



Granger Causality between FII Transactions and IPO Indices in India

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ABSTRACT

This study investigates the Granger causality relationship between Foreign Institutional Investor (FII) transactions and Initial Public Offering (IPO) indices within the context of India's financial market. The study uses monthly FII transactions data for all India for the 12-year period from April 2011 to March 2023. The corresponding period IPO index data for S&P BSE IPO and S&P BSE SME IPO were obtained from the BSE website. Granger causality was used to examine the impact of FII transactions on the IPO index for different monthly lags. Stationarity has been derived for the chosen data, without which, it may lead to spurious regression results. All the data has been transformed to log form, to create the common base. FMOLS (fully modified ordinary least square) technique has been used for regressing the IPO index performance from FII transaction, which is free from serial correlation & Auto regression. The results of the study suggest that there is a unidirectional Granger causality from FII transactions to the BSE IPO Index and the SME IPO Index. This means that FII transactions can help to predict the future performance of the IPO indices. However, the R-squared values are relatively low, suggesting that there are other factors that also influence the indices. Some of these factors could include the macroeconomic environment, such as interest rates or inflation, or the performance of the broader stock market.

Keywords: FII transactions, IPO Indices, FMOLS, Granger causality

Introduction: Foreign Institutional Investors (FIIs) are investors who invest in the stock markets of other countries. They can play a significant role in the IPO market, as their investments can help to boost the demand for IPOs and drive up their prices. The Granger causality test is a statistical test that can be used to determine whether one variable causes another. In this case, the test can be used to determine whether FII transactions Granger cause IPO indices in India.

The S&P BSE IPO index, a stock market index that tracks the performance of companies that have recently completed an initial public offering (IPO) on the Bombay Stock Exchange (BSE), is a useful tool for investors who are interested in investing in IPOs. The index can be used to track the performance of IPOs over time and to identify the best-performing IPOs. It has 36 constituents, was launched on August 24, 2009, has a maximum market capitalization of 73,299.59, a minimum market capitalization of 723.59, a mean market capitalization of 6,897.55, and a median market capitalization of 3,595.65. (as of August 17 2023).

The S&P BSE SME IPO index is a stock market index that tracks the performance of small and medium-sized enterprises (SMEs) that have recently completed an initial public offering (IPO) on the Bombay Stock Exchange's (BSE) SME platform. It has 65 constituents, was launched on December 14, 2012, has a maximum market capitalization of 747.41 crore INR, a minimum market capitalization of 5.05 crore INR, a mean market capitalization of 145.81 crore INR, and a median market capitalization of 48.87 crore INR. (as of August 17 2023).

FII transactions refer to the buying and selling of shares by foreign institutional investors (FIIs) in the Indian stock market. FIIs are institutional investors that invest in the stock markets of other countries. They can play a significant role in the Indian stock market, as their investments can help to boost the demand for shares and

drive up their prices. There are two types of FII transactions: Purchases: When FIIs purchase shares, they are said to be buying the market. This can help to push up the prices of shares and create a bullish sentiment in the market. Sales: When FIIs sell shares, they are said to be selling the market. This can help to push down the prices of shares and create a bearish sentiment in the market. The net FII transactions, which is the difference between the number of shares bought and sold by FIIs, can be a good indicator of the sentiment in the Indian stock market. A positive net FII transaction indicates that FIIs are buying the market, which is bullish. A negative net FII transaction indicates that FIIs are selling the market, which is bearish.

Review of Literature:

Ahuja, Makan, and Chauhan (2012): The study found that there is a significant relationship between macroeconomic variables and stock market indices in India. The study found that the following macroeconomic variables have a positive impact on stock market indices in India: GDP growth, Interest rates, Exchange rates, inflation, the study found that the following macroeconomic variables have a negative impact on stock market indices in India: Budget deficit, Political instability. impact of macroeconomic variables on stock market indices in India varies over time. For example, the impact of GDP growth on stock market indices is stronger during periods of economic expansion than during periods of economic contraction. The study was conducted using data from 1991 to 2011. The findings may not be applicable to the current market conditions.

Baishali Agarwal (2016): The study found that FII inflows into Indian IPOs have a positive impact on the Indian stock market. This is because FIIs tend to invest in IPOs of companies that are well-managed and have strong fundamentals. This can help to boost the demand for shares in the Indian stock market and drive up their prices. The study also found that the impact of FII inflows on the Indian stock market is more pronounced in the short term than in the long term. This is because FIIs tend to be more volatile investors and their investment decisions can be influenced by a variety of factors, such as economic growth, interest rates, and currency movements.

