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Analysis on the Spatial Effect of Social Security and Economic Growth from the Perspective of Human Capital

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Abstract:

The level of human capital is an important driving force of modern economic growth, and social security is the "safety net" and "stabilizer" in the process of economic and social development. Based on the perspective of human capital, this paper studies the impact of social security level on economic growth. The method of combining qualitative and quantitative analysis is adopted. This paper analyzes the current situation of social security level and economic growth in various regions of China. And analyze the correlation between social security and economic growth. Based on the theoretical model of human capital economic growth. Establish a theoretical model of the impact of social security on economic growth from the perspective of human capital. Comprehensively consider the spatial interaction of economic growth. Using the spatial panel econometric model, this paper makes an empirical analysis of 31 provinces in China. Use Geoda, MATLAB, and other software for empirical calculation. The results show that China's social security level and economic growth are generally on the rise, but there is an unbalanced regional distribution. And there is a positive correlation between social security and economic growth. The empirical results show that there is an obvious positive spatial auto-correlation in China's regional economic growth. The promotion effect of the human capital level on economic growth is greater than that of the social security level. And the study found that the improvement of human capital level will inhibit the role of social security in promoting economic growth. There is a significant negative spatial spillover effect between human capital and social security. We should consider further improving the per capita education level and improving the social security system, so as to promote the balanced development of the regional economy.

Keywords*: Human capital, Social security, Economic growth, Spatial effect.*

I. INTRODUCTION

For the sustainable growth of the national economy, scientific and technological progress, the level of human capital and the improvement of the system are all indispensable and important factors. The comprehensive level of human capital in China is still in an unreasonable state of unbalanced distribution and low quality. On the one hand, China is facing the situation of imbalance between labor supply and

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demand. On the other hand, it faces the contrast between the low cultural quality and professional skills of the labor force and the backward level of human resource management, resulting in the embarrassing situation of unbalanced distribution and large overall quantity of human capital in China. The social security system is the product of industrialization and urbanization. It is set up due to the urban and rural labor market and serves the development of the urban and rural labor market. The main contradiction in Chinese society has been transformed into the contradiction between the people's growing need for a better life and unbalanced and insufficient development. Unbalanced and insufficient development is a problem that must be solved in the new development stage. We should constantly improve the social security system and promote the upgrading of residents' consumption. So that social security dividends can benefit the broad masses of the people.

Many scholars have studied the impact of human capital or social security on economic growth from different perspectives. As early as the 1930s, during the great depression in the United States, Keynes advocated social security as an important means to stimulate aggregate demand and control recession. This is considered to be an important theoretical basis for the establishment of the American social security system. Feldstein examined this problem earlier and pointed out that the social security system will inhibit residents' savings through the asset substitution effect and promote residents' savings through the retirement effect. Therefore, the impact on Residents' savings and material capital accumulation is unclear [1]. The research based on the overlapping generations model shows that when residents have strong inheritance motivation, the social security system will not change the inter-temporal budget constraints of rational residents, so the impact on Residents' savings and material capital accumulation is neutral [2]. Subsequent studies mostly show that the social security system will inhibit residents' savings and material capital accumulation. These documents often consider the more complex economic environment. For example, Bruce and Turnovsky introduced a more realistic population structure, and Gustman and Steinmeier considered the heterogeneity of residents' time preferences [3]. At the same time, in terms of the income distribution effect of social security, as one of the means for the state to regulate income distribution, it should never be treated in isolation. At the same time, it should also be realized that it will be affected by many factors such as education, health and consumption level [4].

