



# Research Status and Future Prospects of Coordinated Development of Rural Revitalization and New Urbanization

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### **Abstract**

Agricultural and rural development is an important component of national development, and is of great significance to national food security, economic development, urban-rural integration, social harmony, and ecological environment protection. The coordinated development of rural revitalization and new urbanization, like "the wings of a bird and the wheels of a car", is an intrinsic requirement for promoting national development. However, in the process of urban-rural development, the urban-biased policies have continuously widened the gap between urban and rural areas, which has seriously hindered the pace of national modernization. Based on the current academic research, this paper compares the views of scholars at both domestic and international, and makes a comprehensive collation of relevant concepts. At the same time, it combines dual economics, regional economic development, and the theory of urban-rural relations of Marx and Engels to make an in-depth analysis of the coupling mechanism between the rural revitalization and new urbanization. Eventually, in view of the existing problems, this paper proposes that future research should be deepened in the following three aspects: the connotation and interactive mechanism of China's rural revitalization and new urbanization, the coupling relationship between the two items, and the construction of an evaluation index system for the coordinated development of them.

**Key words:** Regional economics; Rural revitalization; New urbanization; Integration of urban and rural areas; Coordinated development

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### 1. INTRODUCTION

At present, the development of rural areas is still lagging behand that of cities and towns, and the gap between urban and rural areas is still widening as a result of continued industrialization and urbanization. To solve this problem, there is an urgent need to change the traditional urban-rural development model, conduct an in-depth study of urban-rural relations, strengthen urban-rural exchanges and cooperation, and achieve urban-rural co-prosperity, to achieve the goal of comprehensive modernization. This paper reviews the current research status of rural revitalization, new-type urbanization, and urban-rural integration in China and abroad, and looks forward to future research trends, aiming to provide theoretical references for the promotion of rural revitalization and the integration of new-type urbanization.

# 2. RELEVANT STUDIES ON RURAL REVITALIZATION

#### 2.1 Foreign Research on Rural Revitalization

Rural revitalization is a localized policy from China, while developed countries do not have a systematic concept of it, but they have taken different paths to rural construction and achieved different rural revitalization on the basis of their conditions. Firstly, in the United States, the main way to promote the development of agriculture and the countryside is to formulate a series of bills, including the Rural Electrification Act, the Rural Development Act, the Farm Act, the Agricultural Act

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of 2014, and so on. The enactment of the bills has not only provided a basic guarantee for the promotion of the employment of farmers and the economic growth of the United States, but also has led to the better integration of farmers in the United States into the country's economy to better serve the society (Lu & Jiang, 2018). With scale and technology, environmental sustainability, and rational regional planning as supplements, the evolution of rural development in the United States shows a good trend (Pan, Han, & Chen, 2021). Secondly, in order to promote the development of agriculture and rural areas, the German government is committed to giving full effect to the power of society by encouraging local social organizations, such as farmers' associations, to assist the government, enterprises, and farmers in joint construction and to ensure socio-economic development. Thirdly, in Japan, the theory of the new agricultural construction concept was proposed. The main idea of the theory is to encourage local residents to participate in the construction and to use rural tourism as the main way to revitalize the rural economy (Liu, 2019).

Foreign research on rural revitalization mainly focuses on the search for "development paths". Torrea firstly affirms the position of rural areas in the country's socio-economic development, as well as their important role in agricultural production, recreational space, biodiversity conservation, natural areas, and local culture. Furthermore, Torrea believes that sustainable rural development requires diverse rural policies (Torre, Wallet, & Huang, 2023). Bonfiglio argues that knowledge transfer and innovation are essential for sustainable rural development. Specifically, European rural development policies have a long history of stimulating rural innovation, and in the process have developed measures explicitly targeted at supporting knowledge transfer and innovation in agriculture and the rural economy (Bonfiglio, Camaioni, & Coderoni, 2017). Cavanagh considers multifunctionality to be part of overall rural development, which helps to maintain the attractiveness of the countryside, and it is an effective response to alleviate the continuing squeeze on agriculture for rural households (Cavanagh, Shaw, & Wang, 2013). Sobczyk and Giedrius argue that environmental education and land consolidation are significant tools for sustainable rural development, respectively (Sobczyk, 2014). Cavanagh, whose views coincide with Sobczyk and Giedrius, argues that the driving force of rural transformation lies in education. Therefore, there is an urgent need to revisit education and focus on the important role of education for all in rural transformation (Pašakarnis & Maliene, 2010). Bryant states that to effectively address agricultural and rural issues, it is necessary to clearly define the partial, regional as well as global challenges in order to better implementation of effective policy measures (Bryant, Nellis, & Bowler, 1996). Ogryzek believes that activities, such as road construction, building school playgrounds or socio-cultural facilities are part of the revitalization and rehabilitation of rural areas (Ogryzek, Rzasa, & Ciski, 2019).

