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Causality Analysis between Indian Stock Price Returns and the Real Economic Growth

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Abstract

This study investigates the relationships between the Indian stock market index (BSE Sensex) and five macroeconomic variables, namely, industrial production index, wholesale price index, money supply, exchange rate and call money rate over the period March-1992 to June-2015. Brief theoretical justifications capture the inter-relation between financial sector and real economy. Vector Auto Regressive (VAR) model have been applied to explore causal relationship between stock market index and macroeconomic variables. Analysis reveals that relationship exists between the stock price return and industrial production. Previous period stock price return and past industrial production affects the performances of current period industrial production. There is bidirectional relationships between stock price return and exchange rate. Financial Sectors performance influence development process.

I. Introduction

A SIGNIFICANT STATISTICAL relationship between the movement in stock return and the movement in GDP per capita is observed in matured developed economies (Schwert, 1989, Chaudhuri and Koo 2001). An increase in stock prices means an increase in wealth, which is likely to increase the demand for consumption and investment goods (Fama 1990). Stock price movement influences the portfolio management decision of the investors and behaves as an indicator of the future trends in performance of the real sector. Similarly, the movement in stock prices is influenced highly by the trends in major macroeconomic indicators in the real economy. While the relationship between stock price behaviour and economic performance as observed in the developed world fails to reject the hypothesis as put forward by Fama (1990), there is little evidence for non-rejecting it in the developing world. The hypothesis predicts that production in the current period is affected by the past production as well as the stock returns of preceding periods. Again his test in this paper suggests that a large fraction of the

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Real sector performance does not influence the financial market return in an emerging economy like India, where real sector is not well connected with the financial sector. Change in return of financial sector occurs largely due to service sector impact and banking sector impact. Speculation also plays a major role in determining the movement of stock price in a developing country like India.

Therefore, from this we can conclude that there exists past period industrial production and stock return both influence present period industrial production. This may indicate that investors in real markets consider both the industrial production and financial stock returns when calculating their expected returns. Thus real production is not influenced the stock price return whereas stock returns influenced the real production in India.

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