Conditional convergence exists in the economic growth of all provinces in China, and its convergence rate reaches 2.4%, indicating that the economies of all provinces are more and more closely related. The level of human capital can significantly promote economic growth [5]. Under the condition of dual economic structure, the cost of economic growth is the skewed development of urban and rural social security. The urban-rural social security gap has an inhibitory effect on human capital investment [6, 7]. The level of social security can also stimulate entrepreneurship. An important part of implementing the innovation driven development strategy is to maintain a reasonable level of social security. So as to effectively stimulate the entrepreneurial spirit of all social members [8]. In the context of high social security payment rate of enterprises, reducing the social security payment burden helps to improve market vitality and stabilize economic growth [9, 10]. In terms of regional development, the degree of coupling and coordination between social security and economic development shrinks in the east-west and North-South directions, and the trend of agglomeration to the central region is obvious [11]. The inhibitory

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effect of social security expenditure on economic growth has significant regional distribution characteristics. The negative effect of the eastern region shows a declining development trend, the negative effect of the central region shows the characteristics of weak first and then strong, and the western region shows a weakening trend [12]. Pension integration can promote labor mobility, improve the efficiency of market-oriented allocation of labor factors, reduce regional differences, and promote high-quality economic development [13].

At present, the academic circles have conducted extensive and in-depth discussions on the relationship between human capital, social security and economic growth. From the existing literature, the impact of social security on economic growth is more complex. Social security is one of the most important social and economic systems in modern countries, which guarantees the basic life and welfare of social members. The level of human capital is an important driving force of modern economic development. The difference of human capital level has obviously different effects on regional economic development. Therefore, it is of great significance to study the spatial effect of social security on economic development from the perspective of human capital. This paper is based on the research results of relevant scholars. Taking 31 provinces and cities in China from 2007 to 2020 as the research object, the improved Cobb Douglas production function is applied. From the perspective of spatial correlation, this paper empirically analyzes the impact of social security expenditure on economic growth from the perspective of human capital. At the same time, the interaction between social security and human capital is considered. Further expand the research perspective of social security and economic growth.

II. CURRENT SITUATION OF SOCIAL SECURITY AND ECONOMIC GROWTH

2.1 Current Situation of Social Security

With the development of economy and society and the aggravation of population aging, the overall level of social security expenditure in China shows a rapid upward trend. Fig 1 shows the development trend of China's social security expenditure scale from 2007 to 2020. Among them, China's social security expenditure increased from 1106.7 billion yuan in 2007 to 8242.5 billion yuan in 2020. While social security provides economic and social security, it may also bring a burden to economic development.

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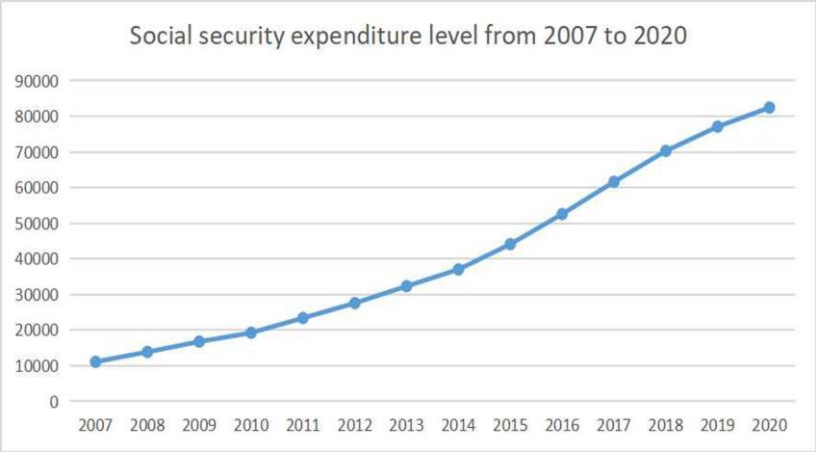

Fig 1 Development trend of social security expenditure level from 2007 to 2020

The level of social security in various regions is gradually improving with the economic development. Compared with 2007, the social security level in 2020 has developed greatly. However, the development level of each region is different. In 2007, Liaoning Province, with the largest social security expenditure, reached 83.1 billion yuan. By 2020, the number of graduates will increase to 473.1 billion yuan. The province with the largest social security expenditure in 2020 is Jiangsu Province, reaching 534.5 billion yuan. The social security level in Xizang, Ningxia and other regions has been at a low level. The low level of economic development in these areas leads to the relatively slow development of social security.

