

IPO Activity and Investor's Sentiment: An Indian Study

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Abstract: IPO market globally has experienced a journey worth studying. IPO market in India has witnessed substantial ups and downs over the last 15 years owing to dot-com crisis and global financial crisis. It has been observed that the national and global events do hit the investor community and their sentiments towards the market. That leads to both positive and negative impact on the financial markets and economic growth. It is very much likely that the peaks and troughs of financial markets and economy can have a spillover effect on the primary market irrespective of the capital requirement by the corporate. This paper evaluates the impact of financial markets and economic growth on the volumes and performance of IPOs. The research indicates that the volumes in the IPO market are dependent and correlate to the financial market and economic growth to a significant extent.

Keywords: Initial Public Offering, Indian Economy, Financial market, Investor sentiment, GDP.

I. INTRODUCTION AND HISTORY OF BUILD AND DEPLOYMENTS

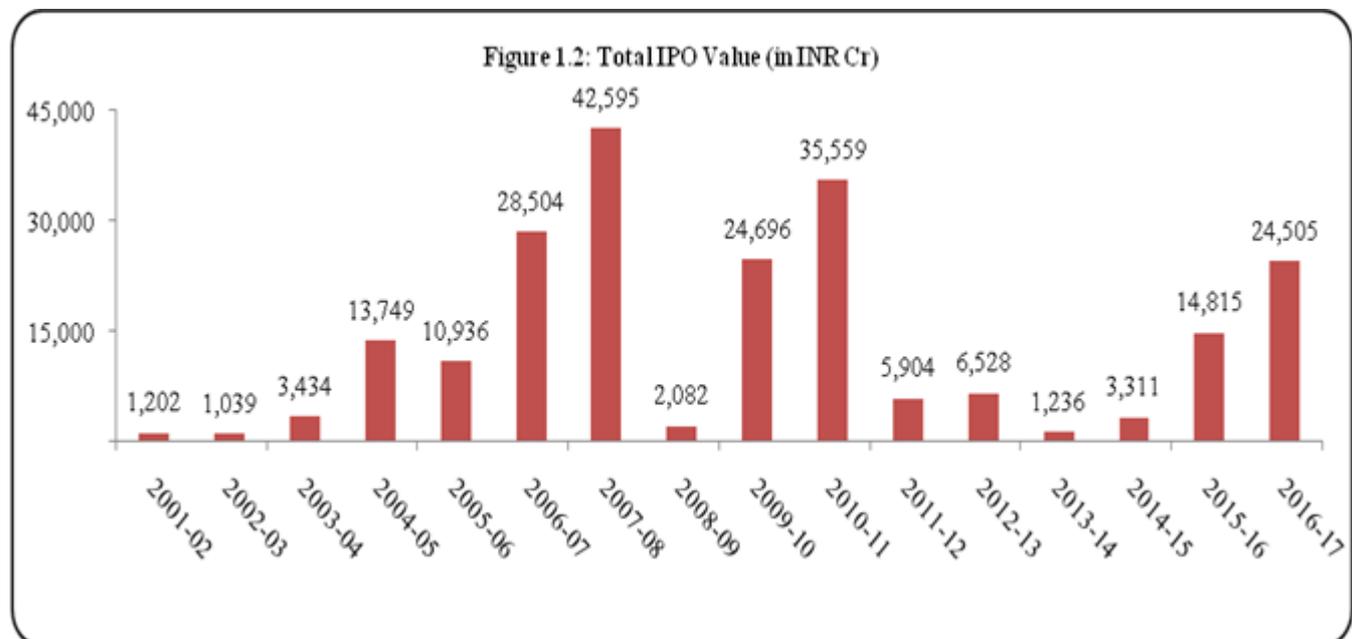
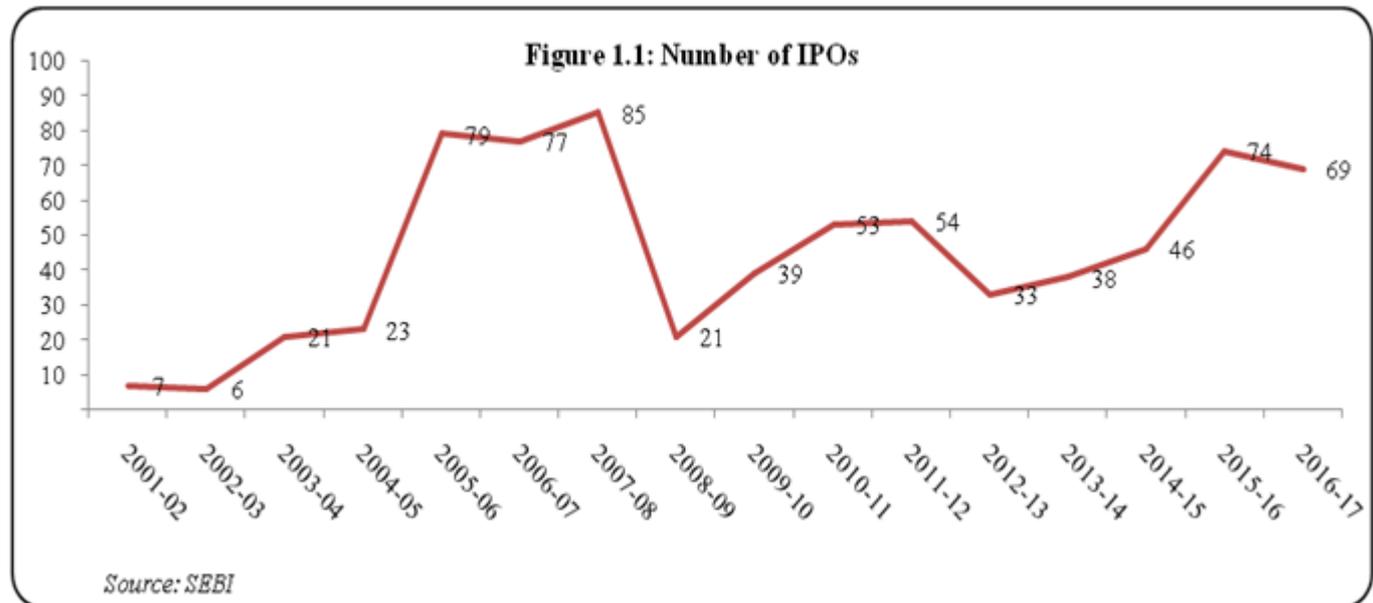
In emerging economies like India, development of the financial markets is the one of the important factors to fuel the growth of the economy. Financial markets act as a catalyst for the growing economy. Financial markets are classified as primary markets and secondary markets. Primary markets are the markets where issuer sells new securities. Most of the transactions are arranged through financial intermediaries, called lead managers. The funds raised in the primary markets are generally used for the expansionary or operational business requirement. Once the securities are issued in the primary markets, they are then traded or sold in the secondary market. In the emerging start-up ecosystem in India, IPO market is considered as a safe investment alternative by the investor community.

