

A Study of Agricultural Investment Integration and Management Mechanism Innovation

Po Sheng Ko,¹ Kuo Chih Lu,² Cheng Chung Wu,³

¹Department of Public Finance, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan

²Department of International Business, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan

³Department of Finance, Suqian College, Jiangsu, China

ABSTRACT: With the rapid development of China's agriculture and the progress of science and technology, a series of agricultural projects have been carried out smoothly. The investment mechanism and fund management of agricultural projects are important contents in the development of agricultural projects. They play a guiding role in the financial support of agricultural projects and need constant innovation to meet the requirements of agricultural development. This paper studies and analyzes the innovation of agricultural project investment mechanism and fund management.

Key words: agricultural, investment integration, management mechanism innovation

I. INTRODUCTION

At the same time, China is developing in the crucial period of rural reform. It is the direction of agricultural development, the fresh force of rural economic development, and the hope of the peasants to realize the goal of well-off life. To further deepen the integration of agricultural investment dynamics, give full play to the agriculture and rural economy in China into the overall urban and rural economic and social development, the construction of modern agriculture, increase farmers' income, promote rural well-off construction of the new stage, continue to promote the integration of agriculture investment, to improve agricultural production conditions, the development of rural productivity, increase farmers' income, to speed up the pace of rural well-off society construction, has an irreplaceable role.

According to the analysis of the data in the 2017 China agricultural economic prosperity index report, China has pushed forward the supply-side structural reform of agriculture, actively adjusted the agricultural structure, and encouraged the increase of the supply of high-quality green agricultural products based on market demand. We will further promote the integration of primary, secondary and tertiary industries, vigorously develop tourism agriculture and leisure agriculture, and expand the industrial chain and value chain. We will improve policies to strengthen and benefit agriculture and accelerate the development of modern agriculture. We will promote agricultural modernization and a new type of urbanization, and foster new drivers of agricultural development. The implementation of a series of policies will help promote the steady growth of agriculture. For the whole of 2018, the quality of supply of important agricultural products continued to improve. The level of agricultural mechanization continues to improve; significant progress was made in greening agriculture; the diversified investment guarantee mechanism provides fund guarantee for the healthy and orderly development of agriculture. We deepened the integration of rural industries, and expanded the channels through which farmers could find jobs and increase their incomes.

II. LITERATURE REVIEW

Liu et al. (2005) pointed out the basic situation, characteristics, functions and existing main problems of agricultural investment management. This paper puts forward some basic ideas and specific Suggestions for the reform and improvement of central agricultural project investment management, such as the problems of dispersed and repeated investment in investment channels, the lack and dislocation of investment, the mismatch between project construction investment and operating expenses, and the imperfect decision-making and management mechanism of investment projects. It mainly includes: changing the concept, highlighting the investment decision and project supervision; From easy to difficult, the formation of a unified agricultural investment management system; To further clarify the focus of central agricultural investment; Overall planning, efforts to solve the problem of investment channel diversification and repeated construction; Improve the mechanism to promote scientific decision-making of the project;

Suggestions include integrating investment and gradually solving the problem that fixed asset investment and enterprise fund arrangement cannot form a joint force.

Chen and jia (2010) believe that capital, as a special resource, can guide and allocate other resources. The investment and financing system is an important channel connecting the supply and demand of capital and an important factor influencing the development of modern agriculture. Therefore, in order to accelerate the construction of modern agriculture, we must innovate the current modern agricultural investment and financing system. Lu and Wen(2013) pointed out the basic principles of integration. First, planning, guidance and overall arrangements. In accordance with the medium and long-term plan for agricultural and rural development and the annual implementation plan, and in accordance with the principle of combining administrative power with financial power, and adhering to the principle of keeping the nature of integrated funds unchanged, arranging channels unchanged, and supervising and managing unchanged, the funds and projects supporting agriculture are integrated. Second, concentrate financial resources and optimize the structure. We will break the division of industries, regions and sectors, integrate financial funds for supporting agriculture at all levels, give full play to the advantages of project funds, optimize the investment structure, and form a guiding effect to support key projects that play a major role in supporting and driving the development of agriculture and rural economy. Third, focus on key areas and implement them step by step. Focusing on the advantageous industries, we will select a number of key projects and regions that have strong support and driving force for the rapid development of agricultural and rural economy, and give them concentrated input and full support, so as to achieve one investment and one effect. Fourth, we need to innovate mechanisms and increase efficiency. In accordance with the requirements of unchanged support policies, unchanged capital sources and channels, and unchanged authority of unit capital management, we will innovate the input mechanism to ensure that all preferential policies for agriculture are implemented in rural areas and directly serve agricultural production. Fifth, strengthen supervision and follow-up. We will strengthen supervision over projects in advance, during and after their implementation, and establish and improve a performance evaluation system for the special financial funds for rural areas, so as to ensure the safe and efficient use of the funds.

