Research on Operation Mode of Farmland Mortgage Financing under Computer Background

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Abstract. In rural areas of our country, the income of agricultural land is very low, and because of its particularity, the mortgage financing procedures are complicated, the cost is high, the difficulty of land mortgage circulation and the difficulty of rural financial development have been a development dilemma. After the computer is widely used, not only the efficiency of each link is greatly improved, but also all kinds of data can be preserved for a long time, with the use of follow-up. This paper discusses the necessity of farmland mortgage financing for rural revitalization and its practical feasibility under the background of computer, and carries on the research of farmland mortgage financing mode with individual regional examples.

Keywords: Computer, Farmland Mortgage, Financing

1. Introduction
The problems of mortgage and financing are always the problems that hinder the rapid development of rural economy, which seriously affect the development of agricultural modernization, scale and industrialization. In recent years, with the support of the state policy, the mortgage loan of rural land management right has been piloted in various places, but it is still in the stage of exploration and discovery, and has not formed a certain scale [1]. There are still many problems to be solved, especially the legal, institutional, risk and evaluation mechanism have become the important reasons to hinder the development of mortgage financing of rural land management right. Under the background of computer, using big data statistics, lending software, data information resources and so on, starting from participants, production level, circulation market, risk mechanism, supervision level and so on, we can explore the important influencing factors in the operation of the mode. It has important theoretical value and practical significance to promote the operation of rural land management right mortgage financing mode.
2. The need of farmland mortgage financing

2.1. The mortgage of rural land use right is the need to guarantee the integrity of land right

Land right is the property right which takes the land as the property object, is a right bundle concept the right to use cannot get the mortgage. This regulation does not adapt to the great demand of agricultural development for financing under the condition of market economy, nor can it promote the development of agricultural productivity. However, our laws create conditions for the mortgage of the right to use rural land. The transferability of the right to land use indicates that the right to land use is transferable and can be transferred from one person to another without changing the household contract responsibility system, which creates conditions for the mortgage of the right to land use [2]. At the same time, the relevant laws newly promulgated in our country stipulate that the land contractual management right can be subcontracted, leased, exchanged and transferred, and so on. This law gives most of the rights to farmers, so that the right to use rural land has the nature of usufruct right. In addition, there is a legal provision that Rights-holders’ right can establish mortgage, which also provides a legal basis for the establishment of farmland mortgage.

2.2. Prerequisites for mortgage of rural land use right

Before the implementation of household contract responsibility system in China, the theoretical circle has always believed that land ownership and the right to use cannot be separated, which leads to the land property right system of our country is extremely imperfect for a long time, so that farmers cannot obtain sufficient land rights and interests. The two rights are separated, and the rural land use right is no longer attached to the land ownership, and can be transferred out of the bondage of land ownership. The land use right can be transferred, and some rights which are closely related to the circulation, such as transfer, lease, stock, mortgage and other disposal rights have been realized. Figure 1 shows the institutional framework of farmland mortgage financing model.
2.3. The mortgage of rural land use right is urgent desire of some farmers
With the development of rural social economy, farmers are becoming more and more dissatisfied with the land disposal right, which is limited to some more ordinary rights, such as subcontracting, transfer, lease and so on. A survey on the "30 years of land contract policy implementation process "shows that 38.6% of the farmers surveyed believe that rural land use rights should have mortgage, that is, the right to mortgage their own land use rights to obtain loans [3]. Because our country's investment in agriculture is insufficient, farmers lack funds for agricultural development, so it is an urgent desire of farmers to finance their own means of production —— land as collateral to obtain funds and develop agricultural production.

3. The characteristics of computer's extensive participation in the operation of farmland mortgage financing mode
The great development of computers has led to a great development of social productivity, not only in cities, but also in the process of land mortgage financing. Even in the process of mortgage financing, because of the use of various software technology, information technology and data technology of
computers, the processes and procedures that originally required a large amount of human, material and financial resources can be completed by computer, and are more clear and easy to inquire at any time. The extensive participation of computer makes the cost of realizing the mode of farmland mortgage financing decrease greatly, and finally the value of farmland can be reflected in the circulation. Figure 2 shows the flow chart of farmland mortgage financing in computer background.[2]

![Flowchart of farmland mortgage financing](image)

**Figure 2.** Flowchart of farmland mortgage financing in computer background

3.1. Farmland mortgage financing based on the right of farmland management

In the mode of mortgage financing of farmland management right, the key material submitted by the new agricultural management subject in the application loan is the certificate of farmland management right, and the bank and other financial institutions issue loans to the borrower, then the mortgage relationship between the two occurs. When the borrower is unable to repay the loan after maturity, banks and other financial institutions can hold the certificate of farmland management right to re-transfer the farmland management right in Wuhan Rural Property Exchange. Once the re-transfer is completed, the main body of agricultural management right loses the farmland management right within the circulation period, and after the expiration, the farmland management right is re-assigned to the farmland contracted farmers. Taking concentric model as an example, this model is a combination of mortgage loan, guarantee loan and credit loan [4]. The farmers mortgage the right of management to the land cooperative and the guarantor who bears the guarantee responsibility for it, and obtain the loan on the basis of the guarantee of the guarantor, and the real value of the mortgage right of farmland management right can be reflected.

