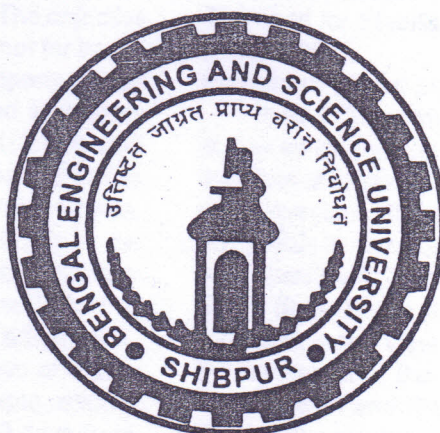


# The Vision

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## GREEN SHOE OPTION AND IPO PRICE MOVEMENTS

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### Abstract

*The SEBI has introduced Green Shoe Option (GSO), a new phenomenon for Indian investors. A company making IPO through the Book Building Mechanism can hold the GSO. The aim of GSO is to create a safety net for investors who participate in the IPO of a company. The objective of this study is to analyse the impact of IPO price movements during Green Shoe Option period. In order to evaluate the impact of GSO on IPO price movements, Abnormal Returns and Cumulative Abnormal Returns have been used. It is found from the analysis that the share price of few sample companies has been stabilised by the stabilizing agent and SA has been actively participating in the market to bring the offer price above the issue price. The study also found that the IPO prices of refinery sector were stabilised during GSO period. It is unfortunate that Indian companies do not still widely adopt GSO.*

In August 2003, the SEBI introduced Green Shoe Option (GSO), a new phenomenon for Indian investors. A company making IPO through the Book Building Mechanism can hold the GSO. The objective of introducing GSO is to create a safety net for investors who participate in the IPO of a company. In this system, one of the Book Running Lead Managers (BRLM) is appointed as a Stabilizing Agent (SA), whose prime responsibility is to intervene when the share price falls below the issue price. The SA enters into an agreement with the issuer company, clearly stating all the terms and conditions relating to this option including fee charged/expenses to be incurred by the SA for this purpose. The SA also opens an account with a bank, called "Special Account for GSO proceeds of a particular company". The maximum period upto which a BRLM can act as a stabilizing agent is 30 days from the listing date.

Due to the additional supply of shares, the market price may not move to a higher level. However, if the market price of the share goes below the issue price, the SA can buy shares from the market, to which extent prices get stabilized. If despite excess supply of shares, the stock price continues to be stronger than the issuer price, there is no question of buying the shares from the market, as that will further aggravate the market price. On the expiry of the stabilization period, in case the SA does not buy shares from the market to the extent of shares over-allotted by the issuer, the issuer company will allot shares in dematerialized form, to make good the shortfall. For example, if the issue prices was Rs.10 and on next day trading opened at Rs.13, this suggests that there was a demand for the shares, and people are willing to pay a

higher price. On the contrary, if the price decreases to Rs.9, this shows that there was low demand for the shares and people are not willing to buy the shares. The need for Stabilising Agent arises to stabilise the prices of IPO.

### Statement of the problem:

In an efficient market, if the prices of IPO are set at their intrinsic value, the firm may be able to raise the quantum of funds as it planned. To protect the interest of the investors, SEBI has introduced Green Shoe Option (GSO) to stabilize the price of the particular company shares upto 30 days. As far as India is concerned, Green Shoe Option (GSO) is new. Hence all the persons concerned view this GSO reservation. Against this background, the present study entitled- **Green Shoe Option and IPO price movements.**

### Need of the study:

To know whether the price of the shares are stabilized during the over allotment period and also to avoid the mispricing between the issue price and offer price, there arises a need to study the Green Shoe Option and the reaction of IPO price movements.

### Objective of the study:

The objective of this study is to analyse the impact of IPO price movements during the Green Shoe Option period and to summarise the findings of the study.

### Period of the study:

The period of the present study covers 1st January 2004 to 1st January 2005.

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### Sample size:

The aim of this study is to cover all companies which have undergone IPOs through Green Shoe Option. There are 80 companies, which have is-

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sued IPOs during the study period. However for the purpose of this study, only 10 companies given below have been selected as sample population.

### Sources of data :

The required data were collected from the website such as [www.bseindia.com](http://www.bseindia.com), [www.sebigov.in](http://www.sebigov.in), Journals and PROWESS DATABASE (2004-20050) of CMIE.

