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Long Run & Short Run Relationship between Indian Stock Market & Macroeconomic Variables : A VECM Approach[1]

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Abstract

This paper investigated the long run and short run association of Indian stock market with macroeconomic variables. The Indian Stock Market is measured by Sensex. While CPI, Crude Oil, Exchange rate and Foreign Reserve are considered to represent macroeconomic variables. For empirical estimation, we employ Johansen Cointegration along with Vector Error Correction Model (VECM). We observe that Indian stock market is cointegrated with constituent macroeconomic variables. In addition, empirical results reveal that there is long run equilibrium obtained from constituent macroeconomic variables and short run association from Exchange Rate and Foreign Reserve to Sensex. The Consumer Price Index (CPI) and Crude Oil have insignificant effect on Sensex. This paper has profound implication to the portfolio managers and investors.

JEL Code : R53, J11, B22
Keywords : Macroeconomic; Variables; Stock Market; VECM; Co-integration; Diversification; India

I. Introduction

THE CHANGING DYNAMICS of geopolitics in the world and interdependence of global markets make it important to study the inter linkages of macroeconomic variables such as crude oil, exchange rate, inflation, foreign exchange reserves and stock market. Change in one variable causes domino effect, a series of change in other variables. For example, a rise in crude oil price causes high inflation, trade deficits and economic recessions which lead to expansionary monetary policies as government

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market is indeed predicted contrary to the conclusion of Market Hypothesis. Policy makers need to be cautious while attempting to influence the stock market through changes in Crude Oil and CPI as they are not affecting the stock market for short run. This study is not left with limitation, hence, association of Indian stock market with foreign macroeconomic variables can be explored in future employing dynamic conditional correlation (DCC) and other methods of connectedness.

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