

## Oil Price Fluctuations and Food Inflation in the Comoros: A Nonlinear ARDL Approach

### Information

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### Résumé (Abstract)

The asymmetric transmission of oil price fluctuations into food inflation in Small Island Developing States (SIDS) remains insufficiently explored, despite its importance for price stability and economic resilience. This study addresses this gap by focusing on the Comoros, an import-dependent island economy where exposure to external shocks is structurally amplified. Using a Nonlinear Autoregressive Distributed Lag (NARDL) framework complemented by Quantile Regression from 2000 to 2024, we uncover the complex dynamics linking oil prices, exchange rate movements, GDP per capita growth, and food inflation. The results show clear short-run asymmetries: positive oil price shocks significantly raise food inflation ( $\beta = 12.74$ ,  $p < 0.01$ ), while negative shocks produce an even stronger deflationary effect ( $\beta = -22.10$ ,  $p < 0.01$ ), confirming a pronounced “rocket and feather” pattern. Exchange rate depreciation emerges as the dominant driver of short-run inflation ( $\beta = 56.98$ ,  $p < 0.001$ ), while improved economic conditions exert a mild stabilizing effect ( $\beta = -1.23$ ,  $p < 0.05$ ). The error correction term ( $-0.91$ ) indicates rapid adjustment toward long-run equilibrium. Quantile estimates reveal that oil price shocks intensify during high-inflation regimes (90<sup>th</sup>), whereas exchange rate shocks are most destabilizing during low-inflation (50<sup>th</sup>) periods, highlighting substantial distributional heterogeneity. These findings offer critical insights for policymakers in SIDS seeking to design targeted, shock-responsive inflation management strategies.

### Mots-clés (Keywords) :

- (1) Oil Price Shocks
- (2) Food Inflation
- (3) NARDL

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### Références

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