

Coupling Coordination Relationship between Urban Economical Resilience and Economic Development: Evidence from China

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Abstract: The coupled and coordinated development of urban economic resilience and economic development is a key measure to balance development and security. This study uses data from 281 prefecture-level and above cities in China spanning 2010–2018, constructs an evaluation system for urban economic resilience and economic development levels via the entropy weight method, establishes a coupling coordination model to study the spatiotemporal characteristics of their coupling coordination, and applies the Multiscale Geographically Weighted Regression (MGWR) to analyze the spatial heterogeneity of impact effects and driving factors. The findings show that spatially, central cities maintain good coupling coordination, effectively balancing economic development and risk prevention capabilities; the strong coupling coordination of these cities exhibits obvious spillover effects, forming urban agglomerations centered on central cities with strong economic strength, and the overall coupling coordination degree presents the characteristic of being stronger in the southeast and weaker in the northwest. Temporally, the urban coupling coordination degree has decreased significantly since 2016. Meanwhile, the coupling coordination degree between urban economic resilience and economic development shows the characteristics of spatial autocorrelation and spatiotemporal differentiation. Factors such as technological innovation, economic openness, population growth, industrial upgrading, and residents' savings have different impacts on the coupling coordination degree respectively. Finally, this paper puts forward policy suggestions based on the empirical results.

Keywords: Urban economic resilience; Economic development; Coupling and coordination relationship; MGWR.

1. Introduction

Under the impact of the COVID-19 pandemic and amid a complex internal and external environment marked by significant challenges, the foundation for China's economic recovery remains fragile [1]. The triple pressures of demand contraction, supply shocks, and weakened expectations have intensified, contributing to prolonged economic slowdown and sustained adjustment pressures. Meanwhile, the external market environment has remained volatile and unstable, amplifying negative spillover effects on Chinese short-term economic performance. At the same time, cities serve as crucial platforms for implementing new development concepts and pivotal nodes in fostering a new development paradigm. In this context, building resilient cities has emerged as an urgent imperative [2]. Consequently, the coordinated and synergistic development of urban economic resilience and economic growth is essential for balancing development with security [3]. Research on the coordination between urban economic resilience and economic development, as well as its impacts, holds significant value for optimizing the economic development models of Chinese cities.

2. Literature Review

2.1. Concept of Urban Resilience

In 1973, Canadian ecologist Holling first systematically proposed that social ecosystems possess resilience, referring to "the persistence of ecosystems in responding to natural or man-made disturbances" [4]. Subsequently, he distinguished and compared the differences between ecological and engineering resilience, and in 2001, in his book "Chaos: Understanding Transformations of Human and Natural

Systems", he further extended the concept of resilience to the entire social ecosystem. In 2002, the International Council for Sustainable Development for Regions advocated that the concept of "resilience" be included in disaster prevention and mitigation at the United Nations Conference on Sustainable Development, and gradually became known to the public.

Currently, different scholars and institutions have slightly different definitions of urban resilience. For example: Zhang and Li believe that resilience is the ability of a city to absorb disasters and restore its functions after a disaster [5]. Although there are certain differences in the definition of the concept, the concept of resilient cities has gained widespread recognition both domestically and internationally, and represents the future development direction of cities. And the broad sense of urban resilience refers to the ability of a city to resolve and withstand external shocks, and to maintain its main functions and characteristics unaffected.

2.2. Research Progress on Coupling and Coordination Relationships

At present, scholars at home and abroad have conducted extensive research on the relationship between urban resilience and economic development levels. The main findings are as follows: Yang et al. clarify the coordination relationship and interactive response mechanism between them for sustainable development construction of the Yangtze River Economic Belt. The coupling coordination degree model and the panel vector autoregressive model (PVAR) were adopted to quantitatively examine the dynamic coordination and interactive response of the ecological environment and urban resilience in the Yangtze River Economic Belt from 2000 to 2019 [6]. Chang et al. comprehensively evaluated urbanization quality and

ecological resilience from 2005 to 2020 [7]. On this basis, the spatiotemporal evolution characteristics and main influencing factors of the coupling relationship between urbanization and ecological resilience were systematically explored using a coupling coordination model and panel Tobit regression model.

