

Performance Analysis of Initial Public Offering in Indian Context

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ABSTRACT

Initial Public Offering (IPOs) is a company's first offering of equity to public. Initial Public Offer is a major source of capital for firms. In fact, in Indian capital market, IPOs have become the most popular way of raising finance for the firms. The pricing of Initial Public Offerings (IPOs) is one of the more puzzling phenomena in finance. This study intends to examine the price performance of the Indian IPOs listed on National Stock Exchange (NSE), using a sample of 150 IPOs that entered the primary capital market during May 2007 to December 2011. Short run and Long run price performance have been studied by considering the gap of 1 month, 3 months, 6 months and 1 year, 2 years and 3 years respectively. The findings reveal that, there exists overpricing in the Indian Primary Capital Market. Secondly, overpricing is more prevalent in the long run time period than in the short run.

Keywords: IPO, Price Performance, Market Adjusted Return.

INTRODUCTION

Initial Public offer (IPO) is a process through which an unlisted Company can be listed to a Stock exchange by offering its securities to the public. The object of an IPO may differ from company to company. It may be for expansion of existing activities of the company or setting up of new projects or just to get its existing equity shares listed by diluting the stake of existing equity shareholders through offer for sale or any other object as may be specified by the Company in its offer document. In an initial public offering (IPO), a private company becomes a public concern by issuing equity shares to the outside investors for the first time. IPO is a process through which companies access the market capital market by selling a variety of securities, such as common stock, bonds and preferred stock. Certainly, companies have other ways of financing, such as retention of earnings; bank loan, overdraft etc., but the equity shares are the major source of funding. IPOs often come from smaller, younger companies seeking capital to expand their business. IPOs are quite risky to invest in. SEBI the Capital Market regulator, which was established with the objective of investor protection and regulation of capital markets, has issued many guidelines and introduced structural reforms to bring efficiency in the market and it, has brought out various norms the companies have to adhere to before approaching the primary capital market.

REVIEW OF LITERATURE

Pandey, Ajay (2004) study based on a sample of 84 Indian IPOs from the period 1999 to 2002 concluded that the fixed price offerings are used by issuers offering large proportion of their capital by raising a small amount of money. The initial returns were found to be higher and more uncertain on fixed price offerings and all types of Indian IPOs in our sample under performed in the first two years subsequent to listing. The IPOs from issuers belonging to industries under the spell of "hot issue" market, showed a result of under-performance more than the rest. Deb & Mishra (2009) studied the performance of the Indian IPOs from April 2001 to March 2009 for the long run. Results show that there exist positive returns on the listing day. It is found that the down-market is a major cause for the poor listing-day performance of the negative group, whereas a positive group does not gain anything from an up-market preceding the IPO. With respect to the average holding-period return, for the negative group (starting day-1, not day-0) becomes significant only after four years, while it is positive throughout for the positive group. The study concluded that IPOs in the long yield a return equal to the market, when initial return is ignored. Sahoo & Rajib (2010) focused on the evaluation of price performance of 92 Indian IPOs issued during the period 2002-2006 up to a period of 36 months including the listing day and also examined the usefulness of IPO characteristics at the time of

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issue to seek an explanation for the post-issue price performance. It reported that on an average the Indian IPOs are underpriced to the tune of 46.55 per cent on the listing day compared to the market index. The empirical results suggest that the investors who are investing in IPOs through direct subscription are earning a positive market-adjusted return throughout the period. Nevertheless, investors who have purchased shares on the IPO listing day are earning negative returns up to 12 months from the listing date and expect to earn positive market-adjusted return thereafter. Younesi et al (2012) examined the IPO performance in Malaysia for the year 2007 to 2010. The Results obtained showed that under pricing exists on the first day of trading. Empirical results also show that none of the return determinants which included age, size, total unit offered, offering price and KLCI index movement are able to effect on IPO initial return. It concluded that investors who invest in IPOs cannot gain by purchasing stocks and holding them for a period of one year. Seal & Matharu (2012) tried to estimate the long run performance of IPOs and Seasoned Equity Offerings (SEOs) in India with the help of event study methodology wherein stock returns are examined around the date when new information about the performance of a company is announced for a period from 1999 to 2005. It was found that the average 5-year Buy and Hold Return for IPOs is 156.79% as compared to the average return of 427.33% from the size matched firms which clearly demonstrates the long term underperformance of IPOs. Some recent studies have also demonstrated the underperformance as well including the one by Thomadakis et al (2012) and Gregory et al (2010) in the European markets. However, over performance too is seen in few studies such as the study by Chi et al (2010) in the Chinese market.

RESEARCH OBJECTIVES OF THE STUDY

The prime objective of this study is to evaluate the performance of Indian IPOs. Based on it, the following objectives are derived:

1. To measure the initial listing performance of IPO for the short run, that is from the date of offer to the public to the date of their first listing, 1 month, 3 months and 6 months since the day of the listing on the National Stock Exchange.
2. To analyze the price performance of Indian IPOs for the long term (up to 3 years period)
3. To examine the extent of under pricing/overpricing of the Indian IPOs.

RESEARCH METHODOLOGY

Sample Selection: The sample selected for the study is based on the following criteria:

- a. Companies listed on NSE and having a trading history of up to a period of 3 years are considered for the short and long run analysis. Companies whose price history is available on the NSE during the period of the study are considered.
- b. Graded IPOs listed on the NSE were considered for the purpose of emphasizing the significance of IPOs grades and having a trading history of up to three years were considered for the study.
- c. Data regarding offer price, listing date, listing delay are available.
- d. The instrument of issue is equity share.
- e. S&P CNX Nifty was selected as the Market Index for the study.

Accordingly, the final sample consisted of a total of 150 companies for the short and long run analysis and a total of 91 companies which have been graded by credit rating agencies.

Time period of the study: The present study analyses the pricing performance of Indian IPOs during the period from May 2007 to December 2011 which were listed on National Stock Exchange.

