

# Effect of Future Trading on Spot Price Volatility for NSE Nifty using Time Series Regression and GARCH Model

Dr. Neha Parashar,<sup>1\*</sup> Institute of Management, NIRMA University, SD Highway, Ahemdabad

<sup>\*</sup> Email id: neha\_parashar@scmhrd.edu.

Amey Karambelkar, Tarang Jibhkate, Manit Goyal, Aditi Kulkarni, Puneet S. Deshpande<sup>2</sup>,

<sup>2</sup> Final year finance students, SCMHRD, Pune (Maharashtra), INDIA

---

## Abstract

Futures contracts detail the quality and quantity of the underlying asset; they are standardized to facilitate trading on a futures exchange. Some futures contracts may call for physical delivery of the asset, while others are settled in cash. The futures markets are characterized by the ability to use very high leverage relative to stock markets. Futures can be used either to hedge or to speculate on the price movement of the underlying asset.

The study investigated the effects of the Nifty futures on underlying the spot market volatility using GARCH (1,1) model. The research indicates that futures trading reduced stock market volatility and contributes to increase market efficiency. The study also examined futures trading changes structure of spot market volatility. There is a change in the structure of spot market volatility after introduction of futures trading. Specifically, there is evidence that the increased impact of recent news and reduced effect of the uncertainty originating from the old news. New information gets assimilated and the effect of old information on volatility gets reduced at the faster rate in the period following the onset of futures trading.

**Keywords:** Volatility, market efficiency, parameter, stock, garch.