2.3. Summary of Existed Researches

To sum up, scholars at home and abroad have studied urban resilience, urban economic development, and coupling and coordination degree. The research on urban resilience focuses on qualitative research to explore the formation mechanism, spatial characteristics and industrial development mode of urban economic resilience, and quantitative research to explore the evaluation methods and influencing factors of urban economic resilience at two levels. The research on urban economic resilience mainly includes the evaluation of urban economic development level and the analysis of driving factors of urban economic development. The research on the relationship between urban resilience and economic development level focuses on the study of a single region using GLS, GWR and other methods.

There are still some inadequacies in the existing research. In terms of the samples, previous studies have been limited to the urban agglomerations in the middle and lower reaches of the Yangtze River and the Yellow River Basin. The research contents did not take into account the analysis of the impact effect on the coupling coordination degree, and when analyzing the impact effect, the spatial effect was not considered either. In terms of the research methods, the GWR model was mostly used, without considering the issue of different variable bandwidths, which could not fully and effectively reflect the true attributes of the spatial data.

Therefore, based on the data of 281 municipalities and prefecture-level cities in China, this study will build an evaluation system of urban economic resilience and economic development level through the entropy method, establish a coupling coordination model, study the spatiotemporal characteristics of coupling coordination between the two, and use MGWR to analyze the spatial heterogeneity of influencing effects and driving factors. Finally, considering the regional characteristics and the spatio-temporal characteristics of coupling coordination, we put forward policy recommendations based on the empirical results.

3. Research Design of Coupling Coordination Relationship

This study will refer to the relevant literature on the measurement of urban economic resilience and urban economic development, build an evaluation system, use the entropy method to synthesize the urban economic resilience and development level of 281 cities, and use the coupling coordination model to calculate the coupling coordination degree.

3.1. Construction of Evaluation System

3.1.1. Evaluation System of Urban Economic Resilience

After sorting and induction, the evaluation system as shown in the following table is formed [8]. The economic resilience of a prefecture-level city is measured from three aspects [9]: economic strength, economic diversity and economic extroversion, involving GDP per capita, residents' per capita savings balance, and the number of industrial

enterprises above designated size. Collection of six economic indicators: the proportion of output value of secondary and tertiary industries in GDP, the number of foreign invested enterprises in industrial enterprises above designated size, and foreign direct investment contract projects.

Table 1. Urban Economic Resilience

Primary indicator	Secondary indicators	Tertiary indicators
Economic Resilience	Strength of economy	GDP per capita
		Per capita savings balance of residents
	Diversity of economy	Number of industrial enterprises above designated size
		Proportion of output value of secondary and tertiary industries in GDP
	Outward economic orientation	Number of foreign-invested enterprises in industrial enterprises above designated size
		Foreign direct investment contract projects

3.1.2. Evaluation System of Economic Development Level

Referring to the relevant literature on the measurement of economic development level, the evaluation method of economic development level is proposed, and the evaluation system shown in the following table is formed to describe the economic development level from the three perspectives of production and consumption, finance and investment, foreign trade and finance [10]. It involves the processing of five economic indicators: per capita disposable income, per capita total fixed asset investment, per capita general budget income of local finance, per capita amount of foreign capital actually used in the current year, and per capita balance of deposits in financial institutions.

Table 2. Economic Development Degree

Primary indicator	Secondary indicators	Tertiary indicators
Economic Development	Production and consumption	Per capita disposable income
		Per capita general budget revenue of local finance
	Fiscal and Investment	Total per capita fixed asset investment
	Foreign Trade and Finance	Per capita balance of deposits in financial institutions
		Actual foreign capital used per capita in the current year

3.1.3. Entropy Method

The entropy method is used to synthesize the urban economic resilience and economic development level of 281 cities. The comprehensive evaluation system of urban economic resilience level and economic development level is obtained.

3.2. Coupled Coordination Model

The fundamental principle of the coupling coordination method involves three stages: first, measuring the intensity of interaction among multiple systems (referred to as coupling degree); second, assessing the extent to which such interactions are mutually beneficial and stable (i.e.,

coordination degree); and finally, determining the overall state of cooperative development across the systems. Coupling reflects the degree of mutual influence and interdependence among two or more systems, capturing only the "strength of association" without evaluating its qualitative nature. In contrast, coordination extends this concept by evaluating the "quality" of the relationship—specifically, whether the interaction evolves toward mutual benefit, structural order, and long-term sustainability. A higher coupling coordination value indicates a stronger level of mutual enhancement between the systems, whereas a lower D value signifies reduced mutual constraints.

