AN ANALYSIS OF STOCK MARKET CAPITAL GROWTH IMPACT ON NIFTY

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ABSTRACT:

This analysis has been emphasized from 1994 i.e., the evolution of Indian economic growth which was filled by the nationalization of capital markets of India. Augmented Dickey Fuller test (ADF) had been applied to convert the data into stationary. Johensen Co-integration test has been applied to find the data co-integrations for the selected variables. Mar ratio had proven to the performance of Primary markets is superior to the Secondary market. This analysis is useful for the Traders, Investors, Mutual Fund's fund managers and FII's.

Key words: Nifty, FII, FDI, Primary market capital, Secondary market capital, BSE-ipo index.

INTRODUCTION:

Stock market of a country play vital role in the uplift of any economy. The Stock Prices may fluctuate due to several reasons, like any news about the budget allocation, improving of industries, some economic factors, etc and capital of the market may also be one of the factors among them. Basically the Indian Equity market is divided in to two parts Primary market - where the share is first issued in the form of IPO (Initial Public Offering) and after issuing the shares, it is listed on exchange and shares are traded on exchange where shares can be bought and sold in the Secondary market. In India mainly there are two exchanges –NSE (National Stock Exchange) and BSE-(Bombay Stock Exchange). The BSE is the oldest exchange in India (started in 1875). NSE started operation on 1992.

This study explains how capital growth in the stock market effects nifty returns. Capital is considered to be very important in growing any economy. In case of developing countries like India, Domestic capital is not sufficient to fulfill the requirement of economy. In that case foreign capital plays a very important role. In many ways nifty and market capital is linked. Nifty is increased only when there is an increase in capital of stock market, but this study explains that with the increase of nifty return the capital growth of the companies in stock market will get increased or not; Because nifty is calculated only on the basis of 50 top companies average stock price. But Capital growth includes capital of all the listed companies of Stock Exchange and their profits (there are around 7000+ companies which are listed in stock exchange). Nifty considers only those companies whose market capital is good. This study also explains the relationship between Primary market and Secondary market capital growth.

This research also explains whether the FII (Foreign Institutional Investors) & FDI (Foreign Direct Investor) capital influence on the Nifty returns. Foreign Capital comes in two forms- FDI and FII. FDI is considered as a more stable form of foreign capital as compared to FII. But, FII inflows and outflows directly create impact on stock market. Hence FIIs have emerged as movers and shakers of Indian Stock

Market. This paper examines the trend and pattern of FII flow in India and also examines the relationship between FII and Nifty.

OBJECTIVES:

- 1. To know the Primary market capital influence the Secondary market capital growth
- 2. To know the FII & FDI capital inflow affected the Nifty.
- 3. To measure the relationship among the Secondary market capital, Primary market capital, FII and FDI.
- 4. To know the Primary & Secondary market capital affected the Nifty.
- 5. To find the performance measure between Primary & Secondary market indices.

SCOPE:

The analysis has been focused from 1994 - 2014 i.e., 20 years. For this analysis market capitalization of both the stock exchanges NSE & BSE has been considered. For the equity markets Nifty has been considered as the bench mark.

Empirical study:

- 1. Business growth in capital market.
- 2. Nifty figures (yearly average).
- 3. BSE IPO (yearly average).
- 4. Company's capital in primary markets.
- 5. Historical data of FDI
- 6. Historical data of FII

NEED: The need of this analysis is to know whether the Nifty is representing the stock market performance or not. The Nifty is considered by the performance of 50 stocks only, but there are 7000 plus companies which are listed in the stock market. All the listed companies performance decreasing day by day but whether the performance is indicating the Nifty. This analysis is also used to know the relationship between Primary and secondary markets capitals, FII and FDI.

LITERATURE REVIEW:

DR. Chandra Mohan, Mrs. N. Chitradevi: NSE NIFTY index is a bench marking index that is utilized to quantify the economic development of a country. The primary aim of the clause is to affirm the impact of inflation and exchange rate on stock market return in India for a certain time. Multiple correlation and regression implements have been applied to ascertain the relationship between Inflation and Exchange rate taken as Independent variables and Price return of NSE NIFTY as inferior variable. The conclusion indicate that inflation is negatively influencing the price return of NSE NIFTY, The exchange rate is positively striking the price return of NSE Nifty

Dr. Syed Tabassum Sultana, Prof. Pardhasaradhi: Unprecedented globalizations have witnessed double digit economic magnification resulting in fierce competition and expedited pace of innovation. As a result inflow of Peregrine Direct investments has become a striking measure of economic development in both developed and developing countries. FDI and FII thus have become pawns of international economic integration and stimulus. Though US captures most of the FDI inflows, developing countries still account for consequential magnification of FDI and elevate in FII. FDI not only gives access to

peregrine capital but withal provides domestic countries with cutting edge technology, desired adeptness sets, implements of innovation and other parallel skills. The policies designed to stimulate the flow of peregrine capital in to India provided much needed impetus for India to emerge as a captivating destination for peregrine investors. External factors such as global economic suggestion, FDI & FII, stock rate and internal factors generally drive and dictate the Indian stock market. The current paper makes an endeavor to study the relationship and impact of FDI & FII on Indian stock market utilizing statistical measures correlation coefficient and multi regression. Based on previous years data it was found that the flow of FDI & FII was moving in tandem with Sensex and Nifty. The study explains that Flow of FDIs and FIIs in India determines the trend of Indian stock market.

