

**BOMBAY STOCK EXCHANGE, EXCHANGE RATE,
FOREIGN INSTITUTIONAL INVESTMENT: A TREND
ANALYSIS**

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ABSTRACT

Capital is considered as a nerve of any economy .In case of developing country like India Domestic capital is not sufficient to fulfill the requirement of economy. In that case foreign capital plays a very important role.¹ The time series data on total Bombay Stock Exchange index, Exchange Rate, Foreign Institutional Investment and GDP for India. The time period of the present study has taken for analysis is the 14 years period from 1998 to 2012. To study the extent of time series data on total FII, Exchange Rate ,BSE index number in to India, to be more specific this study describe the FII, Exchange Rate, BES index number in forms of actual value ,index number and monthly growth rate and trend analysis through simple linear regression model and semi log linear regression model. To the relationship between the FII, Exchange rate, BSE and Economic growth through correlation and Regression models, first the regression model is fitted by taking the GDP as on the dependent variable for the set data.

Keywords : FII, Bombay Exchange, Exchange Rate.

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1. Introduction

BSE is a corporatized and demutualised entity, with a broad shareholder-base that includes two leading global exchanges, Deutsche Bourse and Singapore Exchange, as strategic partners. BSE provides an efficient and transparent market for trading in equity, debt instruments, derivatives, and mutual funds.

The BSE is the oldest stock exchange in Asia. It is situated in Dalal Street in Mumbai. It is the third largest stock exchange in south Asia and the tenth largest in the world. BSE has over 5000 companies that are listed in it. The objectives of the BSE are similar to that of the NSE. BSE also uses the latest technologies in the IT field to provide a single place where traders from across the world can buy/sell shares in the Indian share market. The BSE lists over 6,000 companies and is one of the largest exchanges in the world. The BSE has helped develop the country's capital markets, including the retail debt market, and helped grow the Indian corporate sector.

In 1995 the BSE switched from an open-floor to an electronic trading system. Securities listed by the BSE include stocks, stock futures, stock options, index futures, index options and weekly options. The BSE's overall performance is measured by the Sensex, an index of 30 of the BSE's largest stocks covering 12 sectors.

Popular stock exchange located in Mumbai, India. The exchange is the largest (in terms of market capitalization) in South Asia². In terms of the number of companies traded on the exchange (approximately 4700), it is the largest in the world. The main index which tracks the performance of the exchange is the BSE Sensex. An exchange rate thus has two components, the domestic currency and a foreign currency, and can be quoted either directly or indirectly.

Rate at which one currency may be converted into another currency. The exchange rate is used when simply converting one currency to another (such as for the purposes of travel to another country). There are a wide variety of factors which influence the exchange rate, such as interest rates, inflation, and the state of politics and the economy in each country also called rate of exchange. An exchange rate is the current market price for which one currency can be exchanged for another

Exchange rates allow you to determine how much of one currency you can exchange for another. For example, the dollar's exchange rate tells you how much a dollar is worth in a foreign currency, and vice versa. You will definitely need to understand exchange rates when you travel to another country. For example, if you traveled to Canada on September 30, 2013,

you'd find a dollar was worth \$1.03 Canadian dollars. On that day, you could hand over a \$1 bill and get \$1.03 in Canadian currencies.³

In travel, the exchange rate is defined by how much money, or the amount of a foreign currency, that you can buy with one US dollar. The exchange rate defines how many pesos, euros, or baht you can get for one US dollar (or what the equivalent of one dollar will buy in another country).

FII means an institution established incorporated outside India which proposes to make investment in India. Sub-Account means a person resident outside India, on whose behalf an FII proposes to invest in India. The term foreign institutional investment denotes all those investors or investment companies that are not located within the territory of the country in which they are investing. These are actually the outsiders in the financial markets of the particular company. Both FDI and FII are related to investment in a foreign country. FDI or Foreign Direct Investment is an investment that a parent company makes in a foreign country.

The exchange is the largest (in terms of market capitalization) in South Asia. In terms of the number of companies traded on the exchange (approximately 4700), it is the largest in the world. The main index which tracks the performance of the exchange is the BSE Sensex. Stock market is an important segment of the financial system of any country as it plays a vital role in channelizing savings from deficit sector to surplus sector. These stock markets have always been an area of serious concern for policy makers, economists and researchers. The available literature suggests that since the inception of stock markets researchers are making attempts to establish relationship between change in macroeconomic factors and stock market returns. Indian capital market has undergone tremendous changes since 1991, after the government introduced liberalization and globalization more seriously than ever before. As a result, there can be little doubt about the growing importance of the stock market from the point of view of the aggregate economy. Indian capital markets have evolved as a major source of raising resources for Indian corporate. The total market capitalization of Bombay Stock Exchange's (BSE) has magnified significantly. The huge influx of capital through FIIs has made India a favorite avenue of investment for global investors. Not only has the stock market activity increased relative to the real economy, but also it appears that the inter-relationship between them has strengthened. The various macroeconomic factors seem to be having a significant impact on the stock price movements. Keeping all these factors in mind, it becomes necessary to test the link between the real economy and stock market. Bombay Stock Exchange is the prime stock market of India and one of the rapidly growing markets from Asia which is ready to mark itself as one the biggest global stock market on the map of

the world. Bombay Stock Exchange limited which is known as, BSE in recent times, was established as "The Native Share & Stock Brokers' Association" in 1875. Indian economy in general and Indian stock market in particular is ideal to Invest for domestic as well as international investor due to number of reasons. Indian stock markets in particular and Indian economy in general are growing at a very rapid rate⁴.