It is indicative that the IPO market activity, volumes and valuations are very much dependent on the market sentiments. Since primary market provides liquidity to the corporate, its development is equally important for the economic growth. Performance of the primary market is crucial for the functioning of financial markets. Also, it gives an idea about investor's sentiment to the corporate. Initial Public Offering refers to the process by which private companies sell their equity shares in the stock exchanges and raise capital. Post that, the stocks of the companies get listed on the exchange.

Figure 1.1 and 1.2 shows trend of number of IPOs and IPO volumes in Indian market from 2001-02 to 2016-17. The data for used the year 2016-17 is up to December 2016 only. The low volumes from 2001-02 to 2003-04 are the after effects of the 2001 dot com crisis when the sentiments in the financial and economic markets were very low. The tremendous growth in IPO volumes from 2004-05 till 2007-08 on the back of good economic prospects came to a steep fall in 2008-09, the reason being the drastic impact of the global financial crisis on the world economy.

However, the effect could not last for long and the Indian economy bounced back with a remarkable activity in IPO market in 2009-10 and 2010-11. This was primarily on account of low interest rate and negative return in the developed regions which prompted investors to look for other destinations for investment like India and other emerging economies. But Indian economy

could not remain immune to the impact of global financial crisis and there was a huge drop in IPO volumes from 2011-12 to 2015-16. All those four years put together also, the IPO volumes were far less than the peak of 2007-08 or 2010-11. Promising policies and initiatives by the new government, improved global economic conditions resulted in a remarkable increase in IPO volumes in the year 2016-17. The relationship of IPO activity and financial and economic growth is also statistically validated in the data analysis section of the paper.



II. LITERATURE REVIEW

Madhusoodanan and Thiripalraju (1997) in their paper examined the IPOs listed on BSE during 1992-1995. They concluded that the initial returns in India were high as compared to other countries. There is a positive link between market conditions and initial returns from the issue. Along with that, no merchant banker shows superior ability in pricing IPO correctly. Even the listing delay does not lead to lower underpricing or better long term performance.

Lowry (2003) in his paper mentioned that IPO volumes fluctuate a lot over a period of time. The author tried to find out the extent to which the aggregate capital demands of private firms, the adverse-selection costs of issuing equity, and the level of investor sentiments can explain these fluctuations. The research indicates that capital demand by firms and investor sentiments are important determinants of IPO volume.

Sahoo and Rajiv (2010), based on the research done on 92 IPOs during 2002-2006 found that firm age, book value, market volatility and leverage have no effect on underpricing. Fullenkamp, Connolly & Blum (2011) explored the literature to confirm whether the IPO market is an appropriate economic indicator. The findings suggested that capital demand, investor sentiment and stock market condition are important determinants of IPO fluctuations. The research also concluded that the IPO proceeds were adversely affected by the uncertainty due to global financial crisis.

Baluja (2013) emphasized on the fact that the retail investors in Indian Capital market are less aware of the company's fundamentals, which results in information asymmetry. To overcome this problem of information asymmetry, SEBI introduced the concept of IPO grading. A research was done on a sample of 50 graded IPOs listed on BSE from 2007 to 2010 to examine the efficacy of IPO grading mechanism. It was expected that if grading mechanism was really effective then the performance of the IPOs should be directly linked to their grades. However, it was observed that there was no significant difference in listing price performance of the different graded IPOs. Hence listing price performance is dependent on other factors such as subscription level, issue size, age of company etc. The study was not further extended to find out the reasons behind the IPO performance.

Meluzin, Zinecker, & Lapinska (2014) studied the impact of local macroeconomic factors like GDP growth rate, interest rate, industrial production growth rates, Warsaw Stock Exchange Index (WIG) returns and the volume of private equity investments on the IPO activity in Poland over the period of 2004 to 2012. The sample size included 218 local enterprises that came out with their public issue on Warsaw Stock Exchange. The scholars through their research concluded that the GDP growth and in turn the business cycle had a significant impact on the number of new issues. Also, the study concluded that performance of capital markets is also considered as one of the important parameters for coming out with the public issue.

According to the SEBI Investor Survey 2015 Report, weaker market sentiments do not allow companies to get their shares priced at fair value, leading to the postponement of their decision to come out with the public offering. Hence, it leads to decline in the overall IPO volumes in the economy.

According to an article published in LiveMint (2016), there was a turnaround of sentiments in the primary market. Positive sentiments were a result of expected accelerated economic growth on the back of plentiful monsoon rainfall after two years of drought, slowing inflation and a consumption boost expected to come from hefty pay and pension raises given to government employees and retirees.

Lalwani (2016) discussed that the IPO activity will continue to outbreak in 2016 and then in 2017 primarily driven by positive economic sentiment, improved business confidence, relaxing inflationary pressure and steady foreign direct investment. Momentum was attributed to the Prime Minister Narendra Modi's thrust towards ease of doing business in India. Rationalization of India's taxation system was a great step towards the realization of the set goals. Such steps give assurance to the national and global citizens that the government walking towards the next era of economic reforms.

