

Analysis of Farmers' Desire for Contracted Land Management Right Mortgage

Xiaoyan Zhang

Xi 'an Fanyi University, Xi 'an, Shaanxi, China, 710105

Keywords: Contract Land, Loan on Mortgage, Need Demand, Right of Management.

Abstract. This paper takes 287 farmers in Xi'an and Xianyang city of Shaanxi Province as a sample, analyzes the demand and influencing factors of contracted land management right and mortgage demand. The analysis shows that farmers' education level, contracted land area, understanding of policies are positively related to farmers' contracted land management rights and mortgage demand. However, the age of farmers is negatively related to farmers' contracted land management rights and mortgage demand. At last, according to the principle of 'according to law, paid, fair, voluntary', this paper puts forward the following suggests. To promote land circulation and adjust land structure, farmers should transfer the contracted land management right, enhance the land mortgage value, and further improve the system and operating mechanism of contracted land management right mortgage loan, standard lending procedures .We will raise the level of social security for farmers.

Introduction

With the continuous implementation of the preferential agricultural policies, Chinese rural economy has been leaping development, the rural population gradually shifted to the town, the rural industry showed a diversified trend, thus speeding up the adjustment of industrial structure. At present, Chinese agriculture is from the traditional agriculture to the modern agricultural transformation of the critical moment, agriculture and financial dependence and relevance closely. Due to the special economic and social attributes of the contracted land, the contracted land is the economic basis for the survival of the peasant household. The contracted land is the object of the mortgage of the land management right. It is the basis of the mortgage and the material basis in the agricultural production and operation. With the continuous development of the practice of reform of a series of rural land system, the overwhelming peasants' demands for realizing their own land property rights are increasing. How to realize the value of land economy becomes a practical problem, and the right to operate in the land contractual management right has a mortgage Of the prerequisites, on this basis, the use of contracted land management mortgage loans for the "three rural" development of funds, after all, an effective reform to explore [1]. The agricultural land system, which is the necessary measure and important component of the deep reform of the rural land system, is an intermediary form to realize the land circulation [2]. The development of agricultural land finance can better guarantee the development of agriculture [3]. It is impossible to effectively solve the guarantee problem of mortgage loan and provide a new way to solve the financing problem in the agricultural development process, which has promoted the improvement of the rural financial system [4]. However, there is also a view that the land contract management rights mortgage cannot solve the problem of financing farmers, due to the right to operate land in the mortgage a series of risks exist, when the repayment of loans and mortgage failure, it is easy to cause farmers to lose land and the breeding of social problems [5]. Because farmers are operating a small scale of land, and contracted land to farmers to play a natural survival guarantee function, generally engaged in food farming industry farmers on the mortgage enthusiasm is not high, and high value-added labor for large farmers only the land management right has a strong demand for mortgage [6]. What, however, is the willingness of farmers to mortgage mortgages? What are the main influencing factors? In this paper, the author analyzes the influencing factors of the farmers'

participation in the right to operate the land management mortgage. The Logistic model is based on the farmer's perspective, and the farmers in Shaanxi Province as the survey object. The empirical analysis of the willingness of the farmers contract the land management right and its influencing factors implement the policy implementation in Shaanxi Province to make reasonable recommendations.

Field Investigation and Sample Characteristics

From January to September in 2016, the author selected the pilot counties in Xi'an, Xianyang City, Shaanxi Province as the sample survey, and distributed 300 questionnaires to the farmers, and recovered 287 effective cases up to 95.66%. The survey mainly from the following four aspects: ① the basic situation of farmers, ② farmers' occupational categories, ③ farmers' household income sources, ④ farmers to participate in farmland management rights mortgage will. The statistics of the surveyed samples are shown in the table below.

