Research on the Impact of Financial Support for Agriculture Expenditure on Farmers' Income under the Background of Rural Revitalization

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Abstract

The continuous promotion of farmers' income is an important basis for common prosperity, and the financial support for agriculture policy, as an important institutional guarantee for the realization of a powerful agricultural country and Chinese path to modernization, plays a key role in improving agricultural income. This article is based on data from 30 provinces and cities in China from 2007 to 2021, and constructs a panel econometric model to empirically analyze the impact of fiscal support for agriculture on farmers' income. The analysis results indicate that fiscal support for agriculture expenditure can promote the growth of farmers' income, but the effect intensity is relatively weak compared to other variables. The income of farmers is comprehensively influenced by various factors, including the level of economic development, urbanization, rural industrial structure, and agricultural mechanization. However, the rural industrial structure has a negative impact on farmers' income growth. Therefore, in the future, China still needs to increase financial support for agriculture, improve the use efficiency of financial support for agriculture funds, promote the process of new urbanization, accelerate the development of agricultural modernization, optimize the industrial structure, inject new momentum into rural revitalization, and promote the realization of common prosperity.

Keywords

Rural revitalization; Fiscal expenditure for supporting agriculture; Farmers' income; Common prosperity.

1. Introduction

Since 1978, significant achievements have been made in the development of China's rural economy, with continuous enhancement of comprehensive agricultural production capacity and high-quality transformation and upgrading of agriculture. The endogenous driving force for rural development is constantly improving, and emerging formats are constantly emerging; The living conditions of farmers have been comprehensively improved, and their income has steadily increased. In recent years, under the strategic layout of rural revitalization, the Party and the state have always adhered to prioritizing the development of agriculture and rural areas. The 19th National Congress of the Communist Party of China clearly proposed the strategy of rural revitalization, emphasizing the need to improve the agricultural support and protection system, cultivate new types of agricultural business entities, support and encourage farmers' employment and entrepreneurship, and expand channels for income growth. The 20th

National Congress of the Communist Party of China further pointed out the need to comprehensively promote rural revitalization, develop rural characteristic industries, and expand channels for farmers to increase income and become rich. However, it is worth noting that despite the continuous development of agriculture, the urban-rural gap is still significant. In 2021, the per capita disposable income of rural residents was 18930.9 yuan, while the per capita disposable income of urban residents was as high as 47411.9 yuan, which is 2.5 times the per capita disposable income of rural residents. Farmers' income not only affects the development of agriculture, but also affects the development of rural economy. How to release farmers' income space is the key to achieving common prosperity.

Since 2004, the central and local governments have always regarded financial support for agriculture as an important measure to increase farmers' income. In 2018, the No. 1 central document of the Central Government made a comprehensive deployment for the implementation of the rural revitalization strategy, proposing to promote the transfer of rural labor and employment and increase farmers' income, and maintain the growth rate of rural residents' income faster than that of urban residents. In 2022, the No. 1 central document pointed out that we should comprehensively promote rural revitalization, ensure stable agricultural production and increase farmers' income. The No. 1 central document of the Central Committee of the CPC in 2023 puts farmers' income increase in an important position, proposes to broaden the channels for farmers to increase income and become rich, and further puts forward new requirements for "becoming rich" on the basis of "increasing income". Thus, as an important institutional guarantee for achieving agricultural power and Chinese path to modernization, the fiscal support policy for agriculture plays a key role in improving agricultural income. According to the China Statistical Yearbook data, the national fiscal expenditure on agriculture, forestry, and water affairs has increased from 309.101 billion yuan in 2007 to 2153.559 billion yuan in 2021, accounting for a proportion of fiscal expenditure that has increased from 6.21% to 8.77%. However, facing the fact that the urban-rural gap is still significant, how to more effectively utilize the efficiency of financial support for agriculture funds and maximize the promotion of farmers' income has become an urgent problem to be solved. Therefore, this article is based on the relevant data of fiscal support for agriculture expenditure in 30 provinces and cities from 2007 to 2021. By conducting unit root tests and cointegration tests on variables and constructing a multiple linear regression model, we empirically analyze the impact of fiscal support for agriculture expenditure on farmers' income in China. This has strong theoretical significance and application value for establishing and improving a long-term mechanism to promote farmers' income growth and achieving rural revitalization.

