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Underpricing of Ipo with Special Reference to Ipos with Green Shoe Option In India

KEYWORDS: Underpricing, Over allotment, Market stabilisation

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ABSTRACT *It is observed that IPO through Book Building method in India turns out to be overpriced or underpriced after their on the stock exchange. This puts investors to loose their earnings in the IPO. Market stabilization or Green Shoe Option is a mechanism by which stabilizing agent acts on behalf of the issuer company, buys a newly issued security for the purpose of preventing a decline in the new security's market price in order to facilitate its distribution to the public. This can save investors from potential loss. This paper is an attempt to determine the effectiveness of Over Allotment Option in the IPOs and its effect on the performance in short run and long run. The purpose is to evaluate the post-issue share price performance of IPOs with Green Shoe Option issued and listed on NSE, Mumbai, during the period 2004 to 2014.*

INTRODUCTION

Investors invest in an initial public offering (IPO) to earn higher returns. But high volatility is observed in the stock market after the shares are listed on IPO. Such volatility is harms the confidence of the investor, towards the issuer company as well as capital markets. Hence , a price stabilization mechanism is required. One of such mechanisms is the Green Shoe Option (GSO). Introduced in 2003, Green Shoe Option is an overallotment mechanism permitted by the Securities and Exchange Board of India (SEBI) for stabilizing the prices of newly-listed shares of companies immediately after listing. In it, the company issuing shares overallots its shares to investors participating in the issue, with a view to have the merchant banker buy them back from the open market after listing, in order to prevent fall in the share prices below the issue price.

OBJECTIVES OF THE STUDY

- To study the over allotment mechanism in India
- To evaluate the long run and short run after-market price performance of IPOs with Green shoe option in India

SAMPLE SIZE

This study includes only those Initial Public Offers which has Green Shoe Option in it and is limited to Indian IPOs for a period from 2004 , when GSO was introduced in India to 2015.

Table 1 :Description of the Sample of IPOs and Sample Selection Criterion

Total number of IPOs offered during the Period	573
IPOs with Green Shoe Option in the Period	22
Exclusion number of IPOs missing or incomplete after-market price data	2
Remaining	20
Exclusion number of IPOs missing financial and other issue specific information	4
Remaining total number of IPOs eligible for study	16
Percentage of IPOs with Green Shoe Option in the period	3.84%

DATA SOURCES

The study is carried out mainly from the Secondary Sources of Information.The data have been collected from multiple sources such as online databases, including National Stock Exchange (www.nseindia.com), Securities and Exchange Board of India (www.sebi.gov.in) and the Prospectus of Issues for listing and post-listing price information. The firm-specific issue characteristics along with the primary market information are collected from the online database of www.moneycontrol.com

FURTHER SCOPE OF THE STUDY

- To analyse the IPOs with GSO at a global level to get more detailed picture of the effectiveness of the GSOs.
- A comparative of IPOs with GSO that without GSO can also be made

RESEARCH TOOLS

The short-run aftermarket performance of the companies that included GSOs in their IPO programmes was evaluated on the basis of the following parameters:

1. The LDR (Listing Day Return)

LDR = (Pcld / Ip) – 1

where *Pcld* is the price at the close of the listing day; and *Ip* is the price at which shares were issued.

2. The MDR (Mean Daily Return)

MDR = (ln (Pt/Pt-1))

where *Pt* is the closing price of the company's share on each of the trading days during the GSO window period; *Pt-1* is the previous day's closing price; and *n* is the number of trading days during the GSO window period.

3. The market-adjusted mean daily return (MAMDR)

MAMDR = 1/n ∑((1+Rit)/(1+Rmt)-1)

where Rit is the daily log return of company *i* at time *t*; *R*mt is the daily log return of the S&P CNX Nifty at time *t*; and *n* is the number of trading days in the GSO window period

4. The Market Adjusted Abnormal Returns (MAAR)

$$MAAR_{it} = \left[\frac{(1+R_{it})}{(1+R_{mt})} - 1\right]$$

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*100

Where, MAAR is the market-adjusted abnormal rate of return for the stock i on day 1,

R_{i1} reflects the percentage change in list price vis-à-vis offer price.

