

PURCHASING POWER PARITY IN AFRICAN COUNTRIES: EVIDENCE FROM PANEL SURADF TEST

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Abstract

This study reexamines the validity of long-run purchasing power parity (PPP) hypothesis using a battery of panel unit root tests for 11 developing countries in Africa over the period 1980-2007. Based on the conventional panel unit root tests, we found evidence that the monthly real exchange rates in these countries were mean reverting. By contrast, the series-specific unit root test proposed by Breuer *et al.* (SURADF) reveals that only six of the 11 RERs series were stationary using the US dollar as reference currency. Additionally, our results reveal that there is stronger evidence of the parity condition with the Rand-based rates than in the other currency-based rates like the US dollar or Euro. We conclude that PPP holds in some, but not all, of the African countries according to the SURADF tests.

JEL Classification: F31, C22, C23

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1. INTRODUCTION

The purchasing power parity (PPP) hypothesis poses that change in exchange rate between two currencies is determined by the relative prices of the two countries concerned. Long-run PPP can be verified by a test of a unit root in real exchange rates (RERs). If the unit root null can be rejected in favour of a level stationary alternative, then there is mean reversion; *i.e.* PPP holds in the long run. On the other hand, if a unit root mimics the true data-generating process (DGP) of RER, it would behave like a random walk process without reverting to the constant mean. This indicates that nominal exchange rates and relative price levels will not converge in the long run. Examples of studies that look at mean reverting properties as means of validating PPP includes Bahmani-Oskooee (1995), Lothian and Taylor (1996), Holmes (2000, 2001), to name but a few.

There are a large number of empirical studies that have investigated the PPP relationship for industrialised countries (see Taylor and Sarno, 1998). The bulk of the literature has used an array of stationarity and cointegration techniques in an attempt to

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