2. Literature Review

The relationship between fiscal expenditure on supporting agriculture and farmers' income has always been a hot topic in academic research. Currently, domestic and foreign scholars' research mainly focuses on the following three aspects:

One is research on fiscal expenditure for supporting agriculture. The research on fiscal support for agriculture in China is mainly reflected in improving the efficiency, optimizing the structure, and exploring the optimal scale of fiscal support for agriculture. For example, Zhou Xiaoyan (2022) used a three-stage DEA model to study the efficiency of fiscal support for agriculture in 12 revolutionary old areas under the rural revitalization strategy. The results showed that the use efficiency of fiscal support for agriculture funds was low and the growth was not significant, And the ineffective rate of government management is an important factor affecting the efficiency of the use of financial support for agriculture funds [2]; Zou Wenjie et al. (2019) tested the poverty reduction effect of fiscal support for agriculture in China by constructing a

panel smooth transformation model. They believe that fiscal support for agriculture policies have structural effects, with social support for agriculture being the most significant and productive support for agriculture being weak.

The second is the study of factors affecting farmers' income. Foreign scholars' analysis of the impact on farmers' income mainly focuses on political system, technological level, and rural finance, while domestic scholars' analysis of the impact on farmers' income mainly focuses on industrial structure, urbanization level, education level, human capital, rural finance, and other aspects. Jing Peng (2019) analyzed the impact of rural land system reform on farmers' income in China and found that rural land system reform can improve the mobility and allocation efficiency of rural land resource elements, which is conducive to liberating productivity, allowing farmers to obtain more employment opportunities, and thereby increasing farmers' income [4]. Musbar Citra Gunawan et al. (2019) believe that technological progress will reduce agricultural production costs for landowners, thereby increasing their income. However, it will cause landless farmers to lose employment opportunities, thereby reducing their income [5]. Cao Fei et al. (2021) verified the mesomeric effect of agricultural industrial structure upgrading in the process of industrial integration promoting farmers' income growth, and found that industrial integration can improve the rationalization and upgrading level of agricultural industrial structure, thus promoting the upgrading of agricultural industrial structure, thus promoting the growth of farmers' income [6].

The third is the research on the relationship between fiscal expenditure on supporting agriculture and increasing farmers' income. Most scholars believe that financial support for agriculture expenditure has an incentive effect on farmers' income, and the effect is obvious. For example, Huang Shoufeng (2016) adopted spatial panel quantile regression method to find that: at different quantile levels, financial support for agriculture has significantly promoted the growth of farmers' income, and can promote the growth of farmers' income through imitative learning between regions [7]. Another group of scholars believe that fiscal support for agriculture expenditure will suppress the increase of farmers' income. For example, Cui et al. (2011) argue that there is a long-term stable relationship between fiscal support for agriculture investment, agricultural loans, and farmers' income growth. However, due to the low efficiency of using fiscal support for agriculture funds, the effect of increasing farmers' income is not significant [8]. Some scholars believe that fiscal agricultural expenditure is difficult to play a significant role in the short term, and its effect only begins to show in the long term. For example, Zhang Xiaohan et al. (2018) found through research that fiscal agricultural expenditure has a positive and strong effect on farmers' household operating income, transfer, and property income in the short term, while its effect on farmers' wage income is negative and weak, but it has a significant promoting effect in the long term [9].

In summary, domestic and foreign scholars have achieved rich research results on related issues during the current period, but there is no consensus on the relationship between fiscal support for agriculture and farmers' income growth. Most scholars believe that fiscal support for agriculture expenditure has a positive effect on farmers' income, but there is no consensus among scholars on whether the effect is significant. Based on the above research, this article selects the latest data from 30 provinces and cities, with the aim of increasing farmers' income. It empirically analyzes the impact of fiscal support for agriculture on farmers' income, and combines the results of the empirical analysis with the rural revitalization strategy to optimize the existing fiscal support for agriculture policies from three aspects: increasing fiscal support for agriculture expenditure investment, ensuring the stability of fiscal support for agriculture investment, and improving fund utilization efficiency, At the same time, taking into account various factors comprehensively, establish a long-term mechanism to promote the growth of farmers' income.