The market Capitalization of the BSE is Rs.5 trillion. The BSE 'Sensex' is a widely used market index for the BSE. Stock market is a market in which shares are issued and traded either through exchanges or over the counter markets. The Indian stock exchanges hold a place of prominence not only in Asia⁴. The complexity and difficulty of predicting stock prices, with a reasonable level of precision, on one hand, and the emergence of Computational Intelligence techniques such as Neural Networks, Fuzzy Sets, Evolutionary Algorithms, Rough Sets etc., as alternative techniques to the conventional Statistical Regression and Bayesian Models with better performance, on the other hand, have paved the road for the increased usage of these techniques in various areas of Finance. In recent years since its inception, Rough Sets have gained momentum and has been widely used as viable Intelligent Knowledge Discovery techniques in many applications including Finance and Investment areas. Stock market efficiency is an important concept, in terms of an understanding of the working of the capital markets. The efficiency of the emerging markets assumes greater importance as the trend of investments is accelerating in these markets as a result of regulatory reforms and removal of other barriers for the international equity investments. The term market efficiency is used to explain the relationship between information and share prices in the capital market literature.⁶

2. Review of past related studies

Gilberto Tadeu Lima and Gabriel Porcile (2013)⁷ have develop a dynamic model of capacity utilization and growth taking into account the co determination of international competitiveness (measured by the real exchange rate) and income distribution. It follows that distribution, capacity utilization, and growth vary with the real exchange rate depending on the source of change in the latter. Indeed, when the government is primarily concerned with preserving workers' share in income when managing the nominal exchange rate, a limit cycle arises: the economy goes through endogenous cyclical fluctuations in real exchange rate and growth that resemble the experience of several developing countries.

Jun Wu, Shaomin Li and David D. Selover (2012)⁸ have examined how different governance types affect foreign investment patterns among 45 countries. Their main

argument is that the choice of investment direct or portfolio is influenced by the type of property protection associated with different governance modes, and they have the largest stock market size relative to their economies.

Tomoe Moore and Eric J.Penteost (2006)⁹ have analyzed the long-run structural VAR technique on the other hand if the variation in the real exchange rate the Purchasing Power Parity (POP). Monthly nominal exchange rates (a number of Rupees per US Dollar) real and nominal exchange rate movements have been decomposed into the components induced by real and nominal factors using the SVAR technique. The empirical evidence reveals that fluctuations over the current flexible exchange rate period in both real and nominal that the rupee will most likely behave in a non-stationary way for the immediate future.

Parttnaik, et.al (2003)¹⁰ have analyzed the backdrop of international developments both at the theoretical and empirical levels. The empirical exercise undertaken indicates that monetary policy has been successful in ensuring orderly conditions in the foreign exchange market and containing the impact of exchange rate pass-through effect on domestic inflation overall, the analysis indicates that exchange rate management in India has been consistent with macroeconomic stability, and develop on orderly foreign exchange market.

Rajwade (1987)¹¹, has argued that the depreciation of the Rupee seems to be based only on the nominal exchange rate and domestic inflation rates are higher than these of our trading partners. The biggest opponents of the recent rupee depreciation have been the urban industrialists who depend on imported inputs and capital goods. The author summarized that to depreciate the rupee at least to reflect inflation differentials. This could well involve a much greater, not lesser, recourse to international trade, and require exchange rate policies.

Vergheese (1984)¹² has analysed the relationship between the real exchange rate depreciation of the rupee value and the volume of exports, imports and current account balance during the period from 1971-72 to 1981-82. In this study find out that the significant and persistent real depreciation of the rupee and its effects on the exports to special features of the structure of imports and the current account balance to the influence of the real depreciation of rupee.

Nicholas Kaldor (1984)¹³ has examined general devaluation so as to offset the present over-valuation arising out of the differential inflation arising out of the differential

inflation rates of recent years. He concludes that the ideal solution for promoting economic developments thus appears to be the adoption of a dual exchange rate. The difference between the special rate and general rate should remain unchanged in percentage terms irrespective of any devaluation in the general rate.

Keith J et.al (1980)¹⁴ have analyzed recent effects of Exchange rate change, inflation, and price insulation policies on real US commodity prices. Exchange rate effects are defined so that they can occur and be significant under either fixed or floating rate regimes. The partial equilibrium elasticity approach admits no endogenous cross- price effects or absorption approach feedback.

Delisle Worrell (1980)¹⁵ has examined the state of the art of exchange rate management in LDCs. The data relating to traded and non-traded goods are taken from International Financial System. He analyzed on Flemins-Mundell model, Simultaneous equations, and Variations. He conclude that export promotion and import substitution as the chief engines of growth, the central banker must always bear in mind the social and political environment in which the policy must be executed.

3.3 Methodology

In recent times India has been implementing important economic country to enhance their economic growth. The relationship of Bombay Stock Exchange, Exchange Rate ,Foreign Institutional Investment and GDP in Indian country, So far very few researches have been done in the sense of these relationship were found that positive relationship of Bombay Stock Exchange, Exchange Rate ,Foreign Institutional Investment and GDP for India. Even though the present study has main focuses on India's economic growth and the study does not go into depth analysis only to attempt trend and growth pattern of Bombay Stock Exchange, Exchange Rate, Foreign Institutional Investment and GDP.