Table 1 Survey sample basic situation statistics table

Item		frequency (No)	percentage (%)	Item		frequency (No)	percentage (%)
gender	male	165	57.47	Occupational category	Pure agriculture	67	23.24
	female	122	42.53		Agriculture and industry	95	33.25
age	<30	16	5.57		Non-agricultural-oriented and concurrently	49	17.06
	31-40	76	26.63		Pure non-agricultural	76	26.46
	41-50	138	47.95		Family income source	crop farming	101
	51-60	57	19.84	Aquaculture		46	16.19
Cultural level	Primary school and below	94	32.72	Self - employed		54	18.71
	junior school	124	43.34	go out for work		81	28.2
	High school	53	18.54	other	5	1.83	
	College or higher	16	5.4	Farmers' willingness to participate in mortgages	willing	116	40.38
The degree of understanding of the relevant policy	Very well understood	56	19.5		unwilling	171	59.62
	General understanding	188	65.62	Working experience	Have work experience	189	65.71
	Completely ignorant	43	14.88		No work experience	98	34.29

(47.47%), aged 41-50 years (47.95%), most of the education level for junior high school (43.34%), 65.62% of the respondents to the general understanding of agricultural land mortgage policy, 33.25% of the respondents were mainly engaged in agriculture, with household income ranging from planting and migrant workers, 59.62% of households were reluctant to use farmland mortgages, and 65.71% of the respondents had working experience.

Analysis of Farmers' Willingness Based on Binary Logistic Model

In this paper, 300 questionnaires were distributed in five districts and counties in Xi'an, Xianyang City, Shaanxi Province, which had already carried out rural land contractual management mortgage business. Among them, 287 valid questionnaires were retrieved and the effective rate was 95.66%.

This paper mainly studies whether the farmers are willing to contract the right to operate land

for mortgages, generally only two cases: willing or unwilling. This is a qualitative dichotomous variable. In this paper, the explanatory variable (Y) is the potential for the loan, this non-metric variable and only two states, Y only take 1 and 0 two values, the farmer is willing to participate in the land mortgage when Y = 1, it does not want to participate when Y = 0, the variable is interpreted as a discrete random variable. Therefore, this paper uses binary logistic regression model to analyze it. The general form is:

$$\log\left(\frac{P_i}{1-P_i}\right) = \alpha + \sum_{j=1}^n \beta_{ij} \chi_{ij} + \mu (i = 1, 2, 3 \dots, n) \quad (1)$$

In the formula, P_i is for the first farmer has the probability of land contractual management of the probability of mortgage, α as a constant, χ_{ij} is for the impact of the first farmer land contractual management rights of the various factors, β_{ij} is the corresponding coefficient μ is for the random error.

The Selection and Description of Variables. Based on the existing research and taking into account the basic characteristics of farmers, the situation of borrowing and the status of farmland mortgage policy in the region, the following variables are chosen as explanatory variables.

Table 4.1 Dependent variables and assignments that may affect the willingness of the land contractor to be landed

Variable name	Code	Variable assignment	Expected impact
Whether it is willing to participate in farmland mortgage	Y	1= willing; 0= unwilling	
Age of visited farmer	X1	1=<30; 2=30-40; 3=40-50; 4=>50	-
Gender of visited farmer	X2	1= male; 0= female	+
Cultural level of farmers surveyed	X3	1= Primary school and below; 2= junior school; 3= High school; 4= College or higher	+
Occupational Types of Peasant Households	X4	1= Pure agriculture; 2= Agriculture and industry; 3= Non-agricultural-oriented and concurrently; 4= Pure non-agricultural	+
Family annual income	X5	1= < 30,000 ; 2=30,000-50,000 ; 3=50,000-100,000; 4=>100,000	-
Family main source of income	X6	1= crop farming; 2= Aquaculture; 3= Self-employed; 4= go out for work; 5= other	-
Scale of cultivated land	X7	1=<10 mu; 2=10-30 mu; 3=30-50 mu; 4=>50 mu	+
Whether contract the land	X8	1= contract; 0= No contract	+
Whether there is a borrowing demand	X9	1=Yes; 0=No	+
Understanding of Farmland Mortgage Policy	X10	1= Very well understood ; 2= A little understanding; 3= Completely ignorant	+

Note: "+" represents a positive impact on the willingness of farmers to participate in land contractual management mortgage loans; "-" indicates that the factors have a negative impact on farmers' willingness to participate in land contractual management mortgage.