III. RESEARCH GAP

Though there has been a lot of research work done on the performance of the IPOs in the Indian market and globally, studies on the variations and fluctuations of the IPO volumes and number of IPOs every year over a period of time are relatively less. Most of the studies have focused on parameters like ownership structure, oversubscription, issue size and pricing mechanism. Very few studies have focused on the impact of investor sentiments on the IPO volumes. This paper aims to analyze the impact of investor sentiments (proximate by the capital markets performance and the economy growth) on IPO market volumes and growth. This paper focuses on the Initial Public Offerings in the Indian Markets for a period of more than 15 years i.e. April 2001 to December 2016. IPO volume, in terms of both the number of IPOs as well as the gross proceeds, is analysed.

IV. RESEARCH PROBLEM

Is there a significant impact of investor's sentiment (proximate using financial market performance) on the IPO activity in the Indian Economy?

V. HYPOTHESIS OF THE STUDY**Main Hypothesis:**

H0: There is no significant relationship between IPO market performance and financial markets performance.

H1: There is a significant relationship between IPO market performance and financial market performance.

Sub Hypothesis:

H0: There is no significant relationship between IPO market performance and economic performance.

H1: There is significant relationship between IPO market performance and economic performance.

VI. RESEARCH METHODOLOGY

The objective of the study is to explore if there is a correlation between the IPO volumes and financial and economic performance. IPO market performance is proximate using total proceeds from public issues in a fiscal year, number of IPOs and S&P BSE IPO Index returns. Capital market performance is proximate using S&P BSE SENSEX returns and economic performance is proximate using GDP growth. The research has been conducted on the data from April 2001 till December 2016. The data has been collected from online databases provided by SEBI, BSE India and CSO. Statistically, the relationship among the said variables has been assessed using the linear correlation & regression models in addition to descriptive analysis. Dependent and independent variables are measured as shown below:

- a) IPO Volume - It is directly taken from SEBI website. The total gross proceeds are taken in INR Crores.
- b) Number of IPOs - It is directly taken from SEBI website.
- c) S&P BSE IPO Index returns

As per the standard methodology, the Index returns would be calculated in the following way.

$RxD = ((Px_D - Px_{-1D}) / Px_{-1D}) * 100$, where RxD – Index Return for day x

PxD – Closing Index value on day x

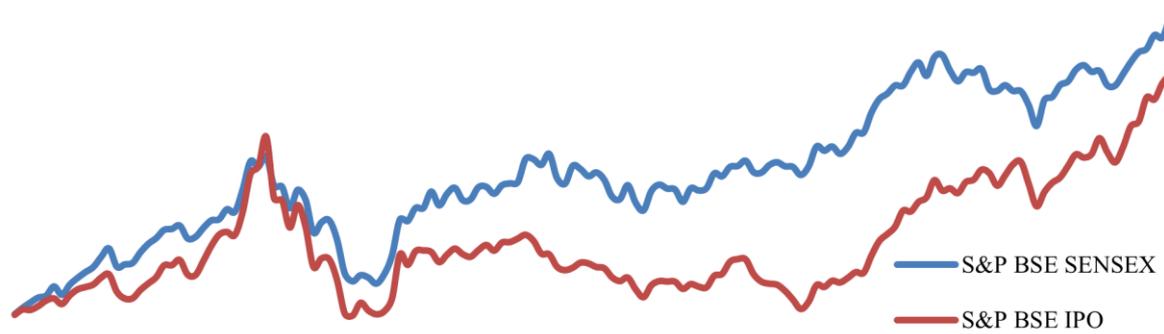
Px_{-1D} – Closing index value on the previous day

- d) S&P BSE SENSEX returns are calculated in the same manner as the S&P BSE IPO Index returns
- e) GDP Growth – It is a reported number from CSO.

VII. DATA ANALYSIS

To analyse the growth trend, S&P BSE SENSEX and S&P BSE IPO index were brought to the common base of 100 in April 2005. The figure 1.2 clearly indicates that the growth in both the indices followed the same pattern over a long period of 12 years. The same has been analysed statistically using linear correlation and regression models.