The time series data on total Bombay Stock Exchange index, Exchange Rate, Foreign Institutional Investment and GDP for India. The time period of the present study has taken for analysis is the 14 years period from 1998 to 2012. To study the growth of the Bombay Stock Exchange, Exchange Rate, and Foreign Institutional Investment in forms of actual value, index number and monthly growth rate and trend analysis through simple linear regression model and semi log linear regression model. To examine the Relationship between Foreign Institutional Investment, Bombay Stock Exchange, Exchange Rate and GDP in India through correlation and Regression models, first the regression model is fitted by taking the GDP as

on the dependent variable for the set of data. The data specified above have been collected for this study mainly from the United Nations Conference on Trade Development (UNCTAD), Yahoo Finance and RBI data on the total value of Bombay Stock Exchange index number, Exchange Rate, Foreign Institutional Investment and GDP in India.

4.2 Bombay Stock Exchange, Exchange Rate and Foreign Institutional Investment in India during the Period from 1-1-2001 to 12-3-2012:

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2001 to 12-1-2001, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has fall down from 4326.22 in 1-1-2001 to highest level of 2811.60 lowest value in 9-3-2001 the same time period the highest Monthly Growth Rate was 9.98 in 11-1-2001 and the lowest Monthly Growth Rate was -15.13 in 3-1-2001. During the same period the value of Exchange Rate in India has increased from the low level of 47.99 in 11-1-2001 to 46.52 values in the 2-1-2001. After five month the value of Exchange rate was fixed 47. The same time period the highest Monthly Growth Rate was 0.79 in 10-1-2001 and the lowest Monthly Growth Rate was -0.44 in 1-2-2001. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 4273.00 in 1-2-2001 to low level -533.30 value in the 9-3-2001 the same time period the highest Monthly Growth Rate was 5897.37 in 12-3-2001 and the lowest Monthly Growth Rate was -1018.05 in 6-1-2001.

The data on Bombay Stock Exchange Rate are given in table .During the period from 1-1-2002 to 12-1-2002, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has fall down from 3562.31 in 2-4-2002 to highest level of 2949.32 lowest value in 10-2-2002 the same time period the highest Monthly Growth Rate was 9.48 in 11-1-2002 and the lowest Monthly Growth Rate was -7.92 in 7-1-2002. During the same period the value of Exchange Rate in India has increased from the low level of 49.00 in 5-2-2002 to 48.14 values in the 12-2-2002. After five month the value of Exchange rate was fixed 48. The same time period the highest Monthly Growth Rate was 0.86 in 1-1-2002 and the lowest Monthly Growth Rate was -0.41 in 7-1-2002. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 2336.80 in 2-4-2002 to low level -875.10 value in the 10-1-2002 the same time period the highest Monthly Growth Rate was 234.11 in 2-4-2002 and the lowest Monthly Growth Rate was -1974.46 in 6-3-2002.

TABLE: 4.2.1
Bombay Stock Exchange Index Number, Exchange Rate and Foreign Institutional Investment in India

Date	BSE [Index Number]	Index No	Monthly Growth Rate	Ex. Rate per Dollar in Rupees	Index No	Monthly Growth Rate	FII [Millions of US Dollar]	Index No	Monthly Growth Rate
1/2/2001	4326.72	100.00	8.93	46.54	100.00	-0.44	4273.00	100.00	-772.91
2/1/2001	4247.04	98.16	-1.84	46.52	99.94	-0.06	1863.20	43.60	-56.40
3/1/2001	3604.38	83.31	-15.13	46.62	100.16	0.22	1765.90	41.33	-5.22
4/2/2001	3519.16	81.34	-2.36	46.78	100.51	0.35	1978.80	46.31	12.06
5/2/2001	3631.91	83.94	3.20	46.92	100.81	0.29	-128.50	-3.01	-106.49
6/1/2001	3456.78	79.89	-4.82	47.00	100.99	0.18	1179.70	27.61	-1018.05
7/2/2001	3329.28	76.95	-3.69	47.14	101.28	0.29	477.70	11.18	-59.51
8/1/2001	3244.95	75.00	-2.53	47.13	101.25	-0.03	502.20	11.75	5.13
9/3/2001	2811.60	64.98	-13.35	47.64	102.36	1.09	-533.30	-12.48	-206.19
10/1/2001	2989.35	69.09	6.32	48.02	103.17	0.79	884.40	20.70	-265.84
11/1/2001	3287.56	75.98	9.98	47.99	103.12	-0.05	3.80	0.09	-99.57
12/3/2001	3262.33	75.40	-0.77	47.92	102.95	-0.16	227.90	5.33	5897.37
Ave	3475.92		-2.24	47.19		0.27	1041.23		-8.61
1/2/2002	3311.03	100.00	1.49	48.33	100.00	0.86	699.40	100.00	206.89
2/4/2002	3562.31	107.59	7.59	48.69	100.75	0.75	2336.80	334.11	234.11
3/1/2002	3469.35	104.78	-2.61	48.74	100.85	0.10	329.00	47.04	-85.92
4/1/2002	3338.16	100.82	-3.78	48.92	101.22	0.37	-112.90	-16.14	-134.32
5/2/2002	3125.73	94.40	-6.36	49.00	101.38	0.16	46.20	6.61	-140.92
6/3/2002	3244.70	98.00	3.81	48.97	101.32	-0.06	-866.00	-123.82	-1974.46
7/1/2002	2987.65	90.23	-7.92	48.76	100.90	-0.41	238.40	34.09	-127.53
8/1/2002	3181.23	96.08	6.48	48.59	100.53	-0.37	174.10	24.89	-26.97
9/2/2002	2991.36	90.35	-5.97	48.44	100.23	-0.29	322.40	46.10	85.18
10/1/2002	2949.32	89.08	-1.41	48.37	100.09	-0.15	-875.10	-125.12	-371.43
11/1/2002	3228.82	97.52	9.48	48.25	99.85	-0.24	737.70	105.48	-184.30
12/2/2002	3377.28	102.00	4.60	48.14	99.61	-0.24	647.90	92.64	-12.17
Ave	3230.58		0.18	48.60		-0.04	306.49		-0.67
1/2/2003	3250.38	100.00	-3.76	47.93	100.00	-0.43	985.30	100.00	52.08
2/3/2003	3283.66	101.02	1.02	47.74	99.59	-0.41	428.20	43.46	-56.54
3/3/2003	3048.72	93.80	-7.15	47.64	99.39	-0.20	962.80	97.72	124.85
4/1/2003	2959.79	91.06	-2.92	47.38	98.84	-0.55	992.50	100.73	3.08
5/2/2003	3180.75	97.86	7.47	47.08	98.22	-0.62	3060.50	310.62	208.36
6/2/2003	3607.13	110.98	13.41	46.71	97.45	-0.79	3461.80	351.34	13.11
7/1/2003	3792.61	116.68	5.14	46.23	96.45	-1.03	2160.90	219.31	-37.58
8/1/2003	4244.73	130.59	11.92	45.93	95.83	-0.64	2227.50	226.07	3.08
9/1/2003	4453.24	137.01	4.91	45.85	95.65	-0.19	4175.50	423.78	87.45
10/1/2003	4906.87	150.96	10.19	45.39	94.69	-1.00	6722.80	682.31	61.01
11/3/2003	5044.82	155.21	2.81	45.52	94.97	0.30	3594.10	364.77	-46.54
12/1/2003	5838.96	179.64	15.74	45.59	95.11	0.14	6381.90	647.71	77.57
Ave	3967.64		7.24	46.58		-0.44	2929.48		49.79

