

# The impact of Interest Rate Volatility on Stock Returns Volatility Empirical Evidence from Pakistani Markets

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## ABSTRACT

The concept of volatility in the stock returns has been given considerable importance in different recent researches and it was worthwhile for some of the researchers to predict the volatility of the stock market. This study is focusing on the predication of the stock returns volatility based on the interest rate volatility while considering the data of well establish stock market of Pakistan, Karachi Stock Exchange 100 index, and monthly rates of six monthly T- bills for the period of 1994 to 2010. For the stock volatility we used different models in which the first one is the simple standard deviation which shows a significant variation in the stock returns due to variations in the interest rates so their exist a volatility due to the changes in the interest rates in Pakistani markets. ARCH model is one of the well known methods to forecast the error term in the data and which will certain our forecast regarding stock prices. In the Karachi Stock Exchange the ARCH (1, 1) has been statistically significantly proved. The GARCH (1, 1) model is also used to estimate the stock volatility. This model shows the short run volatility affect the lagged stock returns and is contributing to the overall volatility. The sum of  $\alpha$  and  $\beta$  is less than 1 so the short run volatility is positively related to the overall stock volatility. The GARCH (1, 1) model has outperformed the other volatility models in the case of the Karachi Stock exchange, Pakistan.