Dynamic correlation between stock market returns and crude oil prices: evidence from a developing economy

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Abstrak

Modeling the correlation of assets returns volatilities across different markets or segments of a market has practical value for portfolio selection and diversification, market regulation, and risk management. This paper therefore evaluates the nature of time-varying correlation between volatilities of stock market and crude oil returns in Nigeria using Dynamic Conditional Correlation-Generalised Autoregressive Conditional Heteroscedasticity (DCC-GARCH) model. Results from DCCGARCH (1,1) model show evidence of volatility clustering and persistence in Nigeria stock market and crude oil returns. The results also show that there is no dynamic conditional correlation in ARCH effects between stock market returns and crude oil prices in Nigeria. The results further show that there is strong evidence of time-varying volatility correlation between stock market and crude oil returns volatility. The findings will help shape policy-making in risk management and market regulation in Nigeria.