Table 4.2 Descriptive characteristics of variables

Explanatory variables	Minimum value	Maximum value	Mean	Standard deviation
Age of visited farmer	1	4	2.18	1.03
Gender of visited farmer	0	1	0.54	0.50
Cultural level of farmers surveyed	1	4	2.38	0.95
Occupational Types of Peasant Households	1	4	2.62	1.05
Family annual income	1	4	2.55	0.83
Family main source of income	1	5	4.14	4.49
Scale of cultivated land	1	4	1.88	1.40
Whether contract the land	0	1	0.30	0.46
Whether there is a borrowing demand	0	1	0.33	0.47
Understanding of Farmland Mortgage Policy	1	3	2.26	0.62

Analysis of Metrological Regression Results. In this paper, we use the measurement software spss22.0 to measure the survey samples. According to the characteristics of the model, we select the "binary logistic" regression model analysis in the regression model analysis, and replace all the independent variables and the dependent variables into the regression mentioned above in the equation, the significance of the regression coefficient is examined.

According to the result of spss22.0, the closer the P value of the simulated test is to 0.0000, the better the fitting effect is. The more the explanatory variable, the closer the P value, the better the fitting effect. Moreover, the regression coefficient is positive, indicating that the independent variable has a positive effect on the dependent variable, the regression coefficient is negative, indicating that the independent variable has a negative impact on the dependent variable.

Table 4.3 Rural land contractual management mortgage return results

Explanatory variables	B	S.E.	Wald	df	Sig.
Age of visited farmer (X1)	-0.580**	0.410	2.000	1	0.047
Gender of visited farmer	-0.022	0.248	0.008	1	0.931
Cultural level of farmers surveyed	0.060**	0.128	0.218	1	0.041
Occupational Types of Peasant Households (X4)	-0.056	0.117	0.227	1	0.633
Family annual income	-0.088	0.145	0.363	1	0.547
Family main source of income (X6)	0.029	0.027	1.158	1	0.282
Scale of cultivated land (X7)	-0.026	0.092	0.079	1	0.778
Whether contract the land (X8)	0.292***	0.266	1.206	1	0.002
Whether there is a borrowing demand (X9)	-0.199	0.260	0.588	1	0.443
Understanding of Farmland Mortgage Policy	0.457**	0.198	5.297	1	0.021
Constant	-0.210	0.368	0.325	1	0.568

Note: *** indicates significant at 1% level, ** indicates significant at 5% level, * indicates significant at 10% level.

Table 4.3 is the result of the regression analysis of the 287 valid samples recovered by the measurement software spss22.0. From the results obtained from the model, the overall fitting effect is consistent with the test, the model is applicable, and the following specific analysis of each factor Impact on Farmers' Participation in Rural Land Contractual Mortgage Business.

(1) The regression coefficient of farmer's age (X1) $B = -0.580 < 0$, $P = 0.047 < 0.05$, through the 5% basis of the significance level test, indicating that the age of farmers for their participation in rural land contract management rights mortgage Loan business has a negative impact, that is, the older farmers, the more reluctant to participate in farmland mortgages, mainly because with the growth of farmers' age, the risk can be less and less, the older farmers, the more Do not want to take more risks, so do not want to participate in agricultural land mortgage business.

(2) The regression coefficient of farmer's education (X3) is $B = 0.06$, $P = 0.041 < 0.05$, and the significance level test on the basis of 5% shows that the education level of farmers is related to rural land contract The higher the cultural level of the farmer, the stronger the willingness to participate in the farmland mortgage business, mainly because the higher the cultural level of the farmers, the stronger the ability to accept new things, rural areas Land contracting mortgage business is a new thing, the higher the degree of education of farmers more receptive capacity.