Popat, S. M. (2012): is a valuable contribution to the understanding of the role of FIIs in the Indian capital market. The findings of the paper can be used by policymakers to develop policies that promote the positive impact of FIIs and mitigate their risks. FIIs have had a significant impact on the Indian capital market. They have helped to increase the liquidity and efficiency of the market, and have also helped to boost the prices of shares. The impact of FIIs has varied over time. In the early 2000s, FIIs were net sellers of shares in India. However, since the mid-2000s, they have been net buyers. The factors that affect FII transactions in India include economic growth, interest rates, currency movements, and political stability. FIIs can play a positive role in the Indian capital market. However, they can also pose some risks, such as the risk of sudden outflows of capital.

Chetanbhai, J. M., & Desai, J. N. (2019): Foreign institutional investors (FIIs) prefer to invest in large-cap companies with high earnings per share (EPS) and dividend per share (DPS). They also prefer to invest in the oil and gas, information technology, and banking sectors. The major six factors that FIIs consider before investing in India are: Ineffective implementation of economic policy, Challenges posed by the international environment, purchasing power of Indian rupee, Opportunities and challenges in the domestic country of FIIs, Attractiveness of economic policy, Financial ease initiated by the government. There is a bidirectional causality between FII investment and various constituents of the Indian equity market. This means that FII investment affects the prices of shares and the overall performance of the market, and the prices of shares and the overall performance of the market also affect FII investment

Neupane, S., Thapa, C., & Vithanage, K. (2023): The authors of the research paper examined the correlation between context-specific experience and the performance of institutional investors. They specifically explored how previous initial public offering (IPO) trading experience affected foreign institutional investors' selection, bidding, and the profitability of their future IPO investments. They found that investors who participated more frequently (i.e., those with more context-specific experience) exhibited different behaviors from those who participated less frequently. After controlling for investor fixed effects and time-varying heterogeneity, the authors found that only high-frequency investors improved their profitability over time by appropriately varying their subscriptions across IPOs. The effect of context-specific experience also appeared to dominate other forms of general investment experience.

Agarwal, B. (2014): Foreign institutional investors (FIIs) are important players in the Indian IPO market. They account for a significant portion of the demand for IPOs and can have a major impact on the prices of IPO shares. FIIs are more likely to invest in IPOs of large-cap companies with high growth potential. They are also more likely to invest in IPOs that are offered at a discount to the market price. The level of FII investment in IPOs is affected by a number of factors, including the economic environment, the regulatory environment, and the performance of the stock market. FIIs can play a positive role in the Indian

IPO market by helping to improve the liquidity and efficiency of the market. However, they can also pose some risks, such as the risk of sudden outflows of capital.

Srinivasan, P., & Kalaivani, M. (2015): The authors of the research paper explored the determinants of foreign institutional investments (FIIs) in India using the autoregressive distributed lag (ARDL) bounds testing approach. They used quarterly time series data for the period January 2004 to December 2011. The authors found that the exchange rate had a significant negative impact on FII inflows both in the short run and long run. This means that a depreciation of the Indian currency (rupee) would adversely affect FII flows into India. The authors also found that the Indian equity market returns had negative short-run and positive long-run effects on FII inflows to India. This confirms the evidence of positive and negative feedback trading hypothesis in the short run and long run, respectively. The US equity market returns had a positive and significant influence on FII flows in the long run but positive and insignificant influence on FII flows in the short run. This means that the risks associated with the US equity market encourage foreign institutional investors to invest more in the Indian equity markets. Finally, the authors found that domestic inflation exerted negative and positive significant influence on FII flows in the long run and short run, respectively. This means that high inflation in India would discourage FII flows in the short run but encourage them in the long run. In conclusion, the authors found that FII inflows to India are essentially determined by the exchange rate, domestic inflation, domestic equity market returns, returns and risk associated with the US equity market.

Banerjee, S., & Rangamani, K. T. (2015): This research paper investigates the factors that influence investors' appetite for graded initial public offerings (IPOs) in the Indian capital market between 2007 and 2013. The study considered company-specific factors such as pre-issue financial position, corporate governance, and post-issue promoter holding, as well as market sentiment-related factors such as changes in the money supply, foreign institutional investor (FII) inflows, price-to-earnings (PE) ratio of the market, and market return. The study found that FII inflows, market PE, money supply, debt-to-equity (DE) ratio, and board size of the companies had a statistically significant impact on investor interest in IPOs in terms of subscription level.

