

Category Specific Volatility Check on Derivatives Introduction - Indian Context

K. KANNAN*
G. BALAMURUGAN**

Abstract

This paper examines the effect of derivatives on volatility of select securities of different market capitalization in Indian stock market to assess any category specific volatility pattern exists. This study is based on 97 stocks comprising Large, Mid and Small Cap stocks of Indian Stock Market. These stocks and its derivative contracts are listed in the National Stock Exchange of India. GJR GARCH model is used to measure the changes in volatility, Asymmetric effect and volatility pattern over pre-introduction and post introduction period of derivatives of chosen stocks. The results suggest that derivatives reduce the volatility, change the volatility pattern of select stocks, but do not work well with asymmetric effect as expected. It is ascertained that there is lack of evidence to prove the changes surfaced in the volatility pattern are pertinent to the different category they belong to.

JEL Code : D53, D81, D82, G12, G14

Keywords : Derivatives, Volatility, Shocks, GJR GARCH, Asymmetry, Volatility, Stock Exchange, India

I. Introduction

DERIVATIVE CONTRACTS ARE introduced to mitigate the risk by enabling the investors to take offsetting position in the related security. Adversely, being the cost effective investment alternative, it doesn't fail to attract speculators too. It projects the derivatives as a double edged sword which can stabilise or destabilise the market as well. Hence the effect of derivatives on volatility has become the subject matter of various studies conducted worldwide. The results vary with the markets covered, timing, tools used and the nature of underlying security. In spite of some concrete evidence, the researchers are doubtful whether the changes pertain to derivatives introduction alone. It reveals that stock specific factors cannot

* Assistant Professor, The American College, Faculty of Management Studies, Tallakkulam, Madurai, Tamil Nadu 625002, INDIA

** Director and Professor, Mepco Schlenk Engineering College, Department of Management Studies, Mepsco Nagar, Sivakasi, Tamil Nadu 626005, INDIA

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