Sources of data: Secondary data have been used in order to analyze the price performance of the Indian IPOs. The information regarding offer price, offer date, size, listing date, listing price, prices of IPOs for the different time intervals, i.e., after one month, three months, six months and one year, two years and three years and the market index (S&P CNX Nifty) for the same periods/dates has been taken from the National Stock Exchange of India

website. Data with regards to the amount mobilized through IPOs and other required data has been obtained from the annual reports of SEBI, the annual reports of NSE-ISMIR.

Quantitative Techniques for Data Analysis

Measurement of Pricing Performance: To test if a stock has been priced at its intrinsic value or not and to determine the magnitude and degree of the deviations of market price of the stock from its offer price returns have been computed. If the returns are positive, the indication is that of under pricing while negative returns imply overpricing.

Initial price performance: The short term performance has been calculated as the difference between the closing price on the first day trading and offer price and divided by the offer price. The result figure was multiple by 100 to set the figure in percentage.

(a) Locations are homogeneous. The homogeneity is determined in terms of inter-relations between factors contributing to location formation. Heterogeneity in product specialization between locations is allowed. This heterogeneity does not influence the basic relationship of the factors contributing to location formation. Location 1 is any location producing Gold Jewellery products in West Bengal. Location 2 or 3 is any location in the Gold and Jewellery industry in West Bengal other than Location 1. Existence of both formal and informal sector production appears in the locations. The ratio of formal-informal sector production in total production may vary across locations - however, all the locations exhibit dominance of informal sector production.

$$R_Ret. = \left[\frac{P_1 - P_0}{P_0} \right] * 100 \text{ ----- (i)}$$

Where,

R_Ret. = Initial return or raw return for stock

P1 = Closing price on the first day of trading

Po = Offer price

Equation (i) assumes that there is no time lag between the offer and trading of the stock which means a perfect market. If the first condition is not fulfilled, returns should be adjusted for changes in market conditions during this period. In India, there is substantial time gap between the offering and listing of the stock. During this period, a major change could occur in market conditions and the observed premium (discount) measured by equation (i) could be caused by a change in market conditions rather than initial mispricing. Therefore the raw returns estimated by equation (i) are adjusted for market return as follows:

$$MAER = \left[\frac{P_1 - P_0}{P_0} - \frac{M_1 - M_0}{M_0} \right] * 100 \text{ ----- (ii)}$$

Where,

MAER= Market adjusted excess return

M1= Closing value of Market Index on first trading day

Mo= Closing value of Market Index on offer closing date

Since for different companies, time taken to list varies, so to normalize this, annualized returns will be calculated by multiplying Raw and MAER by the following factor:

$$\text{Annualizing factor} = \frac{365}{\text{Listing Lead Time}} \text{ ----- (iii)}$$

After-Market Performance: The returns for different time period considered is calculated by taking closing prices of the given stock after the specified time gap (i.e. one month, three months, six months and one year, two years and three years) from the listing day. The formula used in the equation is adjusted as follows:

$$R_Ret_t = \left(\frac{P_t - P_0}{P_0} \right) * 100 \text{ -----(iv)}$$

Where

R_Ret.t = Initial return or raw return for stock at time t after listing day

Pt = Closing price at time t

Po = Closing price on Listing day

Similarly, the market adjusted excess returns are calculated for the given time periods by using the formula:

$$MAER_t = \left(\frac{P_t - P_0}{P_0} - \frac{M_t - M_0}{M_0} \right) * 100 \text{ ----- (v)}$$

Where,

MAER = Market adjusted excess return at the end of time period t

M1 = Closing value of Market Index at time period t

Mo = Closing value of Market Index on listing day

The average of the R_Rett values, for all securities gives the return on days 't' for the sample.

To analyze performance, another measure, Wealth Relative Index (WR) has been used. The magnitude of this measure is an indication of the performance of IPO's vis-à-vis the market. A wealth relative greater than unity implies that IPO's outperformed the market in that period, while a wealth relative below 1 indicates under-performance of the IPOs.

When an IPO outperforms the market it means that it has given higher returns than the market returns, which implies that it was underpriced previously and when it gained its actual worth in the market it outperformed the market in terms of returns.

Wealth Relative (WRit) for a sample of 'n' stocks at time t is calculated by using the formula

$$\text{Wealth Relative, } WR_{it} = \frac{1 + \frac{1}{N} \sum_{i=1}^N R_Ret_t}{1 + \frac{1}{N} \sum_{i=1}^N MR_Ret_t} \text{ ----- (vi)}$$

Where,

R_Rett = R_Ret. / 100

MR_Rett = MR_Ret. / 100

N = Total number of IPOs in the sample

IPO ACTIVITY IN INDIAN STOCK MARKET

IPO market in India has had its share of ups and downs over a period, for more than the last decade. It has seen a steep rise in the initial years of the post liberalization of Indian Economy. The growth observed during the first half of the 90s is mostly attributed to the financial liberalization of the economy. Capital market reforms like abolition of the office of controller of capital issues (CCI), constitution of SEBI under the new security and regulation act and relaxation in pricing of capital issues played an important role in such upsurge.

RESOURCE MOBILISATION THROUGH IPOs

The Exhibit 1.1 shows that IPO market has witnessed an exploding growth from 158 issues during 1991-92 amounting to Rs. 724 crore to 1357 IPOs for Rs. 10,924.11 Crore during 1995-96. The IPO market in India witnessed boom in the early 1990s till mid 90's. After 1995-96 there was a reduction in the number of Initial Public Offers (IPOs) as well as the funds raised by the companies. The number of IPOs further declined in 1997-98 to 52 from 111 issues amounting to Rs. 1047.52 crore. The decline in the share of IPOs can be partly attributed to the decline in industrial activity in the country and partly due to strict entry norms, which prevented green field projects without track record from accessing the market (Annual report, SEBI, 1997-98). The financial year 1998-99 recorded only 18 IPOs and floated Rs. 404.21 Crores in the market. The absence of issues of good quality, lack of confidence of investors in new companies and depressed secondary market were some of the factors, which hindered the growth of IPOs (Annual Report, SEBI, 1998-99).