Krishnan, V. S., & Nandhini, M. (2021): The study used a sample of 171 IPOs that were listed on the Bombay Stock Exchange (BSE) from January 2014 to December 2019. The study found that FII inflows over total shares offered was the most important factor influencing listing gains. Other factors that were found to be significant included the size of the company, the sector of the company, and the overall market conditions. FIIs have a significant positive influence on the listing gains of Indian IPOs. This means that IPOs that attract more FII inflows tend to have higher listing gains.

Alarnkar, A. A. (2019): Macroeconomic factors have a significant impact on the performance of the S&P Energy, S&P Industrial, S&P IPO, and S&P Telecom Indexes of the BSE. The most important macroeconomic factor is the Gross Domestic Product (GDP). A positive GDP growth rate is associated with positive returns for all four indexes. The interest rate is also an important factor, but its impact is different for different indexes. A higher interest rate is associated with negative returns for the S&P Energy and S&P Industrial indexes, but positive returns for the S&P IPO and S&P Telecom indexes. The inflation rate has a negative impact on all four indexes. A higher inflation rate is associated with lower returns. The exchange rate has a mixed impact on the four indexes. A depreciation of the Indian rupee is associated with positive returns for the S&P Energy and S&P Telecom indexes, but negative returns for the S&P Industrial and S&P IPO indexes.

Banerjee, S. (2015): In the context of the Indian capital market, significant interest is generated among institutional investors regarding Initial Public Offerings (IPOs) of companies. The Securities and Exchange Board of India (SEBI), the regulatory body for the Indian capital market, introduced a pioneering concept known as IPO Grading, involving the rating of IPOs. This study delves into whether the inclination of institutional investors towards IPOs is contingent on the IPO Grade, along with other macroeconomic factors, namely alterations in the broad money supply, inflow of capital from Foreign Institutional Investors (FIIs), and market performance. The analysis reveals that two factors, specifically changes in the money supply and market performance, exert influence over the appetite of institutional investors. Conversely, the IPO Grade and FII capital inflow were found to have no discernible impact.

Brockman, P., Cheng, L. T., & Leung, T. Y. (2016): Foreign strategic investors (FSIs) are foreign investors who invest in Chinese companies to gain strategic advantages, such as access to new markets or technologies. Foreign corporate investors (FCIs) are foreign investors who invest in Chinese companies to gain a financial return. H-shares are shares of Chinese companies that are traded on the Hong Kong Stock Exchange. The authors of the article found that FSIs and FCIs have a positive impact on the performance of H-share IPOs. FSIs had a larger impact than FCIs, and the impact was strongest when FSIs had a controlling stake in the company. The authors also found that the positive impact of FSIs and FCIs was stronger in IPOs that were conducted under book building. Book building is a process in which investors submit bids for shares before the

IPO price is set. This is likely because book building allows investors to signal their interest in the IPO, which can help to increase the demand for shares and drive up the IPO price.

Kuhan, K., & Kavida, V. (2017). The primary objective of this research is to assess the influence of selected macroeconomic variables on the S&P BSE SME IPO index. To establish the relationship and its impact, this study employs methods such as correlation analysis, multiple regression, and Granger causality tests. The chosen variables encompass the average monthly closing price of the S&P BSE SME IPO and key macroeconomic indicators including the Index of Industrial Production (IIP), Gross Domestic Product (GDP), Interest Rate (IR), Foreign Direct Investment (FDI), Inflation Rate (IF), Exchange Rate (ER), and Crude Oil Price (CP). Using an average monthly dataset spanning three years, from January 2013 to December 2015, the research findings demonstrate that both the Interest Rate and Inflation Rate have a statistically significant positive influence on the stock market index, while the Exchange Rate exhibits a significant negative impact. Furthermore, the Granger causality analysis uncovers a unidirectional relationship between the SME IPO Index and Crude Oil Price, GDP, FDI, and Interest Rate.

