

The Impact of “The Separation of Three Rights” to the Management Right of Rural Land——The Empirical Analysis based on the Survey Data of Shandong Province

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Abstract

The refer and policy implications of “the separation of three rights” can promote the management right of rural land transfer orderly. Based on the 486 questionnaire data of 17 cities in Shandong Province, we use Logistic model make empirical analysis on the impact of “the separation of three rights” to the management right of rural land. The results prove that the policy of “the separation of three rights” has no remarkable effects to the roll-in and roll-out of the rural land management right. However, the ownership of cognitive to the mortgage of the rural land can influence the roll-out of the rural land management right. Moreover, rural land circulation intermediary organizations, social security system and non-agricultural income proportion and agricultural training have no significant impact on the rural land management right transference behavior.

Keywords

“The Separation of Three Rights”, The Rural Land Management Right, The Transference of The Rural Land Management Right.

1. Introduction

In order to lead to better land circulation and get humidity scale operation, the policy of "the contract and management right are separated in parallel" were presented in the central rural work conference in December, 2013 for the first time. “The separation of three rights” was under such a background that rural collective land ownership remains the same and realize the separation of contract and management rights to promote the transference of rural land management right orderly. Therefore, on the one hand, “the separation of three rights” emphasized land collective ownership and promoted rural collective property rights system reform; on the other hand, further clarity property relations of contracted rural land which can promote the transference of rural land in larger scope and optimize efficient allocation of farmland resources. However, whether “the separation of three rights” can release the great reform of dividends and strengthen the rural land contract and management rights still need further study. From the property right theory, clarification of land rights can reduce trading cost and promote the land deal. “The separation of three rights” clarified the village collective land ownership, contracting farmers land contract right and the actual farmers land management right of land, which can lower the trade cost of land transference, but the actual effect need the empirical study. In this new situation, we need further study and exploration to find how “the separation of three rights” effect the rural land management right and other factors which restrict the transference of the management right. “The separation of three rights” is an important content that effects the transference of management right. However, the research which regards “the separation of three rights” as an factor of the transference of management right is rare because of the short implementing period. In the respect of how the rural land system effects the transference of management right, many scholars concentrate on the property rights system to rural land long-term investment which can further effect the transference of rural land. Most of the scholars study the influence factor of the rural land transference under the background of “the separation of two rights”(the Household Responsibility System).Based on the above-mentioned, this paper takes the field survey data as

example and combines the existing relevant research results to study how “the separation of three rights” effects the transference of rural land management right by the econometric model.

2. Analytical framework and research hypothesis

2.1 Analytical framework

The analytical framework are as shown in the figure 1.