SOURCES: Data collected for Yahoo finances and RBI.

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2003 to 12-1-2003, Bombay Stock Exchange Rate has grown considerably, the value of

Bombay stock Exchange Rate has raised from 5838.96 in 12-1-2003 to highest level of 2959.79 lowest value in 4-1-2003 the same time period the highest Monthly Growth Rate was 15.74 in 12-1-2003 and the lowest Monthly Growth Rate was -7.15 in 7-3-2003. During the same period the value of Exchange Rate in India has increased from the low level of 47.93 in 1-2-2003 to 45.39 lowest values in the 10-1-2003. After five month the value Of Exchange rate was fixed 46. The same time period the highest Monthly Growth Rate was 0.30 in 11-3-2003 and the lowest Monthly Growth Rate was -0.29 in 6-2-2003. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 6722.80 in 10-1-2003 to low level -428.20 value in the 2-3-2003 the same time period the highest Monthly Growth Rate was 208.36 in 5-2-2003 and the lowest Monthly Growth Rate was -56.54 in 2-3-2003.

During the period from 1-1-2004 to 12-1-2004, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has fall down from 6602.69 in 12-1-2004 to highest level of 4759.62 lowest value in 5-3-2004 the same time period the highest Monthly Growth Rate was 9.91 in 11-1-2004 and the lowest Monthly Growth Rate was -15.83 in 5-3-2004. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 10139.70 in 12-1-2004 to low level -3546.40 value in the 5-3-2004 the same time period the highest Monthly Growth Rate was 303.61 in 11-1-2004 and the lowest Monthly Growth Rate was -360.77 in 7-1-2004.

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2005 to 12-1-2005, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has raised from 9397.93 in 12-1-2005 to highest level of 6154.44 low value in 4-1-2005 the same time period the highest Monthly Growth Rate was 11.36 in 11-1-2005 and the lowest Monthly Growth Rate was -8.60 in 10-3-2005. During the same period the value of Exchange Rate in India has increased from the low level of 45.73 in 11-1-2005 to 43.49 values in the 5-2-2005. After five month the value Of Exchange rate was fixed 44. The same time period the highest Monthly Growth Rate was 2.06 in 10-3-2005 and the lowest Monthly Growth Rate was -0.58 in 5-2-2005. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 9209.40 in 2-1-2005 to low level -4627.40 value in the 10-3-2005 the same time period the highest Monthly Growth Rate was 346.09 in 12-1-2005 and the lowest Monthly Growth Rate was -3008.84 in 2-1-2005.

TABLE: 4.2.2
Bombay Stock Exchange Index Number, Exchange Rate and Foreign Institutional Investment in India