### 2.2 Research on China's Rural Revitalization

With the continuous development of society, Chinese academics are actively exploring and promoting the possibility of rural revitalization (Zhong, 2018). The scholars are not only exploring its content, background, and significance, but also exploring how to promote the process through reform and innovation, and then have made many positive achievements in solving the current challenges and dilemmas.

In terms of content. Gong, Mou and Yang point out that rural revitalization is not only a traditional socialist new peasant approach, but also an advanced one with creativity, developmental potential, and growth potential. It is centered on the implementation of urban-rural integration, economic coordination, cultural diversity, as well as the construction of a healthy and sustainable rural management system with a sound foundation (Gong, 2018) (Mou, 2018) (Yang, Zeng, & Wang, 2020).

In terms of significance. Based on China's basic national conditions and economic practices, Peng indicates that the major task of promoting the great revitalization of the Chinese nation lies in solving the problems existing in the current economic and political environment (Peng, 2020). Yin's study shows that the rural development environment and the historical inheritance of the "three rural areas" in the new period are of great significance in promoting rural revitalization (Yin, 2018). Lin notes that the strategy of rural revitalization is not only a necessary way to promote the development of agriculture and rural areas to enter a new stage, but also an important support to achieve the comprehensive construction of a moderately prosperous society, ensure national food security, and improve people's lives (Lin, 2018). Wan emphasizes the importance of constructing a sound and modernized economic system that leads to greater improvement in regional agriculture, greater prosperity in rural areas, and fuller realization of farmers' life goals, which is essential for rural revitalization (Wan, 2022).

In terms of challenges. The road to implementing rural revitalization is full of challenges, as Liu points out the inequitable distribution of resources between urban and rural areas has led to the backwardness of rural development (Liu & Huang, 2018). From the perspective of scientific and technological support, Li believes that the most important challenge at present is the transformation of agriculture from "rough" to "economical" (Li & Zhu, 2021). He considers that rural infrastructure is a key factor affecting rural development (He & Hu, 2020). Rural revitalization is a process that is adapted to local conditions, and each region encounters different difficulties in the development process due to its own

uniqueness. In less developed regions, the main dilemmas faced by rural revitalization include large number of people and little land, lack of talents, low level of development of agricultural industrialization, insufficient capital investment, poor infrastructure, inadequate modern rural market system, and grass-roots governance problems (Jia, Chen, & Zhang, 2020).

In terms of development pathways. Ai proposes five rural revitalization implementation pathways based on the current development situation in Changji Prefecture to promote the sustainable development of the local economy and society (Ai & Mao, 2021). Guan affirms the importance of stratified and precise policymaking to focus on improving the rural governance system (Guan, 2019). Qin emphasizes that the focus should be on the needs of "people", increasing investment in rural revitalization, promoting the sustainable development of the rural economy, and striving to improve the rural governance system to achieve a more perfect governance structure (Qin, 2020).

# 3. RELEVANT STUDIES ON NEW URBANIZATION

## 3.1 Foreign Research on New Urbanization

Foreign research on urbanization started earlier, and its main achievements focus on the connotation, power mechanism and quality research.

Firstly, in terms of connotation. Horrel takes industrialization and socialization as the perspective, extends the connotation of urbanization to the process of economic phenomena shifting from rural to urban, and points out the importance of agricultural modernization and industrial centralization (Horrel, 1996). Scholars such as Hudson, Pedersen, Lara and others have indicated that urbanization has become an unavoidable trend with the progress of the times, which not only implies the progress of economic development, but also means a completely new form of civilization and a new mode of production (Hudson, 1969) (Pedersen, 1970) (Lara, Liesbeth, & Joachim, 2018). Stefan examines the development of urbanization from the perspective of land use, and the land-based change indicators at different scales demonstrate the types of urban development (Leyk et al., 2020).