List of Sample Companies			
SL NO.	NAME OF THE COMPANY	IPO DATE	GSO DATE
<b>Refinery Sector</b>			
1.	Indian Bharath petroleum	23 /02/2004	06/04/2004
2.	Oil and Natural Gas Corporation	12/3/2004	27/04/2004
3.	Indian Petrochemicals Corporation	27/02/2004	13/04/2004
4.	Gas Authority of India Ltd	5/3/2004	09/04/2004
<b>Information Sector</b>			
5.	Tata Consultancy Service	25/08/2004	06/10/2004
6.	Datamatics technologies Ltd	7/5/2004	18/06/2004
7.	CMC Ltd	1/3/2004	15/04/2004
8.	Patni Computer System	25/02/2004	08/04/2004
9.	Four soft Lt	12/3/2004	27/04/2004
<b>Entertainment Sector</b>			
10.	New Delhi Television Network	19/05/2004	13/06/2004

**Note:** GSO period of 30 days excludes holidays of stock exchanges.

### **Tools used for analysis:**

In order to analyse the share price of IPO for 30 days (GSO Period), tools like Abnormal Returns (AR) and Cumulative Abnormal Returns (CAR) were used.

a) The Abnormal Returns is calculated by using the following formula to know the magnitude of change.

$$ARI, t = R_{i, t} - R_{m, t}$$

Where,

$R_{i, t}$  - Returns on  $i$ th stock for " $t$ " th day

$R_{m, t}$  - Returns on market index for " $t$ " th day

b) The Cumulative Abnormal Returns shows the relationship between the magnitude of earnings change and the magnitude of price change. It also shows the direction (positive or negative) in the stock price change given the direction of earnings change. The CAR is calculated as follows:

$$CAR_T = \sum_{t=0}^T AR_t$$

Where,

$CAR_T$  = Cumulative Abnormal Returns for  $T$ th Period

$AR_t$  = Abnormal Returns at time " $t$ " which is calculated using above equation.

### **Analysing the IPO Price Movements during Green Shoe Option Period**

As stated earlier, in order to evaluate the impact of GSO on IPO price movements, Abnormal Returns and Cumulative Abnormal Returns have been used. The more negative value indicates that it is irrelevant to adopt Green Shoe Option (GSO) and the positive value shows that the issue prices are stabilized. The analysis is given as follows.

- Analysis of Refinery Sector during Green Shoe Option period
- Analysis of Information and Technology Sector during Green Shoe Option period
- Analysis of Entertainment Sector during Green Shoe Option period.

#### **a) Analysis of Refinery Sector during Green Shoe Option period:**

Table -1 shows the closing prices, Abnormal Returns (AR) and Cumulative Abnormal Returns (CAR) for sample companies of refinery sector during Green Shoe Option period. Under refinery sector, there are four companies, namely, Indian Bharath Petroleum, Oil and Natural Gas Ltd, Indian Petrochemicals Corporation and Gas Authority of India Ltd. The IBP issued

IPO on 23<sup>rd</sup> February 2004 and the issue price of ten rupee shares was Rs.620.00. The offer price of IPO in the market ranged from Rs.683.50 to Rs.529.40 and the abnormal returns for IBP was -1.94 on 1<sup>st</sup> day and further it decreased to -0.31 on 2<sup>nd</sup> day. On 3<sup>rd</sup> day, the positive returns of 0.14 was recorded. The return on 9<sup>th</sup> day was 0.66 and it further increased to 1.18 on 11<sup>th</sup> day. It is important to note that negative returns were registered in almost all the days of GSO period. Hence there was a need for the Stabilizing Agent to stabilise the IPO price in the market. It is worth noting that the value of CAR from 1<sup>st</sup> day to 30<sup>th</sup> day decreased. In spite of the interference by the Stabilizing Agent, there was no positive returns during Green Shoe Option Period. The reasons for under pricing of new issue of IPO of IBP may be due to poor demand for shares in the market, nil dividend and higher fluctuations of offer price of new issue of IPO by IBP etc,

On 12<sup>th</sup> March 2004, OIL and NATURAL GAS CORPORATION came with an IPO and fixed a issue price for ten rupee share at Rs.750.00. The offer price of IPO by the investors ranged from Rs.750 to Rs.887.45 respectively. ONGC earned abnormal returns of 1.54 on 1<sup>st</sup> day and it continued to show a positive value till 4<sup>th</sup> day. The returns on 5<sup>th</sup> day was negative (-0.71). On 19<sup>th</sup> and 30<sup>th</sup> day, the returns were 0.48 and 1.28 respectively. From 1<sup>st</sup> day to 30<sup>th</sup> day, the CAR value was increasing except on 5<sup>th</sup> day. The reasons for overpricing of shares may be that ONGC is a public sector. Usually the Indian investors thought that investing their money in public limited companies is safer than investing in private companies. Thus there was an increase in returns.

Another public sector company namely INDIAN PETROCHEMICALS CORPORATION came out with an IPO on 27<sup>th</sup> February 2004 and fixed the issue price at Rs.170.00. The offer price of IPO ranged from Rs.170 to Rs.225.35 during GSO period. The abnormal returns was -4.98 on 1<sup>st</sup> day and it increased to 10.28 on 2<sup>nd</sup> day. On 27<sup>th</sup> and 30<sup>th</sup> day, the returns showed positive value. The analysis of CAR showed a general trend that offer price was above the issue price during the Green Shoe Option Period except on 22<sup>nd</sup> and 23<sup>rd</sup> day. The reasons for over pricing of shares of IPC may be due to the fact that the good performance of IPCL and more demand for the shares etc and therefore so the services of the Stabilizing Agent were not required to stabilise the IPO price in the market.

