

Testing Purchasing Power Parity Based on High-Frequency Scanner Data

Takayasu Matsuoka*

Osaka University

April 23, 2012

Abstract

This study analyzes the dynamics of the yen-dollar real exchange rate using scanner data collected in U.S. and Japanese retail stores from September 1989 to May 1997. We calculate a weekly multilateral price index, free from chain-index drift, for items commonly available in both countries. The results reveal that the weekly real exchange rates show strong mean-reverting tendencies even when the yen appreciated sharply. To conclude, we apply the unit-root test to the real exchange rate, rejecting the purchasing power parity hypothesis.

JEL classification codes: F31, C43, C81

Key words: Purchasing Power Parity, GEKS Price Index, Scanner Data

*I would like to thank Naohito Abe, Akiyuki Tonogi, Shiba Suzuki, Kohei Aono, and the seminar participants at Hitotsubashi University for helpful comments. Any remaining errors are my own responsibility. This research is a part of the project entitled: An Investigation into Household Consumption and the Labor Supply Using High-frequency Marketing Data of Household Consumption and Labor Supply, funded by JSPS Grant-in-Aid for Young Scientists (S) (21673001). E-mail: matsuoka@osipp.osaka-u.ac.jp.