III. THE RESULTS OF EMPIRICAL ANALYSIS

1. Research analysis of Agricultural investment integration

The increase of agricultural input is of great significance to promote the construction of modern agriculture, and it is more important to strengthen the efficiency of the use of funds to promote the realization of policy objectives. As can be seen from table 1, in terms of absolute scale, total fiscal expenditure on agriculture, rural areas and farmers has been stable in recent years, from 17.239 billion RMB in 2014 to 16.842 billion RMB in 2018. In particular, fiscal expenditure on agriculture, rural areas and farmers increased significantly in 2017.

Table 1 Fiscal expenditure for agriculture, rural areas and farmers in jiangsu province from 2015 to 2018

Year	2015	2016	2017	2018
Fiscal expenditure for agriculture, rural areas and farmers	151.92	168.18	203.39	168.42
Growth rate	-11.9%	10.7%	20.9%	-17.2%

Unit: 100 million RMB

Secondly, in recent years, modern agriculture and ecological agriculture have become the new focus of VC(venture capital)/PE(private equity) investment. Based on China's huge population base, the growth trend of agricultural industry scale will continue for a long time. At the same time, driven by the national strategy to boost domestic demand and the consumption upgrade brought by the growth of national consumption expenditure, it can be seen from table 2 that the market size of the whole agricultural product will show a long-term growth trend. At present, the investment value of agricultural industry is gradually recognized by investors, and the scale of agricultural investment is growing rapidly. The emergence of various industrial funds helps agricultural enterprises to introduce specialized PE institutions for strategic expansion and is conducive to the integration of the whole agricultural industry chain.

Table 2 VC/PE investment in China's modern agriculture from 2015 to 2018

Year	2015	2016	2017	2018
VC/PE Investment amount	146.90	155.04	86.72	97.05
Growth rate	-22.0%	5.5%	-44.1%	11.9%

Unit: 100 million RMB

In Jiangsu province with rich systematic thinking, perfect comprehensive reform and development of ideas and measures of establishing and perfecting the system mechanism of the development of urban and rural integration, the full implementation of the policy measures and the rich peasants, promoting modern agriculture construction, continue to deepen rural reform, improve the rural people's livelihood, promote rural revitalization, agricultural efficiency and farmers' income. As can be seen from Table 3, from 16257 RMB in 2015 to 20845 RMB in 2018, the disposable income of farmers in Jiangsu province has been increasing every year.

Table 3 Disposable income of farmers in Jiangsu province from 2015 to 2018

Year	2015	2016	2017	2018
Disposable income of farmers	16257	17606	19158	20845
Growth rate	8.7%	8.3%	8.8%	8.8%

Unit: RMB

On the basis of the above analysis, this paper discusses the relationship between fiscal expenditure on agriculture, rural areas and farmers' disposable income, VC/PE investment in modern agriculture and farmers' disposable income, fiscal expenditure on agriculture, rural areas and modern agriculture VC/PE investment. As shown in Table 4:

Table 4 Correlation analysis of fiscal expenditure on agriculture, rural areas, VC/PE investment in modern agriculture and farmers' disposable income

	Fiscal expenditure on agriculture, rural areas	VC/PE investment	Farmers' disposable income
Fiscal expenditure on agriculture, rural areas	1		
VC/PE investment	-0.73058	1	
Farmers' disposable income	0.4722	-0.81517	1

Fiscal spending on agriculture, rural areas and farmers and modern agriculture from the Table 4 VC/PE investment correlation coefficient is -0.73058, with the expansion of the consumer market and agricultural science and technology progress, domestic value and value-added agricultural products and the depth of the mining industry value chain for the extension and expansion of PE/VC to provide broad platform for the investment, especially in the high-end food consumer market, such as agricultural electricity, seed industry, cold chain logistics, the Internet of things, and other fields, the addition of capital for the new business model to explore the stability of the financial support, through the casting after cultivating for traditional agriculture to modern agriculture enterprise management and resource integration and so on technical support. However, the empirical results show that the degree of complementarity between the two is only about 73%. From the general background, the integration of agricultural investment still needs to be strengthened.