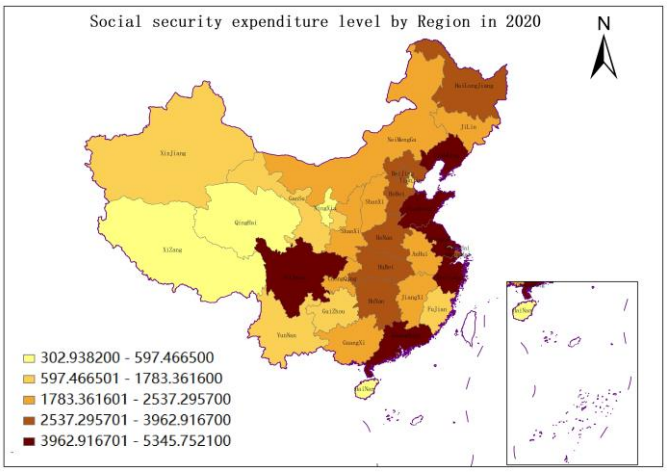

Fig 2 regional distribution of social security expenditure level in 2020

Fig 2 shows the regional distribution of social security expenditure levels in various regions of the country in 2020. From the regional distribution map, we can more intuitively see the differences of social security levels in various regions of China. It shows that the level of social security in the eastern region is high, while the level of social security in the western region is low. There are still significant differences in the level of social development among regions.

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2.2 Current Situation of Economic Growth

Fig 3 shows the development trend of per capita GDP from 2007 to 2020. As can be seen from Fig 3, China's per capita GDP has generally shown an upward trend over the years. That is, the level of economic development has been continuously improved. China's per capita GDP increased from 20494 yuan in 2007 to 71828 yuan in 2020. Despite the impact of the global financial crisis. China's GDP also maintained a growth rate of 8.7% in 2009. And after that, the per capita GDP showed a steady upward trend.

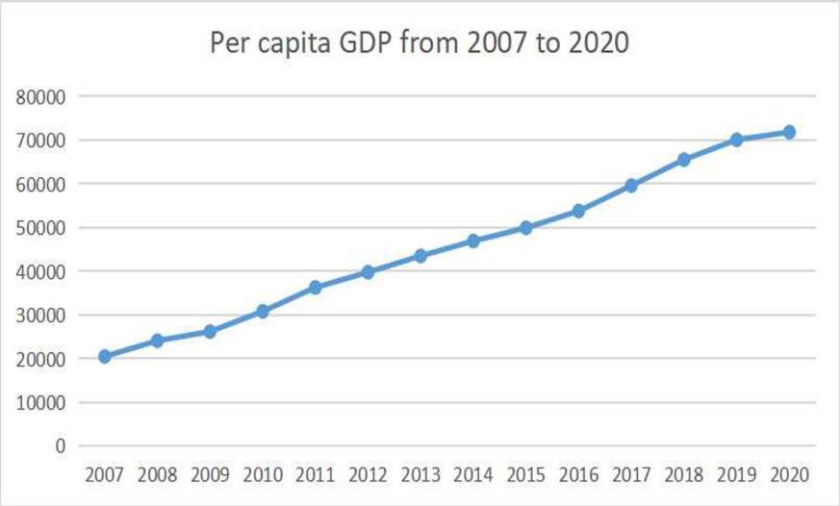

Fig 3 trend of per capita GDP from 2007 to 2020

The per capita GDP of all regions of the country has increased over time. And maintained a stable growth trend. However, there are significant differences in the eastern, central and western regions. In 2007 and 2020, the per capita GDP of Beijing, Shanghai, Tianjin, Jiangsu and Zhejiang ranked at a high level. It is one of the five regions with a high level of economic development. These areas are very rich in resources and have a rapid level of economic development. The GDP of Gansu, Guizhou, Yunnan and other regions has been at a low level. These provinces and regions are remote, late in development, backward in culture and low in the level of scientific and technological development. As a result, the level of productivity is low and the economic development is relatively backward. There are still great differences in the level of economic development among regions across the country.