Anand Bansal, J.S. Pasricha: This paper studies the impact of market opening to FIIs, on Indian stock market deportment. India promulgated its policy regarding the aperture of stock market to FIIs for investment in equity and cognate instruments on 14th September 1992. Using stock market data cognate to Bombay Stock Exchange, for both afore and after the FIIs policy promulgation day. An empirical examination has been conducted to assess the impact of the market opening on the returns and volatility of stock return. We found that while there is no consequential vicissitudes in the Indian stock market to peregrine investors.

Dr. Gaurav Agarwal, Ankita Srivastava: This paper analyzes the relationship between Nifty returns and Indian rupee-US Dollar stock Rates. Many statistical tests have been used in order to study the deportment and dynamics of both the series. The paper additionally investigates the impact of both the time series on each other. The period for the survey has been conducted from October, 2007 to March, 2009 utilizing daily closing index. In this survey, it was found that nifty returns as well as exchange rates were non-customarily distributed. Through unit root test, it was additionally established that both the time series, Exchange rate and Nifty returns, were stationary at the caliber form itself. Correlation between Nifty returns and Exchange Rates were found to be negative. Further research into the causal relationship between the two variables utilizing Granger Causality test highlighted unidirectional relationship between Nifty returns and stock Rates ,Ranging from the former towards the latter.

Ajit Singh, Bruce A. Weisse: The paper examines two major components of financial liberalization, stock market development and portfolio capital flows in the context of less developed countries. The paper considers microeconomic and macroeconomic perspectives on their implications for long-term development and economic growth of the country. It concentrates on: (a) The role of stock markets in financing and corporate growth. (b) The implications of stock market volatility for resource allocation and productive efficiency of the country. (c) The interactions between the foreign exchange and stock markets in the context of economic shocks. Its policy recommendations are that Lesser Developed Countries should promote bank-based systems, influence the scale and composition of capital inflows, and prevent a market for corporate control from emerging.

RESEARCH METHODOLOGY:

1. Co-integration: Co-integration is a statistical property of time series variables. Two or more time series are co-integrated if they share a common stochastic drift. If two time series x and y are co-integrated, a liner combination of them must be stationary.

 $Y - \beta x = u$ Where u is stationary.

2. Granger causality test: Granger causality test is a statistical hypothesis test for determining whether one time series is useful in forecasting another. A time series X is said to Granger-cause Y if it can be shown, usually through a series of t-tests and F-tests on lagged values of X (and with lagged values of Y also included), that those X values provide statistically significant information about future values of Y.

• **Null hypothesis:** The null hypothesis refers to a general statement or default position that there is No relationship between two measured phenomena. Rejecting or disproving the null hypothesis- and thus concluding that there is a relationship between two phenomena.

• Alternative hypothesis: In statistical hypothesis testing, the alternative hypothesis is applicable when probability is > 0.5. Alternative hypothesis is that the quality is poorer in the second half of the record.

3. Augmented Dickey-Fuller Test: Augmented Dickey-Fuller Test is a test for a unit root in a time series sample. It is an augmented version of the Dickey-Filler test for a larger and more complicated set of time series models.

4. Partial correlation: In probability theory and statistics, partial correlation measures the degree of association between two random variables, with the effect of a set of controlling random variables removed.

$$\hat{\rho}_{XY\cdot\mathbf{Z}} = \frac{N\sum_{i=1}^{N} r_{X,i}r_{Y,i} - \sum_{i=1}^{N} r_{X,i}\sum_{i=1}^{N} r_{Y,i}}{\sqrt{N\sum_{i=1}^{N} r_{X,i}^{2} - \left(\sum_{i=1}^{N} r_{X,i}\right)^{2}} \sqrt{N\sum_{i=1}^{N} r_{Y,i}^{2} - \left(\sum_{i=1}^{N} r_{Y,i}\right)^{2}}}.$$

5. MAR Ratio: MAR ratio is used to measure the performance of the variables and used to compare the performance of the variables: MAR Ratio=CAGR/Maximum drawdown

LIMITATIONS:

- **1.** For the year 2014-15, the data is considered up to 31st October,2014
- 2. Nifty, BSE-IPO index was taken as average of all daily values in that year
- **3.** BSE-IPO index values were available from the year 2004-05
- 4. FII and FDI values were available from the year 2000-01 to 2013-14
- **5.** Primary market capital, Secondary market capital, FII and FDI values are taken as Crore of INR.