Date	BSE [Index Number]	Index No	Monthly Growth Rate	Ex. Rate per Dollar in Rupees	Index No	Monthly Growth Rate	FII [Million of US Dollar]	Index No	Monthly Growth Rate
1/2/2004	5695.67	100.00	-2.45	45.46	100.00	-0.29	3869.40	100.00	-39.37
2/3/2004	5667.51	99.51	-0.49	45.27	99.59	-0.41	2673.50	69.09	-30.91
3/1/2004	5590.60	98.16	-1.36	45.02	99.04	-0.56	6444.30	166.55	141.04
4/1/2004	5655.09	99.29	1.15	43.93	96.65	-2.41	6719.50	173.66	4.27
5/3/2004	4759.62	83.57	-15.83	45.25	99.55	3.00	-3546.40	-91.65	-152.78
6/1/2004	4795.46	84.19	0.75	45.51	100.11	0.57	-273.60	-7.07	-92.29
7/1/2004	5170.32	90.78	7.82	46.04	101.29	1.18	713.20	18.43	-360.67
8/2/2004	5192.08	91.16	0.42	46.34	101.95	0.65	2520.90	65.15	253.46
9/1/2004	5583.61	98.03	7.54	46.10	101.41	-0.53	2575.30	66.56	2.16
10/1/2004	5672.27	99.59	1.59	45.78	100.72	-0.68	2028.00	52.41	-2s1.25
11/1/2004	6234.29	109.46	9.91	45.13	99.27	-1.44	8185.30	211.54	303.61
12/1/2004	6602.69	115.92	5.91	43.98	96.75	-2.54	10139.70	262.05	23.88
Ave	5551.60		1.45	45.32		-0.30	3504.09		14.73
1/3/2005	6555.94	100.00	-0.71	43.75	100.00	-0.51	-316.60	100.00	-103.12
2/1/2005	6713.86	102.41	2.41	43.68	99.83	-0.17	9209.40	-2908.84	-3008.84
3/1/2005	6492.82	99.04	-3.29	43.69	99.85	0.02	7926.60	-2503.66	-13.93
4/1/2005	6154.44	93.88	-5.21	43.74	99.97	0.12	-1475.50	466.05	-118.61
5/2/2005	6715.11	102.43	9.11	43.49	99.39	-0.58	-1385.80	437.71	-6.08
6/1/2005	7193.85	109.73	7.13	43.58	99.61	0.22	5258.20	-1660.83	-479.43
7/1/2005	7635.42	116.47	6.14	43.54	99.50	-0.11	7760.20	-2451.11	47.58
8/1/2005	7805.43	119.06	2.23	43.62	99.70	0.20	4621.20	-1459.63	-40.45
9/1/2005	8634.48	131.70	10.62	43.92	100.37	0.67	4458.40	-1408.21	-3.52
10/3/2005	7892.32	120.38	-8.60	44.82	102.43	2.06	-4627.40	1461.59	-203.79
11/1/2005	8788.81	134.06	11.36	45.73	104.51	2.03	1874.20	-591.98	-140.50
12/1/2005	9397.93	143.35	6.93	45.64	104.31	-0.19	8360.60	-2640.75	346.09
Ave	7498.37		3.94	44.10		0.39	3471.96		-249.16
1/2/2006	9919.89	100.00	5.55	44.40	100.00	-2.73	2756.00	100.00	-67.04
2/1/2006	10370.24	104.54	4.54	44.33	99.85	-0.15	7436.20	269.82	169.82
3/1/2006	11279.96	113.71	8.77	44.48	100.19	0.34	6430.40	233.32	-13.53
4/3/2006	11851.93	119.48	5.07	44.95	101.24	1.05	770.40	27.95	-88.02
5/2/2006	10398.61	104.83	-12.26	45.41	102.28	1.02	-6647.40	-241.20	-962.85
6/1/2006	10609.25	106.95	2.03	46.06	103.74	1.43	875.10	31.75	-113.16
7/3/2006	10743.88	108.31	1.27	46.46	104.64	0.87	1297.40	47.08	48.26
8/1/2006	11699.05	117.94	8.89	46.54	104.82	0.17	5447.60	197.66	319.89
9/1/2006	12454.42	125.55	6.46	46.12	103.88	-0.90	6133.40	222.55	12.59
10/3/2006	12961.90	130.67	4.07	45.47	102.41	-1.41	8669.60	314.57	41.35
11/1/2006	13696.31	138.07	5.67	44.85	101.02	-1.36	10186.50	369.61	17.50
12/1/2006	13786.91	138.98	0.66	44.64	100.54	-0.48	-2766.00	-100.36	-127.15
Ave	11647.70		3.54	45.31		0.05	3382.43		-18.21

SOURCES: Data collected for Yahoo finances and RBI.

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2006 to 12-1-2006, Bombay Stock Exchange Rate has grown considerably, the value of

Bombay stock Exchange Rate has raised from 13786.91 in 12-1-2006 to highest level of 9919.89 lowest value in 1-2-2006 the same time period the highest Monthly Growth Rate was 8.89 in 8-1-2006 and the lowest Monthly Growth Rate was -12.26 in 5-2-2006. During the same period the value of Exchange Rate in India has increased from the low level of 46.54 in 8-1-2006 to 44.33 values in the 2-1-2006. After five month the value Of Exchange rate was fixed 45. The same time period the highest Monthly Growth Rate was 1.43 in 6-1-2006 and the lowest Monthly Growth Rate was -2.73 in 1-2-2006. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 10186.50 in 11-1-2006 to low level -6644.40 value in the 5-2-2006 the same time period the highest Monthly Growth Rate was 319.89 in 8-1-2006 and the lowest Monthly Growth Rate was -962.85 in 5-2-2006.

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2007 to 12-1-2007, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has raised from 20286.99 in 12-3-2007 to highest level of 12938.09 value in 2-1-2007 the same time period the highest Monthly Growth Rate was 14.73 in 10-1-2007 and the lowest Monthly Growth Rate was -8.18 in 2-1-2007. During the same period the value of Exchange Rate in India has increased from the low level of 44.33 in 1-2-2007 to 39.44 values in the 11-1-2007. After five month the value Of Exchange rate was fixed 41. The same time period the highest Monthly Growth Rate was 1.01 in 8-1-2007 and the lowest Monthly Growth Rate was -4.27 in 4-2-2007. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 23090.40 in 10-1-2007 to low level -7162.10 value in the 8-1-2007 the same time period the highest Monthly Growth Rate was 2041.29 in 4-2-2007 and the lowest Monthly Growth Rate was -587.25 in 2-1-2007.