The correlation coefficient between fiscal expenditure on agriculture, rural areas and farmers' disposable income is 0.4722, indicating that increasing fiscal expenditure on agriculture, rural areas and farmers is an effective way to increase farmers' income and promote the improvement of rural consumption level. Under the new situation, we should increase effective scientific input in rural areas, farmers and agriculture. Subsidies and support for agriculture, rural areas and farmers can directly increase farmers' income and help improve agricultural production methods and efficiency.

The correlation coefficient of farmers' disposable income of VC/PE investment in modern agriculture is -0.81517, indicating that one of the pain points of modern agriculture is the diversification of agricultural production. At present

China's agricultural production is still given priority to with family contracting of small-scale peasant economy, regional scattered, low degree of centralization, small scale, and regional economic development level and infrastructure construction condition is different, resulting in the high cost of production, also contributed to the information, technology popularization and the difficulty of quality control. This mode of production and circulation is the main reason for the low profit of agriculture, especially the low profit of agricultural products. The reason for the dispersion of production is that the existing agricultural land circulation system hinders the realization of intensification and scale, thus hindering the popularization of agricultural information technology and the improvement of farmers' income.

2. Research analysis of management mechanism innovation

(1) Analysis of institutional innovation capability

1) Land system innovation

Thorough planning of rural land property rights, to adjust measures to local conditions, contract right, right to the use of rural land ownership and disposition pattern, from the Angle of economic efficiency, the use of reasonable allocation of agricultural resources, in order to efficient production to reduce the waste of land resources, therefore our country rural area land system innovation should land owner rights and obligations of systematic analysis, will increase the utility of land, land and make necessary person with ability will benefit out of the land resources to create value, rather than having many of the people who own the land but not effective utilization of land resources and waste, the key is to reform and improve the system of rural land, We must promote the transfer of land use rights in accordance with the law on the basis of improving the two-tier operation system based on household contract for joint production, and gradually develop land economies of scale where conditions permit. Specifically, we should strengthen the idea of ownership, clear disposal right, stable contract right and free use right, at the same time relax land use right and set up land circulation mechanism as the focus, so as to realize the development trend of modern agricultural scale operation. In this way, not only solving the problem of land scarcity, but also improving the value of land use.

2) Compound innovation of financing system

Improving the financing status of rural finance is an important measure to unblock the economic lifeline of "agriculture, rural areas and farmers", promote the allocation of financial resources to rural areas, and continuously expand the channels of financial support, assistance, strengthening and enriching agriculture. Every rural area has its natural resources or tangible assets, so the rural financing system should be serialized, combined and diversified. So-called series model is the industrial chain of vertical integration, financial institutions through the agricultural vertical chain of effective control of the cash flow, logistics, information flow or to strength the responsibility of the related party to bind, bank credit effective vertical chain injection in core clients and its middle and lower reaches of enterprises and farmers, enable farmers to effectively guarantee the credit and magnified. Secondly, the combinatorial model is the "credit combination" model. Credit combination is made by financial institutions, investors, agricultural enterprises and farmers, etc.) with the relevant management agencies or organizations (professional cooperatives, agricultural economy department, etc.) on the basis of mutual unanimously by the articles of association or agreement between the credit pattern of win-win cooperation, each other between the combination of resource integration, benefit sharing mode. The so-called differentiation model is in production, supply and sale and so on each link, farmers must pursue the products difference, produce goods and characteristic is different from the competition on the market, also to have the ability to supply product packaging and marketing channel to sell to consumers way mode, put forward a proposal to provide substantial differences between the market financial institutions to evaluate its business model, to establish a kind of hard to imitation micro loan mode innovation.

3) Insurance system innovation

Agricultural production process is afraid to face natural disaster risk, market risk and price risk. Therefore, we should improve the rural insurance system. The establishment of a sound insurance mechanism is to share rural risks. It is necessary to establish a rural insurance mechanism supported by the government and involving various non-governmental sectors, to use the agricultural insurance institutions initiated by the county and township finance, and at the same time to rely on rural trade associations or professional cooperatives to absorb members' funds to set up insurance funds, so as to provide a risk-bearing insurance mode for rural business households. We will steadily carry out trials of mutual assistance of funds among farmers' cooperatives, promote the development of a rural credit system, improve the agricultural insurance system, and expand the coverage of agricultural insurance.

