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Econometric Models and Tests of Volatility,
Cointegration and Randomness in Indian Equity Indices
and other Vista Countries Post Global Financial Crisis

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Abstract

The study examines the association between the equity indices of India and VISTA nations post the Financial Crisis affecting the globe which happened in the years 2007-08. The monthly closing prices of equity indices of India (Nifty), Vietnam (HNXI), South Africa (JKSE), Turkey (XU100.IS) and Argentina (MERV) are recorded for the period starting January 2008 until January 2020. Statistical tests such as Run test, ARCH, GARCH, EGARCH, TGARCH and Johansen's cointegration test are implemented on the time series data. The study concludes that all indices exhibit non-random behavior (market inefficiency). Strong evidence is found for the existence of volatility persistence, leverage effect and spillover effect. The HNXI, JKSE and JSE indices move in opposite direction to Nifty while XU100.IS moves in the same direction.

Keywords: Econometric Modelling, Randomness, Volatility Persistence, Leverage Effect, Spillover Effect, Asymmetric Shocks, Cointegration.



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