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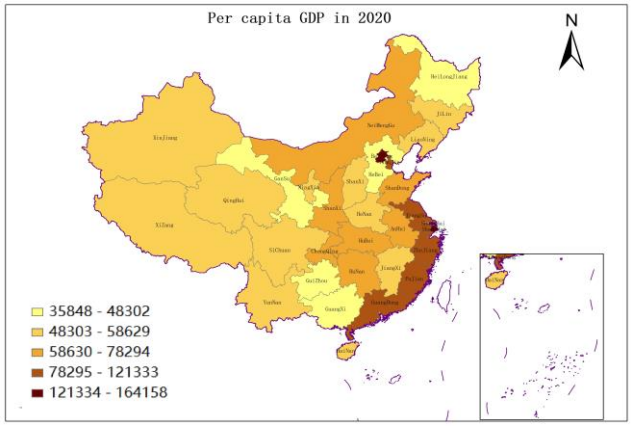

Fig 4 regional distribution of per capita GDP in 2020

Fig 4 shows the regional distribution of per capita GDP in various regions of the country in 2020. From the regional distribution map, we can more intuitively see the differences of economic development levels in various regions of China. It shows that the economic development level of the eastern region is high, while the economic development level of the western region is low. There are still significant differences in the level of economic development among regions.

2.3 Correlation Analysis between Social Security and Economic Growth

This paper mainly studies the impact of social security level on economic growth from the perspective of human capital. The promotion of social security level is to achieve economic growth. Therefore, by analyzing the correlation between social security and economic growth at this stage. Analyze the impact of social security on economic growth from a qualitative perspective and understand its development status. Fig 5 shows the development trend of China's social security expenditure and per capita GDP.

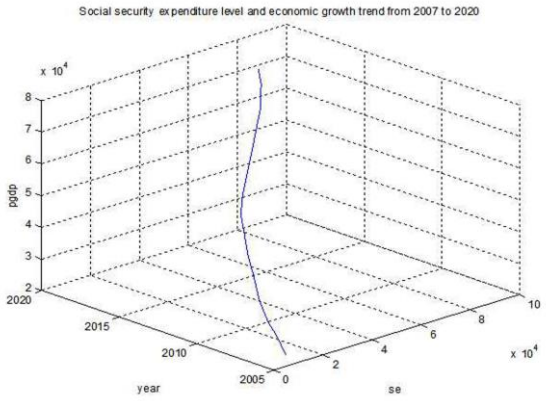

Fig 5 development trend of social security level and economic growth from 2007 to 2020

As can be seen from Fig 5, social security expenditure and per capita GDP generally show an increasing trend year by year. Social security provides a strong guarantee for economic and social

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development. At the same time, with the rapid development of economy and society, the level of social security has gradually improved, forming a trend of interaction and strengthening. On the whole, there is an obvious positive correlation between social security and economic growth.

III. CONSTRUCTION OF SPATIAL EFFECT MODEL OF SOCIAL SECURITY AND ECONOMIC GROWTH

Based on Lucas human capital economic growth model and the improved Cobb Douglas production function, this paper makes an empirical analysis on the correlation between social security and economic growth. Classical economy and neoclassical economy believe that labor force is one of the most basic input factors in the production process. Increasing the input of employment in economic production activities will promote sustainable economic development. Therefore, the total number of employed persons is selected to represent the labor level. Based on the existing literature research, the sum of social insurance expenditure and financial social security expenditure is selected to represent the social security level [8]. Due to the existing literature, the average length of education is used to represent the level of educational human capital. Therefore, according to the calculation method of educational human capital, this paper calculates that the average number of years of education in China represents the level of educational human capital. Considering the overall balanced development of the economy, the per capita regional GDP is selected to represent the level of economic growth. At the same time, considering the obvious trend of population aging, the number of population and human activities also have an important impact on economic growth. Therefore, the year-end resident population, employed persons, per capita consumption expenditure and elderly dependency ratio in each region are selected as the control variables. To sum up, according to the consistency and availability of index data. Select the per capita GDP, social security expenditure level, per capita years of Education, number of employed persons, number of permanent residents at the end of the year, per capita consumption expenditure and dependency ratio of the elderly population in 31 provinces in China from 2007 to 2020. All indicators are derived from China Statistical Yearbook. Finally, this paper constructs an econometric model (1).