4. Spatiotemporal Differentiation of Coupling Coordination Degree

In this chapter, in order to more intuitively reflect the spatial-temporal differentiation of different time periods, ArcGIS data are used to annotate the figure. This chapter will focus on analyzing the relevant reasons based on the above calculation results and ArcGIS output results, combined with the characteristics of regional economic development and relevant policies. This paper focuses on the spatiotemporal differentiation characteristics of coupling coordination degree.

4.1. Spatial Distribution and Analysis

The coupling and coordination degrees of 281 cities above the prefecture-level are calculated and the above data are expressed in the figure below by using ArcGIS tools. (Darker colors indicate greater coordination. White indicates severe dissonance. Black represents advanced coordination.) Observing the distribution of the coupling coordination degree of urban economic resilience and economic development in the figure below, it is easy to find the following characteristics.

First of all, China's prefecture-level cities with strong economic strength and municipalities directly under the Central Government, such as cities separately listed in the state plan and regional central cities, have maintained good coupling and coordination, taking into account the ability of

economic development and risk prevention. The strong coupling coordination of these cities shows obvious spillover characteristics, which is more obvious in the context of weakening external economic environment and slowing economic growth. Urban clusters with central cities with strong economic strength have been formed, such as the Pearl River Delta urban cluster, the Yangtze River Delta urban cluster, the middle and lower Yangtze Plain urban cluster, and the Bohai Rim urban cluster. However, for cities far away from the central city, the coupling and coordination degree is unstable, that is, the urban economic development and the maintenance of urban economic resilience cannot be balanced.

At the same time, the coupling and coordination degree of Chinese cities is strong in the southeast and weak in the northwest. The eastern and southern regions had obvious first-move advantages at the beginning of reform and opening up. At present, with China's long-term promotion of a new round of western development, a new regional pattern has been formed, many new breakthroughs have been made in promoting the revitalization of northeast China, and the central region is accelerating its rise. This obvious regional imbalance is gradually being resolved. Cities in northeast, western and central China also need to explore new economic growth points, and the key is to study the driving factors of coupling and coordination degrees in different regions.

As the key point of China's 14th Five-Year Plan, the construction of urban clusters is an important way to construct a new development pattern. The spatial characteristics of coupling and coordination degree also show that it is of great significance to build and construct central cities in the region to promote the simultaneous improvement of urban economic development and economic coupling and coordination. It is also a key measure to enhance the city's ability to prevent and defuse major risks and enhance the balance of regional development. As for the differences in coupling and coordination degrees between the eastern and western regions of China, the supportive strategies for the central, northeastern and western regions should be adhered to and adhered to for a long time. Seek the optimal path of regional development based on city policies.

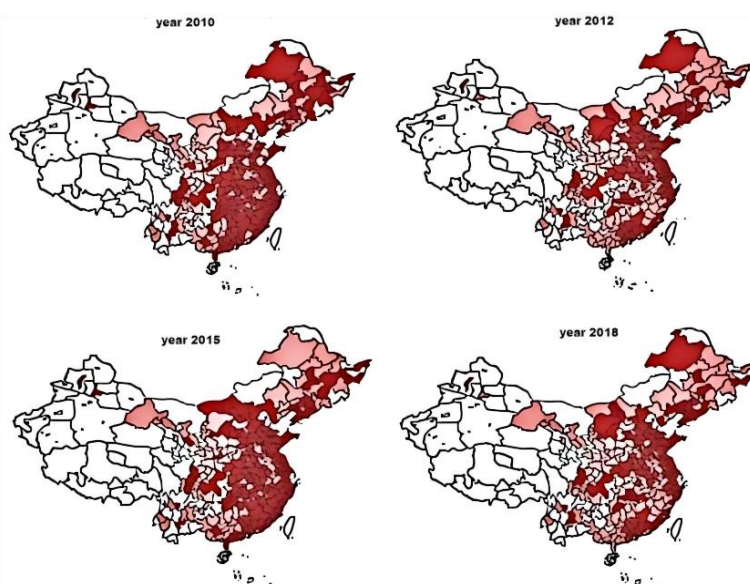


Figure 1. Spatial Distribution of Coupling Coordination Degree

4.2. Time Differences and Analysis

According to the statistics on the number of cities with different types of coupling coordination degrees from 2010 to

2018, from the overall number, the cities with basic coordination degrees gradually declined, while the cities with basic incoordination degrees gradually increased. From the

perspective of trend, the coupling and coordination degree of economic resilience and economic development in each city remained stable from 2010 to 2015, but changed significantly after 2016.