Secondly, in terms of the driving mechanisms. According to Satterthwaite, with the rapid development of the global economy and the increasing importance of laborers in the global production value, cities have shown a rapid development trend (Satterthwaite, 2010). Yijun Shi argues that the development of cities is related to various driving forces, the composition of which in turn depends on the internal structure, the way of administration, the

degree of inputs and other elements (Shi et al., 2020). RemiJedwab suggests that the natural rapid growth of cities is another mechanism of urban expansion and that their growth itself contributes to urbanization (Jedwa, Christiaensen, & Gindelsky, 2017). JP Chauvin summarizes the commonalities in promoting urbanization using Brazil, China, India and the United States as examples, and at the same time finds that there are greater challenges in achieving spatial balance in urbanization in countries with different levels of development, especially in backward areas (Chauvin et al., 2016).

Finally, in terms of qualitative research. By constructing and refining the push-pull theory, DJ Bogue profoundly explores the effects of economic conditions, social well-being, social status and other factors on population mobility in different regions, thus revealing the universal law of spatial migration of population in the process of urbanization. At the same time, Bogue reveals the development of the contradictory relationship between spatial migration of population and the quality of urbanization in the context of the historical background at that time (Ho & Bogue, 1970). SM Rasoolimanesh points out that in order to make the city more prosperous, it is significant to strengthen the integration of urban development with the economy, society, and the environment, and to focus on the quality of urbanization development (Rasoolimanesh & Jaafar, 2012). Semibrahim conducts an empirical study on the phenomenon of over-urbanization in Arab countries and finds that over-urbanization is an important reason for the emergence of "urban diseases" (Ibrahim, 1974).

## 3.2 The Relevant Studies on New Urbanization in China

With the continuous deepening of research, domestic research on new urbanization has made great progress, and the theoretical results cover many aspects such as the power mechanism, development path, evaluation indexes and level measurement of new urbanization.

Firstly, in terms of power mechanism. Wang Bin explores economic activities in different geographic environments through the spatial Durbin model and finds that governmental dynamics, market dynamics, and outward dynamics showed significant differences in space (Wang, 2020). Zou Yafeng argues that the main driver for promoting urbanization in 11 capital cities in the west is infrastructure development (Zou, Li, & Yuan, 2020). He Shuoyi uses labor migration as an entry point to study the urbanization dynamics, while pointing out that it is very important to optimize the industrial structure and build a new urbanization layout to facilitate labor migration and promote people-centered urbanization (He, 2021). Yang Peiqing believes that the main reasons driving urbanization are industrial growth, market changes, outward investment and government management (Yang, 2020).

Secondly, in terms of development path. Wen Feng'an points out that the following four measures are indispensable for the development of new urbanization: adhering to the new development concept, vigorously developing the urban economy, accelerating the improvement of the relevant system, and raising the level of construction in counties and cities (Wen, 2022). Ren Gao points out that a variety of measures should be taken to overcome all kinds of obstacles to promote the harmonious development of the economy and society and achieve its open and transparent development (Ren, Song, & Zhang, 2022). Guo Zhen first classifies different types of counties and then proposes different paths to promote new urbanization for different categories of counties (Guo & Zeng, 2022). Wang adheres to the concept of "humancentered" and insists on "three districts, three counties and four levels of the same district", "one main and two sub-districts", "five districts". The concept of "peoplecentered", adhering to the concepts of "three districts, three counties, four levels of the same area", "one main and two vice", "five districts", and "three links", has been fully committed to promoting the process of new-type urbanization in Henan Province (Wang, 2021).

Finally, in terms of measurement and evaluation. Lu Jing formulates a comprehensive, integrated, sustainable and measurable indicator system for the development of new urbanization in China from six aspects, including population growth, economic growth, housing improvement, social stability, natural resource protection and urban sustainability (Lu, 2022). Wan Changliang uses a combination of hierarchical analysis and entropy weight method to comprehensively assess the level of China's new urbanization construction. It was found that economic growth and population growth have become the key factors affecting the current new urbanization process (Wan & Zhao, 2021). Based on the panel data of 14 cities in Guangxi from 2003 to 2018, Liu Hao uses the entropy weight TOPSIS method, entropy weight grey correlation method, and entropy weight GC-TOPSIS method to deeply explore the quality change trend of urbanization development in Guangxi. The results of the study show that the level of new urbanization development in Guangxi has experienced a fluctuating upward process (Liu & Liu, 2021).