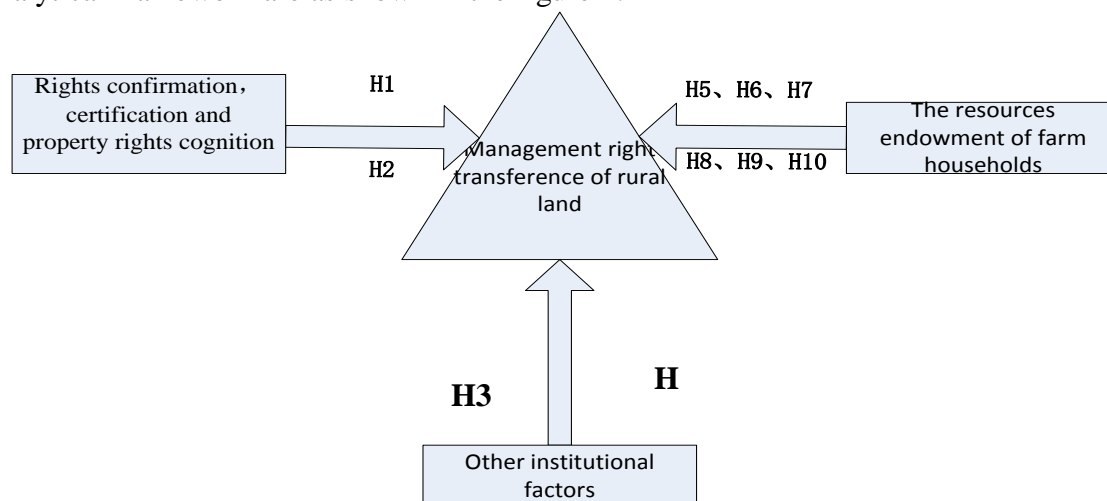


Figure 1. Analytical framework

2.2 Theoretical basis and research hypothesis

2.2.1 Rights confirmation, certification and property rights cognition

Property rights theory expressed that to define the property rights can promote transaction. Rights confirmation and certification could reduce the land system risk and reduce the transaction costs during the whole process of the land transference, which made the farmers take more part in the land transference. However, it can also bring the land disputes and uncertainty that would hinder the land transference. Moreover, property rights cognition would influence the rural land transference to some extent. Based on the theoretical analysis, we put forward the research hypothesis as follows.

H1:It is uncertain that how the rights confirmation and certification under the background of “the separation of three rights” influence the rolling in and rolling out of the rural land management right.

H2:It brings positive influence on the rolling in and rolling out of the rural land management right that the farmer property rights cognition to the land management can be pledged.

2.2.2 Other institutional factors

We can divide the land transference process into three stages that contain searching transaction object, negotiation and signing, contract supervision and execution. It concluded that rural land circulation intermediary organizations could lower the transaction costs in every stage of the transference process by theoretical analysis. What’s more, the rural farmland undertakes the function of social old-aged insurance that farmers would not easily roll out their farmland. To perfect the rural social security that involves family security, social pension and commercial endowment insurance can promote the land free transference. Based on the above, we can make the research hypothesis as follows.

H3:It brings positive influence on the rolling-in and rolling-out of the rural land management right that the rural land circulation intermediary organizations.

H4:It brings positive influence on the rolling-in and rolling-out of the rural land management right that the rural social security.

2.2.3 The resources endowment of farm households

The high non-agricultural laborers proportion in a rural family contribute to rolling out the farmland and adverse to the rolling in the farmland. What’s more, the age, educational situation and agricultural

training condition of head of a household had a remarkable influence on the transference behavior of land management right. Based on the above analysis, we can make the research hypothesis as follows.

H5:It brings positive influence on the roll-out of the rural land management right that the amount of non-agricultural laborers and reverse to the rolling-in of the rural land management right.

H6:It brings positive influence on the roll-out of the rural land management right that the non-agricultural income of farmers and reverse to the rolling-in of the rural land management right. H7:It brings positive influence on the roll-out of the rural land management right that the age of head of a household and reverse to the rolling-in of the rural land management right.

H8:It brings positive influence on the roll-out of the rural land management right that the educational situation of head of a household and reverse to the rolling-in of the rural land management right.

H9:It brings positive influence on the transference of the rural land management right that the head of a household has the identity of village cadres.

H10: It brings negative influence on the roll-out of the rural land management right that the educational situation of the head of a household and reverse to the rolling-in of the rural land management right.

3. Econometric model, data source and variable selection

3.1 Data source

We chose 17cities, 46 counties, 186 villages in Shandong Province. It was given out 558 questionnaires in total and 486 was retrieved. The ratio of effective of the questionnaires reached up to 87.09%.The transference situation of the sample farmers took part in was as follows.

Table 1. The transference situation of the sample farmers took part in

Total sample	Land roll-in		Land roll-out		Land roll-in and land roll-out		Non-land roll-in and non-land roll-out	
	Number	Ratio (%)	Number	Ratio (%)	Number	Ratio (%)	Number	Ratio (%)
486	74	15.22	164	33.81	24	0.05	224	46.09

3.2 Econometric model choice

We change the rural land management right transference which is called dependent variable into dichotomous variable contains transference and non-transference. We choose the relevant econometric model to use for reference and finally use the binary logistic regression model. The binary logistic model which regards y_i as dependent variable and x_i as independent variable between “the separation of three rights” institution and land transference is as follows.