(3) The regression coefficient $B = 0.292$ and $P = 0.002$ of the contracted land or not (X8), and the significance level test on the basis of 1% shows whether the contracted land of the farmer is involved in the rural land contract management The mortgage business has a positive impact, indicating that the contracted land farmers are more willing to participate in the rural land contract management mortgage business, mainly because the contractor a large number of land farmers need more funds, need to seek loans, and its expected land contract Income is able to repay the loan, so more willing to participate in the land mortgage business, on the contrary, are reluctant to participate in the business.

(4) The understanding of the rural land contract management mortgage policy (X10) regression coefficient $B = 0.457$, $P = 0.021$, through the 5% on the basis of the significance level test, that farmers understand the agricultural land The mortgage policy is positive for its participation in the rural land contract management mortgage business, the more understanding of the policy, the more willing to participate in rural land contract management mortgage business, because farmers are often willing to support their understanding of things, while knowing that Bear the risk, in this premise, farmers are more willing to participate in the land mortgage business, if they do not know, do not want to participate.

In addition, the P value of the farmer's gender (X2), the occupational category (X4), the household income (X5), the main source of income (X6), the size of the cultivated land (X7), and the borrowing demand (X8) 0.1, indicating that these independent variables did not pass the significance level test, whether the dependent variable is willing to participate in rural land management mortgage business did not cause significant impact, not its analysis.

Research Conclusions and Policy Recommendations

In this paper, the binary logistic model is used to analyze the willingness of 287 households in Xianyang City, Shaanxi Province and Xianyang City. The following conclusions are drawn: (1) Farmers' willingness to contract land is limited by many factors the influence of the independent variables chosen in this model on the contractual land management right is different in different directions. (2) In the influencing factors, the education level of the farmer, the area of the contracted land, the degree of understanding of the policy and the willingness to contract the land management right mortgage demand are positively related, and the farmer's age and the contractual land management right mortgage demand will be negative related.

In order to solve the problem of farmers' loans, the paper puts forward the following suggestions: First, let the farmers according to the principle of "legally paid, fair and voluntary", and transfer the land management right to raise the farmers' income. The second is to "promote the transfer structure" as a means to enhance the value of farmers land mortgages. Revitalize the financial institutions of the stock funds to promote agricultural economic growth. Third, to further improve

the contractual land management right mortgage system and operating mechanism, standardize the loan procedures increase the amount of loans, a reasonable determination of the loan period, to ensure that the contractual land management mortgage business continued steady development. Fourth, improve the level of social protection of farmers. Farmers have been regarded as the basic agricultural means of production and living security resources, restricting the farmers to obtain contractual land management mortgage loans. Only by gradually improving the rural social security system, raising the social security level of farmers, eliminating the survival of farmers to worry about, in order to completely contract the land of social security attributes weakened. Combined with "to the housing pension" to explore the "land to support the old" model, play the land of the economic value and social benefits.

Acknowledgements

Fund Project: 2016 Xi'an City Social Sciences "Research on Xi'an agricultural land management mortgage risk prevention problem" (project number: 16XF08)

References

- [1] Deng Xiaoyun. Chinese rural land mortgage practice dilemma and legal system perfect [J]. Gansu Social Sciences .2014 (5): 184-187.
- [2] Gao Wei. Actively build the agricultural land financial system [J]. Jiangsu Rural Economy .2007 (7): 34-35.
- [3] Luo Jianzhao. Chinese agricultural land financial system research [M]. Beijing: China Agricultural Publishing House .2005.
- [4] Lin Le-fen, Wang step-day. Evaluation of the supply of agricultural mortgage system[J]. Economist .2015 (10) 84-91.
- [5] Chen Xiwen. Farm land mortgage loans should not be popular in China [J]. Half months .2010 (4): 50-51.
- [6] Zhang Xiaoyan, Tan Wenwei. Analysis of Farmers' Land Management Right Mortgage Lending[J]. Western Finance .2017 (5) 47-48.