3. Model Setting, Variable Selection, and Data Explanation

3.1. Model Setting

This article uses data from 30 provinces and cities in China from 2007 to 2021 to further analyze the impact of fiscal support for agriculture on farmers' income by constructing a panel model. To comprehensively consider the impact of other factors on farmers' income, four indicators were selected as control variables: economic development level, urbanization level, agricultural industrial structure, and agricultural mechanization level. In order to alleviate the volatility and heteroscedasticity issues in the data, the six variables of per capita disposable income of rural residents, fiscal support for agriculture expenditure, economic development level, urbanization level, agricultural industrial structure, and agricultural mechanization level were logarithmically processed. After selecting variables, construct the model as follows:

$$lnINCOME_{it}=\beta_0+\beta_1 lnGOV_{it}+\beta_2 lnPGDP_{it}+\beta_3 lnURBAN_{it}+\beta_4 lnAIS_{it}+\beta_5 lnLAM_{it}+\varepsilon_{it}$$

Where, *INCOME* represents the per capita disposable income of rural residents, *GOV* represents fiscal expenditure on agriculture, *PGDP* represents economic development level, *URBAN* represents urbanization level, *AIS* represents rural industrial structure, and *LAM* represents agricultural mechanization level. *i* represents a certain province and city, *t* represents a certain year, β_0 is the intercept term, β_1, β_2, β_3, β_4, β_5 is the regression coefficient of each variable, ε_{it} is a random perturbation term.

3.2. Variable Selection

3.2.1. The dependent variable

Per capita disposable income of rural residents (INCOME). The per capita disposable income of rural residents is a true reflection of the actual income situation of farmers, which can more accurately reflect the effectiveness of fiscal support for agriculture. This article collected data on the per capita disposable income of rural residents in various provinces and cities from 2007 to 2021, including wage income, net operating income, net property income, and net transfer income, and used them as the dependent variable, with the unit of yuan.

3.2.2. Explanatory variables

Financial expenditure on agriculture (GOV). Fiscal support for agriculture expenditure refers to the funds directly used to assist agricultural development or related funds in fiscal expenditure. This article selects agricultural, forestry, and water affairs expenditure to reflect the level of fiscal support for agriculture expenditure in various provinces and cities, with a unit of 100 million yuan.

3.2.3. Control variables

(1) Economic Development Level (PDGP). The level of rural economic development is one of the important factors affecting the increase of farmers' income. Generally speaking, financial expenditure on agriculture can improve the level of regional economic development, and the improvement of economic development can promote the increase of farmers' income. Therefore, this paper selects per capita GDP to reflect the economic development level of provinces and cities, with the unit of yuan,

(2) Urbanization level (URBAN). This article selects the proportion of urban population in each province and city to the total population to represent the level of urbanization, expressed in%. The rapid development of urbanization can increase the number of farmers going out to work, transfer surplus rural labor, and increase the total wage income of farmers. Moreover, the promotion of urbanization will increase the demand for agricultural products, while creating necessary conditions for large-scale, mechanized, and specialized agricultural production.

(3) Rural Industrial Structure (AIS). This article uses the proportion of primary industry GDP to regional GDP to reflect the rural industrial structure, expressed in%. The rural industrial structure can clearly reflect the dependence of the regional economy on agriculture, which is closely related to farmers' income.

(4) Level of Agricultural Mechanization (LAM). The level of agricultural mechanization directly affects agricultural production efficiency and is a key link in modern agricultural construction. Generally speaking, the higher the level of agricultural mechanization, the higher the efficiency of agricultural production, and thus the agricultural income of farmers will increase. Moreover, the improvement of mechanization level can reduce labor costs, save labor, and allow farmers more time to engage in other production tasks, which is beneficial for increasing farmers' non agricultural income. This article uses the total power of agricultural machinery to reflect the level of agricultural mechanization in various regions, with a unit of ten thousand kilowatts.

3.3. Data Description

Due to the implementation of the government revenue and expenditure classification reform in 2007, the fiscal expenditure on supporting agriculture in 2007 and subsequent years was represented by expenditure on agricultural, forestry, and water affairs. In order to maintain consistency in statistical caliber, this article selects relevant data from the 2007-2021 China Statistical Yearbook as the research object. Based on data availability considerations, no relevant data was collected from the Tibet region. After logarithmizing the data of all variables, descriptive statistical results were obtained as shown in Table 1.

