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THE INFLUENCE OF FARMLAND DIFFERENTIATION ON THE IMPLEMENTATION OF LAND TITLING IN VILLAGES: EVIDENCE FROM CHINA

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1. INTRODUCTION

Land titling, a policy initiated in 2009, takes “Property Right Certificate" as the carrier of land rights to further strengthen the land property stability of farmers.

Unlike other mandatory policies, the Chinese Central Government has no rights and has no abilities to directly manipulate the implementation of land titling since agricultural lands are collectively owned in China.

1. INTRODUCTION

The implementation of land titling requires **the collectives** to finish the several steps.

Collective is the combination of the farmers in the same community. Modeling **farmers' policy acceptance** is crucial to evaluate the implementation cost of land titling.

We observed that land titling had heterogeneous procedures across villages with different **farmland quality** condition and **private investment**.

The questions need to be considered are: why would the villages' farmland conditions impact farmers' acceptance of policy, and how to follow mechanisms to reduce difficulties associated with Land Title implementation.

2. BACKGROUND: THE CONS AND PROS OF LAND TITLING

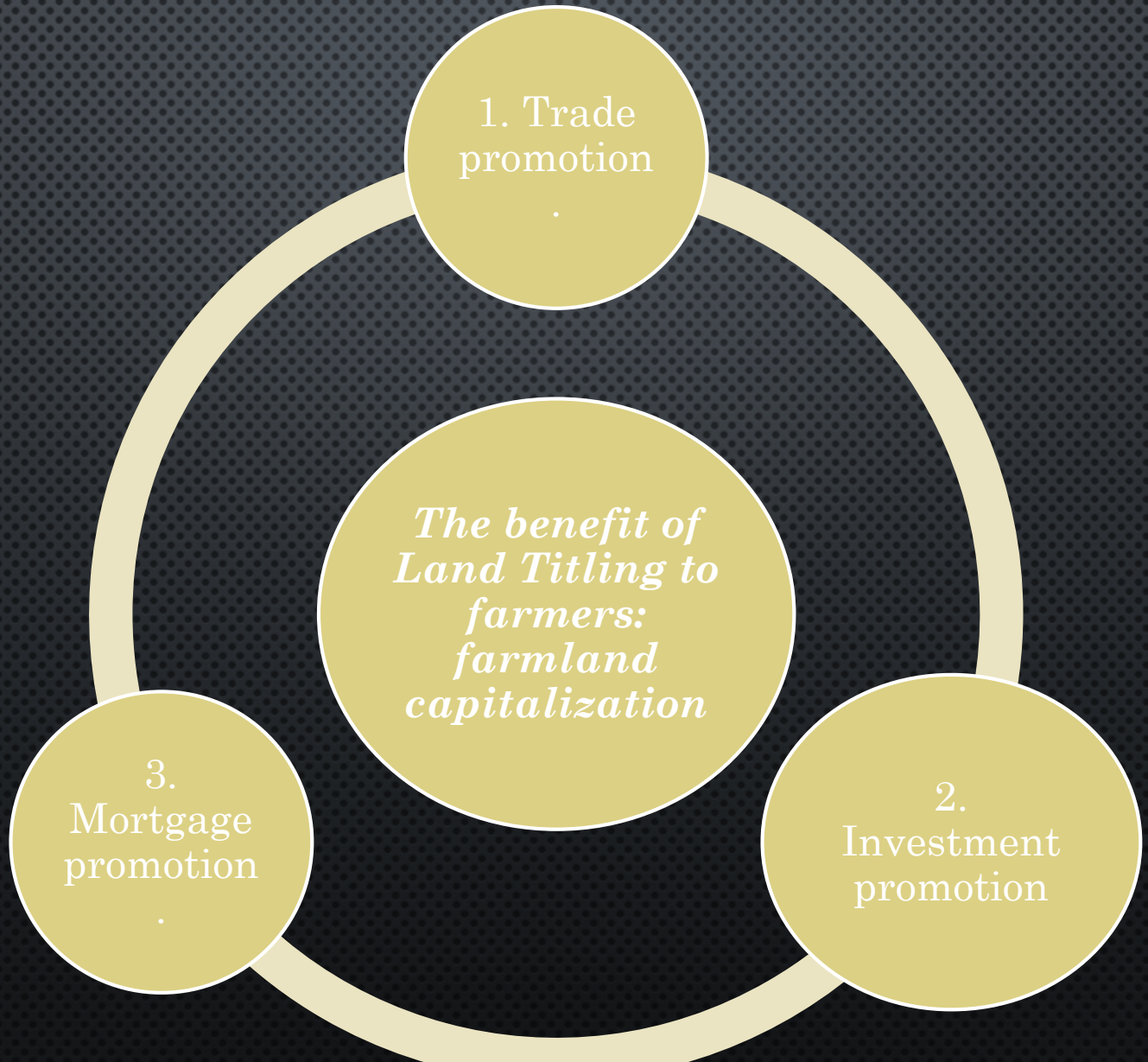
China has experienced several major land revolutions, but the fairness is always the most important concern.