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2008 to 12-1-2008, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has raised from 17648.71 in 1-2-2008 to highest level of 9092.72 value in 11-3-2008 the same time period the highest Monthly Growth Rate was 10.50 in 4-1-2008 and the lowest Monthly Growth Rate was -23.89 in 10-1-2008. During the same period the value of Exchange Rate in India has increased from the low level of 49.00 in 11-3-2008 to 39.37 values in the 1-2-2008. After five month the value Of Exchange rate was fixed 43. The same time period the highest Monthly Growth Rate was 6.29 in 10-1-

2008 and the lowest Monthly Growth Rate was -0.83 in 4-1-2008. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional

TABLE: 4.2.3
Bombay Stock Exchange Index Number, Exchange Rate and Foreign Institutional Investment in India

Date	BSE [Index Number]	Index No	Monthly Growth Rate	Ex. Rate per Dollar in Rupees	Index No	Monthly Growth Rate	FII [Million of US Dollar]	Index No	Monthly Growth Rate
1/2/2007	14090.92	100.00	2.21	44.33	100.00	-0.68	-1681.90	100.00	-39.19
2/1/2007	12938.09	91.82	-8.18	44.16	99.61	-0.39	8195.10	-487.25	-587.25
3/1/2007	13072.10	92.77	1.04	44.03	99.31	-0.30	360.60	-21.44	-95.60
4/2/2007	13872.37	98.45	6.12	42.15	95.07	-4.27	7721.50	-459.09	2041.29
5/3/2007	14544.46	103.22	4.84	40.78	91.99	-3.24	5319.80	-316.30	-31.10
6/1/2007	14650.51	103.97	0.73	40.77	91.97	-0.02	1101.70	-65.50	-79.29
7/2/2007	15550.99	110.36	6.15	40.41	91.16	-0.88	22609.40	-1344.28	1952.23
8/1/2007	15318.60	108.71	-1.49	40.82	92.08	1.01	-7162.10	425.83	-131.68
9/3/2007	17291.10	122.71	12.88	40.34	90.99	-1.18	18788.40	-1117.09	-362.33
10/1/2007	19837.99	140.79	14.73	39.51	89.13	-2.05	23090.40	-1372.88	22.90
11/1/2007	19363.19	137.42	-2.39	39.44	88.96	-0.19	-6319.20	375.72	-127.37
12/3/2007	20286.99	143.97	4.77	39.44	88.96	0.01	8891.10	-528.63	-240.70
Ave	15901.44		4.00	41.35		-1.00	6742.90		-57.15
1/2/2008	17648.71	100.00	-13.00	39.37	100.00	-0.17	-1681.90	100.00	-118.92
2/1/2008	17578.72	99.60	-0.40	39.73	100.91	0.91	8195.10	-487.25	-587.25
3/3/2008	15644.44	88.64	-11.00	40.36	102.50	1.57	360.60	-21.44	-95.60
4/1/2008	17287.31	97.95	10.50	40.02	101.65	-0.83	7721.50	-459.09	2041.29
5/2/2008	16415.57	93.01	-5.04	42.13	106.99	5.25	5319.80	-316.30	-31.10
6/2/2008	13461.60	76.28	-17.99	42.82	108.75	1.65	1101.70	-65.50	-79.29
7/1/2008	14355.75	81.34	6.64	42.84	108.80	0.04	22609.40	-1344.28	1952.23
8/1/2008	14564.53	82.52	1.45	42.94	109.05	0.23	-7162.10	425.83	-131.68
9/1/2008	12860.43	72.87	-11.70	45.56	115.72	6.12	18788.40	-1117.09	-362.33
10/1/2008	9788.06	55.46	-23.89	48.66	123.57	6.79	23090.40	-1372.88	22.90
11/3/2008	9092.72	51.52	-7.10	49.00	124.45	0.71	-6319.20	375.72	-127.37
12/1/2008	9647.31	54.66	6.10	48.63	123.52	-0.74	8891.10	-528.63	-240.70
Ave	14028.76		-4.12	43.50		2.14	6742.90		-57.15
1/2/2009	9424.24	100.00	-2.31	48.83	100.00	0.41	-3443.00	100.00	-138.72
2/2/2009	8891.61	94.35	-5.65	49.26	100.88	0.88	-3124.40	90.75	-9.25
3/2/2009	9708.50	103.02	9.19	51.23	104.90	3.99	-5890.00	171.07	88.52
4/1/2009	11403.25	121.00	17.46	50.06	102.51	-2.28	8998.50	-261.36	-252.78
5/4/2009	14625.25	155.19	28.26	48.53	99.38	-3.05	17405.80	-505.54	93.43
6/1/2009	14493.84	153.79	-0.90	47.77	97.82	-1.57	4898.30	-142.27	-71.86
7/1/2009	15670.31	166.28	8.12	48.48	99.27	1.48	13181.70	-382.86	169.11
8/3/2009	15666.64	166.24	-0.02	48.34	98.98	-0.30	4523.30	-131.38	-65.69
9/1/2009	17126.84	181.73	9.32	48.44	99.19	0.21	20572.70	-597.52	354.82
10/1/2009	15896.28	168.67	-7.18	46.72	95.67	-3.55	15972.60	-463.92	-22.36
11/3/2009	16926.22	179.60	6.48	46.57	95.36	-0.33	6181.40	-179.54	-61.30
12/1/2009	17464.81	185.32	3.18	46.63	95.48	0.13	8710.70	-253.00	40.92
Ave	13941.48		7.76	48.40		-0.41	7332.30		-32.09

SOURCES: Data collected for Yahoo finances and RBI

investment has fall down the highest level of 23090.40 in 10-1-2008 to low level -7162.10 value in the 8-1-2008 the same time period the highest Monthly Growth Rate was 2041.29 in 4-1-2008 and the lowest Monthly Growth Rate was -587.25 in 2-1-2008.

