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ANALYSIS OF VOLATILITY IN INDIAN STOCK MARKET

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ABSTRACT

Modeling and forecasting volatility of capital markets has been important area of inquiry and research in financial economics with the recognition of time-varying volatility, volatility clustering, and asymmetric response of volatility to market movements. Given the anticipated growth of the Indian stock market and increasing interest of investors towards investment in the market, it is important to understand the pattern of stock market volatility. In the study, the volatility of the Indian stock market is modeled using daily return series of Nifty 50 index consisting of 2731 observations from 2005 to 2015 and different classes of estimators and volatility models. Indian stock market is found to exhibit high volatility, however, the volatility has declined in recent years. The results indicate that the GARCH (1,1) is appropriate model for volatility modeling in Indian market. The study revealed strong evidence of time-varying volatility, a tendency of the periods of high and low volatility to cluster and a high persistence and predictability of volatility in the Indian stock market. Moreover, asymmetric effect has been found in Indian stock market. Negative shocks are found to have larger impact volatility of the Indian stock market relative to positive shocks of similar magnitude.

KEYWORDS: Leverage effect, Indian stock market, Stock market volatility, Volatility clustering.

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