Stock Returns Volatility in India: Issues and Evidences

Abstract

The present study attempts to make a comprehensive analysis of various issues related to stock returns volatility in the context of India during the period 1996-2013. First, this study empirically examines the linkage between conditional stock returns volatility and conditional volatility of macroeconomic fundamentals. Further, the issues like role of investor sentiment on predicting the stock returns volatility, the relationship between of conditional stock returns volatility and conditional volatility of investor sentiment, and measures and determinants of idiosyncratic volatility of stock returns are analysed. The generalized auto regressive heteroskedasticity (GARCH), vector autoregression (VAR), VAR-GARCH and the panel data models are used to investigate these issues. Results suggest persistence of volatility in the Indian stock market and provide evidence of presence of volatility asymmetry in stock returns and other macroeconomic variables. The VAR estimates suggest bidirectional causality between the stock market volatility and volatility of inflation, and unidirectional causality is observed from the volatilities of long term bond yield, foreign institutional investments and money supply to volatility of stock market returns. The impulse response function results suggest that stock market indices are highly sensitive to the response of long term interest rates and foreign institutional investments. The findings also reveal that investor sentiment plays a significant role in predicting stock market volatility, and suggest a unidirectional causality between conditional volatility of investor sentiment and conditional stock market volatility in India. It is observed that cross sectional returns variations of the firms are associated with size of the firm, book-to-market ratio, momentum, liquidity, cash flow to price ratio and returns on assets. Further, we find that size of the firm; book-to-market ratio, momentum, and liquidity play the significant role in the determination of idiosyncratic volatility of stock returns in India.

Key words: Conditional stock market volatility, macroeconomic fundamentals, investor sentiment, idiosyncratic volatility, generalized autoregressive conditional heteroskedasticity (GARCH) models, vector autoregression (VAR), impulse response function and panel data models.