

An analysis of real oil prices and real exchange rates in five African countries: applying symmetric and asymmetric cointegration models

ABSTRACT

This article examines the long-run interactions between real oil prices and real exchange rates in five oil-exporting African countries: Egypt, Ghana, Nigeria, South Africa and Tunisia. To accomplish this, symmetric and asymmetric cointegration tests and an error-correction modelling technique are applied. The results of the analysis reveal evidence of long-run co-movements between real oil prices and real exchange rates. More specifically, this involved symmetric adjustment of the real exchange rates to the long-run equilibrium values in Egypt, South Africa and Tunisia, caused by changes in real oil prices. Further evidence of persistence, as well as asymmetric adjustments of the real exchange rates to the long-run equilibrium path, were found to exist following an increase in oil price shocks in Ghana and Nigeria. Moreover, the analysis of short-run dynamics between real oil prices and real exchange rates produces evidence of real exchange rate appreciations in Nigeria, South Africa and Tunisia and real exchange rate fluctuations in Egypt and Ghana.

Keyword: Oil price; Real exchange rate; Cointegration; Asymmetry; AfricaC32; F31; Q43