Table 1. Descriptive Statistics of Variables

Variable	Sample size	Mean	Max	Min	S.D.
lnINCOME	450	9.17	10.56	7.75	0.57
lnGOV	450	5.93	8.54	3.13	0.90
lnPGDP	450	10.39	12.12	6.68	1.00
lnURBAN	450	1.01	4.50	3.34	0.23
lnAIS	450	2.07	3.40	-1.60	0.91
lnLAM	450	7.64	9.50	4.54	1.09

From Table 1, it can be seen that the average per capita disposable income of rural residents is 9.17, and there is a significant difference between the maximum value (10.56) and the minimum value (7.75), indicating that there are indeed certain differences in farmers' income among different regions; The average of fiscal support for agriculture expenditure is 5.93, with a standard deviation of 0.90. The maximum value (8.54) is 2.73 times the minimum value (3.13), indicating a significant gap in fiscal support for agriculture expenditure among different regions; The average level of urbanization is 1.01, with a standard deviation of 0.23, indicating that there are also certain differences in urbanization levels among provinces and cities, but the overall difference is relatively small compared to other variables; The average values of economic development level, agricultural industrial structure, and agricultural mechanization level are 10.39, 2.07, and 7.64, respectively, with standard deviations of 1.00, 0.91, and 1.09. The difference between the maximum and minimum values is also relatively large, indicating significant differences in economic development level, agricultural industrial structure, and agricultural mechanization level among different provinces and cities.

4. Empirical Analysis

4.1. Unit Root Test

In order to prevent false regression, this article used the ADF test method to perform

stationarity tests on each variable, and the test results are shown in Table 2. From the test results, it can be seen that at the three significance levels of 1%, 5%, and 10%, the per capita disposable income of rural residents, fiscal expenditure on agriculture, economic development level, urbanization level, agricultural industrial structure, and agricultural mechanization level in the original sequence and first-order difference sequence all pass the significance test, indicating that all six variables are stationary sequences and can be subjected to cointegration testing.

Table 2. ADF test for variables

Variable	ADF statistics	$P_{0.01}$	$P_{0.05}$	$P_{0.1}$	Conclusion
lnINCOME	-13.2053	0.0000	0.0000	0.0000	Stable
D(lnINCOME)	-13.6181	0.0000	0.0000	0.0000	Stable
lnGOV	-12.5751	0.0000	0.0000	0.0000	Stable
D(lnGOV)	-14.4622	0.0000	0.0000	0.0000	Stable
lnPGDP	-12.7524	0.0000	0.0000	0.0000	Stable
D(lnPGDP)	-11.0544	0.0000	0.0000	0.0000	Stable
lnURBAN	-10.9859	0.0000	0.0000	0.0000	Stable
D(lnURBAN)	-12.8779	0.0000	0.0000	0.0000	Stable
lnAIS	-13.1714	0.0000	0.0000	0.0000	Stable
D(lnAIS)	-21.4301	0.0000	0.0000	0.0000	Stable
lnLAM	-12.3310	0.0000	0.0000	0.0000	Stable
D(lnLAM)	-18.3398	0.0000	0.0000	0.0000	Stable

4.2. Cointegration test

This article adopts the KAO cointegration test method to conduct a cointegration test on each variable and the per capita disposable income of rural residents. The results of the cointegration test are shown in Table 3. From the test results, it can be seen that the t-statistic of ADF is -8.288960, with a P-value of 0.0000. It passes the KAO cointegration test, indicating a long-term cointegration relationship between the per capita disposable income of rural residents, fiscal support for agriculture expenditure, economic development level, urbanization level, agricultural industrial structure, and agricultural mechanization level.

Table 3. Cointegration test results

ADF	t-Statistic	Prob.
	-8.288960	0.0000
Residual variance	0.023687	
HAC variance	0.007948	

4.3. Model Selection

In the selection of fixed effects model and random effects model, this paper used Eviews software to conduct likelihood ratio test and Hausman test on the model, respectively.

Table 4. Likelihood ratio test results

Effects Test	Statistic	D.F.	Prob.
Cross-section F	19.339897	(29,415)	0.0000
Cross-section Chi-square	384.766899	29	0.0000

The likelihood ratio test results are shown in Table 4. The test results indicate that the adjoint probability of LR statistic is p=0.0000, which is less than the significance level of 0.05, rejecting the original hypothesis. Therefore, a fixed effects model should be established.

Table 5. Hausman test results

Test Summary	Chi-Sq. Statistic	D.F.	Prob.
Cross-section random	288.422200	5	0.0000

Further observation of the Hausman test results is shown in Table 5. Due to the large Hausman value and its corresponding p-value of 0.0000, which is less than the significance level of 0.05, the original hypothesis should be rejected and a fixed effects model should be established. Both likelihood ratio test and Hausman test indicate that a fixed effects model should be established, so this article ultimately chose a fixed effects model.

