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Relationship between Stock Prices and Macro-Economic Variables in the presence of Structural Breaks : Evidence from the India

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Abstract

This study examines the relationship between stock prices and key macroeconomic variables, namely, economic growth, inflation, money supply, exchange rate, and interest rate in India for the period from January, 1993 to November, 2020. Such relationships are evaluated through Unit Root Tests, Johansen's Cointegration Test, Vector Error Correction Model, and Granger Causality Test. This study also accounts for a structural break in the analysis. The findings of this study establish that there is long-run equilibrium relationship between the stock prices and macroeconomic variables. Also, it is found that cointegration results are robust in the presence of structural breaks. From the empirical results, it is found that there is unidirectional causality from stock price to economic growth, inflation to stock price, inflation to economic growth, money supply to economic growth, inflation to the money supply and inflation to exchange rate.

JEL Code : C22; E44; G1
Keywords : Stock Prices; Macroeconomic; Structural Breaks; Cointegration; Causality; India

I. Introduction

THE STOCK MARKET is a vital component for the growth and development of a country (Levine, 1991; Beck and Levine, 2004; Caporale, 2004; Cooray, 2010). In a modern economy, it is one of the essential service institutions. The stock market plays two significant roles: first, it helps in price discovery, and second, it provides liquidity to the market (Pethe and Karnik, 2000). It helps in the development of industry and commerce that eventually leads to the growth of an economy. The stock market stimulates the growth of an economy through various channels: (a) by providing liquidity to the market, (b) by minimizing the cost of mobilizing savings, (c) by enhancing corporate governance, and (d) through risk diversification

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time series data, more advanced econometric techniques can be used (nonlinear auto regressive distributed lag (NARDL), wavelet analysis). Further, more macroeconomic indicators like trade openness, capital flows, and economic productivity can be included. Due paucity of time and data resources this study has considered only the monthly time series data; therefore there is a scope of extending this study to other set of data frequency (daily, weekly and annually). Moreover, due to lack of time and resources to communicate with the expert of the subject this study focuses on secondary analysis, therefore, this study suggests to conduct a primary survey to seek expert opinion on this subject.

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