GAS AUTHORITY OF INDIA LTD came with an IPO on 5<sup>th</sup> March 2004 and quoted a issue price of ten rupee shares at Rs.195.00. The offer price of IPO during the study period ranged from Rs.195.00 to Rs.240.05. The abnormal returns for GAIL was 6.26 on 1<sup>st</sup> day and further it decreased to 3.23 on 2<sup>nd</sup> day. On 3<sup>rd</sup> day, there was negative returns (i.e.-1.96) and it decreased to -1.99 on 8<sup>th</sup> day. There was positive

returns from 27<sup>th</sup> day to 30<sup>th</sup> day. During the study period there was no fall in price, This indicated that the offer price was higher than the issue price. The reasons for over pricing of new issue may be due to more demand for the shares of GAIL in the market. CAR analysis shows that on the 1<sup>st</sup> day, the returns was 6.26 which increased to 11.73 on 3<sup>rd</sup> day and later it decreased to 4.25 on 8<sup>th</sup> day. Again the returns decreased to 8.63 on the 30<sup>th</sup> day with wide fluctuations. It is important to note that the positive returns were registered for all the days of the study period. The Stabilizing Agent under GSO did not played any role to stabilise the price, as there was no need.

From the overall analysis, it is clearly understood that the sample companies like Oil and Natural Gas Ltd, Indian Petrochemicals Corporation and Gas Authority of India Ltd benefited under GSO in stabilising the IPO price in the market. The other company, namely, Indian Bharath Petroleum was not able to stabilise the price during GSO period, in spite of the intervention of SA.

#### **b) Analysis of Information and Technology Sector during the Green Shoe Option period:**

Table-2 exhibits the closing prices, Abnormal Returns (AR) and Cumulative Abnormal Returns (CAR) for sample companies of Information and Technology Sector during the Green Shoe Option period. The IT sector includes Tata Consultancy Services, Datamatics Technologies Ltd, CMC Ltd, Patni Software Ltd and Four Soft Ltd. TCS issued IPO on 25<sup>th</sup> August 2004 and the issue price of IPO was Rs.987.50. The offer price for TCS ranged from Rs.987.50 to Rs.1080.20. The abnormal returns for TCS was -1.83 on 1<sup>st</sup> day and further it increased to -0.31 on 2<sup>nd</sup> day. On 3<sup>rd</sup> and 4<sup>th</sup> day there was positive returns i.e. 1.13 and 0.06 respectively. The returns on 9<sup>th</sup> day was -0.32. From 27<sup>th</sup> day to 30<sup>th</sup> day, the returns were positive. The CAR for TCS was decreasing from 1<sup>st</sup> to 30<sup>th</sup> day during the Green Shoe Option Period. The reasons for under pricing may be due to fluctuations in the share price in the market and the fixation of high offer price. So there was need for the intervention of the Stabilizing Agent in the market to stabilise the price. It is important to note that as a result of intervention of SA in the market, the offer price during second half of the study period was above the issue price.

DATAMATICS TECHNOLOGIES a private company, came out with an IPO on 7<sup>th</sup> May 2004 and it quoted a price band of Rs.164.85. The offer price ranged between Rs.143.2 to Rs.164.85 and the abnormal returns for the company was -3.48 on the 1<sup>st</sup> day and further it increased to 6.67 on 3<sup>rd</sup> day and showed positive returns. The returns on 9<sup>th</sup> day was -0.93 and it increased to 7.49 on 11<sup>th</sup> day. On 30<sup>th</sup> day the returns

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#### **Suggestions of this study:**

The following are the important suggestions of this study.

- i) Every company should adopt Green Shoe Option to safeguard the interests of the investors in the IPO market.
- ii) The Book Running Lead Manager (BRLM) should give due care and importance to stabilise the IPO price.
- iii) The Stabilising Agent should concentrate more on Information and Technology Sector to discourage the under pricing of shares.

#### **Conclusion**

The pricing of Initial Public Offering is a challenging task to the issuers, merchant bankers and also to the investors. The level of under pricing of IPOs in India is common. To avoid a gap between the issue price and initial public offering price, SEBI has introduced the Green Shoe Option to act as a stabilizing mechanism and serve as a remedy for mispricing. It not only helps companies to get a better price for the shares but also helps investors to gain confidence that

they will be protected, at least to some extent, in case of fall in price of the shares after issue in the market. From the analysis it is clear that the share price has been stabilised by the Stabilizing Agent and SA has been actively participating in the market to bring the offer price above the issue price level. It is unfortunate that Indian companies do not still widely adopt GSO, which goes for public issue, while it remains very popular in USA.

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