Exhibit-1.1: Trend of IPO Market in India

Year	Number of IPOs	Amount (Crores)
1991-1992	158	724
1992-1993	467	3673
1993-1994	693	7650
1993-1995	1231	9919
1995-1996	1357	10924.11
1996-1997	717	5958.6
1997-1998	52	1047.52
1998-1999	18	404.21
1999-2000	51	2719.04
2000-2001	114	2722.38
2001-2002	7	1201.8
2002-2003	6	1038.68
2003-2004	14	1412
2004-2005	23	12382
2005-2006	79	10936
2006-2007	77	28504
2007-2008	85	42595
2008-2009	21	2082
2009-2010	39	24696
2010-2011	53	35559
2011-2012	54	41515
2012-2013	33	6528

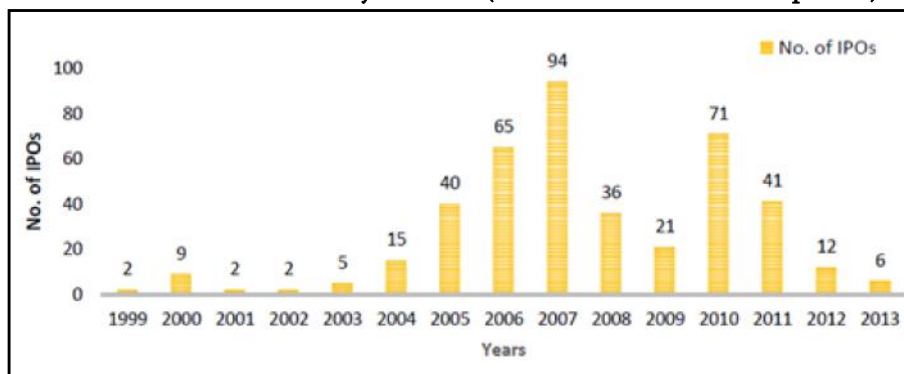
Source: Compiled from SEBI Annual Reports

There was a marked increase in the number of IPOs during 1999-00 to 51 from willingness and confidence of investors to invest in new companies especially in Knowledge based industries particularly, in information technology and healthcare IPOs which came to the market in a big way. And, this trend continued for 2000-01, when number of IPOs increased to 114 amounting to Rs.2722.38 crores. The number again tumbled down to 7 IPOs amounting Rs. 1201.8 crore during 2001-02. But it was back to spring time again by the end of 2007-08. The upward trend in primary market activities continued in 2007-08. During 2009-10, 39 issues accessed the primary market and raised Rs.24,696 crore through public as against 21 issues which raised Rs.2083 crore in 2008-09. The reason for decline in resource mobilization through qualified institutional player (QIP) route in 2008-09 was due to delay of expansion plans and conservation of cash by Indian companies to counter uncertainty in the global markets (Annual report, SEBI, 2009-10). Thus, it can be concluded that, IPO market experienced boom during 1992-96, depression during 1997-99 and recovery during 1999-2001. The IPOs declined for 2001-03 but rose again by the end of financial year 2007-2008. In 2008-09, the volatility in stock markets, slowdown in economic growth, and respite of expansion plans by corporate and poor investor response had led to a sharp fall in the number of issues and amounts raised through the primary market. The primary market segment witnessed positive trend during 2009-10. The number of Initial Public Offerings (IPOs) increased to 39 in 2009-10. The amount raised through IPOs during 2009-10 was significantly higher at Rs.24,696 crore as compared to Rs.2,083 crore during 2008-09 (Annual report, SEBI, 2010-2011). During 2010-11, there were 53 IPOs during as against 39 during 2009-10. The amount raised through IPOs during 2010-11 was at 35,559 crore as compared to Rs.24,696 crore during 2009-10. The relative share of IPOs increased from 42.9 percent in 2009-10 to 52.6 percent in 2010-11 (Annual report, SEBI, 2010-11). Resource mobilization by companies through IPOs was substantially lower in 2011-12 compared to the previous years. The year was dominated by the non-convertible debenture issues of the public financial and infrastructure institutions. The weak investment climate led to fall in the number of IPOs and amount raised from new issues market. There were 34 IPOs during 2011-12 as against 53 during 2010-11. The amount raised through IPOs during 2011-12 was considerably lower at Rs.5,904 crore as compared to Rs.35,559 crore during 2010-11(Annual report, SEBI, 2011-2012). The primary markets continued to remain subdued in 2012-13. The restrained and the passive milieu observed in the primary market activities in 2011-12 continued further in 2012-2013. There were 33 IPOs during 2012-2013. The amount raised through IPOs during 2012-2013 was marginally higher at Rs. 6,528 crore as compared to Rs.5,904 crore during 2012-2013(Annual report, SEBI, 2012-13).

MOVEMENT OF IPO ACTIVITY IN NSE

Exhibit 1.2 gives the frequency of the book-built IPOs in India with respect to the year of the issue and the size of the issue. As it is evident from the Exhibit that the number of IPOs listed on National Stock Exchange were quite less from the year 1999 to 2003 as compared to the number listed on from the year 2004 to 2007. There were 20 IPOs in total from 1999 to 2003 whereas year 2004 alone witnessed the listing of twenty IPOs followed by the increasing trend up to 2007.