# 4. RELATED RESEARCH ON THE RELATIONSHIP BETWEEN RURAL REVITALIZATION AND NEW URBANIZATION

### 4.1 Current Studies and Viewpoints of the Urban-Rural Relations

Marx and Engels point out that the relationship between the city and the countryside is an extremely complex subject. This paper successively puts forward the concepts of "urban-rural antagonism", "urban difference", "urban domination", etc., and scientifically predicts the development of urban-rural relations through the stages of "identity-separation-antagonism-integration". Jun Zhang points out that fine regulation will effectively improve the spatial pattern of urban and rural areas, alleviate the environmental problems caused by urban development, and promote the healthy and intensive development of urban and rural areas (Zhang, Yuan, Tan, & Zhang, 2021). Potter argues that the differences and complementarities between urban and rural areas are what produce the symbiotic relationship between urban and rural areas with complementary functional structures (Siconolfi et al., 2019). Daniel Siconolfi and Kirby all believe that access to household and community services is not completely equal for residents in rural and urban areas, and that rural areas are at a disadvantage in some respects and that this disadvantage is increasing (Siconolfi et al., 2019) (Kirby & Yabroff, 2020). Similarly, Aviva H Ariel-Donges, while studying the differences between rural and urban in access to national diabetes prevention schemes, argues that residents of rural communities usually have limited access to preventive health services, and that urban areas outperform rural areas not only in terms of volume but also in terms of rate of growth. Thus, there is a growing gap between rural and urban areas in terms of access to preventive public services (Ariel-Donges et al., 2020). Abreu observes that there is a growing disconnect between urban and rural residents, with 'urban' citizens believing that they are subsiding 'rural' citizens and receiving nothing in return, ignoring the fact that 'rural' citizens have no access to preventive services and that they do not receive anything in exchange for their services, ignoring the valuable environmental, cultural and social services that villages and their inhabitants provide to urban dwellers (Abreu, Meaias, & Ramajo, 2022).

Luo combs through the urban-rural relations policies from the period of the New Democratic Revolution to the period of Socialism with Chinese Characteristics, identify the problems of China's urban-rural policies, and propose a path for the development of China's urban-rural relations policies (Luo, 2022). Guo Xuhong points out that with different development contexts, the development evolution of China's urban-rural relations has roughly gone through the following four stages, that are the countryside supporting the city, the balanced development of the three industries, the city supporting the countryside, and the integration of urban and rural development (Guo & Wu, 2022). Zhu Penghua believes that the development of the basic socialist economic system has gone through the process of "dichotomy", to break the "dichotomy", realizing the "dual co-existence", and finally to the "dual integration" (Zhu & Hou, 2022). Tang Renwu summarizes the CPC's urban-rural relations in the past hundred years,

arguing that the CPC has gone through five stages: urbanrural division and confrontation, separation and partition, reform and adjustment, coordination and interaction, and integration, and has walked out of a road of "encircling the city in the countryside" and "supporting the city in the countryside", It has come out of a road of development of urban-rural relations in which "rural areas surround the cities", "rural areas support the cities", "cities give priority to development", "cities feed the rural areas", and "balanced development of urban and rural areas" (Tang, 2021). Kong Xiangzhi reviews the history of China's urban-rural relations and believes that the transformation of urban-rural relations came from the transformation of the ruling concept, which resulted in the adjustment of major national strategies (Kong, 2021). Wang Houting combs through the formation and development process of China's urban-rural dual system from the perspective of the primitive accumulation of capital and tells the historical process of the transformation of China's dual system from deprivation to protection (Wang, 2018). Cai He points out that the most obvious feature of the current asymmetry between urban and rural areas is that, on the one hand, there are dual rights and obligations between urban and rural areas. And on the other hand, there are also differences in the "dual track" (Cai, 2021).

