish and improve the technological progress of rural industries, promote the development of technological factor markets, establish a sound financial system, increase investment in rural areas, improve the rural financial service system, and guide the flow of capital like rural areas.

5.3. Create a High-Quality Market at the County Level to Attract the Inflow of Factors and Improve the Utilization Rate of Factor Resources in the Countryside

When factors flow into rural areas at the county level, rural areas should provide a good and high-quality market environment to ensure that factor resources can be converted into benefits to the maximum extent, so as to attract the inflow of other high-quality resources, thus forming a virtuous circle. The attractiveness of the county for factor resources is far lower than that of the city. Therefore, when guiding resources to flow into rural areas, we should also focus on improving the development environment of the county market. When resources flow to the county consciously, the county economy will achieve high quality and high level fundamentally, and the urban-rural integration will also reach a relatively full level.

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