$$\begin{aligned} \ln \mathrm{PGDP}_{it} &= \alpha + \beta_1 \ln \mathrm{SE}_{it} + \beta_2 \ln \mathrm{HC}_{it} + \beta_3 \ln \mathrm{SE}_{it} * \ln \mathrm{HC}_{it} + \sum_{k=1}^{k} \beta_k Control_{it} + \varepsilon_{it} \\ Control_{it} &= \beta_4 \ln L_{it} + \beta_5 \ln P_{it} + \beta_6 \ln PC_{it} + \beta_7 AG_{it} \end{aligned} \tag{1}$$

Where i(i=1,……,31) is 31 provinces, t(t=2007,……,2020) is 14 years, α is constant, β_1、β_2、β_3、β_k is the elastic coefficients of each variable, $PGDP_{it}$ is regional real per capita gross domestic product, SE_{it} is social security level, HC_{it} is human capital level, $\ln SE_{it} * \ln HC_{it}$ is the interaction between social security and human capital, $Control_{it}$ is the relevant control variables, i.e. employed persons, year-end resident population, per capita consumption expenditure, dependency ratio of the elderly population, ε_{it} is random error term.

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Comprehensive consideration of spatial interaction. This paper constructs a spatial doberman panel model of the impact of social security on the level of economic development from the perspective of human capital [14].

$$\begin{aligned}\ln PGDP_{it} &= \alpha + \rho W \ln PGDP + \beta_1 \ln SE_{it} + \beta_2 \ln HC_{it} + \beta_3 \ln SE_{it} \times \ln HC_{it} + \sum_{k=1}^{k} \beta_k Control_{it} \\ &+ \gamma_1 W \ln SE_{it} + \gamma_2 W \ln HC_{it} + \gamma_3 W \ln SE_{it} \times \ln HC_{it} + W \sum_{k=1}^{k} \gamma_k Control_{it} + \varepsilon_{it} \\ Control_{it} &= \beta_4 \ln L + \beta_5 \ln P + \beta_6 \ln PC + \beta_7 AG\end{aligned} \tag{2}$$

Where $\gamma_1, \gamma_2, \gamma_3, \gamma_k$ are respectively expressed as the spatial auto-correlation coefficients of social security level, human capital level, interaction term between social security and human capital level, control variables.

IV. Empirical ANALYSIS ON THE SPATIAL EFFECT OF SOCIAL SECURITY AND ECONOMIC GROWTH

4.1 Stability Test of Index Variables

Before estimating the panel data model, it is necessary to test the stationary of each index variable. If all index variables are stable, you can continue modeling. If there are non-stationary series, further co-integration test is needed. Modeling can be continued only when there is a long-term co-integration relationship between non-stationary index data. Using eviews8.0 to test the stability of panel data.

Perform unit root inspection on the selected panel data. If the result shows that the sequence is not stable, the data can be processed by logarithm or difference. When the index data have the same order stationary, the co-integration test can be carried out. If the original hypothesis is rejected, it indicates that there is a long-term co-integration relationship in the non-stationary index data. That is, non-stationary data can continue to be modeled. Use LLC, IPS, ADF and PP to test the unit root of the index data. Specific results are shown in TABLE I.

TABLE I. Unit Root Test for Indicator Variables

INDEX	P(LLC)	P(IPS)	P(ADF)	P(PP)	STABILITY
LNPGDP	0.0000	0.0000	0.0000	0.0000	stable
LNSE	0.0000	0.0017	0.0037	0.0000	stable
LNHC	0.0000	0.0014	0.0103	0.0038	stable
LNSE*LNHC	0.0000	0.0077	0.0298	0.0000	stable
LNL	0.0000	0.3962	0.5653	0.7815	unstable
LNP	0.0000	0.1859	0.0002	0.001	stable
LNPC	0.0000	0.0000	0.0000	0.0000	stable
AG	1.0000	1.0000	1.0000	1.0000	unstable

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DLNL	0.0000	0.0000	0.0000	0.0000	stable
DAG	0.0000	0.0000	0.0000	0.0000	stable

As can be seen from TABLE I, per capita GDP, social security expenditure level, per capita years of education, interaction between social security and per capita years of education, resident population at the end of the year and per capita consumption expenditure are a stable sequence. The dependency ratio of employed persons to the elderly population is a first-order single integer sequence. For non-stationary series, co-integration test is also needed. To test whether the model established by non-stationary time series is pseudo regression, that is, to test whether there is a stable relationship between variables. Only when all non-stationary index variables have co-integration relationship, the established model is meaningful.