## 4.2 Integration and Development of the Relationship

Mumford, in Howard's "idyllic city", emphasizes that the relationship between urban and rural areas must be deeply integrated in order to truly achieve sustainable development (Mumford, 2005). Gu points out that the integration and development of urban and rural areas is a complex process, that requires the effective allocation of resource elements, so as to eliminate the traditional separation of urban and rural areas and realize the exchange and common development between urban and rural areas (Gu, 2010). Sang shows that the core of achieving integrated urban-rural development lies in establishing a balanced and stable relationship between the two parties (Sang, 2015). Soltani argues that the most important means of achieving urban-rural co-development is to strengthen support for rural areas and investment in agriculture (Soltani et al., 2017). The study of Pijpers shows that developed countries are endeavoring to reduce inequality between urban and rural areas by improving the living standards of urban residents and upgrading the level of education, healthcare and other public services for rural residents (Pijer, Kam, & Dorland, 2016). Chan points out that the key to urban-rural integration lies in upgrading rural labor productivity, optimizing the structure of the agricultural economy and giving full play to the potential of agriculture. Promoting the urbanization of rural areas and expanding their diversified functions through industrial integration is an important way to promote urban-rural integration and development (Chan, 1998).

Based on the theory of urban-rural integration of Marx and Engels, domestic scholars have conducted research on urban-rural integration from different perspectives. And their research content has been gradually broadened, the depth of research has been gradually deepened, the research methods have been diversified, and certain research results have been achieved. Guo Dingsheng affirms the theoretical value and practical significance of Marx Engels's idea of urban-rural integration, and there are many references to it (Guo & Song, 2019). Li Aimin discusses the current dilemmas of urban-rural integration and puts forward corresponding countermeasures from the five major aspects of urban-rural income disparity, equalization of basic public services, rural habitat, factor flows, and regional differences (Li, 2019). Liu Yan Sui proposes that the correlation between cities and agriculture is mainly manifested in a complex, challenging social structure with development potential. Therefore, it is very significant to accelerate the construction of a multi-level target system, including urban-rural basic network, rural development area, village and town spatial field, and rural revitalization pole (Liu, 2018). In addition, based on the perspective of resource flow, Wang Wenbin argues that the achievement of rural revitalization requires comprehensive and in-depth improvement of agricultural production, agricultural economy, agricultural society, and agricultural civilization (Wang, 2019). Yang Zhiheng emphasizes that the integrated development of urban and rural areas should be based on the premise of respecting the uniqueness between urban and rural areas, instead of urban biases or equilibriums oriented towards urbanrural indistinguishability, and that it should lead to the mutual benefits between urban and rural areas and jointly promote the overall development of the region (Yang, 2019).

### 4.3 The Path Research of the Relationship

Xu Xue argues that the success of urbanization cannot be separated from the effective allocation of resources, which can help to make up for the shortcomings of urbanization. New urbanization makes up for the shortage of rural development through the flow of resource elements (XU & Wang, 2021). Dependence and reciprocity between urban and rural areas is the inherent driving force for coordinating the promotion of rural revitalization and new urbanization. It has also become the main motive for borrowing from each other and is an important manifestation of rural revitalization and new urbanization empowering each other (Liu & Duan, 2021). Under the perspective of reverse urbanization, Duan Longlong believes that the key to the synergistic development of new urbanization and rural revitalization is to correctly understand the law of reverse urbanization (Duan, 2021). Under the perspective of factor flow, Cheng Ming argues that the intrinsic motivation for the coupling of rural revitalization and new urbanization strategies stems from the obstruction of urban-rural factor percolation channels. It is significant to break through the barrier of solidified interests, so as to realize the two-way equivalent flow of factors such as "people, land, money and technology" between urban and rural areas (Cheng & Fang, 2022). Gu Yanbing puts forward the realization path of rural revitalization and new urbanization integration and development from the perspective of politics, economy, culture, society and ecology in the perspective of "fivein-one" (Gu, 2022). Jiang Xia promotes urban-rural governance with six paths under the perspective of coupling, focusing on the transition from "countryside to small towns and then to cities" (Jiang & Yin, 2021). Wang Jinhua points out that the county with "countryside head and city tail" is the key link and important carrier of urban-rural integration and development, while the construction of local urbanization and characteristic towns should be taken as the main focus of promoting the economic development of the county (Wang & Xie, 2021). Zhuo Ma Cao believes that the path to achieving the integrated development of rural revitalization and new urbanization in the new era can be achieved through five developments. These are "integrated" development, "symbiotic and sustainable" development, "inclusive and integrated" development and "efficient and high-quality" development (Zhuo, 2019).

