Interdependence between India Stock Market and Developed Economies Stock Markets during major Stock Market Crashes

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Abstract

This study focuses on eight stock market crashes and interdependence of India stock market on 14 developed economies including two to be developed economies like China and Brazil stock market during the period of those stock market crashes. The 14 developed economies including two to be developed economies taken for the study are US, UK, Japan, Germany, France, Canada, South Korea, Hong Kong, Netherlands, Denmark, Sweden, Finland, Brazil and China. We have taken the next 2 years period immediately after the given stock market crash. We used ADF test to verify the existence of Unit root, Johnson co integration test, Granger Causality test, GARCH model for finding volatility, GARCH M model for finding volatility spillover effects. It is concluded that US stock market and Hong Kong stock market showed the co integration with India stock market during the maximum number of stock market crashes. Japan, Germany, Netherlands and Finland showed co integration with India stock market during the good number of stock market crashes.

JEL Code :   C32, C100, F15, G15
Keywords :   Interdependence, Co-integration, Developed, Emerging, Stock Markets, ADF, Unit root tests, Granger Casuality, GARCH

I. Introduction

IN THIS WORLD of globalization, co-integration exists among the countries in the world. If any positive or adverse things happened in one market, we would investigate the interdependence between India stock market and developed economies stock market during the time of stock market crash. We examine the stock market crashes happened after economic reforms in India. So the stock market crashes after 1991 will only be considered for the study.

We have investigated the co-integration among developed economies' stock market and Indian Stock market. We take 14 economies viz., US, UK,

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Interdependence between fourteen developed economies including two to be developed economy stock markets and India stock market is studied through co-integration, Granger Causality, GARCH Model found Variance rate resemblance, GARCH M model calculated volatility spillover effects during the period of eight stock market crashes. Table VI summarizes the findings of interdependence of selected developed economies stock markets and Indian stock market using the econometric tools like Co-integration test, Granger Causality test, Variance rate using GARCH Model, volatility spillover using GARCH M model.

Table VI exhibits the results of econometric tools like Johansen co-integration test, Granger Causality test, GARCH model and GARCH M model, it is concluded that US stock market and Hong Kong stock market showed the co-integration with India stock market during the maximum number of stock market crashes. Japan, Germany, Netherlands and Finland showed co-integration with India stock market during the moderate number of stock market crashes. Other stock markets taken for study did not show the interdependence with India stock market during the stock market crashes.

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