Research gap: Despite the substantial attention given to the relationship between Foreign Institutional Investor (FII) transactions and Initial Public Offering (IPO) indices in the context of India, there remains a notable gap in the understanding of the specific directional causality between these variables. While previous studies have explored the association between FII activity and IPO market performance, there is a lack of comprehensive research that rigorously investigates the causal linkages and temporal sequence between FII transactions and IPO indices, which could provide valuable insights into the dynamics of these interactions. Bridging this research gap is crucial for a more nuanced comprehension of the dynamics between FII investments and IPO market trends, contributing to a deeper understanding of the Indian capital market's behaviour and potential implications for investors and policymakers.

Objective: The primary objective of this study is to investigate the Granger causality relationship between Foreign Institutional Investor (FII) transactions and Initial Public Offering (IPO) indices within the context of India's financial market.

Hypothesis: the following hypothesis has been set for the study

H₀₁: FII long position has no granger cause on IPO index

H₀₂: FII short position has no granger cause on IPO index

H₀₃: FII Transactions & IPO index data has unit root (stationery)

H₀₄: There is no significant impact of FII transactions on the IPO index

Methodology: This study used an analytical research approach to investigate the potential influence of FII transactions on the performance of the IPO index. Monthly FII transactions data for all India were collected for the 12-year period from April 2011 to March 2023. The corresponding period IPO index data for S&P BSE IPO and S&P BSE SME IPO were obtained from the BSE website. Granger causality was used to examine the impact of FII transactions on the IPO index for different monthly lags. Stationarity has been derived for the chosen data, without which, it may lead to spurious regression results. All the data has been transformed to log form, to create the common base. FMOLS (fully modified ordinary least square) technique has been used for regressing the IPO index performance from FII transaction, which is free from serial correlation & Auto regression.

Analysis & Discussion:

H₀₁: FII long position has no granger cause on IPO index

Table 1: Showing Granger Causality Between BSE IPO Index & FII all India Equity Buy

Lag	Observation	F statistic	Prob.	Statistically Significant
1 month	141 months	0.40339	0.5264	NO : Accept Null
		0.02386	0.8775	NO : Accept Null
2 months	139 months	0.24638	0.782	NO : Accept Null
		0.10822	0.8975	NO : Accept Null
3 months	137 months	0.22938	0.8796	NO : Accept Null
		0.11529	0.951	NO : Accept Null
4 months	135 months	0.2649	0.8796	NO : Accept Null
		0.1064	0.951	NO : Accept Null
6 months	131 months	0.2933	0.9391	NO : Accept Null
		0.2921	0.9397	NO : Accept Null
9 months	125 months	0.60093	0.7397	NO : Accept Null
		0.2211	0.9099	NO : Accept Null

12 months	119 months	19.3306	2.00E-20	Yes : Accept Alternate
		0.28394	0.9906	NO : Accept Null

(Source : Hand Book on Indian Capital Market & BSE, output Generated from EViews)

The table shows the results of the Granger causality test between the BSE IPO Index and FII all India Equity Buy. The null hypothesis is that FII long position has no granger cause on IPO index. The alternative hypothesis is that FII long position does have a granger cause on IPO index. **The p-value for the 12-month lag is less than 0.05, which means that we can reject the null hypothesis at the 5% significance level. This suggests that FII long position does have a granger cause on IPO index, meaning that past FII long position can help to predict future IPO index values.**

However, the p-values for the other lags are all greater than 0.05, which means that we cannot reject the null hypothesis at the 5% significance level. This suggests that FII long position does not have a granger cause on IPO index for the other lags.

In conclusion, the evidence suggests that FII long position does have a granger cause on IPO index, but only for the 12-month lag. This means that past FII long position can help to predict future IPO index values, **but only for the next 12 months.**

Table 2: Showing Granger Causality Between S&P SME IPO Index & FII all India Equity Buy

Lag	Observation	F statistic	Prob.	Statistically Significant
1 month	141 months	1.01929	0.3145	NO Accept Null
		0.27995	0.5976	NO Accept Null
2 months	139 months	1.25641	0.288	NO Accept Null
		0.09789	0.9068	NO Accept Null
3 months	137 months	1.00487	0.3929	NO Accept Null
		0.0774	0.9721	NO Accept Null
4 months	135 months	1.1743	0.3253	NO Accept Null
		0.15658	0.9597	NO Accept Null
6 months	131 months	1.06749	0.386	NO Accept Null
		0.18336	0.9809	NO Accept Null
9 months	125 months	1.50362	0.156	NO Accept Null
		0.51401	0.8616	NO Accept Null
12 months	119 months	7.56041	1.00E-09	Yes : Accept Alternate
		0.65499	0.7896	NO Accept Null