If all variables are of the same order single-integral, or more than two of the highest-order explanatory variables above the order of the explained variable, there may be a co-integration relationship. Otherwise, if the explained variable is higher than the end of the explained variable, it is possible to produce pseudo-regressive. According to the results in Table 1, there are two single integer sequences of order 1 and five Stationary Sequences for explanatory variables. The explained variable is stationary series. It conforms to the fractional co-integration relationship of multiple regression. Therefore, it can be further modeled and analyzed.

4.2 Selection of Spatial Econometric Models

4.2.1 Test of spatial effect

Only when the index variables have spatial auto-correlation, can we use the spatial measurement model, especially the dependent variable economic growth index to test the spatial dependence. The geographical coordinates of 31 provincial capitals are obtained by inquiry, and the spatial weight value is obtained by using Geoda 0.9.5 software and using the method of specifying the threshold distance of particle coordinates. This paper selects the most commonly used Moran'I index to determine the spatial auto-correlation of the level of economic development, because spatial correlation can only process cross-sectional data, so the spatial auto-correlation of per capita GDP per year is tested separately. Using Geoda 1.6 software to calculate the lnpgdp's Moran'I index for 2007-2020, the results are shown in TABLE II.

TABLE II. Moran'I Index of Pgdp for 2007-2020

YEAR	MORAN'I INDEX	Z-STATISTIC	PROB.
2007	0.1593	3.7570	0.01
2008	0.1646	4.0012	0.01
2009	0.1701	4.6872	0.01
2010	0.1642	3.4201	0.01
2011	0.1677	4.2276	0.01
2012	0.1651	3.6233	0.01

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2013	0.1509	4.1024	0.01
2014	0.1366	2.9790	0.01
2015	0.1246	2.6886	0.02
2016	0.1126	3.2411	0.02
2017	0.1021	2.7708	0.02
2018	0.0879	2.5178	0.02
2019	0.0862	2.3360	0.03
2020	0.0778	1.8526	0.03

It can be seen from TABLE II that the Moran' I indices for 2007-2020 are between 0.07 and 0.17, which indicates that there is a significant positive spatial auto-correlation in the real per capita GDP of each region. Therefore, in the process of quantitative analysis of the level of economic development in all regions of the country, it is necessary to fully consider the spatial relevance of each region.

4.2.2 Normal panel model

Before establishing the spatial panel measurement model, we must first establish the ordinary panel model to determine whether we need to establish the spatial model. the individual fixed effect, the period fixed effect, the individual and the period fixed effect, the mixed panel regression were established respectively, and the regression and the test results were obtained by using matlab2014a software. the specific results are shown in TABLE III.

The LR-test test of individual fixed effect (estimated value is 657.0105, degree of freedom is 31, $p \leq 0.000$) and LR-test test of time fixed effect (estimated value is 89.7892, degree of freedom is 14, $p \leq 0.000$) show that the original assumption that individual and time fixed effect can simplify individual fixed effect or time fixed effect model must be rejected.

