

Do oil prices and exchange rates account for agricultural commodity market spillovers? Evidence from the Diebold and Yilmaz Index

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Abstract

This paper examines the nature of interconnectedness between the returns of the price of oil and foreign exchange on selected agricultural commodity prices. To do this, the authors leverage the novel methodology of a spillover index developed by Diebold and Yilmaz (2012) that reports predictive directional measurement of volatility spillovers. International Journal of Forecasting 28, no. 1: 57-66) that reports: (i) Net spillovers; (ii) Directional spillovers; (iii) Pairwise net spillovers; and (iv) Total spillover indices. This study also captures all secular and cyclical movements with the aid of rolling window analysis to ensure the robustness of the estimations. Empirical analyses are constructed based on monthly realised frequency data from 2006M1 to 2016M7. The empirical analysis from the full sample size shows that rice, sorghum, price inflation, a nominal effective exchange rate and oil price display weak pass-through among the investigated variables while banana, cocoa, groundnut, maize, soybean and wheat are net transmitters of spillover. Based on these revelations, several policy prescriptions for the agricultural commodity markets and their diverse responses to either exchange rate fluctuations or a dwindling oil price are suggested for Nigeria.

Keywords

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