(Source : Hand Book on Indian Capital Market & BSE, output Generated from EViews)

The Granger causality test was conducted to determine whether FII long position can be used to predict future S&P MSME IPO Index values. The null hypothesis is that FII long position does not have a granger cause on S&P MSME IPO Index, and the alternative hypothesis is that it does. The results of the test showed that the p-value for the 12-month lag is less than 0.05. This means that we can reject the null hypothesis at the 5% significance level. In other words, there is sufficient evidence to suggest that FII long position does have a granger cause on S&P MSME IPO Index. This means that past FII long position can help to predict future S&P MSME IPO Index values, but only for the next 12 months.

The p-values for the other lags are all greater than 0.05, which means that we cannot reject the null hypothesis at the 5% significance level. This suggests that FII long position does not have a granger cause on S&P MSME IPO Index for the other lags. In conclusion, the evidence suggests that FII long position can be used to predict future S&P MSME IPO Index values, but only for the next 12 months. The granger cause is only present for the 12-month lag.

Table 3: Showing Granger Causality Between BSE IPO Index & FII all India Equity Sell

Lag	Observation	F statistic	Prob.	Statistically Significant
1 month	142 months	0.98021	0.3239	NO Accept Null
		0.87387	0.3515	NO Accept Null
2 months	141 months	0.51596	0.5981	NO Accept Null
		0.51203	0.6004	NO Accept Null
3 months	140 months	0.47545	0.6999	NO Accept Null
		0.34217	0.7949	NO Accept Null
4 months	139 Months	0.49255	0.7412	NO Accept Null
		0.24838	0.9102	NO Accept Null
6 months	137 months	0.63671	0.7006	NO Accept Null
		0.22941	0.9664	NO Accept Null
9 months	134 months	1.00648	0.439	NO Accept Null
		0.24764	0.9864	NO Accept Null
12 months	131 months	37.3358	1.00E-32	Yes : Accept Alternate
		0.23956	0.9948	NO Accept Null

(Source : Hand Book on Indian Capital Market & BSE, output Generated from EViews)

The table shows the results of the Granger causality test between the BSE IPO Index and FII all India Equity Sell. The null hypothesis is that FII long position has no granger cause on BSE IPO Index. The alternative

hypothesis is that FII long position does have a granger cause on BSE IPO Index. The p-values for the 12-month lag is less than 0.05, which means that we can reject the null hypothesis at the 5% significance level. This suggests that FII long position does have a granger cause on BSE IPO Index, meaning that past FII long position can help to predict future BSE IPO Index values.

However, the p-values for the other lags are all greater than 0.05, which means that we cannot reject the null hypothesis at the 5% significance level. This suggests that FII long position does not have a granger cause on BSE IPO Index for the other lags. In conclusion, the evidence suggests that FII long position does have a granger cause on BSE IPO Index, but only for the 12-month lag. This means that past FII long position can help to predict future BSE IPO Index values, but only for the next 12 months.

possible explanation for why the granger cause is only present for the 12-month lag. FII investment decisions are made based on a variety of factors, including economic conditions, market sentiment, and the performance of individual stocks. It takes time for these factors to have an impact on the BSE IPO Index. The 12-month lag may be the amount of time it takes for the effects of FII investment decisions to be fully reflected in the BSE IPO Index.

Other factors, such as changes in government policy or the introduction of new regulations, may also have an impact on the BSE IPO Index. These factors may be more difficult to predict, and their effects may not be evident for several months or even years.

Table 4: Showing Granger Causality Between S&P SME IPO Index & FII all India Equity Sell

Lag	Observation	F statistic	Prob.	Statistically Significant
1 month	142 months	0.45967	0.4989	NO Accept Null
		0.53182	0.4671	NO Accept Null
2 months	141 months	0.47121	0.6253	NO Accept Null
		0.22784	0.7966	NO Accept Null
3 months	140 months	0.32511	0.8082	NO Accept Null
		0.16908	0.9171	NO Accept Null
4 months	139 Months	0.42438	0.7908	NO Accept Null
		0.14152	0.9664	NO Accept Null
6 months	137 months	0.43922	0.85141	NO Accept Null
		0.17908	0.9821	NO Accept Null
9 months	134 months	0.7593	0.654	NO Accept Null
		0.47481	0.889	NO Accept Null
12 months	131 months	4.8686	2.00E-06	Yes : Accept Alternate
		0.50587	0.9069	NO Accept Null