$$P = F(\alpha + \sum \beta_i x_i) = \frac{1}{1 + e^{-(\alpha + \sum \beta_i x_i)}} \tag{1}$$

It often needs Logit transform when making regression analysis. The linear regression model between the probability function and independent variable is as follows.

$$\ln\left(\frac{p}{1-p}\right) = (\alpha + \sum \beta_i x_i) = b_0 + b_1 x_1 + b_2 x_2 + \dots + b_n x_n + \varepsilon \tag{2}$$

In the model(2),dependent variable represents whether the farmers transfer their farmland. The value is 1 if the farmers choose to transfer their farmland. The value is 0 if the farmers choose not to transfer their farmland. The independent variable is the key variable “the separation of three rights” institution and the control variable. The stochastic error term is ε .

3.3 Variable selection introductions

Table 2. The introductions of variable

Category	Name of the variable	Sign	Variable definition
The rural land management right transference variables	Whether the management right can be rolled out	y_1	no=0, yes=1
	Whether the management right can be rolled in	y_2	no=0, yes=1
“The separation of three rights” institution variables (The key explanatory variable)	Whether the farmers have the contract and management rights certificates	x_1	no=0, yes=1
	Whether the farmers have the management rights certificates	x_2	no=0, yes=1
	Whether the farmers know the management right can be mortgaged	x_3	no=0, yes=1
Other institutional variables	Land circulation intermediary organizations	x_4	no=0, yes=1
	Rural co-operative medical system	x_5	no=0, yes=1
	Endowment insurance	x_6	no=0, yes=1
	Commercial old-age insurance	x_7	no=0, yes=1
Household characteristics variables	The amount of family labors	x_8	whose age refers to 16-60
	Non-agricultural laborers proportion	x_9	The number of non-agricultural labors /The family total labors (%)
	Non-agricultural income proportion	x_{10}	Non-agricultural income/The familytotal income (%)
	The age of head of a household	x_{11}	The actual age
	Educational situation of head of a household	x_{12}	illiteracy =1 primary school level =2 junior middle school level =3 high-school education =4 college degree =5
	whether the head of a household has the status of village cadres	x_{13}	no=0, yes=1
	Agricultural training situation	x_{14}	no=0, yes=1

3.4 Statistical description

It showed the descriptive statistics of the major variables in the table 3. The average of the roll-out of the management right is 0.338 and the number of the roll-in is 0.152. The percentage of the farmers who took part in the transference market is 53.8%.

Table 3. Descriptive statistics of the primary variable

Variable	Mean value	Standard deviation	Min	Max
y_1	0.338	0.474	0	1
y_2	0.152	0.360	0	1
x_1	0.557	0.498	0	1
x_2	0.138	0.346	0	1
x_3	0.229	0.421	0	1
x_4	0.239	0.428	0	1
x_5	0.690	0.463	0	1
x_6	0.343	0.476	0	1
x_7	0.062	0.242	0	1
x_8	3.052	0.934	1	7
x_9	0.470	0.368	0	1
x_{10}	0.600	0.305	0	1
x_{11}	49.971	7.991	36	82
x_{12}	2.829	0.885	1	5
x_{13}	0.310	0.463	0	1
x_{14}	0.4	0.491	0	1

4. Empirical analysis

We conducted the logit regression analysis to analyze how “the separation of three rights” institution influence the rural land management right transference using the Binary Logistic model by stata12.0. The operating results was well and statistical test was highly significant. The metering results basically verified the hypothesis we had made. The specific concerns are as follows.

