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Foreign Institutional Investment and Macro Economic Factors - Impact Analysis

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ABSTRACT

The Financial Sector of an economy plays a significant role in attracting the Foreign Institutional Investment inflows. The present study tries to examine the effect of significant macroeconomic variables such as sensex and exchange rate on the inflows of Foreign Institutional Investment in India and vice-versa .

To analyze this relation between Foreign Institutional Investment, Sensex and Exchange Rate is important for a growing economy like India. Given the huge volume of these flows and their significant impact on domestic financial markets; understanding the determinants of these flows becomes imperative as the economy moves forward.

Key Words - Investment, Exchange Rate , Capital Formation, Business Cycles

INTRODUCTION:--

Foreign Institutional Investor(FII) means an institution established or incorporated outside India which proposes to make investment in India in securities. So the mutual funds, insurance companies, pension funds, university funds, investment trusts, endowment funds and charitable trusts incorporated outside India but investing in equity and debt securities in the country are known as FII s.

They collect money from individuals and corporate (primarily from countries belonging to the European and American continents), and invest it in financial instruments worldwide, with India being one of the targeted markets.

FII who want to invest in the Indian Markets have to register with the Security and Exchange Board of India and also from the RBI to maintain a foreign currency account to bring in and take out the funds and also a rupee bank account to make the transactions.

Purpose of the Paper is to examine the cause and effect of FII inflows on various macro economic factors namely,Sensex and FII, Exchange rate and FII,Exchange rate and sensex.

There have been attempts to explain FII and its correlation with various macro economic variables in India. All the existing studies found that the equity return has a significant and positive impact on the FII. As concerning the FII s in the stock markets say of India **,** if the cap on FII is high then they can bring in lot of funds in the countries stock markets and thus have great influence on the way the stock markets behaves, going up or down. The FII buying pushes the stocks up and their selling shows the stock market the downward path. So this is how influencing FII can be, as is seen in the present downtrend of the stock markets in India courtesy heavy FII selling.

FII affecting the Exchange Rates:-

FII inflows make the currency of the country invested in appreciate (e.g. FII investing in India may lead to Rupee appreciating with respect to several other currencies) and their selling and disinvestment may lead to depreciation.

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To understand the implications of FII on the exchange rates we have to understand how the value of one currency goes up (appreciates) or goes down against the other currency. The simple way of understanding is through **Demand and Supply**.

If say US imports from India it is creating a demand for Rupee thus the Indian rupee appreciates with respect to the dollar.If India imports then the dollar appreciates with respect to the Indian rupee.

Any investment, either domestic or foreign, would depend heavily on the risk factors.Hence, while studying the behaviour of FII, it is important to consider the risk variable.But only Trivedi & Nair (2003) has considered this factor. Further, realized risk can be decomposed into *ex-ante* and unexpected risk.

Ex ante risk is an observed component and is negatively related to FII. But the relationship between unexpected risk and FII is obscure. Hence, one needs to separate the unobserved component from the realized risk while examining the impact of risk on FII. Trivedi & Nair (2003) have used the realized risk, which might reduce the robustness of the estimated parameters.

The other possible determinant of FII could be the foreign factors like returns in the source country financial markets and other real factors in the source country. But the existing studies found that both return in the source country stock market and the inflation rate did not found any impact on the FII. Agarwal (1997) found that world stock market capitalization had a favourable impact on the FPI in India.

Research Design:-

Research design that has been undertaken is causal in nature as the cause and effect of the inflow and withdrawal of the FII on various macro economic factors such as sensex, inflation and exchange rate in pre and post recessionary phase is studied.

Research Methodology :-

The research methodology is empirical in nature. The secondary data available for at least 2 years has been taken and tried to study the trend and pattern in which the Foreign Institutional Investment(FII) coming and withdrawal from the Indian market had affected the various macro economic factors like Sensex, inflation and exchange rate.The study pertains to the pre recession period i.e 2007-08 when inflow was strong and post recession period 2008-09 when they started withdrawing.Based on the data and facts the implications on various macro economic factors as stated above have been studied.

HYPOTHESIS:

1. Increase/decrease in FII net inflow results into upswing and downfall of Sensex.
2. Increase in FII net inflow appreciates the value of currency of that country(rupee in this case).
3. Increase in exchange rate (appreciation of the rupee vis-a-vis dollar)results into upswing in the sensex. S

RESULT:-----

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REGRESSION CHART FOR FII AND SENSEX:-----

Regression Statistics	
Multiple R	0.129558
R Square	0.016785
Adjusted R Square	0.014737

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.129558
R Square	0.016785
Adjusted R Square	0.014737
Standard Error	3342.298
Observations	482

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	91540108	91540108	8.194472	0.004386
Residual	480	5.36E+09	11170958		
Total	481	5.45E+09			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	14482.83	152.2391	95.13213	0	14183.7	14781.97	14183.7	14781.97
X Variable 1	0.469682	0.164075	2.862599	0.004386	0.147287	0.792076	0.147287	0.792076

There is positive correlation between sense
FII.
1.6% change in Sensex can be explained b
net FII inflow.