Exhibit-1.2: IPO Activity in NSE (over a considered time period)



Source: www.nseindia.com

It is clear from the above Exhibit 1.2 that, from 1999-2003, there is a cold issue market i.e., the issuance of no. of IPOs in NSE is far less than in hot issue market i.e., from 2004 to 2011. There again is a fall in the number of IPOs being issued in NSE due to the slowdown in India as a result of recession in developed countries. However, a rise is observed in the number of IPOs in NSE in 2010 which is followed by a declining trend until 2013. The main reason for the increase in IPOs over a time period is that during 2003 to 2007, there has been a boom period in India. Besides this SEBI has made a number of amendments to increase the investor confidence in Primary market viz. number of IPOs are being launched through Book-Building process due SEBI initiatives, IPO Grading System (mandatory w. e .f. May 2007) and moreover protecting retail investors by revising Disclosure & Investor Protection (DIP) Guidelines from time to time.

PRICE PERFORMANCE OF IPOs : SHORT RUN ANALYSIS

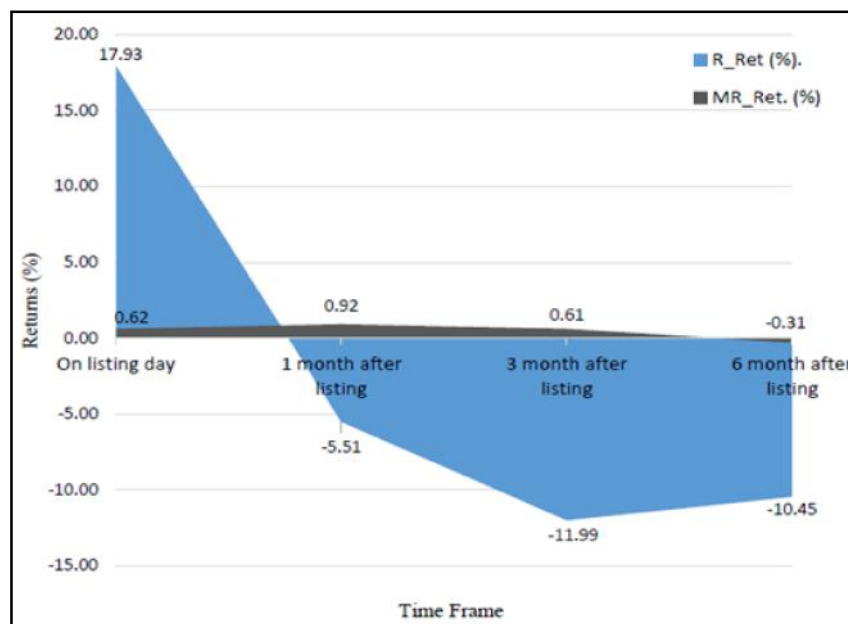
It is of importance to study the extent to which the IPOs are underpriced, in order to conduct the short run analysis of the price performance. For this reason, the buy and hold period of the first trading day, 1 month after the listing day, 3 months after the listing day, 6 months after the day of listing has been considered.

Exhibit-1.3: Returns for short run

Time frame	R_Ret. (%)	MR_Ret. (%)
On listing day	17.93	0.62
1 month after listing	-5.51	0.92
3 months after listing	-11.99	0.61
6 months after listing	-10.45	-0.31

The overall returns obtained from the IPOs are shown in the Exhibit 1.3. The Returns calculated are the Raw Returns taken on the Listing day, 1 month after listing, 3 months after listing and 6 months after the listing day so as to analyze the price performance of the IPOs in the short run. These returns are in turn compared with that of the market returns, which are calculated by taking in to consideration the S&P CNX Nifty Index for exactly the same time span.

Exhibit-1.4: Comparison of R_Ret. and MR_Ret.



In the Exhibit -1.4 we can see that the R_Ret. are positive and quite high on the listing day, which indicates that the investors who purchased the shares on the offer date earned high returns from holding the shares of the IPO on the first day of trading of the shares. However, over the period the returns have turned negative which indicates the amount of loss that the investors holding the shares have faced at different time intervals of holding the shares. Also the MR_Ret. are not showing so much variation as the R_Ret are. The MR_Ret. on the listing day is positive and remains positive until 3 months, followed by the declining trend of the market returns which show negative returns for the period of 6 months from the date of the listing. The above analysis supports the existence of significant overpricing in Indian IPOs market.

Exhibit-1.5: Max. and Min. R_Ret. and MR_Ret.

Time frame	N	Max R_Ret.	Max MR_Ret.	Min R_Ret.	Min MR_Ret.
On listing day	150	240.96	23.63	-92.39	-16.04
1 month after listing	150	89.38	23.05	-83.51	-21.96
3 months after listing	150	155.80	57.45	-79.18	-33.58
6 months after listing	150	143.32	79.64	-91.01	-46.98

The maximum R_Ret. from the IPOs that an investor can earn on the listing day is 240.96% whereas the minimum loss is -92.39%. These figures indicate the wide range and scope of the profits as well as losses. The higher end for the R_Ret. is as high as 10 times the market raw returns on the listing day. Similarly we can observe that the raw returns are approximately 4 times, 2.7 times, 2 times the market raw returns after 1 month, 3 month and 6 months after the listing day respectively.

Exhibit-1.6: Comparison of Max. and Min. R-Ret and MR_Ret

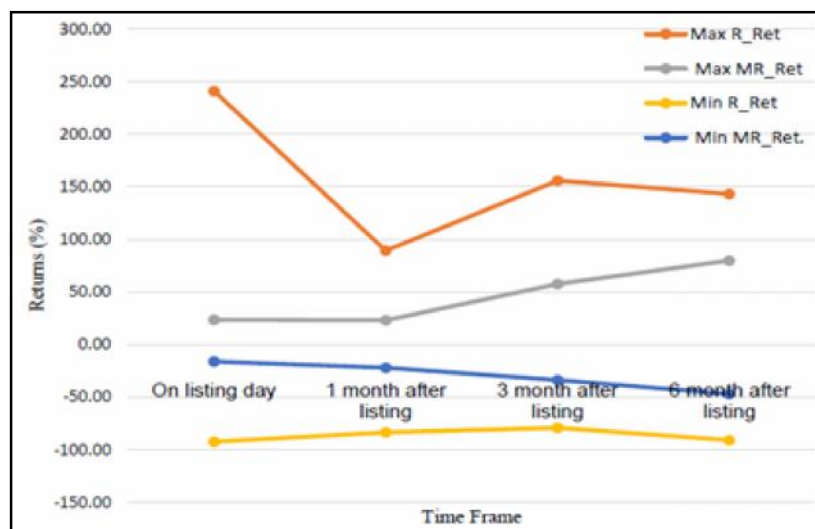


Exhibit -1.6 indicate the amount an investor can earn from an IPO on the listing day and various other time intervals. Whereas the maximum amount of loss an investor would have to incur is different from that of the market loss, which is evident from the above Exhibit lines of Min R_Ret. and Min MR_Ret. in the Exhibits shown.

