

Abstract of Doctoral Dissertation

Comparison of Implied Volatility Index with special reference to India¹

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I. Introduction

VOLATILITY PREDICTION IS one of the most exciting challenges faced by researchers, investors and market analysts. The stock markets are sensitive to many factors like stock returns, microeconomic fluctuations, macroeconomic uncertainty, information, socio-political situations, and investors' sentiments and so on. The volatility can't be observed like prices, it has to be measured. Researchers have proposed many models to estimate the volatility, which help to understand the volatility behavior and patterns. Estimating the future volatility helps to hedge investors' portfolio against the future uncertainty. Implied volatility index is one of the volatility measurement technique derived from the options prices. Because it is derived from the option price, it reflects the investors' fear about the future market direction. It measures the expected future volatility of the underlying stock index in the next 30 calendar days. It is often referred as forward-looking measurement of market volatility. Due to repeated reference to the implied volatility index as investors' sentiment index, central banks started using it as a tool to assess the macroeconomic variables uncertainty. In the light of its popularity, this present study is an attempt to understand the dynamic behavior of Indian implied volatility index and its dependency on other financial markets and macroeconomic variables. The review of literature on implied volatility indices found very little attention on Indian Implied volatility index and/or it did not have its due attention from the researchers and academicians. So far there is no attempt made to understand the dynamic regime-switching behavior of Indian implied volatility and its regime dependent relation with other financial market and macroeconomic variables.

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