

IMPACT OF BONUS ISSUE ON SHARE PRICES- AN EMPIRICAL STUDY

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A good volume of bonus issues were made during the period 1991-2010. There have been many significant changes in the policies related to the bonus issues by a company after the setting up of the SEBI in 1992. This is a critical study to analyse the bonus issue over share prices. The present study covers the bonus issue paid during the period 1991-2010 by the Indian Companies both from the public as well the private sectors. In order to enhance the quality of the study, the data of only top 30 blue chip companies listed on the Bombay Stock Exchange as on 28/04/2011 are considered for the analysis. Out of these 30 companies, 19 companies are found to have made a bonus issue during the said period.

Keywords: Bonus Issues, Behavioural Aspects, Trend Analysis, Return.

I INTRODUCTION

The present paper examine the effect of bonus issues over share prices during the period 1991-2010. An analysis of pre and post bonus issue share prices was made, which revealed that there existed a significant difference between the share prices during pre and post bonus issue period. The effect of bonus issues upon the share prices has always been analyzed by various researchers from time to time. In India, the only significant work in the field was done in 1973 by Prof. L.C.Gupta of the University of Delhi and Dr. S. N. Sharma of the Osmania University, Hyderabad in 1991. Prof. Gupta examined the corporate practices regarding bonus issues and their impact on share prices during 1948-1973. further, Prof. Gupta worked on Rates of Return on Equity in the year 1980-81 and Bonus Policy of Companies in India is characterized by low bonus, irregular intervals and inconsistent policy in the year 1991. Dr. Sharma argues that the bonus share issue has no effect on share value and supported view that the bonus merely signals of higher profits and dividends.

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II RESEARCH METHODOLOGY

The present study covers bonus issues made during 1991-2010 by the Indian Companies both from the public as well the private sectors. The data for the study was collected from the NSE and BSE websites. A total of 1141 bonus issues have been made by 818 Companies during the period under review. In order to enhance the quality of the inference to be concluded, the data of the only top 30 blue chip companies (see Table1) listed on the Bombay Stock Exchange as on 28/04/2011 were considered for the analysis. Out of these 30 companies only 19 companies were found to have made a bonus issue the said period. SPSS technique was used for the analysis.

For the analysis purpose, share prices of these nineteen companies were collected for the period one year before and one year after the bonus announcement date. The data was also collected for one month before and one month after the announcement date. The announcement date was considered as the border line because the real effect of bonus issues on share prices starts taking effect from the announcement date itself. Thus we were having two groups of data for the analysis-

- A **T-365 days** implies the data group for the period of 1 year before the announcement date. It composed of the daily opening and closing price of the particular share for the complete one year period. In order to calculate the per day return on the particular share the following formula was used.

$$R_o = \{(C_o - O_o) / O_o\} * 100$$

Where, R_o = Per day Return for the Bonus Issue Period

C_o = Per day Closing Price for the Pre Bonus Issue Period

O_o = Per day Opening Price for the Pre Bonus Issue Period

In this way, we got per day return for a complete one year and one month period before the bonus announcement date. With the help of these per day returns, the Average Return (A_o) for the pre bonus issue period was determined.

$$A_o = \frac{\sum R_o}{n_o}$$

Where, A_o = Pre Bonus issue average Return

$\sum R_o$ = Sum of Pre Bonus Issue Per day return

n_o = Total no. of Trading Day

B **T+365 days** imply the data group for the period of 1 year after the announcement date. It composed of the daily opening and closing price of the particular share for the complete one year period. In order to calculate the per day return on the particular share the following formula was used.

$$R_i = \{(C_i - O_i) / O_i\} * 100$$

Where, R_i = Per day Return for the Bonus Issue Period

C_i = Per day Closing Price for the Pre Bonus Issue Period

O_i = Per day Opening Price for the Pre Bonus Issue Period

In this way, we got per day return for a complete one year and one month period after the bonus announcement date. With the help of these per day returns, the Average Return (A_i) for the post bonus issue period was determined.