Exhibit -1.7: Values of Ann. R_Ret. and MR_Ret.

Time frame	N	Ann. R_Ret.	Max Ann. R_Ret	Min Ann. R_Ret.	Ann. MR_Ret.	Max Ann. MR_Ret	Min Ann. MR_Ret.
On listing day	150	315.74	4188.19	-2408.62	13.27	261.83	-293.93
1 month after listing	150	-101.47	-101.47	-1478.92	13.58	400.59	-486.28
3 months after listing	150	-216.27	4061.96	-2322.69	1.73	998.57	-557.07
6 months after listing	150	-183.95	2770.00	-2466.12	-17.11	1384.18	-800.17

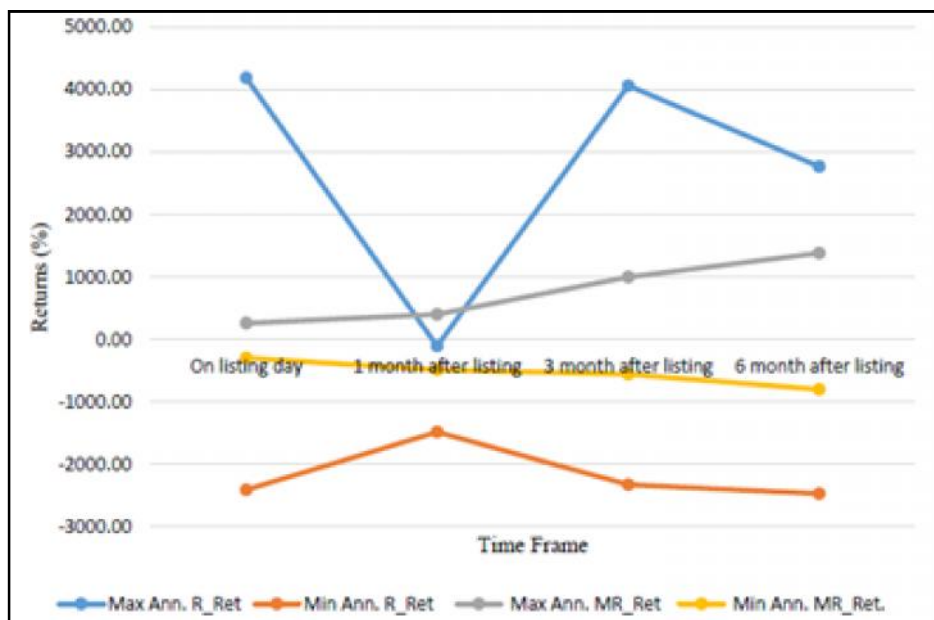
In order to compare the returns, the annualized raw returns of both, for the IPOs and the market have been calculated. The inclusion of this factor provides a nullifying effect of the time taken or varying number of days taken by the companies for getting their stocks listed. Thus annualized raw returns provide a better picture of the price performance of the IPOs and the phenomenon of IPOs.

In Exhibit 1.8 and Exhibit 1.9 we can clearly see the difference in the annualized raw returns of the IPOs and that of the market on the listing day and their decline thereof. On the listing day there is a major difference of the annualized raw returns over the annualized market raw returns.

Exhibit-1.8: Comparison of Ann. R_Ret. and Ann. MR_Ret.



Exhibit -1.9: Comparison between Max. Ann. R_Ret. and Min. Ann. MR_Ret.



The Exhibit-1.9 supports the phenomenon of excessively high annualized returns in the short run as well as the excessive loss possibilities, which are way more than the normal market loss. MAER or Market Adjusted Excess Returns and Ann. MAER clearly define the excessive amount of returns that an investor enjoys over and above the market returns. Moreover when we consider Annualized MAER, the effect of the varying listing delay gets nullified and the phenomenon of overpricing reflects itself in the true manner. It is quite clear from the Exhibit 1.10 and the Exhibit 1.11 that when we take Ann. MAER, it surpasses the MAER which indicates the scope of overpricing present in the market.

Exhibit -1.10: Values of MAER and Ann. MAER

Time frame	N	MAER	Max MAER	Min MAER	Ann. MAER	Max Ann. MAER	Min Ann. MAER
On listing day	150	17.31	241.91	-85.63	302.48	4204.55	-2232.54
1 month after listing	150	-6.43	96.02	-101.22	-115.05	2920.63	-1759.37
3 months after listing	150	15.46	158.36	-135.27	259.76	4128.77	-2351.06
6 months after listing	150	-10.14	129.67	-109.32	-166.84	2985.06	-2175.89

Exhibit -1.11: Comparison MAER and Ann. MAER



WEALTH RELATIVE (INDEX)