To ensure fairness, it is necessary to meet the farmers' demands through the agricultural land adjustment.

The cost of and titling for farmers

After the implementation of land titling, farmland will not be redistributed to ensure property rights.

2. BACKGROUND: THE PROS AND CONS OF LAND TITLING



3. THEORETICALLY FRAMEWORK AND HYPOTHESIS

HYPOTHESIS 1:

Homogenous farmland is more easily titled than heterogeneous land.

It can also reduce the disputes between the farmers and reduce the unfair cost of farmers to accept this new policy.

Those farmers who live in the village with homogenous farmland quality accept land titling more favorably.

3. THEORETICALLY FRAMEWORK AND HYPOTHESIS

HYPOTHESIS 2

Investment in agricultural infrastructure makes land more valuable, and fully reflect the benefits of Land Titling.

In a village where everyone has already invested the same investment, the clarity of property rights may not be so important because everyone's investment is equal and there is no need for someone to hold up; (2) similarly, a village where everyone have no investment cannot arouse farmers' awareness of protecting property rights because there is no room to hold up

Agricultural infrastructure investment can evoke farmers' need of increasing their ownership strength of the farmland.

Those farmers who live in the village with different private investment accept land titling more favorably.

4.RESULTS

DATA: THE PROCESS OF LAND TITLING

we asked the following five questions.

"Have your village begun the Land Titling?"

"Have your village completed the surveying and mapping of your farmland?"

"Have your village has published the farmland map to all the farmers in the village?"

"Have you signed on the confirmation?"

"Have your village completed the certificates issuance?"

VARIABLE SELECTION: DEPENDENT VARIABLE

1 The land titling procedure of each farmer

VARIABLE SELECTION: THE INDEPENDENT VARIABLES.

For the elicitation of the differences in the quality of the farmlands within the same community, we choose two variables to represent- the traffic condition and the fertility.

For the elicitation of the difference degree in the private investment on the farmlands, we use the irrigation and the machine usable proportion of farmland.

We control some variables which may affect the progress of land titling. First is the village overall average condition variable; Second is the farmers' characteristic variables.

Based on the responses of each farmer, we can calculate the coefficient of variations of the above-mentioned variables within the farmers in the same village. By doing so, we can get each villages' degree in the traffic condition, the fertility.
the irrigation, and the machine usable proportion of farmland.

Village 1	Village 2	Village 3	… …	Village 140
Farmer 1	Farmer 1	Farmer 1	Farmer 1	Farmer 1
Farmer 2	Farmer 2	Farmer 2	Farmer 2	Farmer 2
Farmer 3	Farmer 3	Farmer 3	Farmer 3	Farmer 3
…	…	…	…	…
…	…	…	…	…
…	…	…	…	…
Farmer 20	Farmer 20	Farmer 20	Farmer 20	Farmer 20