R_{m1} is calculated as the percentage change in closing market index value on the listing day to market index on the date of closure of issue

The long-run aftermarket performance of the companies that included GSOs in their IPO programmes was evaluated on the basis of the following parameters:

1. Wealth Relatives
We calculate the wealth relatives for different time periods, i.e.,at one month, six months, 12 months, 24 months time from the listing day.

$$WR_{it} = \frac{1+\frac{1}{N}\sum_{i=1}^{N} R_{it}}{1+\frac{1}{N}\sum_{i=1}^{N} R_{mt}}$$

Where, Rit is the return of the individual IPO stocks i on day t from the offer day;

Rmt is the market index return for Nifty for the corresponding time period.

N is the number of trading days in the corresponding time period.

2. Buy-and-hold Abnormal Returns (BHAR)
Market-adjusted BHAR has been computed with reference list price. We calculate the BHAR for different time periods, i.e.,at one month, six months, 12 months, 24 months time from the listing day. The market-adjusted BHAR as the excess return for the IPOs over and above the market return is computed as:

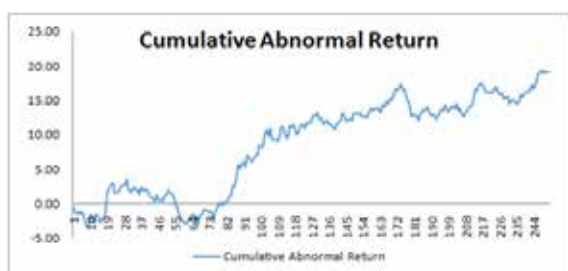
$$BHAR_{iT} = \prod_{t=1}^{T}(1+R_{it}) - \prod_{t=1}^{T}(1+R_{mt})$$

ANALYSIS
Short-run After Market Price Performance
Table 2 : Measures of Short run after market performance

Company	LDR(%)	MAAR(%)	MDR(%)	MAMDR(%)
TCS	16.23	20.71	0.18	-0.16
3i Infotech	-1.90	2.89	0.13	0.07
HT Media	5.06	3.07	-1.28	-1.65
Shree Renuka Sugars	-8.67	-4.30	1.71	1.2
Entertainment Networks	63.40	61.26	-0.87	-1.14
Jagran Prakashan	-15.34	-16.72	0.08	0.09
B.L. Kashyap	42.09	34.53	1.03	0.73
Prime Focus	8.72	16.69	0.38	0.17
Parsvanath Developers	75.47	70.15	-0.65	-0.68
Cairn India	-14.13	-14.62	0.05	-0.27
Idea Cellular	14.27	27.43	0.57	0.4
HDIL	11.87	5.50	-0.46	-0.04
Omaxe	12.69	16.86	-0.23	-0.36
Brigade Enterprise	8.54	7.12	-1.64	-0.98
Indiabulls	-12.22	-4.82	-0.91	-1.23
Electrosteel Steels	2.27	0.69	-0.04	-0.16

Table 2 presents LDRs, the MAAR, the MDRs, and the MAMDRs of the 16 companies that included GSOs in their IPO programmes in India. Five of these companies posted a negative return on the listing day; even after the LDRs were adjusted for market returns ie MAAR, four companies' had negative MAAR. The MDRs of 8 of the 16 companies were negative; even after the MDRs were adjusted for market returns, ten of the 16 companies' MAMDRs were negative. This indicates that the average return of these companies' share price were not only below the issue price, but also below the issue price after adjusting their returns for the changes in the market portfolio, i.e., S&P CNX Nifty. With these number of negative returns in the short run, It is evident that IPOs underperform in the short run.