4.4. Analysis of Regression Results

After selecting the fixed effects model, this article used Eviews software to conduct regression analysis on the model, and the regression results are shown in Table 6.

Table 6. Regression results of the mode

Variable	Coefficient	Std. Error	t-Statistic	Prob.
lnGOV	0.050328	0.017313	2.906946	0.0038
lnPGDP	0.094898	0.016172	5.868154	0.0000
lnURBAN	1.016224	0.052843	19.23085	0.0000
lnAIS	-0.028862	0.010868	-2.655746	0.0082
lnLAM	0.093920	0.013224	7.101995	0.0000
C	3.782990	0.232158	16.29489	0.0000

Note: R= 0.9553, R2= 0.9516, F=260.7944, n=450, P= 0.0000.

It can be seen from Table 6 that R=0.9553 and R^2=0.9516 of the model, indicating that the Goodness of fit of the model to the sample observations is high. At a given level of significance α=0.05, F=260.7944, the P-value corresponding to the F-statistic is 0.0000, which is significantly less than α=0.05 indicates that the overall model parameters are significant. The specific analysis of each variable is as follows:

4.4.1. The impact of fiscal expenditure on agriculture on the per capita disposable income of rural residents

The regression coefficient between fiscal support for agriculture expenditure and per capita disposable income of rural residents is 0.050328, which is significant at a probability level of 5%. This indicates that increasing fiscal support for agriculture expenditure is beneficial for improving per capita disposable income of rural residents. Specifically, under other conditions unchanged, for every 1% increase in fiscal support for agriculture expenditure, per capita disposable income of farmers increases by 0.050328%. This article believes that the impact mechanism of fiscal support for agriculture expenditure on farmers' income is mainly reflected in the following three aspects: firstly, the government reduces the burden on farmers in agricultural production and improves the market competitiveness of agricultural products by subsidizing agricultural production and implementing tax preferential policies; Secondly, with the increase of fiscal expenditure on supporting agriculture, the level of agricultural technology and agricultural production efficiency have also improved. The process of agricultural modernization has accelerated, and the output of agricultural products has increased, releasing more labor force. In addition, finance has promoted the development of compulsory education in rural areas, which is conducive to helping farmers master agricultural knowledge, improving their essential abilities to engage in other professions, and to some extent, promoting the transfer of surplus rural labor force, The income of farmers is gradually diversified. The third is that the government has increased investment in rural farmland water conservancy, infrastructure, etc., improving the production and living conditions of farmers, promoting labor employment, and thereby helping farmers achieve wealth and income growth.

However, it is worth noting that although fiscal support for agriculture has a positive impact on the increase of farmers' income, this impact is relatively weak compared to other variables. Although the total scale of fiscal support for agriculture in China has been increasing year by year in recent years, it can be clearly seen from Table 7 that the proportion of fiscal support for agriculture to total fiscal expenditure has changed relatively little over the past 15 years, with a difference of only 3.23% between the maximum and minimum values. This indicates that the relative scale of fiscal support for agriculture has not been significantly improved, and the investment in fiscal support for agriculture funds is insufficient. Moreover, this article collected the growth of fiscal support for agriculture expenditure and rural residents' disposable income in China from 2007 to 2021. From the figure, we can see that the fluctuation range of fiscal support for agriculture expenditure is significantly higher than that of farmers' income, indicating that fiscal support for agriculture investment has been unstable in recent years. Therefore, this article believes that the promotion effect of fiscal support for agriculture expenditure on the growth of farmers' income is relatively small, which may be due to the insufficient total amount of fiscal support for agriculture funds and unstable investment. At the same time, it should also be related to the low efficiency of the use of fiscal support for agriculture funds, which leads to insufficient national investment in agriculture, relatively backward rural economic construction, and less significant increase in farmers' wealth and income. As a reliable guarantee for increasing farmers' income, financial support for agriculture investment still needs to be increased by government departments in the future to ensure the stability of financial support for agriculture investment. At the same time, attention should also be paid to the reasonable planning and deployment of support for agriculture investment funds to ensure the efficiency of fund utilization.