Table 4. The regression results between “the separation of three rights” and the land management right transference

Variable	The land rolling-out		The land rolling-in	
	Coef.	Std.Err.	Coef.	Std.Err.
The key explanatory variable				
“The separation of three rights” institution variables				
x_1	0.893	0.938	0.118	2.476
x_2	—	—	0.675	1.973
x_3	2.793*	1.479	2.841	0.212
Other institutional variables				
x_4	2.957**	1.178	7.900**	3.302
x_5	2.296	1.852	2.552	2.140
x_6	2.411***	1.182	4.041**	2.051
x_7	-1.011	1.745	-0.541	6.438
Household characteristics variables				
x_8	-0.091*	0.353	0.612	0.692
x_9	3.250**	1.365	-4.929	3.027
x_{10}	19.114***	4.936	-33.108***	12.667
x_{11}	0.045	0.051	-0.022	0.138
x_{12}	0.528	0.484	1.532	1.181
x_{13}	3.254***	1.179	2.699	2.260
x_{14}	2.319**	0.959	4.483*	2.414

Cons	-29.524***	7.360	-6.830	9.610
Sample number	164		74	
LR chi2(15)	188.60		151.47	
Prob> chi2	0.0000		0.0000	
Pseudo R ²	0.7967		0.8697	

Comments:***, **, * respectively represent passing significance testing on the level of 1%, 5% and 10%.

4.1 The impact of “the separation of three rights” institution to the rural land management right transference

It showed that there was no obvious significance to the rural land management right transference that whether the farmers had the contract and management rights certificates and management right certificates. The possible reasons are as follows. Firstly, the effect of rights confirmation and certification has the hysteretic nature. Although the confirmation and certification work nearly has been finished in Shandong Province at the present stage, the contract and management rights certificates and management right certificates has not been reached to the farmers. Secondly, “the separation of three rights” institution works alone so hardly that it needs the other institutions and factors to cooperate. Thirdly, the farmland often was regarded as the lifeblood of them. It is the concentrated reflection of farmers survival rights and the basic protection of farmers stable living. The farmers were cautious about the land transference decision. Lastly, the land transference behavior often occurs between farmers. So they just signed verbal agreement when they transfer their farmland, which lacked of legal effect. Thus the farmers might choose not to transfer their farmland to avoid the trouble and disputes. There were only 76 households that signed the formal contracts of the transference in the surveyed farmers. The factors that the farmers’ cognition to the land management can be mortgaged influenced the rolling-out of the land management right on the significance level of 10% and had no influence on the rolling-in of the land management right. There were 199 farmers who knew the land management right could be mortgaged among the 486 farmers we researched.

4.2 The impact of other institutional factors to the rural land management right transference

It caused positive influence on the whatever rolling-out or rolling-in of the rural land management right that the land circulation intermediary organizations and on the significance level of 5%. It could reduce the transaction costs during the process of the land transference and improve the participation degree of farmers. We discussed the relationship between the land management right transference and rural co-operative medical system, endowment insurance, commercial old-age insurance. The endowment insurance had the effect to the rolling out of the rural land transference on the significance level of 1% and the rolling in of the rural land transference on the significance level of 5%. The other two insurance had no significant influence.

4.3 The impact of household characteristics to the rural land management right transference

It brought negative influence on the roll-out of the rural land management right that the amount of family labors and had no significant influence to the roll-in of the rural land management right. Because there were enough labors in a family so that they tend to cultivate by themselves and not to roll out their farmland. Non-agricultural employment proportion was on the significance level of 5%. It showed that when there were enough non-agricultural employment labors, they tended to roll-out their farmland. Non-agricultural income proportion was on the significance level of 1%. It had a remarkable influence to the rolling-in of the land management right transference that whether the farmers got the agricultural training. The farmers who got the special agricultural training would master the planting technology, machinery operation and government policy. Thus, they tended to roll in the farmland.

5. Conclusions and policy implications

Firstly, our government should strengthen the implementation of the rural land management rights confirmation and certification work and reinforce the farmers' contract consciousness. Secondly, we need to attach great importance to the land circulation intermediary organizations that we can reduce the transaction costs in the process of land transference. Meanwhile, we should also avoid the negative influence of the village collective organizations imposing the land transference. Land circulation information service platform can be set up by the village collective organizations and township organizations to meet the farmers' requirements. Thirdly, we should perfect the social security system to lower the farmers' dependence to the farmland. Lastly, we should speed up the development of rural non-agricultural industries and improve farmers' non-agricultural income.

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