3.2. To guide the large-scale to participate in farmland mortgage financing

Through the above research, it can be found that agricultural enterprises, family farms and cooperatives are the main force involved in mortgage financing of pastoral land management rights. The new-type management main body carries on the scale management through the circulation contract farmer's farmland management right [5]. In the aspects of improving agricultural land infrastructure, improving agricultural production technology level and purchasing agricultural machinery, these new management subjects urgently need to solve the problem of funds. The new agricultural management subjects are the main market demand subjects of Wuhan model, while the former market demand subjects are more small-scale farmers. The reasons are as follows: first, the average contracted farmland area of farmers in the northern region is generally higher than the average contracted farmland area of households in the central region, and the number of mortgage loans for small-scale farmers is relatively large; second, the urbanization level in the northern region is far lower than that in the suburbs around Wuhan, the rate of agricultural land circulation is relatively low, the agricultural operating income is usually the main source of income for farmers, and the demand will of
mortgage loans is stronger; third, the corresponding microfinance business specifically for small farmers is introduced to clarify the capital needs of small farmers, thus effectively alleviating the market demand for agricultural land mortgage loans.

3.3. Construction of a unified management model of agricultural land property rights
As the core organization of the mortgage financing mode of farmland management right in Wuhan, the rural property right exchange has realized the function orientation of the farmland circulation platform, realized the effective supply and demand docking between the main body of the market demand and the farmers, and perfected the pricing mechanism of the farmland circulation by means of open listing and bidding. In addition, the mortgage financing mode of farmland management right plays the role of mortgage registration, at the same time, when the loan business is faced with the situation of default, the establishment of farmland re-flow platform, to achieve the function of risk prevention. In addition, a unified rural property right registration query database has been established, including title certificate number, property right owner, property right user, property right nature, property right name, property right years, location, property right mapping map and so on. The relevant departments of the city and district shall, in accordance with their respective functions, record, revoke, change and supplement the data of rural property rights, establish an information sharing mechanism, and realize the mutual use of information among various departments. At the same time, open the rural property right information query function, the property right holder can use the title certificate number and password to query all the property right information through the network.

3.4. Establishing the risk prevention mechanism of mortgage financing for farmland management right
In view of the mortgage financing of agricultural land management right, taking Wuhan as an example, the finance expects to arrange the risk compensation fund every year, the Wuhan Agricultural Investment Company establishes the special account management in the administrative bank, each new urban area may arrange the corresponding risk compensation fund according to the actual matching, Wuhan Agricultural Investment Company is responsible for the specific operation of the financial risk compensation, the financial institutions and the agricultural investment company jointly bear the risk, the agricultural capital management company buys the bad assets from the bank and other financial institutions, the two jointly determine several professional evaluation institutions, and carry on the professional and rigorous pricing analysis. The disposal methods include negotiation, litigation recovery, asset restructuring, debt-to-equity conversion and asset replacement. The specific methods are decided by both parties through consultation [6].

4. Optimization of operation mode of farmland mortgage financing under computer background
From the practice of various places, the main models of land management right mortgage loans are "financial institution farmers" or "financial institution guarantee company farmers" or "financial institution professional cooperative" or "financial institution modern agricultural company farmers" and so on. Combined with rural financial practice, in order to effectively control the credit risk and minimize the natural risk of agriculture, the commercial model of agricultural science and technology and agricultural products marketing channels is introduced, that is, the "financial institution modern agricultural company rural economic cooperative farmers" is the optimal model, which is also conducive to the development of moderate scale management [7]. This model is based on the land management right and its related mortgage loan varieties, connecting the financial resources
advantages of financial institutions, the leading role of modern agricultural companies in science and technology, and the fragmentation and integration function of land resources of economic cooperatives.

5. Conclusion
To sum up, the establishment of mortgage right of rural land use right is necessary and feasible. In our country, as long as there is a commodity monetary relationship, there is a separation of land ownership and the right to use, we can set up mortgage with the right to use farmland as collateral, which will promote the development of agricultural land finance in our country. But we also want to see objectively, if our country wants to set up the farmland mortgage, must face some urgent problems, such as the farmland property right is not clear, the farmland circulation market is not complete, how to weaken the farmland welfare function, especially to the farmland welfare function. Farmers in our country have always regarded land as the most basic guarantee of life. If farmers take their land use right to mortgage and the debt expires, the creditors have the right to take back the land use right, so that the peasants who lose the land will have no place to live.

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