TABLE III. Normal panel regression model

INDEX	MIXED REGRESSION	INDIVIDUAL FIXATION EFFECT	TIME-FIXED EFFECT	INDIVIDUAL AND TIME-FIXED EFFECT
LNSE	-0.116(0.179)	0.2163(0.003)	-0.1118(0.197)	0.234(0.000)
LNHC	-0.612(0.002)	0.8617(0.000)	-0.5568(0.004)	0.555(0.001)
LNSE*LNHC	0.034(0.356)	-0.0596(0.018)	0.0208(0.569)	-0.071(0.009)
LNL	0.291(0.000)	0.1827(0.000)	0.3720(0.000)	0.269(0.000)
LNP	-0.222(0.000)	-0.4721(0.000)	-0.2807(0.000)	-0.614(0.000)
LNPC	1.033(0.000)	0.8022(0.000)	0.9759(0.000)	0.819(0.000)
AG	0.003(0.124)	-0.0016(0.424)	0.0052(0.046)	-0.004(0.100)
C	3.516(0.000)			
SIGMA^2	0.0156	0.0038	0.0142	0.0031
R^2	0.9521	0.9765	0.9157	0.5203
LOGL	290.74	594.95	311.34	639.84

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DW	1.6567	1.4975	1.8551	1.8198
LM-LAG	0.2380(0.626)	44.1031(0.000)	1.998(0.157)	11.678(0.001)
RLM-LAG	0.0681(0.794)	1.9565(0.162)	0.984(0.321)	5.787(0.016)
LM-ERROR	8.1760(0.004)	112.46(0.000)	2.025(0.155)	5.962(0.015)
RLM-ERROR	8.0061(0.005)	70.3209(0.000)	1.011(0.315)	0.0725(0.788)

In summary, this paper selects the individual and time fixed effect model for analysis. After determining the form of the ordinary panel model, it is also necessary to test which kind of spatial panel model the model is suitable for, that is, to judge whether the model uses the spatial lag model or the spatial error model through the four indexes of LM-lag, RLM-lag, LM-error, RLM-error. From the test results, it can be seen that the four indexes significantly reject the non-spatial model and support the spatial lag or spatial error model, and which of the two models needs to be further judged.

4.2.3 Spatial panel model

According to the common panel data regression model, there are spatial effects in the panel regression model, that is, the spatial lag, spatial error model or spatial doberman model can be established. Among them, the spatial doberman model is the combination of spatial lag and spatial error model, that is, the spatial doberman model can be established first. Then the LM and LR tests can be used to determine whether the spatial doberman model can be reduced to a spatial lag model or a spatial error model. Failure to pass the test indicates the need to use the spatial doberman model. Therefore, the individual fixed effect space panel doberman model is further established. For comparison, this paper also establishes a random effect space panel doberman model. The regression and test results are obtained by using Matlab 2014a software, and the specific results are shown in TABLE IV.

TABLE IV. Space doberman panel model

Index	**SPATIAL AND TEMPORAL FIXED EFFECT SPATIAL DOBERMAN MODEL**	**RANDOM EFFECT SPACE DOBERMAN MODEL**
W*LNpgdp	0.512(0.000)	0.191(0.071)
LNSE	0.266(0.000)	0.222(0.000)
LNHC	0.675(0.000)	0.451(0.013)
LNSE*LNHC	-0.086(0.005)	-0.069(0.011)
LNL	0.238(0.000)	0.241(0.000)
LNP	-0.731(0.000)	-0.323(0.000)
LNPC	0.699(0.000)	0.816(0.000)
AG	-0.001(0.760)	0.001(0.560)
W*LNSE	-0.305(0.002)	-0.234(0.024)
W*LNHC	-1.081(0.001)	-0.586(0.076)
W*LNSE*LNHC	0.163(0.005)	0.073(0.196)
W*LNL	0.231(0.188)	0.054(0.744)
W*LNP	0.744(0.170)	0.078(0.666)
W*LNPC	-0.105(0.629)	0.0310(0.893)
W*AG	0.002(0.882)	-0.012(0.239)

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SIGMA^2	0.0031	0.0033
R^2	0.9912	0.9802
LOGL	655.849	-5793.596
WALD-LAG	16.6609(0.019)	6.9057(0.438)
LR-LAG	16.5423(0.020)	
WALD-ERROR	23.0545(0.001)	7.7852(0.351)
LR-ERROR	25.6925(0.000)	
HAUSMAN	23.874(0.073)	
THEAT	0.115(0.000)	