## 4.4 The Coupled Coordination Degree Models in the Urban-Rural Relations

The coupled coordination degree model is widely used in academic research, which covers various disciplinary fields, such as economic system reform, macroeconomic management and sustainable development, environmental science, resource utilization, biomedicine and tourism.

From the perspective of gene expression, the genomic analysis of transcription factors and chromatin remodeling factors bound to DNA by Komili reveals the extensive coordination and coupling between these factors, forming a regulatory network controlling gene expression (Xing, Xue, & Hu, 2019). Lu Xing, on the other hand, take four different real-world scenarios as an example to describe the coupling coordination degree in detail. The results show that the coordination of the economic scenario performs the worst, and the coordination of the environmental scenario performs the best in the short term. The resource scenario is quite effective for the coordinated development of the urban system in the long term (Liu et al., 2018). Wenjie Liu establishes a comprehensive indicator system for urbanization and atmospheric environmental safety based on the theory of the environmental Kuznets curve, combined with statistical data and the coupled coordination degree model. The result illustrates that the system of urbanization and atmospheric environmental safety go through five stages, that is, the low coupling period, the medium coupling period, the confrontation period, the basic coordination period, and the high coupling period (Tang, 2015). Zi Tang, by studying the coupling relationship between tourism and the environment, finds that the economic benefits and the ecological quality have the greatest impact on the coupling system (Komili & Silver, 2008). Based on provincial data, Qijiao Song establishes a coordination degree model and a coupled coordination degree model of the carbon emission urbanization system to explore how to achieve low-carbon development in the rapid urbanization stage (Song et al., 2018). On the foundation of the coordination concept, Qian Sun models the socio-economic and resource environment through the coupled coordination degree. Meanwhile, the socioeconomic index and resource environment index are evaluated on the basis of the improved mutation polarity model, and it is found that the type of starting coupling coordination changed from mild disorder to moderate coordination (Sun et al., 2018).

Introducing the degree of coupled coordination into urban-rural relations. Ma Li analyzes the level of coordinated urban-rural development and the characteristics of the temporal and spatial evolution of nine major agricultural regions in China using threephase partition statistics. The results reveal that the current level of urban-rural development and coordinated development in China's agricultural regions is not optimistic. Specifically, the differences between regions are significant, and the phenomenon of decreasing urban-rural coordination is more common (Ma, Long, Ge, Zhang, & Tu, 2018). Based on the new model of integration of industry and city, mutual promotion of industry and agriculture, and urban-rural co-ordination, Zhang Kaihua measures and evaluates the level of coordinated development of the "two cultures" in the four traditional agricultural regions of the Jianghan Plain during the period of 2005-2014, with the four traditional agricultural regions of the Jianghan Plain as the research samples. The results prove that the coordinated process of the "two cultures" in the traditional agricultural areas of the Jianghan Plain is still in the initial stage, and the overall degree of coordination is relatively low (Zhang & Zheng, 2017). Liu Yaqin conducts an in-depth analysis of the economic and agricultural development of Northeast Sichuan from 2011 to 2015 by drawing on the theory of capacity coupling in physics. And then Liu constructs a model to study the coupling relationship between agricultural modernization and urbanization in this region. The results indicate that in terms of the degree of coupled and coordinated development of agricultural modernization and urbanization, Dazhou City and Nanchong City are more outstanding than Bazhong City and Guangyuan City (Liu, Cai, Peng, Wang, & Liu, 2018). Cheng Chao analyzes the integrated development of urban industry and agro-industrial in Jiangsu Province between 1995 and 2014. What's more, Cheng explores

the mutual influences and differences between them. The results suggest that the degree of urbanization-agricultural modernization coupling in Jiangsu Province go through four stages during the study period: mild dissonance, verging on dissonance, barely coordinated and primary coordination (Cheng, Tong, Peng, & Wang, 2018).