Table 7. Proportion of China's fiscal expenditure on supporting agriculture to total fiscal expenditure from 2007 to 2021 (Unit: 100 million yuan, %)

Year	Total financial expenditure	Financial support for agriculture expenditure	Rate	Year	Total financial expenditure	Financial support for agriculture expenditure	Rate
2007	49781.35	3091.01	6.21%	2015	175877.8	16641.71	9.46%
2008	62592.66	4235.63	6.77%	2016	187755.2	17808.29	9.48%
2009	76299.93	6401.71	8.39%	2017	203085.5	18380.25	9.05%
2010	89874.16	7741.69	8.61%	2018	220904.1	20493.29	9.28%
2011	109247.8	9520.99	8.72%	2019	238858.4	22330.46	9.35%
2012	125953.0	11471.39	9.11%	2020	245679.0	23445.14	9.54%
2013	140212.1	12822.64	9.15%	2021	245673.0	21535.59	8.77%
2014	151785.6	13634.16	8.98%				

4.4.2. The impact of various control variables on the per capita disposable income of rural residents

The regression coefficients between the level of economic development, urbanization, agricultural mechanization, and per capita disposable income of rural residents are 0.094898, 1.016224, and 0.093920, respectively, and are significant at a probability level of 5%. This indicates that improving the level of economic development, urbanization, and agricultural mechanization is beneficial for increasing per capita disposable income of rural residents. This result indicates that the level of rural economic development is one of the important factors affecting farmers' income growth, and high economic growth has a significant positive promoting effect on farmers' income [10]. The improvement of urbanization level is conducive to increasing the demand for agricultural products, while increasing the number of farmers going out to work, guiding the transfer of rural surplus labor force, and helping farmers become rich and increase income [11]. The popularization of agricultural mechanization can promote

the improvement of agricultural production efficiency and agricultural development, release rural labor force, and increase other wage related income of farmers.

The regression coefficient between rural industrial structure and per capita disposable income of rural residents is -0.028862, which is significant at a probability level of 5%. This indicates that an increase in the GDP of the primary industry cannot promote farmers' wealth and income. If the regional economy excessively relies on agricultural development, farmers' income will actually decrease [12].

4.5.   Robustness test

Robustness test is to verify the reliability of estimation results. Common methods include increasing or decreasing sample size, changing estimation methods, replacing variables, etc. This paper uses the method of replacing variables to do robustness test. In the literature review on the growth of farmers' income from different perspectives, it is found that some scholars use the per capita consumption level of rural residents to measure farmers' income. Keynesian consumption theory also points out that the average propensity to consume will increase with the increase of income. Therefore, this paper uses the per capita consumption level of rural residents to replace the per capita disposable income of rural residents for robustness test, the robustness test results are compared with the original model regression analysis results to prove the reliability of the empirical results.

Table 8. Results of robustness test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
lnGOV	0.093900	0.016786	5.593960	0.0000
lnPGDP	0.109510	0.015679	6.984326	0.0000
lnURBAN	0.712830	0.051235	13.91297	0.0000
lnAIS	-0.062420	0.012822	-4.868208	0.0000
lnLAM	0.028945	0.010537	2.746989	0.0063
C	4.737061	0.225091	21.04507	0.0000

From Table 8, it can be seen that the estimated coefficient of fiscal support for agriculture expenditure has increased from 0.050328 to 0.093900, which has an enhanced promoting effect on farmers' income. The coefficients for controlling variables such as economic development level, urbanization level, agricultural industrial structure, and agricultural mechanization level are 0.109510, 0.712830, -0.062420, and 0.028945, respectively, which are significant at a probability level of 5%. The estimated coefficient has a slight change, but the sign of the estimated coefficient remains consistent with the previous text. Therefore, it can be concluded that the model construction in this article is relatively reasonable and the estimation results are robust and effective.

5.   Conclusion and Suggestions

5.1.   Conclusion

This article uses data from 30 provinces and cities from 2007 to 2021 as samples to empirically analyze the relationship between fiscal support for agriculture expenditure and farmers' income. The research results show that fiscal support for agriculture expenditure can promote farmers' income increase, but the effect intensity is relatively weak compared to other variables. This indicates that the country still needs to increase fiscal support for agriculture expenditure in the future, with a focus on supporting the development of "agriculture, rural areas, and farmers" in relatively backward areas, while ensuring the stability of fiscal support for agriculture investment, Improve the efficiency of fund utilization; The income of farmers is comprehensively influenced by various factors. The improvement of economic development

level, urbanization level, and agricultural mechanization level can all promote the increase of farmers' income, and the urbanization level has the greatest positive promoting effect on farmers' income growth, followed by economic development level, agricultural mechanization level, and financial support for agriculture expenditure; However, the proportion of the primary industry has had a negative impact on increasing farmers' income, indicating that the regional economy cannot overly rely on the development of agriculture, and in the future, it is still necessary to promote the optimization and upgrading of industrial structure.