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2009 to 12-1-2009, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has raised from 17464.81 in 12-1-2009 to highest level of 8891.61 value in 2-2-2009 the same time period the highest Monthly Growth Rate was 28.26 in 5-4-2009 and the lowest Monthly Growth Rate was -7.18 in 10-1-2009. During the same period the value of Exchange Rate in India has increased from the low level of 51.23 in 3-2-2009 to 46.57 values in the 11-3-2009. After five month the value Of Exchange rate was fixed 48. The same time period the highest Monthly Growth Rate was 3.99 in 3-2-2009 and the lowest Monthly Growth Rate was -3.55 in 10-1-2009. During the period Monthly average value of Exchange Rate in India and average value of Monthly Growth Rate works out to 48.40 and -0.41 per cent per month respectively. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 20572.70 in 9-1-2009 to low level -5890.00 value in the 3-2-2009 the same time period the highest Monthly Growth Rate was 354.82 in 9-1-2009 and the lowest Monthly Growth Rate was -252.78 in 4-1-2009.

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2010 to 12-1-2010, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has raised from 20509.09 in 12-1-2010 to highest level of 16357.96 value in 1-4-2010 the same time period the highest Monthly Growth Rate was 11.67 in 9-1-2010 and the lowest Monthly Growth Rate was -6.34 in 1-4-2010. During the same period the value of Exchange Rate in India has increased from the low level of 46.84 in 7-1-2010 to 44.41 values in the 10-1-2010. After five month the value Of Exchange rate was fixed 45. The same time period the highest Monthly Growth Rate was 2.95 in 5-3-2010 and the lowest Monthly Growth Rate was -3.58 in 10-1-2010. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 32668.00 in 9-1-2010 to low level -6986.10 value in the 5-3-2010 the same time period the highest Monthly Growth Rate was 574.71 in 3-2-2010 and the lowest Monthly Growth Rate was -261.02 in 6-1-2010.

TABLE: 4.2.4
Bombay Stock Exchange Index Number, Exchange Rate and Foreign Institutional Investment in India

Date	BSE [Index Number]	Index No	AGR	Ex. Rate per Dollar in Rupees	Index No	AGR	FII [Million of US Dollar]	Index No	AGR
1/4/2010	16357.96	100.00	-6.34	45.96	100.00	-1.43	8412.60	100.00	-3.42
2/1/2010	16429.55	100.44	0.44	46.33	100.80	0.80	4363.00	51.86	-48.14
3/2/2010	17527.77	107.15	6.68	45.50	98.99	-1.79	29437.50	349.92	574.71
4/1/2010	17558.71	107.34	0.18	44.50	96.82	-2.19	12393.10	147.32	-57.90
5/3/2010	16944.63	103.59	-3.50	45.81	99.68	2.95	-6986.10	-83.04	-156.37
6/1/2010	17700.90	108.21	4.46	46.57	101.32	1.65	11249.10	133.72	-261.02
7/1/2010	17868.29	109.23	0.95	46.84	101.91	0.58	24724.00	293.89	119.79
8/2/2010	17971.12	109.86	0.58	46.57	101.32	-0.58	14686.30	174.58	-40.60
9/1/2010	20069.12	122.69	11.67	46.06	100.22	-1.09	32668.00	388.32	122.44
10/1/2010	20032.34	122.46	-0.18	44.41	96.63	-3.58	24302.60	288.88	-25.61
11/1/2010	19521.25	119.34	-2.55	45.02	97.95	1.37	21210.70	252.13	-12.72
12/1/2010	20509.09	125.38	5.06	45.16	98.25	0.31	3213.80	38.20	-84.85
Ave	18207.56		2.31	45.73		-0.16	14972.88		-5.62
1/3/2011	18327.76	100.00	-10.64	45.39	100.00	0.52	5363.50	100.00	66.89
2/1/2011	17823.40	97.25	-2.75	45.44	100.09	0.09	-3269.80	-60.96	-160.96
3/1/2011	19445.22	106.10	9.10	44.99	99.11	-0.98	6882.90	128.33	-310.50
4/1/2011	19135.96	104.41	-1.59	44.37	97.75	-1.38	7196.10	134.17	4.55
5/2/2011	18503.28	100.96	-3.31	44.90	98.92	1.20	-4276.00	-79.72	-159.42
6/1/2011	18845.87	102.83	1.85	44.85	98.81	-0.11	4883.30	91.05	-214.20
7/1/2011	18197.20	99.29	-3.44	44.42	97.85	-0.97	10652.90	198.62	118.15
8/1/2011	16676.75	90.99	-8.36	45.28	99.75	1.94	-7902.50	-147.34	-174.18
9/2/2011	16453.76	89.78	-1.34	47.63	104.93	5.20	-1865.70	-34.79	-76.39
10/3/2011	17705.01	96.60	7.60	49.26	108.51	3.41	3078.80	57.40	-265.02
11/1/2011	16123.46	87.97	-8.93	50.86	112.03	3.25	-3263.20	-60.84	-205.99
12/1/2011	15454.92	84.33	-4.15	52.68	116.05	3.58	21872.50	407.80	-770.28
Ave	17724.38		-1.42	46.67		1.46	3279.40		27.98
1/2/2012	17193.55	100.00	11.25	51.34	100.00	-2.54	26328.90	100.00	20.37
2/1/2012	17752.68	103.25	3.25	49.17	95.77	-4.23	35227.90	133.80	33.80
3/1/2012	17404.20	101.23	-1.96	50.32	98.02	2.35	1792.50	6.81	-94.91
4/2/2012	17318.81	100.73	-0.49	51.80	100.90	2.94	-4896.60	-18.60	-373.17
5/2/2012	16218.53	94.33	-6.35	54.47	106.11	5.16	3222.00	12.24	-165.80
6/1/2012	17429.98	101.38	7.47	56.03	109.14	2.86	1180.50	4.48	-63.36
7/2/2012	17236.18	100.25	-1.11	55.49	108.09	-0.96	13664.40	51.90	1057.51
8/1/2012	17380.75	101.09	0.84	55.56	108.22	0.12	11069.10	42.04	-18.99
9/3/2012	18762.74	109.13	7.95	54.61	106.37	-1.71	19884.00	75.52	79.64
10/1/2012	18505.38	107.63	-1.37	53.02	103.27	-2.91	19215.90	72.98	-3.36
11/1/2012	19339.90	112.48	4.51	54.78	106.70	3.32	9869.30	37.48	-48.64
12/3/2012	19426.71	112.99	0.45	54.65	106.45	-0.24	26792.20	101.76	171.47
Ave	17830.78		1.18	53.44		0.59	13612.51		0.16

