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FARMLAND LEASE, HIGH-RENT THREAT, AND CONTRACT INSTABILITY: EVIDENCE FROM CHINA

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1. INTRODUCTION

Farmland transfer has been increasing rapidly since the inception of Household Responsibility System in China in 1979

However, no significant increase in farm size from the area between the region with and without land transfer

1. INTRODUCTION

Our objective in this paper is to identify the reason behind **the lack of farm size** increase in China.

we argue that a lack of **a well-functioning contract market** may be the reason for still prevailing vast majority of small land size operations in China.

Our study mainly contributes to: the analysis of the characteristics of **farmland lease contract** in China; and the literature that relate to **contract break** by large landholders.

1.1 FOCUS ON CONTRACT ISSUES

The formation of a large-scale farm operation must rely on the farmland transfer.

The land transaction process occurs through the land contract mechanism.

When lessees are the large landholders, the farmland lease contract are more likely to break.（a recent national representative survey in 2015）.

farmland lease contract

1.2 PARTICULARITY OF FARMLAND LEASE CONTRACT

Large landholders are not the main problem in contract breaks

- Short-term tenancy causes asset specificity loss.
- Short-term tenancy increases cost of contract signings.

What about the small land owners?

1.3CONTRACTUAL DEMANDS AND BEHAVIOR CHOICES OF THE LAND-OWNER

1.3.1 MOTIVATION: FLEXIBILITY LOSS COST, SUPERVISION COST AND HIGH-RENT DEMAND

From small landowners' perspective, long-term contracts lead to loss in flexibility.

Long-term contracts lead to the expected opportunistic behavior from large land holders.

To avoid the loss of flexibility and reduction in monitoring cost, small landowners tend to sign a short-term contract.

Higher rent can provide an incentive to small landowners to enter in a long term rental contract.

1.3CONTRACTUAL DEMANDS AND BEHAVIOR CHOICES OF THE LAND-OWNER

1.3.2 ABILITY: HIGH-RENT-THREATEN STRATEGY BASED ON THEIR MONOPOLISTIC POWER OF LAND

Small land owner will use the monopolistic power to implement the high-rent-threaten strategy

Large landholders are generally not the native of the village. Even if small landowners behave against contractual spirit, they will not face much emotional or reputation loss

Identity monopoly; geographical monopoly; monopoly of information.

Chinese government is currently more focused on the protection of vulnerable landowners to stabilize the society, rather than on the enforcement of the spirit of the contract

2. THEORY

the equilibrium in the short-term contract at the signing stage

the equilibrium in the duration of short-term contract,

Table 1. Game equilibrium under different contract characteristics

			Land-owner A			
			t_1		t_2	
Lessee B		Maintain	$(0, a)$	$(0, a)$	$(-c(I), a)$	$(-c(I), a)$
		Not main-tain	$(0, a)$	$(0, a)$	$(-c(I), a)$	$(-c(I), a)$
		Equili brium	**(t_1, maintain R_1, maintain contract)**		**(t_2, maintain R_3, maintain contract)** **(t_2, Raise R_3 to R_4, maintain contract)** **(t_2, Raise R_3 to R_4, contract break)**	

There are several equilibriums in the long-term contract. Landowners may or may not be tempted to raise the rent and landholders decide to maintain the contract based on the rental rate (if $R_4 - R_3 <$ normal_profit + K + c(I) or not). It can be seen that when landowners rent their lands to the large landholders, they are more likely to implement a high-rent-threaten strategy leading to contract instability situation.

the equilibrium in the long-term contract at the signing stage

the equilibriums in the duration of long-term contract

2. THEORY

$$\frac{\partial R}{\partial t} = -\frac{\partial R}{\partial \pi_2} \cdot \frac{\partial F}{\partial t} = \frac{\frac{\partial F}{\partial t}}{A^m}$$

A mathematical derivations indicate that, landowner A will ask for a higher rent in a long-term contract because the change in the long-term profit per unit of land is positive for landholder B. B gets higher profit in a long-term contract. Landowner A can get maximum rental income when the marginal rent each time equals to the marginal profit per unit of land received by landholder B.

3.ECONOMETRIC MODEL

Nationally representative interview survey collected from nine provinces of China in 2016.

1,537 samples were being analyzed.

We use a doubly-robust estimation method to analyze the stability impact of land contract.

4.RESULTS

I. The land-owners who transfer the farmland to large landholders will have a higher 46.57% possibility to ask for higher rent (high-rent-threaten strategy) in the contract duration on ATE of RA.

II. Land-owners' high-rent-threaten strategy will increase 4.49% possibility of the contract breaks on ATE of RA.

III. The contracts that the transfer objects are large landholders has a higher 6.81% possibility to be broken on ATE of RA

IV. The contracts that the transfer objects are large landholders still has a higher 5.65% possibility to be broken on ATE of RA, even if we control land-owners' high-rent-threaten strategy.

Table 3. The impact of large landholder transfer object on contract break and rent-threaten strategy, and the impact of rent-threaten strategy on contract break

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5
Rent-threaten strategy					
large landholder transfer object vs. not large landholder transfer object	.4657***	.3730***	.7409***	.6712***	.3723***
	(.0572)	(.0637)	(.2632)	(.1581)	(.0787)
Average value of not large landholder transfer object	1.6853 ***	1.8165***	1.6799***	1.6821***	1.8172***
	(.0327)	(.0548)	(.0368)	(.0370)	(.0718)
Observations	1,507	1,507	1,507	1,507	1,507
Contract break					
Not clear rent-threaten strategy vs. no rent-threaten strategy	.0449***	.0482***			.0433***
	(.0160)	(.0169)			(.0191)
Have rent-threaten strategy vs. no rent-threaten strategy	.0650***	.0977***			.0758***
	(.0180)	(.0244)			(.0251)
Average value of no rent-threaten strategy	.0278 ***	.0345***			.0393***
	(.0074)	(.0101)			(.0140)
Observations	1507	1507			1507
Contract break (with the control of Rent-threaten strategy)					
large landholder transfer object vs. not large landholder transfer object	.0565 ***	.0340*	.0379**	.0406***	.0525***
	(.0180)	(.0180)	(.0191)	(.0169)	(.0174)
Average value of not large landholder transfer object	.0445 ***	.0607***	.0370 ***	.0370***	.0422***
	(.0085)	(.0136)	(.0077)	(.0077)	(.0133)
Observations	1,507	1,507	1,507	1,507	1,507
Contract break (without the control of Rent-threaten strategy)					
large landholder transfer object vs. not large landholder transfer object	.0681 ***	.0452 ***	.0461	.0508**	.0637***
	(.0177)	(.0172)	(.0380)	(.0263)	(.0141)
Average value of not large landholder transfer object	.0400 ***	.0494***	.0325 ***	.0325***	.0309***
	(.0078)	(.0125)	(.006)	(0061)	(.0083)
Observations	1,507	1,507	1,507	1,507	1,507

CONCLUSIONS

The contract between small landowner and small landholder may be stable. However, contract instability can arise endogenously when the large landholders rent in farmlands. When the landholder is large landholders and under the fixed rent contract arrangement, the small land-owners cannot share the benefits of the increase of farmland rent while they firmly grasp the monopoly of agricultural property rights. By the coexistence of these two points, land-owners will inevitably to implement a high-rent-strategy. At this point, the equilibrium mechanism of rent is undermined and the farmland contract will give birth to instability and create a significant risk of contract breaks. It can be seen that it is necessary for the government to regulate the farmland lease rent while encouraging the transaction of agricultural land.

THANK YOU.