Figure 1.3: SENSEX & IPO Growth Trend Analysis



Source: BSE India

The table 1.1 summarises the annual growth of the variable under study. The statistical tests on S&P BSE IPO and S&P BSE SENSEX are performed on the daily growth data making the number of observations nearly to 150. Table 1.2 gives the output summary of the linear regression and correlation analysis on the variables under research.

Table 1.1 : Annual Growth Data of Variables under Research				
Year	GDP Growth	SENSEX Growth	IPO Index Growth**	IPO Volume Growth
2001-02	5.39%	-1.42%		-55.84%
2002-03	3.88%	-8.67%		-13.56%
2003-04	7.97%	88.89%		230.51%
2004-05	7.05%	14.81%		300.38%
2005-06	9.48%	83.28%	54.71%	-20.46%
2006-07	9.57%	8.55%	-0.69%	160.64%
2007-08	9.32%	12.77%	27.47%	49.44%
2008-09	6.72%	-43.84%	-59.84%	-95.11%
2009-10	8.59%	53.71%	57.62%	1086.17%
2010-11	8.91%	10.74%	-16.47%	43.99%
2011-12	6.69%	-9.05%	-15.77%	-83.40%
2012-13	5.48%	8.76%	-0.03%	10.57%
2013-14	6.94%	14.78%	11.65%	-81.07%
2014-15	7.18%	24.75%	76.22%	167.88%
2015-16	7.93%	-6.18%	0.60%	347.45%
2016-17 *	7.11%	3.98%	10.18%	65.41%

Source: MOSPI, SEBI

*Data is till December 2016 ** S&P BSE IPO Index Closing Values are available since 2004-05

Table 1.2 : Regression & Correlation Output Summary				
Variable Y	Variable X	Adjusted R Square	t stat	p-value
S&P BSE IPO Growth	S&P BSE SENSEX Growth	0.73	19.97	5.72623E-44
Variable 1	Variable 2	Correlation		
No. of IPOs	GDP Growth	0.76		
IPO Value	GDP Growth	0.69		
IPO Value*	SENSEX Growth	0.70		

*This analysis has been done post the global financial crisis.

As we can see in Table 1.1, the coefficient S&P BSE SENSEX Growth is 0.59 which indicates that for every additional 1 percent growth in S&P BSE SENSEX, S&P BSE IPO Index increases by almost 0.59% on an average. The p-value 5.72623E-44 which is way below the usual significance level of 0.05 suggests that the variable S&P BSE SENSEX Growth is statistically significant and its addition to the regression model is worthwhile. On the other hand, a p-value greater than the chosen

significance level suggests there is insufficient evidence to reject the null hypothesis that the variable has no correlation with the dependant variable.

The large T statistics 19.97 suggest that the variable is statistically significant and indicates that there is enough evidence to reject the null hypothesis that the true coefficient value is zero. T statistics is just the estimated coefficient divided by its own standard error and hence tell us that how precisely the coefficient value is calculated. Adjusted R-squared is a measure of the goodness of fit and gives us an idea about the percentage of variation in the response variable. In this analysis, movement in S&P BSE IPO Growth can be explained by the independent variable S&P BSE SENSEX Growth. An adjusted R-squared of 0.73 suggests that there is a strong relationship between the response and independent variable.

In the second part of the table, correlation is used to measure the strength of the relationship between a couple of variables. In all the 3 cases, the correlation close to or greater than 0.7 suggests that there is a strong relationship between the two variables. Also, we can see that the variables are positively correlated which means that both the variables move in the same direction, i.e. when one variable increases the other variable also increases and vice versa.

VIII. CONCLUSION

The study has been done over a period of almost 17 years from 2001-02 till December 2017. The IPO volumes and number of IPOs with GDP and SENSEX growth have been analysed over this long period. But IPO index has been assessed since 2005, the year from which the closing values are made available by BSE India. As per the results of the linear regression and correlation models, the null hypothesis is rejected and hence the alternate hypothesis is accepted.