SOURCES: Data collected for Yahoo finances and RBI

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2011 to 12-1-2011, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has raised from 19445.22 in 3-1-2011 to highest level of

15454.92 lowest value in 12-1-2011 the same time period the highest Monthly Growth Rate was 9.10 in 3-1-2011 and the lowest Monthly Growth Rate was -10.64 in 1-3-2011. During the same period the value of Exchange Rate in India has increased from the low level of 52.68 in 12-1-2011 to 44.37 values in the 4-1-2011. After five month the value of Exchange rate was fixed 46. The same time period the highest Monthly Growth Rate was 5.20 in 9-2-2011 and the lowest Monthly Growth Rate was -0.97 in 7-1-2011. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 21872.50 in 12-1-2011 to low level -7902.50 value in the 8-1-2011 the same time period the highest Monthly Growth Rate was 118.15 in 7-1-2011 and the lowest Monthly Growth Rate was -770.28 in 12-1-2011.

The data on Bombay Stock Exchange Rate are give in table .During the period from 1-1-2012 to 12-1-2012, Bombay Stock Exchange Rate has grown considerably, the value of Bombay stock Exchange Rate has fall down from 19426.71 in 12-3-2012 to highest level of 16218.53 lowest value in 5-2-2012 the same time period the highest Monthly Growth Rate was 11.25 in 1-2-2012 and the lowest Monthly Growth Rate was -6.35 in 5-2-2012. During the same period the value of Exchange Rate in India has increased from the low level of 56.03 in 6-1-2012 to 49.17 values in the 2-1-2012. After five month the value of Exchange rate was fixed 53. The same time period the highest Monthly Growth Rate was 5.16 in 5-2-2012 and the lowest Monthly Growth Rate was -4.23 in 2-1-2011. During the same time period the data on Foreign Institutional investment. The value of Foreign Institutional investment has fall down the highest level of 35227.90 in 2-1-2012 to low level -4896.60 values in the 4-2-2012 the same time period the highest Monthly Growth Rate was 1057.51 in 7-2-2011 and the lowest Monthly Growth Rate was -373.17 in 4-2-2011.

5.1 Conclusion

In this study tried to find out the impact of BSE, Exchange rate, FII, and GDP in Indian Stock Market .The important result of this study is that the foreign investment is determined by stock market return. But foreign investment is not a major factor for the stock market boom in India the FII are increasingly dominant in the stock market. The domestic investors and domestic companies remain not so dominant. There is the fear of suddenly outflows of the foreign capital and this may be a trigger a third stock market scam as most regularity changes are being made only as a follow up of an adverse event.

On the basic of a simultaneous determination of general price level and Bombay Stock Exchange Rate, Exchange rate, Foreign Institutional Investment for in India which

includes the growth variables of GDP. The model was estimated for the period 2001-2012 for in India. The results for in India show that the three variables are closely related and that causality is established in every possible direction. The appreciation of the Exchange rate leads to a fall in the dollar value of India's merchandise. However, the degree of the (negative) association between exports and the Exchange rate has declined since 1998. The appreciation of the foreign institutional investment leads to a fall in the dollar value of India's merchandise. However, the degree of the (negative) association between exports and the foreign institutional investment has declined since 1999.

The empirical analysis shows that both capital inflow setbacks and (lagged) current account deficits in fact have significant crisis-accelerating effects on GDP. Capital inflow setback, analyzed here by for cussing on FII inflows, started in most countries already in 2008 and has been even more pronounced in 2009. With capital inflows drying up, the current account deficits that are so typical amongst transition economies became increasingly unsustainable. Exchange rate flexibility, does in fact act as a mollified of real economy effects of a crisis.

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