DATA ANALYSIS:

1. To know the Primary market capital on the Secondary market capital growth

Series: SECONDARYCAPITAL IPOCAPITAL Log Likelihood by Rank(rows) and Model(columns)

-492.4386	-492.4386	-491.3475	-491.3475	-488.9912	
-488.9643	-488.9482	-488.5758	-486.3033	-484.1499	
-488.8638	-487.9772	-487.9772	-483.5399	-483.5399	

Interpretation: The above table shows the Co integration between Primary market capital and Secondary market capital. To find the Co integration, we applied Johensen's co integration test for 20 year tenure. In this test the Log likelihood values for 2 alpha levels are in decreasing trend at both vertically and horizontally, hence we conclude that the two variables i.e., the Primary market capital and Secondary market capital both are co integrated.

Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic Prob.
IPOCAPITAL does not Granger Cause SECONDARYCAPITAL SECONDARYCAPITAL does not Granger Cause IPOCAPITAL	19	2.62891 0.1073 0.06472 0.9376

Interpretation: The above table specifies the Granger Cause among Primary market capital and Secondary market capital. In earlier both variables are co integrated, So here we applied Granger Causality test for both Primary market capital and Secondary market capital .According to Granger Causality test, the Primary market capital does not Granger cause of Secondary market capital because the probability between these was 0.1073 which is less than 0.5, But the Secondary market capital was Granger Cause of Primary market capital, because here the probability was 0.9376 which is more than 0.5, hence we can say that Secondary market capital was Granger Cause of Primary market capital.

2. To know the FII & FDI capital inflow effect on equity benchmark Nifty. Correlations

Control	Variab	FII	FDI	
NIFTY	FII	Correlation	1.000	.608
		Significance (2-tailed)		.027
		0	11	
	FDI	Correlation	.608	1.000
		Significance (2-tailed)	.027	-
		Df	11	0

Interpretation: The above table shows correlation among the variables Nifty, FII and FDI. We applied Correlation test for the variables Nifty, FII and FDI for 20 years tenure. Here we kept Nifty as dependent variable and FII, FDI are kept as independent variables. The Correlation test is applied to the variables. According to the result of Correlation test, we analyzed that the parameters FII and FDI are moderately correlated with Nifty because the test result was given the probability values as 0.6, 0.6. Hence those are moderately correlated.

	Unstandardized Coefficients		Standardized	Coefficients		
	В	Std. Error	Beta	Std. Error	t	Sig.
(Constant)	81.453	66.937			1.217	.249
FII	-3.984E-7	.000	762	.578	-1.318	.214
FDI	.002	.004	.332	.578	.574	.578

Coefficients

Interpretation: The above table shows effect of FII and FDI on Nifty. We applied Coefficient test for the variables Nifty, FII and FDI for 20 years tenure. Here we kept Nifty as dependent variable and FII, FDI are kept as independent variables. The Coefficient test is applied to the variables. According to the result of Coefficient test, we analyzed that the variables FII inflows are affecting the Nifty, because its probability value is 0.249 which is less than 0.5. But FDI inflows are not affecting the Nifty, because its probability value is 0.578 which is more than 0.5. According to above analysis, we conclude that FII inflows are affecting the Nifty, But FDI inflows are not affecting the Nifty.

3. To measure the relationship between Secondary market capital, Primary market capital, FII and FDI.

		SecondaryCapi tal	PrimaryCapital	FDI	FII
SecondaryCapital	Pearson Correlation	1	.686***	.865**	.680**
	Sig. (2-tailed)		.007	.000	.007
	Ν	14	14	14	14
PrimaryCapital	Pearson Correlation	.686**	1	.505	$.778^{**}$
	Sig. (2-tailed)	.007		.066	.001
	Ν	14	14	14	14
FDI	Pearson Correlation	.865**	.505	1	$.602^{*}$
	Sig. (2-tailed)	.000	.066		.023
	Ν	14	14	14	14
FII	Pearson Correlation	.680**	.778**	$.602^{*}$	1
	Sig. (2-tailed)	.007	.001	.023	
	Ν	14	14	14	14

Interpretation: The above table shows the Correlation among the variables such as Secondary market

capital, Primary market capital, FII and FDI for 20 years of tenure. Here one variable is placed as dependent variable and other parameters are placed as independent variables then we applied the Correlation test. We repeat this process for all variables. According to the result of the test, we concluded that all the variables are moderately correlated with each other.