The table shows the regression results of the spatial panel doberman model for the individual and time-fixed effects and the spatial panel doberman model for the random effects. First, Hausman test the model, the results significantly reject the original assumption that the individual effect is not related to the explanatory variable, that is, the fixed effect model should be selected. Therefore, the regression results of individual fixed effect spatial model are analyzed. From the fitting effect, the model goodness of fit is 0.99, which indicates that the model fitting effect is better. And the logarithmic probability function value is 655.849, and its value is relatively large. Indicating that the individual fixed effect spatial panel doberman model fits well. Illustrated by Wald test and LR tests: the spatial doberman model cannot be simplified as a spatial error model and a spatial lag model. Therefore, this paper chooses the spatial panel doberman model for empirical analysis.

It can be seen from the regression coefficient of spatial panel measurement. The effect of social security expenditure on economic growth is significantly positive. For every one percentage point increase in social security expenditure, the per capita GDP will increase by 0.266 percentage points. It shows that the level of social security plays a significant role in promoting the economic development of various regions. The level of human capital plays a relatively large role in economic growth. That is, for every one percentage point increase in the number of years of education per capita, the per capita GDP will increase by 0.675 percentage points. It shows that China's current economic development comes more from the improvement of human capital level. The coefficient of the interaction between social security and human capital is significantly negative. In other words, with the improvement of the level of human capital, the role of social security in promoting the economy will be reduced. The main reason is that at present, the driving force of economic growth in various regions is still driven by capital. In order to obtain short-term capital gains, local governments tend to invest limited financial funds in the economic field. This undoubtedly has a significant negative inhibitory effect on social security expenditure. Thus weakening the positive effect of social security on economic growth. From the results of controlling variables, employment and per capita consumption expenditure significantly promote regional economic growth. The dependency ratio of the resident population and the elderly population at the end of the year in each region has an inhibitory effect on economic growth. Among them, the role of elderly dependency ratio is not significant. Although the current population aging problem is significant, the improvement of human capital and social security can effectively alleviate the impact of population aging on economic growth. The economic development of each region does not necessarily require a large population. More importantly, the quality of human capital and the level of social security.

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It can be seen from the results of spatial overflow index. The indicators of economic development level have significant spatial spillover effect. That is, every 1 percentage point increase in the economic development level of the region will drive the economic development level of adjacent regions to increase by 0.512 percentage points. The level of social security and human capital water have a significant negative impact on the adjacent economic growth. At the same time, the results of the interaction between social security and human capital show that with the improvement of the level of human capital in the region, the inhibitory effect of social security on the economic growth of adjacent regions will be more obvious. The reason for this result is that the higher the level of social security and human capital in this region, the more it can attract the inflow of personnel from adjacent regions. Therefore, the economic development ability of adjacent areas is weakened. At the same time, human capital is a long-term process. The level of human capital in this region cannot affect the economic development level of adjacent regions in a short time.

V. CONCLUSION

Based on the existing literature research. Comprehensively considering the spatial effect of economic growth, this paper studies and analyzes the role of social security in promoting economic growth from the perspective of human capital.

It can be seen from the results of qualitative analysis. At present, the level of social security and economic development in various regions of China are in a growing trend. However, the regional distribution shows the phenomenon of uncoordinated regional development. Overall, the eastern region is better than the western region. According to the development of social security level and economic growth. There is a positive correlation between social security and economic growth, which is the main driving force of economic growth.

It can be seen from the quantitative analysis results. There is a significant positive spatial auto-correlation in regional economic growth in China. It presents the phenomenon that high economy and high economy, low economy and low economy regions converge. The spatial panel doberman model of individual and time fixed effects is established. The results show that the economic growth of this region will significantly promote the economic growth of adjacent regions. The level of social security and human capital have significantly promoted the economic growth of all regions. However, the promotion of social security will weaken with the improvement of human capital level.

Therefore, on the one hand, we can consider continuing to improve the per capita education level and give full play to the role of human capital in promoting economic growth. Give play to the spillover effect of economic growth and promote the balanced development of human capital level and regional economy. On the other hand, we should improve the social security system and achieve universal coverage. Fully release the redistribution function of social security and realize the goal of common prosperity while driving economic growth.

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