$$A_i = \frac{\sum R_i}{n_i}$$

Where, A_i = Pre Bonus issue average Return

$\sum R_i$ = Sum of Pre Bonus Issue Per day return

n_i = Total no. of Trading Day

In order to find the effect on share prices, the following hypothesis was made:

H_0 : there exists no significance difference between the pre and post average returns

H_1 : there exists significance difference between the pre and post average returns

The Hypothesis was tested with help of T-test at 95% confidence level with a sample size of 19 (less than 30). The T statistics is define as,

$$T = \frac{\bar{x}_1 - \bar{x}_2}{s} \times \sqrt{\frac{n_1 n_2}{n_1 + n_2}}$$

Where, X_1 = Pre Average

X_2 = Post Average

N_1 = Number of Pre Bonus Issues

N_2 = Number of Post Bonus Issues

S = Combined Standard Deviation

Table 1: Top 30 Blue Chip Companies listed on BSE as on 28/04/2011

Code	Name	Sector
532977	Bajaj Auto Limited	Transport Equipments
500103	Bharat Heavy Electricals Ltd.	Capital Goods
532454	Bharti Airtel Ltd.	Telecom
500087	Cipla Ltd.	Healthcare
532868	DLF Ltd.	Housing Related
500010	HDFC	Finance
500180	HDFC Bank Ltd.	Finance
500182	Hero Honda Motors Ltd.	Transport Equipments
500440	Hindalco Industries Ltd.	Metal, Metal Products & Mining
500696	Hindustan Unilever Ltd.	FMCG
532174	ICICI Bank Ltd.	Finance
500209	Infosys Technologies Ltd.	Information Technology
500875	ITC Ltd.	FMCG
532532	Jaiprakash Associates Ltd.	Housing Related
532286	Jindal Steel & Power Ltd.	Metal, Metal Products & Mining
500510	Larsen & Toubro Limited	Capital Goods
500520	Mahindra & Mahindra Ltd.	Transport Equipments
532500	Maruti Suzuki India Ltd.	Transport Equipments
532555	NTPC Ltd.	Power
500312	ONGC Ltd.	Oil & Gas
532712	Reliance Communications Limited	Telecom
500325	Reliance Industries Ltd.	Oil & Gas
500390	Reliance Infrastructure Ltd.	Power
500112	State Bank of India	Finance
500900	Sterlite Industries (India) Ltd.	Metal, Metal Products & Mining
532540	Tata Consultancy Services Limited	Information Technology
500570	Tata Motors Ltd.	Transport Equipments
500400	Tata Power Company Ltd.	Power
500470	Tata Steel Ltd.	Metal, Metal Products & Mining
507685	Wipro Ltd.	Information Technology

Table 1 shows the Top 30 Blue Chip companies listed on BSE as on 28/04/2011. These Top 30 Blue Chip Companies belongs to the various sectors like Transport Equipment, Metal, Finance, Capital Goods, and Telecom etc. There are 11 sectors that stand in the list of Top 30 companies. Out of these 30 Companies maximum 5 companies are related

to the Transport equipment Sector, 4 companies are related to the Finance and Retail Sectors each. 3 companies are related to the Information Technology and Power sectors each.

Table 2: Bonus issue by Top Blue chip companies (Ratio-wise)

Code	Name of the Companies	Ratio - Wise
532977	Bajaj Auto Limited	1:1
500103	Bharat Heavy Electricals Ltd.	1:1
500087	Cipla Ltd.	2:1
500010	HDFC	1:1
500182	Hero Honda Motors Ltd.	1:1
500440	Hindalco Industries Ltd.	1:2
500696	Hindustan Unilever Ltd.	1:2
500209	Infosys Technologies Ltd.	1:1
500875	ITC Ltd.	1:1
532532	Jaiprakash Associates Ltd.	1:2
532286	Jindal Steel & Power Ltd.	5:1
500510	Larsen & Toubro Limited	1:1
500312	ONGC Ltd.	1:2
500325	Reliance Industries Ltd.	1:1
500900	Sterlite Industries (India) Ltd.	1:1
532540	Tata Consultancy Services Limited	1:1
500570	Tata Motors Ltd.	3:5
500470	Tata Steel Ltd.	1:2
507685	Wipro Ltd.	1:1

