

Intra-national and International PPP between cities of Japan and South Korea: Empirical evidence using panel unit root and panel cointegration tests*

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Abstract

In this paper, we investigate whether long-run absolute purchasing power parity (PPP) holds between cities of Japan and South Korea using nonstationary panel data analysis. Our samples comprise fourteen disaggregated monthly consumer price indices from fourteen Japanese and six South Korean cities from 1977 to 2002. First, by using the panel unit root tests developed by Levin, Liu and Chu (2002), Im, Pesaran and Shin (2003), and Choi (2001), we consider the stationarity of the intra-national real exchange rate. Next, we apply Pedroni's (2004) panel cointegration tests to verify the cointegrating relationship between the South Korean Won-Japanese Yen nominal exchange rate and relative consumer prices. The results clearly confirm that the real exchange rate in the two countries was nonstationary for all goods although there were some differences in the types of tests conducted and the significance levels of these tests. Also, we infer that there exists a long-term equilibrium relationship between the nominal exchange rate and relative prices in cities of the two countries.

Keywords: purchasing power parity, real exchange rate, nominal exchange rate, relative prices, panel unit root, panel cointegration.

JEL Classification: E31; F31; F41

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