4. To know the Primary & Secondary market capital affected Nifty returns.

Series: Secondary Capital Nifty

Lags interval: 1 to 1

Log Likelihood by Rank (rows) and Model (columns)

-408.1019	-408.1019	-405.2785	-405.2785	-402.5929
-398.5515	-398.5483	-396.0430	-395.8064	-393.1268
-395.5145	-394.8360	-394.8360	-392.0507	-392.0507

Interpretation: The above table shows the Co integration between Secondary market capital and Nifty. To find the Co integration, we have applied Johensen's co integration test for 20 year tenure. In this test the Log likelihood values for 2 alpha levels are in decreasing trend at both vertically and horizontally, hence we conclude that the two parameters i.e., the Secondary market capital and Nifty both are Co integrated.

Pairwise Granger Causality Tests

Null Hypoth	esis:				Obs	F- Statistic	Prob.
DNIFTY SECONDAR SECONDAI Cause DNIF	does YCAPIT RYCAPIT FY	not AL `AL	Gr does	ranger not	Cause 18 Granger 0.8342	1.20618 3 0.4562	0.3307

Interpretation: The above table specifies the Granger Cause among Secondary market capital and Nifty. In earlier both parameters are co integrated, so here we applied Granger Causality test for Secondary market capital and Nifty .According to Granger Causality test, the Secondary market capital does not Granger cause of Nifty because the probability between these variables is 0.4562 which is less than 0.5.

Series: IPOCAPITAL NIFTY Lags interval: 1 to 1 Log Likelihood by Rank(rows) and Model(columns)

-335.0430	-335.0430	-334.7679	-334.7679	-333.2478
-329.4524	-329.1818	-329.1359	-325.6405	-324.5633
-328.8496	-328.0843	-328.0843	-324.5332	-324.5332

Interpretation: The above table shows the Co integration between Primary market capital and Nifty. To find the Co integration, we have applied Johensen's co integration test for 20 year tenure. In this test the Log likelihood values for 2 alpha levels are in decreasing trend at both vertically and horizontally,

hence we conclude that the two parameters i.e., the Primary market capital and Nifty both are Co integrated.

Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic Prob.
DNIFTY does not Granger Cause IPOCAPITAL IPOCAPITAL does not Granger Cause DNIFTY	18	0.41478 0.6689 4.43354 0.0340

Interpretation: The above table specifies the Granger Cause among Primary market capital and Nifty. In earlier both parameters are co integrated, So here we applied Granger Causality test for both Primary market capital and Nifty .According to Granger Causality test, the Primary market capital does not Granger cause of Nifty because the probability between these is 0.034 which is less than 0.5. But nifty is the Granger cause of Primary market capital because the probability between these was 0.6689 which is more than 0.5.

5. To find performance measure between Primary & Secondary market indices

Year	BSEIPOARR	Nifty ARR
2005-06	41.86517273	64.56121684
2006-07	0.919174347	10.02648778
2007-08	49.18982214	30.29777631
2008-09	-54.31401475	-36.26082645
2009-10	82.22863501	71.51959743
2010-11	-14.35082183	10.26840563
2011-12	-13.00011315	-9.105654775
2012-13	-1.331654579	6.857030031
2013-14	7.44965885	17.5268214
2014-15 (ason 31/10/14)	54.50673099	23.82291457
CARR	153.1625898	189.5137688
MAR ratio	0.943468633	-4.207214098

Interpretation: The above table depicts the performance of Primary and Secondary market returns. MAR ratio has been applied on 10 years tenure, the analysis shows that the Primary index performs in positive where as in same period Secondary market index performance found to be negative, hence the above analysis are given a clear indication that primary market investments had given returns in long term when it is compared with secondary market investments

FINDINGS:

- 1. Primary market capital does not influencing Secondary market capital. But Secondary market capital influencing the Primary market capital.
- 2. FII capital inflows affecting the Nifty, FDI capital inflows does not affecting the Nifty.

- 3. Secondary market capital, Primary market capital, FII and FDI are moderately Correlated with each other.
- 4. Primary market capital and secondary market capital does not affecting Nifty.
- 5. Primary market index performance is better than Secondary market index for long period of time.

CONCLUSION:

We conclude that the analysis of Stock market capital growth impact on Nifty. This analysis has been emphasized from the inception of National Stock Exchange (NSE). Evolution of Equity markets in India took the rapid speed after the introduction of Electronic trading in India. Various factors will affect the movement of equity indicator Nifty, but this analysis has focused from the market capital growth perspective impact on Nifty. Primary markets were largely depend on the movement of Secondary market. In spite of the effect of Secondary market the Primary market performed superior. FII flows were significantly impacted the Nifty. Hence there is a further scope to do the research in this angle to measure the exact impact on Nifty performance by the growth of capital markets.

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