### 5. CONCLUSION

### 5.1 Comprehensive Review

The research on rural and urban areas in developed countries is generally earlier than that in China, which can provide a reference for China's rural revitalization and new urbanization strategies. However, due to the differences in economic, social, environmental and other factors, the path of rural and urban evolution in developed countries, as well as the experience and measures learned in the process, cannot be matched with those in China. Therefore, the inspiration from developed countries on rural revitalization and new urbanization is relatively limited.

In terms of rural revitalization. Since the 19th National Congress of the Communist Party of China (CPC), China's rural revitalization has entered a brand-new stage of development. Concept definition, background significance, implementation dilemmas, and path analyses have all been widely noticed and discussed, and many theoretical achievements have been made. However, although there are many theoretical discussions on rural revitalization, its practical application is quite limited, especially the research on quantitative assessment of the actual effects of rural revitalization is relatively rare.

In terms of new urbanization. Since the development of urbanization, China's research on new types of urbanization is becoming more and more sophisticated. Specifically, it is demonstrated that the inquiry on the connotation of urbanization, the construction of the indicator system, and the driving factors are constantly enriched. From the perspective of urbanization, experts and scholars have also made many studies on the coupling and coordination between urbanization and other elements.

In terms of the coordinated development between the rural revitalization and new urbanization. Researchers from both developed countries and China believe that the coordinated development between cities and villages is essential. The current research has achieved fruitful results, including the connotation of coordinated development, comprehensive evaluation methods, influencing factors and something like that, but there are still certain limitations that need to be further explored in depth. The following points are mainly manifested. To start with, most of the studies on the close connection existing between rural revitalization and the development

level of new urbanization remain at the theoretical level, and there are relatively few kinds of literature adopting quantitative methods for empirical analysis. Secondly, research on new urbanization has been given high priority, while research on rural revitalization is relatively scarce, and most of the studies do not focus on the organic link between urban and rural areas. Furthermore, the coupled and coordinated relationship between rural revitalization and new urbanization is a dynamic process, and the previous scholars' static analyses or crosssectional evaluation systems are unable to explore in depth the spatial and temporal links between them and their interactions. The penultimate point is that current academics have not yet fully explored the coupling and coordination mechanism between rural revitalization and new urbanization. For instance, how to organically combine these two strategies to promote urban-rural integration remains a thorny issue. Eventually, the research on the coupling between rural revitalization and new urbanization is still in its embryonic stage, lacking an effective municipal perspective to provide a reference for the government to make effective decisions.

### 5.2 Future Perspectives

In view of the above problems, the author believes that in the future, we should deepen the research in the following three aspects:

First and foremost, it is significant to deepen the research on the connotation, interaction mechanism, spatial and temporal characteristics of the coupling and coordination between rural revitalization and new urbanization in China, as well as the influencing factors. To broaden the research field of the coupling and coordination of rural revitalization and new urbanization, it is recommended to make use of the research system of regional economics, combined with mathematical and statistical methods and spatial visualization, which aims to further explore the spatial and temporal characteristics and influencing factors of the coupling and coordination of the two systems, so as to make up for the shortcomings of the existing research, and to provide scientific support for the coordinated development of the two systems.

What is more, the coupling relationship between new urbanization and rural revitalization should be studied in depth. Through further research, it is necessary to promote the rural construction and urban development at both the institutional and practical levels, and better grasp the development trend of urban-rural integration, so as to coordinate these two strategies more effectively. Each region should be able to give full play to its own comparative and competitive advantages to achieve synergistic development of the regional economy.

Last but not least, in-depth research should be conducted to build an evaluation index system for the coordinated development of rural revitalization and new urbanization. According to the research results of the relevant theoretical issues of new urbanization and rural revitalization, the evaluation index system for the coordinated development of rural revitalization and new urbanization should be researched and constructed. In this process, it is best to use a variety of quantitative methods to study the interaction and coordination between the two systems, and to construct the coupling and coordination degree model, the difference model, and the grey correlation degree model to measure and evaluate the degree of coupling, difference, and the degree of synchronous development of the two strategies. On this basis, relevant data are collected for empirical research, and their development levels are precisely measured through empirical research, and the evaluation results are analyzed by vertical and horizontal comparison. Eventually, the path of coordinated development and relevant countermeasures are proposed.

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