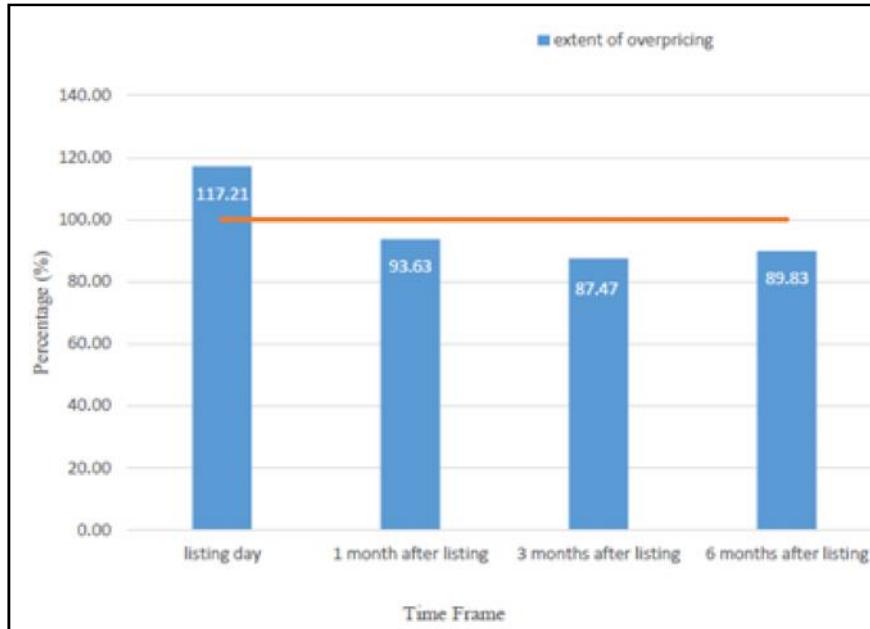
Wealth Relatives is an efficient measure to evaluate short run under pricing of IPOs. In Exhibit 1.12 the values for the wealth relative index have been compared with the unity. The value greater than unity shows that the IPOs have been underpriced, this can be seen on the initial day due to oversubscription for the issue. In the case of the sample taken for the study, the values are lesser than one at all intervals except the listing day which implies that overpricing has been discovered in the short run. The phenomenon of overpricing has merged in the short run till six months from one month onwards.

Exhibit-1.12: Wealth Relative



Exhibit 1.13 shows the percentage values of the extent of overpricing and it is evident that the IPOs generated 117.21% returns on the first day of listing. Thereafter, they tended to decline and turned negative and ended up giving losses to the investors in the short run time period. What is worth noticing is that the returns have remained negative which indicates that the investors have lost their wealth. This measure verifies the high extent of overpricing which was present in the IPO market in the short run.

Exhibit-1.13: Extent of Overpricing



PRICE PERFORMANCE OF IPOs : LONG RUN ANALYSIS

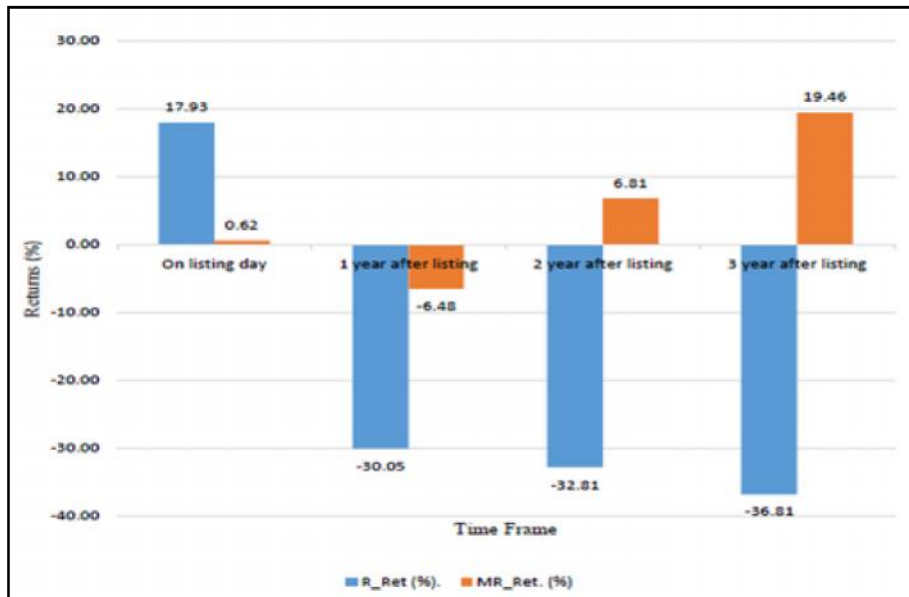
Generally, the investor envisages, what would be his return after 1 year, or 2 years or 3 years or in subsequent years if he invests his money today in a certain investment avenue. Initial public offerings are an interesting investment opportunity which generally ensures positive return in the short run. But is it the same when it comes to the long run...? Or do the IPOs end up being unprofitable to the investors? To answer these questions let us analyze the long run price performance of the Indian IPOs, which is presented below.

The overall returns obtained from the IPOs are shown in Exhibit 1.14. The returns, thus calculated are the raw returns taken on the listing day, one year after the day of listing, two years after the day of listing and three years after the day of listing, in order to analyze the price performance of the IPOs in the long run. These returns are in turn compared with that of the market returns, which are calculated by taking into considerations the S&P CNX Nifty Index so as to represent the market behavior during the same time intervals.

Exhibit -1.14: Returns for Long Run

Time frame	R_Ret (%)	MR_Ret. (%)
On listing day	17.93	0.62
1 year after listing	-30.05	-6.48
2 years after listing	-32.81	6.81
3 years after listing	-36.81	19.46

Exhibit -1.15: Comparison of R_Ret. and MR_Ret.



It is generally noticed that in the equity market the IPOs would come to their intrinsic value in the long run but at the same time there are various other factors that play an important role, such as market sentiments of the considered time period, global market trend etc. In my study there are 150 IPOs for the purpose of analyzing their price performance in the long run. It is evident from Exhibit 1.15 that, the IPOs are still underperforming and hence there is overpricing still present even in the long run. The market returns are negative in the initial phase, but the returns have turned positive in the long run. However the same trend is not observed with regards to the IPO performance.