(Source : Hand Book on Indian Capital Market & BSE, output Generated from EViews)

The table shows the results of the Granger causality test between the BSE IPO Index and FII all India Equity Sell. The null hypothesis is that FII all India Equity Sell has no granger cause on BSE IPO Index. The alternative hypothesis is that FII all India Equity Sell does have a granger cause on BSE IPO Index. The p-values for the 12-month lag is less than 0.05, which means that we can reject the null hypothesis at the 5% significance level. This suggests that FII all India Equity Sell does have a granger cause on BSE IPO Index, meaning that past FII all India Equity Sell can help to predict future BSE IPO Index values.

However, the p-values for the other lags are all greater than 0.05, which means that we cannot reject the null hypothesis at the 5% significance level. This suggests that FII all India Equity Sell does not have a granger cause on BSE IPO Index for the other lags. In conclusion, the evidence suggests that FII all India Equity Sell does have a granger cause on BSE IPO Index, but only for the 12-month lag. This means that past FII all India Equity Sell can help to predict future BSE IPO Index values, but only for the next 12 months.

possible explanation for why the granger cause is only present for the 12-month lag. FII investment decisions are made based on a variety of factors, including economic conditions, market sentiment, and the performance of individual stocks. It takes time for these factors to have an impact on the BSE IPO Index. The 12-month lag may be the amount of time it takes for the effects of FII investment decisions to be fully reflected in the BSE IPO Index.

Other factors, such as changes in government policy or the introduction of new regulations, may also have an impact on the BSE IPO Index. These factors may be more difficult to predict, and their effects may not be evident for several months or even years.

Table 5: showing Stationarity of the data

Time series Data	Lag	T test stat	Probability	Stationary at
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FII All India Equity Buy	12	-4.079336	0.0084	Level
FII All India Equity Sell	12	-3.857785	0.0163	Level
BSE IPO INDEX	12	-10.24176	0.0000	1 ST Difference
SME IPO INDEX	12	-7.626804	0.0000	1 ST Difference

The table shows the results of the Augmented Dickey-Fuller (ADF) test for stationarity of the data. The ADF test is a statistical test that is used to determine whether a time series is stationary. A stationary time series is one whose statistical properties do not change over time. The null hypothesis of the ADF test is that the time series is non-stationary. The alternative hypothesis is that the time series is stationary. The table shows the following results:

FII All India Equity Buy: The p-value is 0.0084, which is less than 0.05. This means that we can reject the null hypothesis at the 5% significance level. In other words, the data is **stationary at the level**.

FII All India Equity Sell: The p-value is 0.0163, which is less than 0.05. This means that we can reject the null hypothesis at the 5% significance level. In other words, the data is **stationary at the level**.

BSE IPO INDEX: The p-value is 0.0000, which is less than 0.05. This means that we can reject the null hypothesis at the 5% significance level. In other words, the **data is stationary at the first difference**.

SME IPO INDEX: The p-value is 0.0000, which is less than 0.05. This means that we can reject the null hypothesis at the 5% significance level. In other words, **the data is stationary at the first difference**.

Table 6: showing Fully Modified Ordinary Least Square regression result for the H₀₄: BSE IPO Index not influenced by the FII Transaction

Term	Estimate	Std. Error	t-Statistic	p-value
LOGAEBUY	0.171726	0.047388	3.623854	0.0004
LOGAIESELL	0.167822	0.044445	3.775976	0.0002
c	0.04185	0.145787	-0.287062	0.7745
R-squared	0.09063			
Mean dependent var	0.010361			
Adjusted R-squared	0.077545			
S.D. dependent var	0.076371			
SE of regression	0.073351			
Sum squared resid	0.747861			
Long-run variance	0.005539			

Dependent Variable: D(LOGBSEIPO)

Method: Fully Modified Least Squares (FMOLS)

Date: 08/19/23 Time: 17:05

Sample (adjusted): 2011M05 2023103

included observations: 142 after adjustments

Cointegrating equation deteministics: C

Long-run covariance estimate (Bartlet kernel, Newey-Westfixed bandwidth =5.0000)

The above table shows the results of a regression analysis that was conducted to test the hypothesis that the BSE IPO Index is not influenced by the FII Transaction. The dependent variable in the regression is the change in the BSE IPO Index (D(LOGBSEIPO)), and the independent variables are the logarithm of the FII buying (LOGAEBUY) and selling (LOGAIESELL) transactions.

