

Relationship between share market and foreign Exchange market in India (A brief study)

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Abstract- Stock exchange and interest rate are two crucial factors of economic growth of a country. The impacts of interest rate on stock exchange provide important implications for monetary policy, risk management practices, financial securities valuation and government policy towards financial markets.
Index terms- Efficient market, Market return, Interest rate, Investment

1 Introduction

THIS share market and foreign exchange market both are vital elements of a financial system. Stock market is a place where shares are issued and traded either through exchange or over the counter markets. Also known as Equity market, it is one of the most vital areas of market economy as it provides companies with access to capital and investors with a slice of ownership in the company and the potential of gains based on the company's future performance, whereas the foreign exchange market in which participants are able to buy, sell, exchange and speculate on currencies. Foreign exchange markets are made up of banks, commercial companies, central banks, investment management firms, hedge funds and retail forex brokers and investors. The forex market is considered to be the largest market in the world.

India's first Stock exchange was Bombay stock exchange established in 1875 in Bombay. Currently, there are 23 stock exchanges in India under the Securities Contract Regulation act 1956. BSE is the premier stock exchange in India and it has been recognized permanently while the other exchanges are renewed every five years. Apart from BSE, there are two other stock exchanges National Stock Exchange of India Ltd. (NSEI) and Over-the-counter Exchange of India Ltd (OTCEI). Both these exchanges were set up in 1992.

The primary function of stock market:

1. To raise long-term financing by issuing securities to enable companies.
2. To provide a platform in which these securities can be valued and easily traded.

Foreign exchange market functions at three levels:

1. In transactions between commercial banks and their commercial customers, who are the ultimate demanders and suppliers of foreign exchange?
2. In the domestic inter-bank market conducted through brokers, and
3. In active trading in foreign exchange with banks overseas.

Stock markets and Foreign exchange markets are playing a vital role in economy.

2 Review of literature

Amain and Hook (2000) investigated the relationship between exchange rate of Malaysian ringgit in tens of United States dollar and stock prices in Kuala Lumpur Stock Exchange (KLES) using the single-index and Multi-index models. The study found that there is no significant relationship between the exchange rate and the Kuala Lumpur Stock Exchange (KLSE) stocks during strong ringgit period.

Choi and Kim (2000) examined determinants of American Depository Receipts (ADRs) and their underlying stock returns. The study revealed that the behavior of the American Depository Receipts can be explained better by using the exchange rates. The exchange rate shows a significant negative correlation with American Depository Receipts returns.

Damele et al (2004) analyzed the market integration based on the stock market and the exchange market. The Rupee Dollar exchange rate was considered to see the movement in Forex market. The study revealed that price integration between stock prices and exchange rates lead to the conclusion that there exists some degree of price integration between these markets in India.

Jithendranathan et al (2000) noticed that Global Depository Receipts index returns are affected by both foreign and domestic factors, while the underlying Indian securities are influenced only by domestic factors. It is also found that Global Depository Receipts are priced at a premium over the exchange rate adjusted prices of the underlying Indian securities.

Priestley and Odegaard (2004) the study found that the Yen and European currency units are both priced and the prices of risk are different under different regimes. This is due to the extent of export and import to the European Union and Japan. The analysis again reveals the importance of the changes in exchange rate regimes for the firms. When the dollar appreciates, investors would band a premium to hold stocks of companies that are exporters. At the same time investors in importing firms would be willing to pay premium to hold the stocks. This is important from the point of view of risk management.

Shamsuddin and Kim (2003) The authors concluded that there was a stable long-run relationship among the Australian, United States and Japanese market prior to the Asian crisis, but this relationship disappear during the post-Asian crisis period. It is also found that following the Asian crisis, the influence of United States on the Australian market diminished while the influence of Japan remained at a modest level.

Kiyamaz (2003) revealed that the firms are highly exposed to foreign exchange risks. The level of exposure is more pronounced for the textile, machinery I equipment, chemical / petroleum and financial industries and less in the food beverage, service I trade and non-metal / cement industries.

Bartram (2004) investigated the linear and nonlinear foreign exchange rate exposure of German non-financial corporations. The empirical evidence does not indicate that the economic foreign exchange rate exposure is primarily driven by the currency of determination. Firms with more international sales exhibit systematically larger and more significant foreign exchange rate exposures.

Johansen and Soenen (2003) observed that a higher share of international trade in terms of exports and imports with the United States have a strong positive effect on stock market co-movements between country pairs. Increased bilateral exchange rate volatility in the United States relative to other countries contributed to lower co movement.

Bin et al (2003) showed that importance of foreign exchange rates as a determining factor of American Depository Receipt pricing. Therefore, the exchange rate risk premium matters in investment decisions involving American Depository Receipts. It is also found that the outbreak of a foreign financial crisis has a negative effect on the pricing behavior of American Depository Receipts originating in the country or region.

3 Objectives

To study inter- relationship between Stock prices and foreign exchange rate.

To identify the validity market integration with stock market and foreign exchange market in India.

4 Research Methodology

The Data have been collected and analyze for this research study from secondary published sources viz., newspapers, books, websites and research studies.

6 Finding of the Study

1. Johansen's bivariate cointegration method is found to be the best and one of the latest model to examine the interlinkages between the stock prices and the exchange rates. This test can be used to examine the market integration and interrelationship between the exchange rate and stock prices. Most of the studies pertaining to market integration and interrelationship between stock market and foreign exchange market are at the international level. These studies are mainly in the context of developed countries rather than the developing countries.

(ii) By and large earlier studies revealed mixed results. Some studies have found a significant positive relationship between stock prices and exchange rates, while others have reported a significant negative relationship between the two. In case of causation, when some studies have reported causation from exchange rates to stock prices, other studies have found causation from stock prices to exchange rates. At the same time very few studies claimed bidirectional causation between stock prices and exchange rates.

(iii) From the methodological point of view, studies employing modern techniques such as bivariate cointegration test to examine the cointegration between foreign exchange market and stock market, vector error correction models and vector autoregression models to identify the existence of inter-relationship between the markets are limited in the earlier literature pertaining to the capital and foreign exchange market.

(iv) Critical evaluation of all the econometric techniques reveals that Johansen's bivariate cointegration technique is superior to other techniques to test the validity of market integration hypothesis and inter-relationship between stock market and foreign exchange market.

Johansen's bivariate cointegration results exhibit a long run relationship between the foreign exchange rate and the stock prices in case of most of the companies, industries, and BSE Sensex during the period of our study. This reveals that information is disseminated between the foreign exchange market and the stock market, and the presence of long-run equilibrium relations between the stock prices and the exchange rate in case of all these firms, industries and the Sensex. In other words both the stock prices and the exchange rate are moving together. But in case of few companies and industries absence of cointegration shows the absence of information dissemination, even though the companies are having exchange rate exposure.

Conclusions

A stock market is efficient when security prices reflect all available public information about the economy, financial markets, and the specific company involved. The implication is that market prices of individual securities adjust very rapidly to new information. If markets are inefficient information regarding one market will not disseminate to the other market. Among such markets, market integration is difficult. When market integration is not present, arbitragers can make use of the imperfections in the market and can make huge profit. This may adversely affect the interests of small investors and institutions.

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