III. Abstract

There is endless debate on globalization, free economy and integration of markets. Followers of McKinnon (1973) and Shaw(1973) forcefully argue and advocate that ‘ this is the only game in the town ‘(Obstfeld 1994, Mohan 2005,Trichet 2005, Lane et al., 2006). Again, scholars like Agenor (2001), warns the world about the evils of financial integration. Despite the debate on boons and evils of integration, now almost all economies are following the ‘free regime' and obviously India cannot live in isolation and started to pursue the ‘free economic policies' from 1991 and attempts to reap the benefits of globalization. The central Bank of India, accordingly, sets the objectives of reform of the financial sector. Reddy (1999, 2005), former governor of the Reserve Bank of India, argued and prescribed that more and more policy reforms are necessary to converge the domestic markets. Integration of domestic markets not only help to reap the benefits of liberalisation across the domestic and international financial sectors but also help to increase the efficiency, integrity and competitiveness of all the sectors —be it real or financial and the outcome of which ultimately be translated to the overall development of the economy.

The issue of domestic integration has escaped adequate attention of the scholars. Majority of the studies investigated the stock, foreign exchange and money market as secondary or auxiliary issue and a few have investigated the domestic financial markets as the only or primary issue. Studies in the context of India are rare. The use of low frequency data, variety of methodologies, incomplete searching, absence of report on the presence of the variables in the co-integration space, etc, and the fractured findings suggest that there is the scope for further research to unveil the intricate relationship amongst the Indian money, foreign exchange and stock market. The primary objective of this study is to investigate whether Indian domestic financial markets are integrated and would remain integrated in future or not. In pursuing the objectives and considering a time period from 1st January, 2008 to 31st

December, 2018, the daily data of the stock, foreign exchange and money market are collected and used in this study.

This study transformed all the select time series process under the scrutiny by taking natural logarithm and estimated the entire tests with log-level data. The stationarity tests suggest that all the variables representing the markets are significantly integrated to order one. With the I(1) time series process we assessed the relationship of the markets based on the methodology suggested by Johansen, (1991,95) and Johansen, and Juselius, (1990). Results of the test significantly suggest the presence of one co-integrating relation and the deterministic term as, there is 'a linear trend at level, and intercept with no trend' which is very common and expected in the studies in finance and economics. Results of the test show the presence of significant long-term stable relationship amongst the markets and all the markets are found to be significantly present in the core of the co - integration space. There is no serial or autocorrelation at and up to the optimum lag order and also found stability of the system. The coefficients of error correction terms are statistically significant and according to the absolute figures, the speed of adjustment of the money market is relatively higher followed by stock and foreign exchange market. Levels of co-integrating relation of the Indian domestic financial markets found in this study do not disappoint the policy planners as it is marked by ups and downs around the critical levels of 95 percent. All these findings suggest strong long-term stable link between the markets.

Results of the Granger causality tests point to bi-directional causality in between the stock and foreign exchange and unidirectional from foreign exchange market to call money market. The pair wise Granger causality run in both direction between the markets. In other words, the past values of all the markets grossly influence the future values of all the markets. The findings of the forecast error variance decomposition analysis indicate that the foreign exchange market followed by stock market will remain flexible over the future period of 50

days and steps are needed to make the money market more vibrant and flexible. The results of the impulse response analysis show that the markets transmit shock to other markets and responses to the shocks nearing to zero at or up to 50th day of our study indicating all the markets under study would remain integrated, at least, to the future horizon of the study.

The results derived and observations made by the study should be accepted with caution due to the inevitable bias and technical limitations of statistical and econometric tools used. In this study, the modified information criteria in the selection of the optimum lag order are not used, the cases of fractional integration, if any, also not considered when testing the order of integration of the time series process. There is enough scope to use alternative tools and techniques to improve the outcome of these types of studies and the matter is left to scholars to study in future.

In investigation, linear co-integrating relationship is assumed. Theoretically, the relation among the markets may well take the nonlinear form. This possibility is not investigated by this study.

One of the primary objectives of this study is to investigate whether there is any co-integration among the domestic markets or not, but to investigate the probable reasons for co-integration or no integration is beyond the purview of this study, hence, it is left for future studies.

In this analysis ‘narrow base' but highly traded segment of the Bombay Stock Exchange that is S & P BSE SENSEX 30 is used. Future studies considering broad base index is welcome. Real rates in place of nominal rates, basket of currencies or more currencies in place of single currency rates, forward rate instead of spot, Yield on Treasury bills in place of call rates can be used to study the relationship in future.