The results of the regression show that both LOGAEBUY and LOGAIESELL are statistically significant predictors of D(LOGBSEIPO). This means that the BSE IPO Index is influenced by both the FII buying and selling transactions. The coefficient on LOGAEBUY is positive, indicating that an increase in the FII buying transaction is associated with an increase in the BSE IPO Index. The coefficient on LOGAIESELL is also positive, indicating that an increase in the FII selling transaction is associated with an increase in the BSE IPO Index.

The R-squared value of the regression is 0.09063, which indicates that the independent variables explain about 9% of the variation in the dependent variable. This is a relatively low R-squared value, suggesting that there are other factors that also influence the BSE IPO Index.

Overall, the results of the regression analysis suggest that the BSE IPO Index is influenced by the FII Transaction. However, the R-squared value is relatively low, suggesting that there are other factors that also influence the BSE IPO Index.

Table 7: showing Fully Modified Ordinary Least Square regression result for the H₀₄: S&P SME IPO Index not influenced by the FII Transaction

Term	Estimate	Std. Error	t-Statistic	p-value
LOGAIEBUY	0.183747	0.100861	3.623854	0.0004
LOGAIESELL	0.156486	0.089603	3.775976	0.0002
c	0.279717	0.413300	-0.287062	0.7745
R-squared	0.034074			
Mean dependent var	0.043202			
Adjusted R-squared	0.018495			
SD. dependentvar	0.106449			
SE of regression	0.105450			
Sum squared resid	1379110			
Long-run variance	0.021915			

Dependent Variable: D(LOGSMEIPO),

Method: Fully Modified Least Squares (FOLS),

Sample (adjusted) 2012108 2023103, Included observations: 127 after adjustments, Cointegrating equation deterministic: C

Long-run covariance estimate (Bartlett keel, Newey-West fixed bandwidth=50000)

The results of the regression show that both LOGAEBUY and LOGAIESELL are statistically significant predictors of D(LOGSMEIPO). This means that the SME IPO Index is influenced by both the FII buying and selling transactions. The coefficient on LOGAEBUY is positive, indicating that an increase in the FII buying transaction is associated with an increase in the SME IPO Index. The coefficient on LOGAIESELL is also positive, indicating that an increase in the FII selling transaction is associated with an increase in the SME IPO Index.

The R-squared value of the regression is 0.034074, which indicates that the independent variables explain about 3% of the variation in the dependent variable. This is a relatively low R-squared value, suggesting that there are other factors that also influence the SME IPO Index. Overall, the results of the regression analysis suggest that the SME IPO Index is influenced by the FII Transaction. However, the R-squared value is relatively low, suggesting that there are other factors that also influence the SME IPO Index.

Some of the possible reasons why the R-squared value is relatively low: The sample size is small. The regression was conducted on a sample of 127 observations, which is relatively small. A larger sample size would likely result in a higher R-squared value. There are other factors that influence the SME IPO Index that are not included in the regression. For example, the SME IPO Index could be influenced by changes in the macroeconomic environment, such as interest rates or inflation.

The relationship between the SME IPO Index and the FII Transaction is not linear. The regression assumes that the relationship is linear, but it is possible that the relationship is nonlinear.

Conclusion & Scope for the further study:

The study investigated the relationship between the FII Transaction and the BSE IPO Index and the SME IPO Index. The results of the study suggest that both indices are influenced by the FII Transaction, but the R-squared values are relatively low, suggesting that there are other factors that also influence the indices. The study also found that the coefficients on LOGAEBUY and LOGAIESELL are positive, indicating that an increase in the FII buying transaction is associated with an increase in both indices. This suggests that FIIs tend to invest in IPOs, which can lead to an increase in the prices of IPO stocks.

The study also found that the R-squared values are relatively low, suggesting that there are other factors that also influence the indices. Some of these factors could include the macroeconomic environment, such as interest rates or inflation, or the performance of the broader stock market. The study is limited by the fact that it was conducted on a relatively small sample size. A larger sample size would likely result in higher R-squared values, which would suggest that the FII Transaction is a more important factor in influencing the indices.

Overall, the study provides some evidence to suggest that the FII Transaction is a factor that influences the BSE IPO Index and the SME IPO Index. However, the study also suggests that there are other factors that also influence the indices.

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