EXCHANGE RATE AND SENSEX:-----

SUMMARY OUTPUT:-

Standard Error	921.9461
Observations	482

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	6965175	6965175	8.194472	0.004386
Residual	480	4.08E+08	849984.6		
Total	481	4.15E+08			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Up 95*
Intercept	-513.388	185.6448	-2.76543	0.005904	-878.165	-148.611	-878.165	-14
X Variable 1	0.035738	0.012484	2.862599	0.004386	0.011207	0.060268	0.011207	0.06

There is positive correlation between FII and Sensex.
1.6% net FII inflow can be explained by se

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Regression Statistics	
Multiple R	0.90572
R Square	0.820329
Adjusted R Square	0.819955
Standard Error	1.785305
Observations	482

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	6985.178	6985.178	2191.556	4.8E-181
Residual	480	1529.911	3.187314		
Total	481	8515.089			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	59.68167	0.359492	166.0165	0	58.97529	60.38804	58.97529	60.38804
X Variable 1	-0.00113	2.42E-05	-46.8141	4.8E-181	-0.00118	-0.00108	-0.00118	-0.00108

There is positive correlation between sensex and exchange rate.
82% change in exchange ratecan be explained by Sensex.

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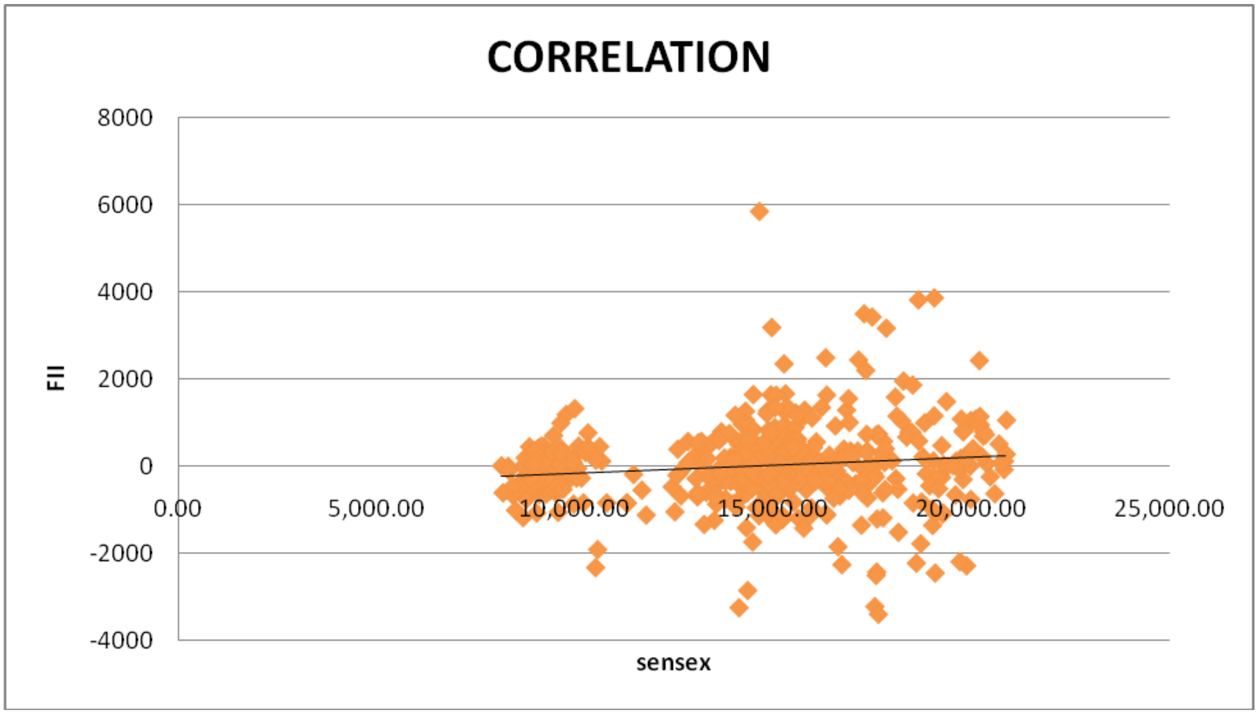
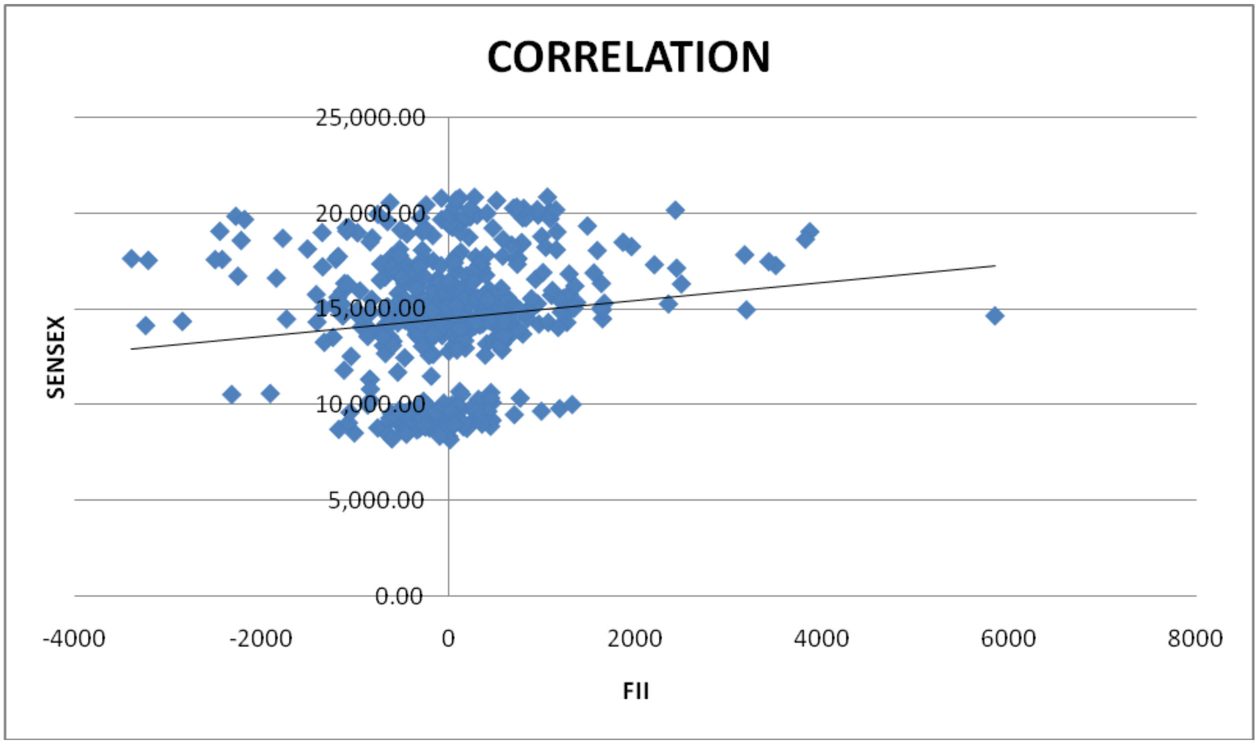
Scatter graphs:---