When the economic crisis broke out in 2008, the economic growth of developed economies around the world generally declined, international direct investment activities were sluggish, and international trade volume declined. In order to boost domestic demand and increase infrastructure investment, China has proposed a "4 trillion yuan" plan to delay the economic downturn. However, at the end of 2013 and the beginning of 2014, the economic growth rate began to shift from a gradual upward acceleration to a steady downward trend. In the past year, the real GDP growth rate dropped from 7.9% to 7.1%, down 0.8 percentage points, and the economic development entered the stage of large-scale economic recession. In order to maintain the bottom line of economic growth of 7%, after the first interest rate cut in November 2014, the bank gradually transitioned to comprehensive monetary easing.

Spurred by comprehensive easing and large-scale investment, demand-side investment in real estate and infrastructure has continued to pick up, and the economy has gradually entered a recovery stage since 2016. However, local governments' over-reliance on infrastructure investment and real estate investment to drive the economy also reduces the diversity of local economic structure, and the ability to prevent and resolve major risks begins to decline, which makes the coupling and coordination degree show the characteristics of sharp weakening.

The coupling coordination degree mainly measures the coordination degree of economic development and economic resilience, according to the coupling coordination model and index system constructed in this study. A high coupling and coordination degree means that at the same level of economic development, the urban economy has a higher ability to prevent risks. Therefore, enriching the regional industrial structure may become the key factor to enhance the coupling and coordination degree.

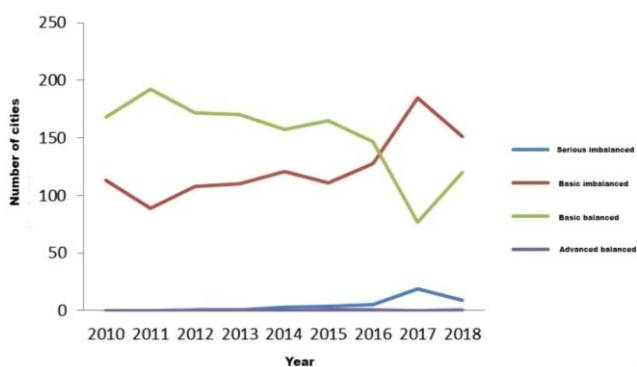


Figure 2. Time Difference of Coupling Coordination Degree

To sum up, through the analysis of time and space of coupling and coordination degree, the following conclusions are drawn: in space, prefecture-level cities and municipalities with strong economic strength in China, such as cities separately listed in the state plan and regional central cities, all maintain good coupling and coordination, taking into account the ability of economic development and risk prevention; The central city has formed an urban cluster, which has greatly promoted the development of surrounding cities. At the same time, there are some east-west differences in the coupling and coordination degree of Chinese cities. In

terms of time, after 2016, the coupling coordination degree of China's urban economic resilience and urban economic development has declined, which is not conducive to increasing the anti-risk ability of the economy and promoting high-quality development.

5. Influencing Factors of Coupling Coordination Degree

Through the above research, it can be concluded that there are regional differences between China's urban economic resilience and economic development, and the coupling coordination degree of Chinese cities has generally declined after 2016. This chapter will explore the influencing factors of coupling coordination degree based on spatial heterogeneity.

5.1. Selection of Influencing Factors

The exploration of the influencing factors of the coupling coordination degree of urban economic resilience and economic development will help solve the problem of urban development taking into account both economic growth and economic resilience. China's current social and economic growth rate has begun to shift from the stage of high-speed growth to the stage of high-quality development, and high-quality development will undoubtedly become an important requirement for China's development in the new stage. In this study, five aspects are selected, combined with their corresponding economic indicators, as the influencing factors of coupling and coordination degree.

