

Consumer Inventory and Purchase Timing: Evidence from the Japanese VAT Increase in 2014*

Toshiaki Shoji[†]

January 17, 2016

Abstract

This paper investigates how consumer inventory works in the context of anticipated price change. I use daily scanner data and specify some features of consumers' purchase behavior around April 2014 when the Japanese VAT was increased. Data show that rush demand before tax increase consists of rises in both *intensive margin* (per capita quantity) and *extensive margin* (the number of customers), in contrast, subsequent decline is almost because of decrease in extensive margin. Next, I construct a consumer inventory model combined with both fixed and storage costs in which both intensive and extensive margins can vary. Fixed and storage costs are the main driver of the adjustment of extensive and intensive margins respectively. Finally, I simulate the model and confirm that the dynamics of margins is consistent with data.

JEL classification: E21, E32, H31

Key words: Consumer Inventory, Fixed Costs, Japanese Consumption Tax, Intensive and Extensive Margins

*I would like to thank Prof. Tsutomu Watanabe for his advice and encouragement. I also would like to thank Kosuke Aoki, Kota Watanabe, Shogo Sakabe, Michio Suzuki, and seminar participants at University of Tokyo for helpful comments. Lastly, I am grateful to Shinnihon Scholarship Foundation for financial support. All errors are my own.

[†]Graduate School of Economics, University of Tokyo. E-mail: shoji1323@gmail.com