Optimal Behavior of Rice Farmers in the Imperfectly Competitive

Land Lease Market in Japan: With a Focus on Transaction Costs and

Uncertain Returns on Land Lease Investment

Title: Centered Times New Roman 14pt

Affiliation: Add superscript number for each affiliation

Author’s name: Centered Times New Roman 10.5pt

Leave one line blank

Ueo Aiue1\* and Tsuteto Tachi2

1 Kakiku University, 2 Sashisu Center

Corresponding author\*: aiue@kakiku-u.ac.jp

Corresponding author: Add \* mark after the superscript number and write down the e-mail address. Centering TNR 10.5pt

Leave one line blank

In the process of drawing up contracts, farmers must pay some transaction costs, including the cost for searching for appropriate farmlands. In addition, farmers tend to postpone making contracts because of their anxiety about uncertain returns on land lease investment in spite of present profitability.

The objective of this study is to judge whether transaction cost and uncertain returns work as restrictions on the number of land lease contracts in Japan. This study assumes that the previous papers associated with this context overestimated the number of the contracts because they ignored the effects of two obstacles as a result of their preconception of the competitive market framework. The originality of this study is to prove the previous overestimation from theoretical and empirical viewpoints, and to estimate the transaction cost and the option value coefficients as an index of uncertain returns by applying real option theory.

The main outcomes of this study are as follows: First, the study makes it clear theoretically that the perfectly competitive land lease market assumption adopted by the previous papers leads to the overvaluation of the number of land lease contracts when market competitiveness is imperfect. Second, the study proves empirically that the land lease markets of rice farming are imperfectly competitive according to the significant estimation results of the transaction costs and the option value coefficients. Third, from the estimation results of the study, the estimate of the transaction costs in the former period from 1981 to 1992 was relatively larger than the estimate in the latter period from 1995 to 2002; on the other hand, the estimate of option value coefficient in the former period was relatively smaller than the estimate in the latter period. These results imply that each of the two obstacles restricts the number of land lease contracts at different periods. The empirical results of this study strongly suggest that government policy to mitigate both transaction costs and a degree of uncertainty of returns on land lease investment is effective in accelerating farmland lease contracts in rice farming in Japan.

Text: Times New Roman 10.5pt