(2) Analysis of organizational innovation ability

1) Amoeba organization innovation

Amoeba organization refers to a flexible organizational design method that can adapt to the needs of rural environment and conduct organizational restructuring or organization alliance, with the purpose of improving the organization's adjustment and response to environmental changes. In a competitive environment, in order to maintain and improve competitiveness, in addition to human resources, equipment, process, marketing and other aspects of innovation, and from organizational transformation, to develop and adjust the most appropriate organizational form. The innovation of rural organizations mainly consists of the establishment of independent operating groups or similar units. These units usually belong to the task grouping method to create the most competitive products in line with the changes in the rural environment. When they cannot continue to maintain their competitiveness or the phased tasks are completed, they will immediately reorganize and create a new niche.

2) Rural volunteer organization innovation

The practice of rural counseling based on the voluntary behavior of farmers will have a profound impact on the production structure, values and governance model of rural areas. Farmer volunteer organizations can use professional methods to mobilize the extensive participation of villagers, enhance the ability of farmers in all aspects, improve the level of farmers' welfare on the basis of preventing and solving rural problems, and finally realize the stable and sustainable development of rural areas. To adopt such an organizational pattern, we still need to rely on the organizational development mode of "government leading, policy support, social participation and co-construction by the whole people".

IV. CONCLUSIONS AND SUGGESTIONS

1. To raise awareness of the role of comprehensive agricultural development

Comprehensive agricultural development is the direction of China's agricultural development, the fresh force of rural economic development and the hope of the 800 million peasants eager to realize the goal of a well-off life as soon as possible. To further deepen the understanding of comprehensive agricultural development role and status, fully realize agriculture and rural economy in our country into the overall urban and rural economic and social development, the construction of modern agriculture, increase farmers' income, promote rural well-off construction of the new stage, continue to promote the comprehensive agricultural development, to improve agricultural production conditions, the development of rural productivity, improving agricultural especially the overall grain production capacity, increase farmers' income, to speed up the pace of construction of well-off society in rural has an irreplaceable role.

2. The national finance should increase the fund conformity strength to the agriculture comprehensive development

The government should intensify the fund integration of local finance. Comprehensive agricultural development is a common undertaking of governments at all levels. We need to bring into the scope of budget management the local government's supporting funds for comprehensive agricultural development. We need to give overall consideration to the budget at the beginning of the year, and give priority to the budget plan, so that the input of local government's supporting funds for comprehensive agricultural development will increase steadily in accordance with the law.

3. Actively guide the integration of diversified funds into joint development

In the work of comprehensive agricultural development, we should give full play to the role of fiscal funds, step up efforts to attract investment, and attract financial capital, private capital, industrial and commercial capital, foreign capital and other social funds to participate in comprehensive agricultural development by means of subsidies, discounted interest and paid support. In the process of investment promotion and capital introduction, insist on market behavior, according to the laws of market economy, through preferential policies provided by the government, create a comfortable environment, through the demonstration of agricultural comprehensive development projects, to introduce strategic investors, in a planned and focused to achieve complementary advantages, cultivate leading industries, the development of leading enterprises + base + farmer industrialization, driving the development of local economy and increasing farmers' income to get rich, to speed up the pace of construction of well-off society in rural, contribute to speed up the socialism new rural reconstruction.

Acknowledgements

Jiangsu province social science application research boutique project financial and economic development special Project 2019 -- "A Study on the fiscal policy of rural revitalization strategy in north Jiangsu" (Project No. 19SCC-027) Phased Achievements.

REFERENCES

- [1.] Chen, L. P. and Jia, J. R.(2010). On the innovation of modern agricultural investment and financing mechanism. Jiangxi social sciences, 2010(6):75-78.
- [2.] Liu, K. G. Song, W., and Wang Z. Z.(2005). Research on the reform and improvement of central agricultural investment management system, Economic research reference, 86, 36-41.
- [3.] Lu, S. M. and Wen, M. T. (2013). Theory of innovative agricultural investment and financing mechanism, Rural management, 2013(3):44-45.