Therefore, it can be concluded that there is a significant relationship between IPO market activity and financial market and economy performance. Financial market and economic growth are considered as the proxy for the investor sentiment for the matter of this research. Hence, it can be concluded that the volume and growth of IPO market is very much linked to the investors' sentiment in Indian economy.

IX. LIMITATIONS & SCOPE FOR FURTHER STUDY

The study has assessed the impact of the growth of the economy and financial markets on IPO volumes / number of IPO issues. Here, the economic growth and financial market growth are taken as one of the parameters via which investors sentiments can be judged. However, the study has not focussed on other parameters like retail investor trades, mutual fund inflows/ outflows, options implied volatility to estimate the investor's sentiment. Formulating an investor sentiment index using other parameters and analysing its impact on primary market can be another area of research.

References

1. Ameer, R. (2012). Macroeconomic Factors and Initial Public Offerings in Malaysia. *Asian Academy of*, 8 (1), 41-67.
2. Baker, M., & Wurgler, J. (2007). Investor Sentiment in the Stock Market. *Journal of Economic Perspectives*, 21 (2), 129-151.
3. Baluja, G. (2013). Comparative Analysis of Listing Price Performance between Different Graded IPOs in India. *Pacific Business Review International*, 6 (5).
4. Brau, J., & Fawcett, S. (2006). Initial Public Offerings: An Analysis of Theory and Practise. *Journal of Finance*, 61 (1), 399-436.
5. Dhanjal, S. S., & Shah, A. (2016). Why 2016 is the year of IPOs. Retrieved from LiveMint: <http://www.livemint.com/Money/hSfMTxYufKS6FqhCo1XNDI/Why-2016-is-the-year-of-IPOs.html>
6. Du, L. (2014). What Explains the IPO Cycle? University of Cambridge.
7. Fullenkamp, C., Connolly, M., & Blum, R. (2011). IPO Timing Determinants. Retrieved November 30, 2017, from <https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/3556/blumthesis.pdf?sequence=1>
8. Lalwani, A. (2016). India IPO Market Heads for Blockbuster Year. Retrieved December 5, 2017, from <http://www.bakermckenzie.com/http://www.bakermckenzie.com/en/insight/publications/2016/10/india-ipo-market/>
9. Lowry, M. (2003). Why does IPO volume fluctuate so much? *Journal of Financial Economics*, 3-40.
10. Madhusoodanan, T. P., & Thiripalraju, M. (1997). Underpricing in initial public offerings: the Indian evidence. *Vikalapa: The Journal for Decision Makers*, 22 (4), 17-30.

11. Meluzin, T., Zinecker, M., & Lapinska, J. (2014, September). Determinants of Initial Public Offerings: The Case of Poland. Pablo Olavide .
12. MSCI Barra Research. (2010). Is There a Link between GDP Growth and Equity Returns? Research Bulletin, MSCI Barra.
13. Rajib, P., & Sahoo, S. (2010). After Market Pricing Performance of Initial Public Offerings (IPOs): Indian IPO Market 2002–2006. Vikalpa , 35 (4), 27-43.
14. SEBI. (2016). Hand Book of Statistics 2016.
15. SEBI. (2015). SEBI Investor Survey 2015. Securities and Exchange Board of India.
16. Statistics Times. (2017, March 08). GDP growth of India. Retrieved December 5, 2017, from <http://statisticstimes.com>:
<http://statisticstimes.com/economy/gdp-growth-of-india.php>

Data Sources

1. www.statisticstimes.com
2. www.bseindia.com
3. www.sebi.gov.in
4. www.mospi.nic.in/central-statistics-office

A UTHOR(S) PROFILE



Ruchika Agarwal, received the M.A. degree in Economics from Mumbai University and MBA in Finance from NLDIMSR, Mumbai. Post her post-graduation, she worked with financial research firms and investment banks. She is currently working as a Finance Faculty with N L Dalmia Institute of Management Studies & Research, Mumbai.