Cumulative Abnormal Return.
Figure 1 : Cumulative Abnormal return



In the above chart Figure 1, X axis represents the number of day from the listing date. Y axis represents the Average CAR for all the 16 IPOs with GSO. It is observant from the Chart that IPOs provides negative abnormal returns in the initial 15 days of event of Issue , low abnormal returns till 3 months period. Later in longer periods of six months, one year provides high abnormal returns.

The cumulative abnormal returns for different event windows are:

Table 3 : Cumulative Abnormal return

Event Window	Cumulative Abnormal return
From 0 to 15	-28.04
From 0 to 30	-5.86
From 0 to 60	17.97
From 0 to 90	18.63
From 0 to 120	289.76
From 0 to 180	1079.24
From 0 to 360	2168.28

Table 3 depicts the sum total of the cumulative abnor-

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mal returns over different periods of 15 days, 1 month, 2 month, 3 months, 4 months, 6 months and one year. Here 0 to 15 represents 0 being the date of listing and 15 represents 15th day from the date of listing and likewise for all event windows.

Negative Cumulative Abnormal Returns are observed for period upto one month. Low abnormal returns are observed for periods upto 3 months and later gradually rising the securities provide high positive returns.

In general, the above analysis suggests that IPOs underperform in the short run and gradually outperforms with the passage of time in the long run.

Long Run After Market Price Performance
Buy and Hold Return (BHAR)
Table 4 :BHAR

Period Post Issue	Mean BHAR
Listing day+ 1 month	-2.09
Listing day + 3 months	-5.95
Listing day +6 months	0.82
Listing day +12 months	0.91
Listing day +24 months	0.93

For periods of 6months, 12 months and 24 months positive BHARs are documented in Table 4. Negative BHARs can be interpreted as IPOs underperforming the market benchmark during the period, while positive BHARs indicate overperformance in relation to the market index. This suggests that there is significant underperformance till 3 months from the listing day which vanishes thereafter.The results also suggest that the investors who are investing in IPOs at a list price must hold these shares beyond 6 months to earn a positive return on it.

Wealth Relatives
Table 5: WR

Period Post Issue	Wealth Relatives
Listing day+ 1 month	0.943
Listing day + 3 months	0.944
Listing day +6 months	0.956
Listing day +12 months	0.992
Listing day +24 months	1.043

Table 5 reports 24 months' wealth relatives for th 16 IPOs with GSO issued during the period 2004-2013 in the Indian IPO market. The period of study taken for estimation of wealth relatives includes one month, six months, twelve months, and twenty four months from the date of listing.

An increasing trend in the WRs starting from one month to twenty four months from the date of listing is observed in the table. The WRs of more than one indicates better performance for IPOs over the market index, while a value of less than one indicates underperformance for the portfolio of IPOs. Our findings suggest that the IPOs underperform up to 12 months from the date of listing and thereafter in the longer period (more than12 months), positive returns can be expected.

FINDINGS AND IMPLICATIONS

This project report contains the detailed information about the research carried out for studying the aftermarket pricing performance of 16 IPOs with Green Shoe Option in Indian Market for the period 2004- 2014. The results evidence that 5 of 16 companies posted a negative return on the listing day; even after the LDRs were adjusted for market returns ie MAAR, four companies' had negative MAAR. The MDRs of 8 of the 16 companies were negative; even after the MDRs were adjusted for market returns, ten of the 16 companies' MAMDRs were negative. Of the 16 companies that did included GSOs, the aftermarket closing price of 10 companies went below the issue price during the GSO window period. Negative Cumulative Abnormal Returns are observed for period upto one month. Low abnormal returns are observed for periods upto 3 months and later gradually rising the securities provide high positive returns.

In a nutshell, the analysis and results evidence that the underperformance is most pronounced during the initial year of trading, i.e., up to 12 months from the listing date followed by over–performance. So, it is desirable for an investor to hold the securities for a longer period of one year to earn positive returns.

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