4.RESULTS

I. we choose the Random Effects Generalized Order Probit.

II. The important explanatory variables in both models have passed the significance test at a 5% statistical level.

landtitling	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
mleq3						
traffic2016_cv	-1.346655	.2776173	-4.85	0.000	-1.890775	-.8025348
fertility2016_cv	-.6352455	.2707928	-2.35	0.019	-1.16599	-.1045013
irrigation2016_cv	.9087284	.189675	4.79	0.000	.5369722	1.280485
machineusing2016_cv	.9959237	.1923295	5.18	0.000	.6189648	1.372883
landtitlingsatisfy_cv	.3642991	.8999044	0.40	0.686	-1.399481	2.128079
landtitling_cv	-.7972654	.0951058	-8.38	0.000	-.9836693	-.6108614
traffic2016	.0104333	.045918	0.23	0.820	-.0795643	.100431
fertility2016	.1329413	.0511657	2.60	0.009	.0326585	.2332242
irrigation2016	-.0081955	.0468625	-0.17	0.861	-.1000443	.0836532
machineusing2016	.1585816	.0849342	1.87	0.062	-.0078863	.3250496
livevillage	-.1212184	.0819461	-1.48	0.139	-.2818297	.039393
feelfair	.4009196	.0850541	4.71	0.000	.2342166	.5676226
landrentin	.2764698	.0764226	3.62	0.000	.1266842	.4262554
_cons	-.7215343	.4717585	-1.53	0.126	-1.646164	.2030954
mleq4						
traffic2016_cv	-1.097469	.5527761	-1.99	0.047	-2.180891	-.0140482
fertility2016_cv	-.0554794	.6772045	-0.08	0.935	-1.382776	1.271817
irrigation2016_cv	.464284	.2235292	2.08	0.038	.0261748	.9023931
machineusing2016_cv	.1036818	.3110681	0.33	0.739	-.5060005	.713364
landtitlingsatisfy_cv	-.4764869	1.81609	-0.26	0.793	-4.035957	3.082983
landtitling_cv	.0460124	.1323521	0.35	0.728	-.213393	.3054178
traffic2016	.292029	.1460422	2.00	0.046	.0057916	.5782664
fertility2016	-.1582705	.1565071	-1.01	0.312	-.4650187	.1484777
irrigation2016	-.0677391	.1420314	-0.48	0.633	-.3461155	.2106373
machineusing2016	-.5225626	.2952798	-1.77	0.077	-1.1013	.0561751
livevillage	-.1072849	.3576606	-0.30	0.764	-.8082868	.593717
feelfair	-.058734	.2379433	-0.25	0.805	-.5250942	.4076262
landrentin	.0553876	.2120134	0.26	0.794	-.3601509	.4709262
_cons	-1.992779	1.334336	-1.49	0.135	-4.60803	.6224723

THE MARGINS

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. margins, predict (outcom                                    dydx(*)
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traffic2016		1			087794
fertility2016		0			385079
irrigation2016		1			288977
machineusing2016		1			579447
landtitlingsatisfy_		.2			.47529
landtitling_cv		.0			.83067
traffic2016	3279	.0			025538
fertility2016	.0321412	.0			702599
irrigation2016	-.0018046	.0112			.020225
machineusing2016	.0391018	.0286573			.095269
livevillage	-.0287329	.0068572		1728	-.015293
feelfair	.0959753	.0497287	1.9	.0014912	.1934418
landrentin	.0659647	.034626	1.91	-.001901	.1338305

The above two important factors mainly affect the implementation of land titling (procedure 4:farmers sign and confirm the farmland).

RESULTS

First, the “Traffic _cv”, “Fertility _cv” have a significant negative effect on the land titles process.

Second, the “Mechineusing_cv” and the “Irrigation _vsd” has a significant positive effect on the land titles process.

Third, the “Landtitle_cv” has a significant negative effect on the mean of village land titles process, which means that the unbalance of Land Titling process in the villages can hinder farmer’s process of landtitling.

From the control variables, we find that those farmers who have not lived long in the village, feel the village is fair enough, have farmland transfer in, will have a father procedure in land titling.

CONCLUSION

(1) Different degrees of farmland quality (traffic and fertility) within a village have a significant negative effect on the process of Land Titling of farmer;

2) The difference degree of farmers' private agricultural investment (irrigation and mechanical usable proportion) within a village has a significant positive effect on the process of Land Titling of farmer;

(3) As the Land Titling involves five steps to implemented, the above two important factors are critical. The main element is that land title must be recognized by all residents of the village.

THANK YOU.