Exhibit-1.16: Comparison between Max and Min. R_Ret. and MR_Ret.

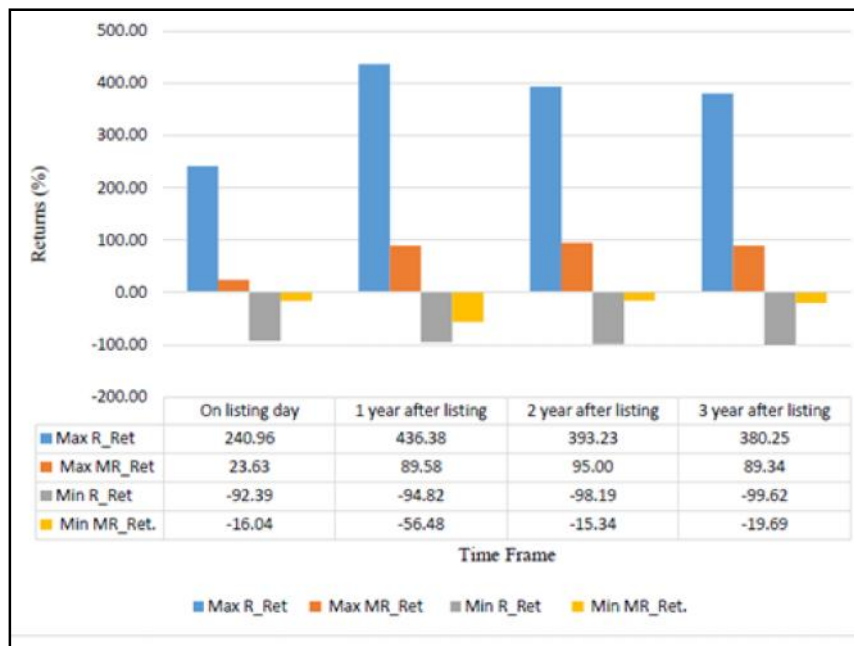


Exhibit-1.16 explain the comparison of Max. and Min. R_Ret. and MR_Ret. It can be seen that maximum raw returns are very high compared to the maximum market returns. This trend is also observed with regards to the minimum raw returns which are very high compared to the market returns. Ann. R_Ret. represents the raw returns being annualized in effect to nullify the impact of time taken by an IPO for getting listed on the stock exchange. While the Ann. MR_Ret. shows the annualized raw returns for the same time period of the market so as to provide a comparable benchmark. When we compare the annualized raw returns with the annualized market raw returns we can ascertain whether the IPO has given investor a better return or not, for the considered time period in the same regulatory framework and market sentiments.

Exhibit-1.17: Ann. R-Ret and Ann. MR_Ret

Time frame	N	Ann. R_Ret.	Max Ann. R_Ret	Min Ann. R_Ret	Ann. MR_Ret.	Max Ann. MR_Ret	Min Ann. MR_Ret.
On listing day	150	315.74	4188.19	-2408.62	13.27	261.83	-293.93
1 year after listing	150	-526.33	13273.30	-2529.44	-123.78	1556.91	-1183.46
2 year after listing	150	-594.55	7554.24	-2642.35	123.36	1651.12	-296.13
3 year after listing	150	-671.83	7304.78	-2578.09	392.13	2229.05	-713.60

Exhibit-1.18: Comparison between Ann. R_Ret. and Ann. MR_Ret



Exhibit -1.17 along with Exhibit -1.18 depicts that an investor remains in the loss even after holding the equities for 3 years. The market returns show a positive trend in the long run however; this trend has not been observed in the annualized raw returns. It can be observed that the Ann. R_Ret. have declined significantly as compared to the annualized market raw returns. The maximum and minimum Ann. R_Ret shows the range of the data i.e. what can be the highest data range and the lowest data range. Moreover it also depicts by how many times a market can jump up to its higher end and slope down towards its lower end and also the highest and lowest IPOs returns. In Exhibit 1.18 it is clear that, an investor can enjoy high R_Ret. as compared to the market returns provided he has invested in the right IPO.

Exhibit-1.19: Maximum and Minimum Annualized R_Ret. and MR_Ret.



Comparison of MAER and Ann. MAER

By comparing the MAER and Ann. MAER it can be explained how much an investor can earn from the market. By taking the Ann. MAER, the effect of the listing delays can be nullified and so overpricing can be shown more clearly.

Exhibit-1.20 Values of MAER and Ann. MAER

Time frame	N	MAER	Max MAER	Min MAER	Ann. MAER	Max Ann. MAER	Min Ann. MAER
On listing day	150	17.31	241.91	-85.63	302.48	4202.55	-2232.54
1 year after listing	150	-23.57	426.68	-114.80	-402.56	12978.21	-2251.06
2 year after listing	150	-39.62	383.99	-152.78	-717.92	7376.60	-2749.37
3 year after listing	150	-56.26	352.02	-175.98	-1063.96	6762.45	-4051.85

