Effect of Global Economic Crisis on the Price Behavior of Realty Sector Index Stocks of NSE

M.Muthukamu, S.Rajamohan

Abstract: ***This study has been conducted to understand whether the global economic crisis triggered by sub - prime crisis, which was happened due to burst in asset price of housing sector in United States have made any significant negative impact on the price behavior of the housing sector stocks of Indian equity market ? and if yes, whether this negative impact has brought volatility, more specifically asymmetric volatility (Leverage effect) to the Indian equity market?. In the process finding out the answer to these questions, we have collected data relating to the price behavior of the constituent stocks of Realty sector index of NSE for the period from 9th January 2008 to 5th November 2010, the period where the Indian equity market index -NIFTY has travelled from its peak 6287 mark to 2573 mark and bounced smartly from this low to again its previous high (around 6300) and the price behavior data were collected from the official web site of NSE. The GARCH family models viz. GARCH (1,1) and EGARCH (1,1) were employed to understand the symmetric and asymmetric volatility and found that realty sector stocks were negatively influenced by the sub-prime crisis and has triggered the volatility of both symmetric and asymmetric volatility.***

Key words: Volatility, Sub- prime crisis, GARCH family models, Leverage effect.

I. INTRODUCTION

The global economic crisis was surfaced during the later part of the year 2007 and the origin was from the sub-prime crisis in the United States. The initial effect of this crisis was profound only on the lending institutions of US and to the lesser extent on the European financial institutions and the adverse effect on the emerging economies was less serious. But withdrawal of capital flows by foreign institutional investors to replenish their cash balances brought some severe hiccups in the emerging economies during the early period of 2008. Following the collapse of the US based lending giant Lehman Brothers in the mid of September 2008 has created a panic situation among the investors and developed a crisis of confidence among them and precipitated the crisis. The spillover effect of collapse in the US money and credit market has significant impact on the performance of the equity market across the world. Money and credit market across the world have been affected significantly due to the dynamic linkages, drying up of liquidity, fallout of repatriation of portfolio investments by the Foreign Institutional Investors. Indian money and credit market too experienced the same. The excessive dependence on the foreign investments and subsequent deleveraging and the risk aversion have affected the Indian economy leading to slowing the growth momentum.

The global market has witnessed DOT COM (.com) bubble burst in the beginning of 1990s and in the process of addressing this crisis countries had been started following the liberal monetary policies. During this period, the US economy has witnessed the growing current account deficit which was addressed by capital flows from the exporting countries. This global imbalance has contributed the low interest phase in the US and which has resulted the real estate assets bubble. The relaxing standard for mortgaged loans and innovative financial products has helped them to mask the risk of their portfolio risks. During the early period of 2000s, the Federal Reserve Bank of United States started tightening the money and credit market activities by raising the interest rates to address the higher inflation phase in their economy. This raising trend in the interest rate has developed the crisis in the sub-prime mortgage market and which led to the free fall in the real estate asset prices. This had result a severe cash crunch in the banking system of United States and this contagion in the banking sector caused hiccups in the US credit markets and the US economy went into a severe recession phase which reflected in the security market of US and quickly spread to all other emerging markets through both real and financial channels. The growth trajectory of India was started during the early periods of 1990s and was in uptrend till 2008. Almost all the sector in India has delivered an exponentional growth during this period. But the economic meltdown started in the year 2008, which was originated in United States has negatively influenced the growth story of the nation. More specifically, the real estate sector in India has lost its growth momentum and it was struggling to come up and find growth rate in line with the other sectors of the economy. The performance history of the realty sector index of NSE (Refer Table 1) has confirmed this fact and it has delivered very poor performance since 2008 when compare with the other sector indices of NSE. This scenario has urged us to have insight about the performance rendered by the stocks of the realty sector listed in the Indian equity market in light of its return and the associated volatility.

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