Table 3. Influencing Factors

Primary indicator	Layer of indicators	Indicator interpretation and units
Innovation in technology	Per capita expenditure within the general budget of local finance: expenditure on science	Ten thousand yuan/person
Openness of the economy	Per capita actual use of foreign capital in the current year	Usd/person
Population growth	Natural rate of increase	%
Household savings	Year-end balance of savings per capita urban and rural residents	Ten thousand yuan/person
Upgrading of industries	Proportion of the added value of the tertiary industry in GDP	%

5.2. Multiple Collinearity Test

The variance inflation factor is used to measure multicollinearity in the multiple linear regression model, and the variable VIF is less than 10, indicating that there is no multicollinearity.

Table 4. VIF Test

Indicator	VIF	1/VIF
Innovation in technology	3.35	0.298063
Openness of the economy	2.13	0.449412
Population growth	2.03	0.493814
Household savings	1.52	0.658398
Upgrading of industries	1.04	0.964627

5.3. Moran's I Index

If the coupling coordination degree is used as the explained

variable for regression, OLS regression method or spatial measurement method such as MGWR can be used. However, spatial data with spatial autocorrelation and spatial heterogeneity are often inconsistent with the assumptions and requirements of OLS regression, which may lead to bias in model estimation. Moran's I index was used to calculate the degree of autocorrelation of the data.

The Moran's I index ranges from -1.0 to +1.0. When Moran's I is greater than 0, it indicates that the data presents a positive spatial correlation, and the larger the value is, the more obvious the spatial correlation is. When Moran's I is less than 0, it indicates that the data presents a negative spatial correlation, and the smaller the value is, the greater the spatial difference is. When Moran's I is 0, the space is random.

According to the distance relationship between prefecture-level cities, the geographical distance matrix is established, which is used as the spatial weight matrix, and then the Global Moran's I index of the coupling and coordination degree of 281 prefecture-level cities in the nine years from 2010 to 2018 is calculated. The results show that after 2012, Moran's I index reaches more than 0.110, and all pass the significance test. This shows that the coupling and coordination degrees of prefecture-level cities in China have strong spatial autocorrelation, which provides a basis for selecting the spatial econometric tool MGWR.

Table 5. Moran's I index Test

Year	Moran's I	P_Value	Z_Score
2010	0.08	<0.001	14.741
2011	0.096	<0.001	17.553
2012	0.120	<0.001	21.514
2013	0.113	<0.001	20.322
2014	0.133	<0.001	23.810
2015	0.145	<0.001	25.921
2016	0.166	<0.001	29.457
2017	0.180	<0.001	31.817
2018	0.159	<0.001	28.165

5.4. MGWR Regression

5.4.1. Influencing Factors of Technological Innovation

This study measures the technological innovation level of local governments by per capita local fiscal general budget expenditure on science. It can be known from the spatial distribution characteristics of the regression coefficient of technological innovation.

In 2010, only a few cities had a positive effect of science expenditure on the coupling coordination degree, while the rest of the cities generally showed a negative effect. This is because in 2010, various cities still had insufficient infrastructure construction and incomplete economic structures.

Increasing science expenditure would have a crowding-out effect on government infrastructure investment, and at that time, there was no shortage of economic growth points, and the output of science and technology was not yet obvious. In 2012 and 2015, technological innovation generally had a positive effect on the coupling coordination degree of various cities in China. Under the circumstances of a sluggish external economic environment and a single internal economic structure, technological innovation has a significant promoting effect on the diversity of the economic structure and the search for new economic growth points. It is worth noting that in 2018, the promoting effect of technological

innovation showed an east-west difference, with a positive effect in the east and a negative effect in the west.

Based on this, it is necessary to strengthen the support for universities and research institutes in the west, increase the research budget, and local governments should strengthen the introduction of talents and technologies, improve the efficiency of research and development transformation, support high-tech enterprises, and make full use of local advantages to seek industrial opportunities. It is also possible to try to adopt the measure of targeted assistance from eastern universities. To break the imbalance in the technological innovation effect between the east and the west.