Exhibit-1.21: MAER and Ann. MAER

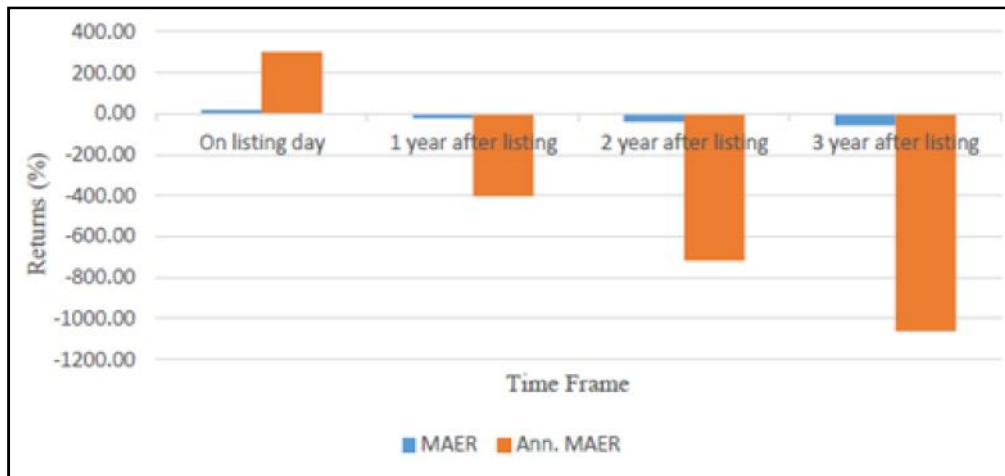
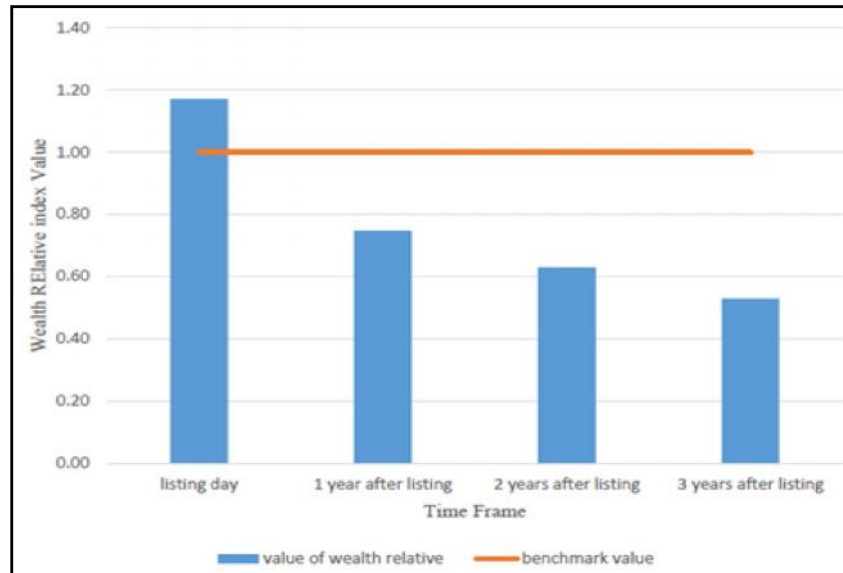


Exhibit -1.21 clearly indicates the overpricing present in the market.

WEALTH RELATIVE (INDEX) : It shows the extent of overpricing present in the market.

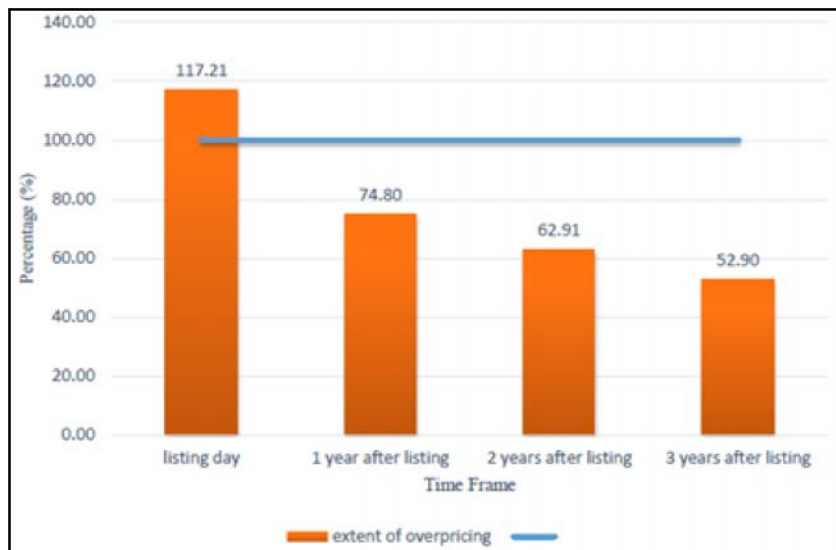
Exhibit -1.22: Wealth Relative



Wealth Relative

Exhibit 1.22 indicates the values for the wealth relative index which have been compared with the unity. The value greater than unity shows that the IPOs have been underpriced, this can be seen on the initial day due to oversubscription for the issue. In the case of the sample taken for the study, the values are lesser than one at all intervals except the listing day which implies that overpricing has been discovered in the short run. The phenomenon of overpricing has merged in the short run till six months from one month onwards. Exhibit 1.23 shows the percentage values of the extent of overpricing and it is evident that the IPOs generated 117.21% returns on the first day of listing. Thereafter, they tended to decline and turned negative and ended up giving losses to the investors in the long run. The returns have remained negative which indicates that the investors have lost their wealth in the long run as well. This measure verifies the high extent of overpricing which is present in the IPO market in the long run.

Exhibit-1.23: Extent of Overpricing



CONCLUSION

This study documents that overpricing exists in IPOs listed on NSE in the short as well as long run. The purpose behind assessing the IPOs is to assist the investors in taking a decision about investing in an IPO. The short and long run performance of the IPOs is measured using Average Raw Returns; Market adjusted raw returns as well as Wealth Relative. Our results show that overpricing is present in the short as well as long run. But, is more severe in the long run periods i.e. from the listing day to the three years after the listing. However, in the short run the IPO tends to earn very high returns on the day of listing which are over and above the market returns. The difference between the extents of overpricing in the two time intervals is substantial. It shows that if an investor buys and holds the equities, how much he is going to lose over the considered period of time. These findings support the present scenario of decreasing number of IPOs. The overpricing present in the period of study could be the cause of the sluggish market trend. The investors need to understand that a high grading does not ensure high returns. The issuer companies also need to resist the temptation to go for aggressive pricing. If the investor continues to lose money by investing in an IPO, it will be a death nail for already fragile primary market.

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