

On the Impact of Oil Price Fluctuations on Stock Markets: A Multivariate Long-Memory GARCH Framework

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Abstract : This paper employs multivariate long memory GARCH models to simultaneously estimate mean and conditional variance spillover effects between oil prices and different financial markets. Since different financial assets are traded based on these market sector returns, it's important for financial market participants to understand the volatility transmission mechanism over time and across these series in order to make optimal portfolio allocation decisions. We examine weekly returns from January 1, 2003 to November 30, 2012 and find evidence of significant transmission of shocks and volatilities between oil prices and some of the examined financial markets. The findings support the idea of cross-market hedging and sharing of common information by investors.

Keywords : oil prices, stock indices returns, oil volatility, contagion, DCC-multivariate (FI) GARCH

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