VOLATILITY SPILLOVERS BETWEEN CRUDE OIL PRICES AND US DOLLAR TO EURO EXCHANGE RATES

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Overview

The surge in oil prices in recent years has been raising questions on its implications for global imbalances and needs of policy adjustments. The recent global economic crisis has added to exacerbate these imbalances, while the price fluctuations have been associated with U.S. dollar depreciation and appreciation at all times.

In which way does such economic and political turmoil bear on oil price and currency exchange rate interaction? Even though crude oil prices and US dollar exchange rates are somehow linked, the correlation of price changes has been almost zero until 2008, and has increased only recently. We postulate this is because the link between them is in terms of volatility spillovers rather than in terms of comovements of returns. We investigate the joint volatility performance of US dollar to euro exchange rates and of the benchmark crude West Texas Intermediate.

Methods

We apply a bivariate asymmetric quadratic GARCH model which enables us to analyse the pattern of volatility spillovers.

Results

We found evidence for bi-directional volatility spillovers for daily and as well as for weekly price series.

Conclusions

Our findings give rise to interpretations in terms of certain characteristics of speculative activity.

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