5.2. Suggestions

Finance is the driving force behind the implementation of the rural revitalization strategy, and the rural revitalization strategy is the key to solving the "three rural" problems in the new era. Based on the current economic and social development situation in China, in order to optimize the performance of fiscal support for agriculture in the context of rural revitalization, China should improve the performance of fiscal support for agriculture in various aspects and increase farmers' income in a practical and feasible manner:

(1) Continuously enhance the investment in fiscal support for agriculture, and ensure the stability of fiscal support for agriculture. Although the total amount of fiscal support for agriculture in China has been continuously increasing in recent years, the stability of fiscal support for agriculture investment is poor, and there is still a certain gap between the level of fiscal support for agriculture and the needs of the development of agriculture, rural areas, and farmers, as well as the requirements for the implementation of rural revitalization strategies. In order to promote rural revitalization and achieve common prosperity, it is necessary for the government to shift its work center to agriculture, increase financial support for agriculture, and improve the stable growth mechanism of financial investment in agriculture, rural areas and farmers. As the main financial guarantee for promoting the development of vulnerable "agriculture, rural areas, and farmers", financial funds should ensure their continuous and stable input into rural areas, increase the total amount of rural investment in public goods, compulsory education, healthcare, farmland and water conservancy facilities, and farmers' employment, and strive to increase the proportion of financial and agricultural support expenditures in total financial expenditures; Secondly, in order to strengthen the stability and continuity of agricultural expenditure, the country should formulate corresponding budget plans and establish a long-term and effective mechanism for fiscal agricultural expenditure.

(2) Improve the efficiency of using financial support for agriculture funds and increase the coordination and integration of financial funds. Firstly, reasonable planning and deployment of financial support for agriculture funds in various regions should be carried out, and the efficiency of using financial support for agriculture funds should be improved through a scientific investment structure. Secondly, it is necessary to combine reality and strive to reduce unnecessary expenses, such as daily expenses, reception expenses, welfare expenses, etc., to ensure that agricultural support funds can be effectively used in the "three rural" fields, and to maximize their effectiveness and more effectively promote farmers' income growth. Then, it is necessary to increase the amount of subsidies related to agriculture, optimize the subsidy methods, and improve the efficiency of using agricultural support funds in rural public services and other aspects. Furthermore, we will increase the coordination and integration of financial project funds, focus on solving the problem of multiple management and overlapping investment of financial support for agriculture, and ensure that financial support for agriculture policies support the orderly progress of the "three rural" work, providing strong guarantees for achieving the comprehensive construction of a moderately prosperous society. Finally, it is necessary to strengthen the management of project funds, strictly follow the funding allocation procedures, and effectively implement the supporting funds and funding channels for the project.

(3) Taking into account multiple factors comprehensively, establish an effective collaborative mechanism to promote farmers' income growth. From the research in this article, we can see that the factors that affect farmers' income are multifaceted, and the level of economic development, urbanization, and agricultural mechanization can also help farmers become rich and increase their income. Therefore, the promoting role of these factors should be further utilized to better motivate farmers to increase their income. In the future, it is still necessary to promote the development of new urbanization, inject new momentum into rural revitalization, strive to coordinate and balance the connection between the two, explore the connection between urbanization level and farmers' income growth, and fundamentally solve the problem of farmers' income by building new towns, promoting rural population transfer, and promoting urban-rural integration development. At the same time, financial support for agriculture funds should also increase investment in agricultural technology, promote the progress of agricultural technology and the development of agricultural modernization, and strive to achieve the scale, mechanization, and specialization of agriculture.

The proportion of the primary industry has had a negative impact on farmers' income growth, indicating that fiscal support for agriculture cannot only focus on investment in agriculture itself. Fiscal support for agriculture funds should also try to invest in the secondary and tertiary industries, encourage regions to actively adjust the structure of the tertiary industry, promote the optimization and upgrading of industrial structure, and reduce the dependence of regional economy on agriculture. By optimizing and upgrading the industrial structure, it is beneficial to release more employment opportunities, absorb surplus rural labor, and enhance the economic development of rural areas.

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