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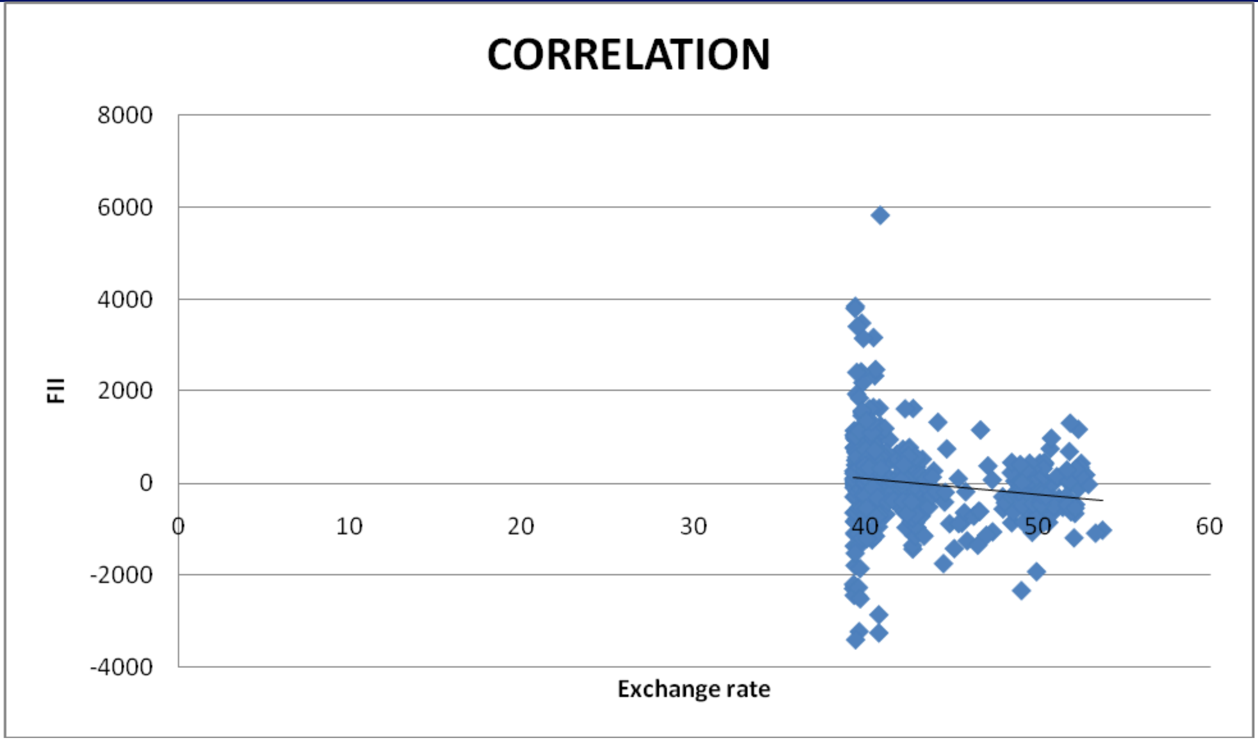
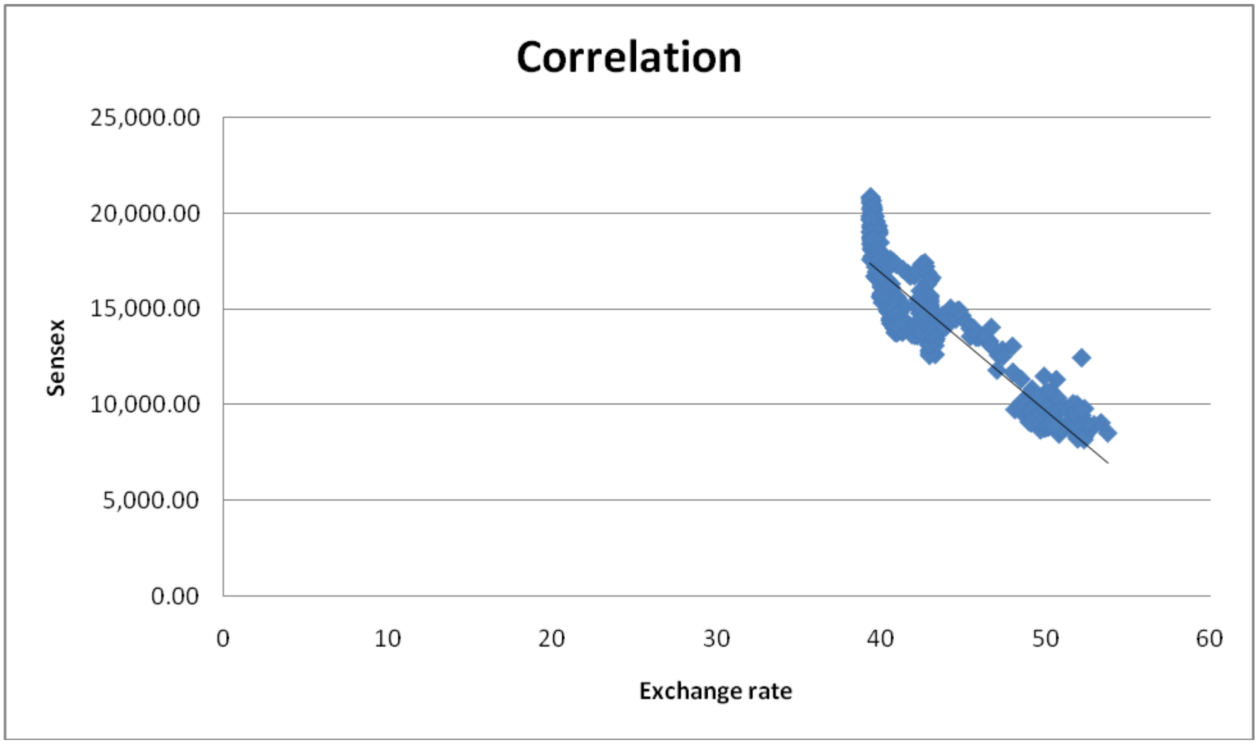

CORRELATION
8000
6000
4000
2000
0
-2000
-4000
FII
0
10
20
30
40
50
60
Exchange rate


Correlation
25,000.00
20,000.00
15,000.00
10,000.00
5,000.00
0.00
Sensex
0
10
20
30
40
50
60
Exchange rate

Conclusions:-----

1. There is negligible change in sensex with FII inflow and vice-versa and so we conclude that FII has negligible effect on sensex and it is affected by other factors such as global downturn and the sub prime crisis in US.
2. There is negligible change in exchange rate because of the FII inflow.
3. There is huge change in exchange rate with change in sensex.
4. During the post recessionary phase with the downturn in sensex there is downfall in FII inflows.However, they don't affect each-other much they are affected by the global downturn and thus this change can be explained.

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