While the eastern region of China has a complete industrial structure and a relatively solid economic foundation, it should further increase technological innovation investment, enhance the overall technological level of the region, further improve the technology factor market, strengthen the protection of intellectual property rights, and promote the efficiency of technology transactions. At the same time, it is necessary to strengthen support for research institutions, scientific and technological talents, and high-tech industries, improve the reward and subsidy mechanism, increase investment in world-leading and industry-leading technological innovation, and strive to create a number of leading high-tech industries. At the same time, promote the integration of universities and enterprises to enhance the efficiency of scientific and technological transformation.

5.4.2. Influencing Factors of Economic Openness

This study uses the per capita actual foreign capital utilized in a given year to measure the economic openness level of a certain area. It can be known from the spatial distribution characteristics of the regression coefficient of economic openness.

In 2010, 2012 and 2018, economic openness had a positive effect on all prefecture-level cities in China. Foreign capital inflow is crucial for increasing the diversity of local economic structures, and economic outward orientation is also key to enhancing economic resilience. However, in 2015, given the reality that economic growth relied on infrastructure investment and real estate investment, the effect of foreign capital utilization on the coupling coordination degree was stepwise. Economic openness had a negative effect on foreign capital inflow. The reason for this is that the western regions themselves have relatively weak economic strength, and the scale of foreign-invested industries is limited. During the economic recovery period, foreign investment would instead cause economic development to lag behind.

Foreign investment will first expand China's foreign trade scale, improve the industrial structure, increase the comprehensive factor productivity, and provide an important source of tax revenue. Secondly, foreign-invested enterprises help absorb labor employment, and the advanced production and management technologies that come with foreign direct investment, along with their diffusion and demonstration effects. Therefore, economic openness has a positive effect on the improvement of the coupling coordination degree. First, we should consolidate the achievements of opening up to the outside world, accelerate the construction of a trade power, create a market-oriented, law-based and internationalized first-class business environment, introduce relevant investment promotion policies, appropriately reduce market access restrictions, maintain a diversified and stable international economic pattern and economic and trade relations; accelerate the construction of free trade zones, form

a multi-regional and full-coverage trade test zone pattern; consolidate and improve the achievements of the "Belt and Road" Initiative, promote foreign trade exchanges and foreign investment. At the same time, for the western regions, we should identify advantageous industries to attract foreign investment, deeply participate in global industrial division of labor and cooperation, and enrich the structure of foreign investment industries.

5.4.3. Influencing Factors of Population Growth

This study uses the natural population growth rate to measure the population growth level of a certain area, as can be seen from the spatial distribution characteristics of the population growth regression coefficient below.

Combining the data from 2015 and 2018, population growth in western China and the Guangdong-Guangxi region has a significantly positive effect on the coupling coordination relationship. However, except for 2015, population growth in central China has a negative effect on the coupling coordination. The effects of the population issue on the economic resilience and development of Chinese cities are structural. On the one hand, due to the large population in eastern and central China, the decline in the natural population growth rate will reduce the pressure on per capita resources and the natural environment, which is conducive to improving environmental sustainability and high-quality economic development. It will also reduce competition in the labor market, improve the quality of education, and enhance labor skills training and technological upgrading. However, for regions in the west and other areas with relatively smaller populations and labor-intensive industries, a decrease in population size will be detrimental to the improvement of the coupling coordination degree. In 2022, China's natural population growth rate hit zero for the first time. Therefore, under the current circumstances, all regions should seize the opportunity of population structure changes, introduce relevant policies, and follow a path suitable for high-quality local economic development. The western regions and the two Guangdong provinces should actively introduce talent introduction policies and relax household registration restrictions to attract more population inflows and enhance the coupling coordination of the region. The development focus of the central regions should be more on technological innovation and economic openness.

5.4.4. Influencing Factors of Upgrading of Industries

This study uses the proportion of the added value of the tertiary industry to GDP to measure the industrial upgrading situation of a certain area. As can be seen from the spatial distribution characteristics of the regression coefficients of population growth. Among the years 2010, 2012, 2015, and 2018, industrial upgrading maintained a positive effect on the coupling coordination degree of the eastern and central regions, while for the western region, industrial upgrading showed a negative effect in 2012 and 2018.

