

Trading Activity, Volatility and Market Conditions: An Investigation of Emerging Crude Futures Market

Brajesh Kumar, Jindal Global Business School; Dinesh Gajurel, UNB, Canada

Abstract: This paper investigates the asymmetric relationship between trading activity and price volatility of Indian crude oil futures under different market conditions – contango and backwardation. In an augmented EGARCH model where asymmetric volatility of the crude futures is modeled incorporating information spillover from the US, we disentangle both the trading volume and open interest into expected and unexpected components and examine their effects on volatility during contango and backwardation in the market. Our results show that there exists a significant and strong asymmetric relationship between futures trading volume and volatility. The dominance of speculative behavior in the Indian crude futures markets increases and the effect of trading volume on volatility becomes stronger during the backwardation period. The open interest reduces futures volatility and the effect is similar in both the market conditions. We also find that there is a strong spillover effect from the US futures market to Indian futures market. Understanding these relationships in emerging markets is important for policymakers and traders alike providing better insights of futures price dynamics.

Keywords: crude futures, contango and backwardation, emerging markets, information spillovers