

On Singaporean Dollar-U.S. Dollar and Purchasing Power Parity*

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ABSTRACT

This study re-examines the validity of relationship between Singapore Dollar-US Dollar exchange rate and the relative price using the latest econometric methodologies that accounts for non-linearity. Among others, this study finds Exponential Smooth Transition Autoregressive (ESTAR)-type non-linear mean-reverting adjustment process of the nominal Singapore dollar-US dollar rate towards consumer price index ratio. Unlike previous finding of linear cointegration relationship between nominal Singapore Dollar-US Dollar exchange rate and consumer price index ratio, this study shows that the relationship is in fact non-linear in nature. The major economic implications of our findings includes: (1) Policy makers need to take non-linearity into consideration on their policy decision; (2) Monetary Authority of Singapore (MAS) is able to maintain the macroeconomic equilibrium albeit the authority's strong dollar policy; and (3) One should keep track on Singapore monetary policy and other innovations in aggregate demand in order to closely monitor the movement of Singapore exchange rate.

Keywords: Exchange rates; Non-linearity, Purchasing Power Parity; Exponential Smooth Transition Autoregressive (ESTAR), Singapore.

JEL Classifications: F31, F32

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