This indicates that for regions with a relatively solid economic foundation, industrial upgrading is a measure that can balance economic growth and economic resilience. For the prefecture-level cities in these regions, they should transform their original first-mover advantages and endowment advantages into innovation advantages through innovative development. They should seize the digital economy wave, achieve industrial digitalization and digital industrialization, vigorously develop emerging industries, eliminate backward production capacity, and upgrade and transform traditional industries while expanding emerging

industries. They should focus on high-value areas of the industrial chain and key areas of the supply chain to promote the improvement, high-endization and intelligence of the industrial chain system. As for the western regions, they should consolidate their economic foundation, make use of their comparative advantages, and on the one hand, quickly build regional pillar industries, establish growth points for the economy, clarify the main direction and path for development to improve efficiency, and first form regional endowment advantages. On the other hand, they also need to improve the industrial structure to avoid excessive dependence on economic development and the simplification of the regional economic structure.

5.4.5. Influencing Factors of Household Savings

This study uses the year-end balance of savings of urban and rural residents per capita to measure the savings of residents in a certain place, which can be known from the spatial distribution characteristics of the regression coefficient of household savings. In 2010, 2012, 2015 and 2018, household savings have an overall positive effect on the coupling and coordination degree, because the increase in savings represents the increase in income, which will change residents' consumption preferences. However, in the case of insufficient aggregate demand, the increase in savings represents the decline of expectations, and the confidence of residents in consumption and investment is insufficient. At present, the Chinese economy is faced with the problem of excess savings of residents, which cannot be converted into consumption and investment. The top priority should be to boost consumer confidence and stabilize and improve expectations. Residents' income and expectations for the future will affect consumers' choices. The 20th report clearly points out that it is necessary to improve the reform of income distribution system, standardize the wealth accumulation mechanism, balance the relationship between property income and labor income, prevent too loose taxation of property insurance income and too strict taxation of labor remuneration, and improve the status of labor in the primary distribution. We will improve the secondary distribution, mainly based on transfer payments from enterprises and the government, and promote the third distribution.

At the same time, in order to boost consumer willingness and enhance consumer confidence. All local governments should introduce measures to promote consumption, give full play to the basic role of consumption, and take the form of tax cuts, price cuts, subsidies and consumption vouchers to further unleash the potential of consumption. We will severely crack down on hoarding, counterfeiting and shoddy products that infringing on consumers' rights and interests, maintain a sound market environment, effectively improve people's security, improve the medical insurance and social security systems, and improve people's expectations.

6. Policy Implications

The conclusions of this paper have certain reference significance for improving the coupling and coordination degree of urban economic resilience and economic development.

First, consolidate the achievements of opening-up and accelerate the building of a strong trading country. We will foster a market-oriented, law-based and first-class international business environment, maintain a diversified and stable international economic pattern and economic and

trade relations, introduce relevant policies to attract investment, and appropriately reduce restrictions on market access. We will accelerate the development of free trade zones and form a multi-regional and full-coverage pilot trade zone pattern; We will consolidate and improve the achievements of the Belt and Road Initiative and promote foreign trade exchanges and foreign investment. Second, industrial upgrading is a measure to take into account both economic growth and economic resilience for regions with a good economic foundation. We should seize the wave of digital economy, realize industrial digitalization and digital industrialization, vigorously develop emerging industries, eliminate backward production capacity, and realize the upgrading and transformation of traditional industries. Third, at present, China's economy is faced with the problem of excess savings of residents, which cannot be converted into consumption and investment. Therefore, on the one hand, we should improve the income distribution system, improve the position of labor in the primary distribution, improve the secondary distribution, the third distribution; Secondly, local governments need to introduce policies to stimulate consumption to improve residents' expectations and boost their consumer confidence. Fourth, accelerate the construction of urban clusters and highlight the construction of central cities. It is concluded that the central cities of urban clusters and metropolitan circles have strong comprehensive strength, have the ability to prevent and resolve risks at any stage, and have rich industrial structure. Fifth, the coupling and coordination degree is obviously different between the east and the west. For the western region, it is necessary to find advantageous industries to attract foreign investment, deeply participate in global industrial division and cooperation, and enrich the structure of foreign investment industries. Strengthen the support to universities and research institutes in western China, increase the research budget; Local governments should strengthen the introduction of talents and technology to improve the efficiency of scientific research transformation; Support high-tech enterprises, give full play to location advantages according to local conditions to find industrial opportunities, and try to take measures of designated assistance from universities in the east to break the

imbalance of technological innovation effect between the east and the west.

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