論文の内容の要旨

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（中国の農地制度の発展と政策）

This thesis highlights the developments in Chinese rural land system and land market as well as the microeconomic impacts of these developments on rural farmers. Regarding to the development in rural land market, I mainly focus on the local collectives' intermediary role in land rental market. As for the development in rural land policy, I take advantage of Chinese new round of land titling project and assess its impact from different aspects.

Chapter 1 aims to depict a general picture of Chinese rural land system by introducing the revolutions of agricultural institutions in China. China has experienced three stages of agricultural institutions since its new-born in 1949. They are concluded as: the pre-commune system (1953-57), the commune system (1958-78) and the Household Responsibility System (hereafter, HRS) (1979-now). The HRS dismantled the commune production and substantially encouraged farmers' incentives to work, which is still the basis policy in rural land system. Nonetheless, the HRS is not flawless. One of its disadvantages is the land reallocation by local governments. Land reallocation is regarded as the most critical cause of land tenurial insecurity in China. Many studies have investigated its profound impacts on the development of Chinese agriculture. Chinese new round of land titling is implemented to stabilize

land tenure in rural China, which will be the main topic of Chapter 3-5. Another disadvantage of the HRS is that it sacrifices economies of scale in agriculture (Lin 1987). To a large extent the land fragmentation in China is caused by the implementation of the HRS (Tan, Heerink, and Qu 2006; Kung 1994). Due to above reasons, polices that promote land consolidation have been announced by Chinese central government. One of them is to stabilized land property rights in rural regions, while another one is to develop rural land market where land use rights can be subcontracted, leased, exchanged and pledged. Chapter 2 discuss the development in Chinese rural land market.

Chapter 2 documents the recent emergence of local collectives' intermediary role in rural land transactions. This research has discovered some positive effects on land security when local collectives are involved in land rental transactions. From the perspective of tenant farmers, achieving a tenancy contract with the intermediary of local collectives can saliently reduce the land expropriation risk, therefore enhance their tenancy security. And reduced land risks along with longer tenancy length thus encourage farmers to increase the investment in agricultural production and to adopt environmental-friendly production strategy. Nonetheless, given this positive side, local governments' involvement should be carefully regulated. It has already been mentioned by some scholars that local governments sometimes abuse their administrative power to withdraw farmland from small farmers. This chapter thus suggest that taking advantage of local collectives under appropriate guidance could generate positive benefits.

To stabilize land property rights in rural China and encourage the development of farmland market, Chinese government launched the land titling project (LTP) in 2013 (with a pilot program in 2011). Whether this project can substantially enhance land security has not been well proved. The study in Chapter 3 attempts to explore this topic from the perspective of its impact on farmers' renting-out

behavior. This study proposes and proves that due to a simultaneous increase in farmers' perceived land value, the impact of enhanced land tenure on farmers' renting-out is offset. Therefore, this study does not observe that land titling inclines farmers to rent out their land. Instead a robust and discouraging effect from land titling has been proved. To sum up, this study implied that the encouraging impact of land titling on farmers' land renting-out is very trivial. The most fundamental reason is the unchanged HRS.

Few studies have highlighted another potential impact from this land titling project: it might cause some changes in farmers' perception about the farm size. As one key step in the process of LTP, measurement of farmland locations and sizes is conducted using the geographic information system (GIS) technology – satellite pictures. Many studies have, however, found inconsistencies between the GPS measured and the self-reported land sizes (Carletto, Savastano, and Zezza 2013; Carletto, Gourlay, and Winters 2015). Therefore, Chapter 4 hypothesizes that there might exist a gap between the LTP measured land sizes and farmers' original knowledge about the sizes of their farmlands. If this is the case, after the titling, farmers' knowledge about the land size would be updated. The result shows that using GIS method for land measurement in LTP can significantly increase self-reported land size of those households with small farmland plots. Also, the smaller is the plot, the smaller becomes the impact. However, as for those households with large plot of farmland, since GIS measurement is relatively accurate on large plots, the perception-change effect is limited in such households.

The study in Chapter 5 still takes advantage of the Chinese new round of land titling project to investigate: whether and how improved land tenure help reduce farmers' usage of agricultural chemicals. Three specific mechanisms have been hypothesized. The first hypothesis is that secured land tenure elicits an increased sense of responsibility to utilize land more sustainably, which encourages the

reduction of chemicals (Chen and Innes 2013). The second hypothesis is that land titling could result in a decline of chemicals usage by encouraging labor outflow. The last hypothesis is that land titling incline farmers to adopt agricultural machines that are 'chemical-saving'. The empirical evidence proves a pesticide-reduction effect from land titling and rules out the last two hypotheses.

Reference

Carletto, Calogero, Sydney Gourlay, and Paul Winters. 2015. "From Guesstimates to GPStimates: Land Area Measurement and Implications for Agricultural Analysis." *Journal of African Economies* 24 (5): 593–628.

Carletto, Calogero, Sara Savastano, and Alberto Zezza. 2013. "Fact or Artifact: The Impact of Measurement Errors on the Farm Size–Productivity Relationship." *Journal of Development Economics* 103 (July): 254–61.

Chen, Juan, and John L. Innes. 2013. "The Implications of New Forest Tenure Reforms and Forestry Property Markets for Sustainable Forest Management and Forest Certification in China." *Journal of Environmental Management* 129 (November): 206–15.

Kung, James Kaising. 1994. "Egalitarianism, Subsistence Provision, and Work Incentives in China's Agricultural Collectives." *World Development* 22 (2): 175–87.

Lin, Justin Yifu. 1987. "The Household Responsibility System Reform in China: A Peasant's Institutional Choice." *American Journal of Agricultural Economics* 69 (2): 410–15.

Tan, Shuhao, Nico Heerink, and Futian Qu. 2006. "Land Fragmentation and Its Driving Forces in China." *Land Use Policy* 23 (3): 272–85.