T.B.A. (To Be Arbitraged)?:

Extensive and Intensive Margin in Rice Trading in Madagascar *

Hisaki Kono

Yutaka Arimoto

Kyoto University

Hitotsubashi University

Tsilavo Ralandison

Takeshi Sakurai

Institut Superieur de Technologie d'Antananarivo

The University of Tokyo

Kazushi Takahashi Sophia University

April 15, 2016

Abstract

Spatial arbitrage is the driving force for the law of one price, and traders are economic agents who are specializing in arbitrage. Using trader-level biweekly survey in Antananarivo, the capital city of Madagascar, we investigate the extensive margin and the intensive margin in response to the price differences across districts. We first show that only a fraction of traders visited other districts to purchase rice, and these active traders tend to be larger than passive traders who do not other districts but only purchase rice from rice sellers visiting the city from their local districts, suggesting the importance of heterogeneity in traders. Active traders on average did not respond to the price differences both in terms of extensive and intensive margin, though larger active traders were more responsive to the price differences in extensive margin. Passive traders were more responsive to the price differences. Our randomized experiment of providing price information through SMS suggests the importance both of price information and the trade link costs in arbitrage activities. We then propose a framework to infer trade costs and trade linkage costs of active traders, finding the importance of trade linkage costs in explaining trader's location choice.

^{*}This survey was conducted as part of rice market studies in Madagascar for the Project for Rice Productivity Improvement in Central Highland (PAPRIZ) implemented by Japan International Cooperation Agency (JICA). We are grateful to project experts and the staff at the JICA Madagascar office. This paper was financially supported by Hitotsubashi University, the Institute of Developing Economies- Japan External Trade Organization, and JSPS KAKENHI Grant Numbers 22223003 and 25245038.