Table 2 shows the Ratio-Wise distribution of Bonus Issues by Top Blue Chip Companies. It reveals that the bonus ratio 1:1 was most repeatedly used by 11 companies, 1:2 was used by 5 companies and the other ratios were used by 3 companies. One trend is noticeable that the bonus ratio of 1:1 was most preferable by the companies. Companies like Bajaj Auto Ltd, BHEL Ltd, HDFC Ltd, Hero Honda Motors Ltd, TCS Ltd, Wipro Ltd, etc were among those who have made a bonus issue in the ratio 1:1.

Table 3: Bonus Shares Issues by Top Blue Chip Companies Sector- Wise

Code	Name of the Companies	Sector-Wise	Number of times Bonus Issue
532977	Bajaj Auto Limited	Transport Equipments	1
500103	Bharat Heavy Electricals Ltd.	Capital Goods	1
500087	Cipla Ltd.	Healthcare	4
500010	HDFC	Finance	1
500182	Hero Honda Motors Ltd.	Transport Equipments	2
500440	Hindalco Industries Ltd.	Metal, Metal Products & Mining	1
500696	Hindustan Unilever Ltd.	FMCG	1
500209	Infosys Technologies Ltd.	Information Technology	5
500875	ITC Ltd.	FMCG	4
532532	Jaiprakash Associates Ltd.	Housing Related	1
532286	Jindal Steel & Power Ltd.	Metal, Metal Products & Mining	1
500510	Larsen & Toubro Limited	Capital Goods	2
500312	ONGC Ltd.	Oil & Gas	1
500325	Reliance Industries Ltd.	Oil & Gas	2
500900	Sterlite Industries (India) Ltd.	Metal, Metal Products & Mining	4
532540	Tata Consultancy Services Limited	Information Technology	2
500570	Tata Motors Ltd.	Transport Equipments	1
500470	Tata Steel Ltd.	Metal, Metal Products & Mining	1
507685	Wipro Ltd.	Information Technology	6

Source: www.moneycontrol.com

Table 3 shows the bonus issue pattern followed by these 19 companies. Various companies such as Cipla Ltd, Infosys Technologies Ltd, ITC Ltd, etc have made a bonus

issue for more than twice during the aforesaid period whereas companies such as Tata Motors Ltd, Tata Steel Ltd., ONGC Ltd., Jindal Steel & Power Ltd, Bajaj Auto Ltd., etc have made a bonus issue only once during the aforesaid period. Wipro Ltd has made the maximum bonus issues during the period with a total of 6 times and the Infosys Ltd stood second in the list with 5 times bonus issue followed by 4 bonus issues by both Cipla Ltd and Sterlite Industries (India) Ltd.

III QUANTITATIVE ANALYSIS

This section covers the complete analysis of the data consolidated so far. For this purpose, SPSS technique was used. The results of the analysis are explained as below:

Table 4: Pre and Post Bonus Issue Average Return

Code	Name	Pre(T-365)	Post(T+365)
532977	Bajaj Auto Limited	0.307276	-0.16269
500103	Bharat Heavy Electricals Ltd.	0.171437	0.052831
500087	Cipla Ltd.	0.64432	-0.49641
500010	HDFC	-0.01771	0.046514
500182	Hero Honda Motors Ltd.	0.73512	0.276872
500440	Hindalco Industries Ltd.	0.220953	0.021454
500696	Hindustan Unilever Ltd.	0.088738	0.520391
500209	Infosys Technologies Ltd.	0.429602	0.177039
500875	ITC Ltd.	0.286071	-0.46742
532532	Jaiprakash Associates Ltd.	0.73016	-0.21819
532286	Jindal Steel & Power Ltd.	0.28709	-0.24447
500510	Larsen & Toubro Limited	0.291967	0.098261
500312	ONGC Ltd.	0.076475	-0.0399
500325	Reliance Industries Ltd.	0.179578	-0.19427
500900	Sterlite Industries (India) Ltd.	0.932606	-0.21794
500570	Tata Motors Ltd.	0.087109	-0.11245
500470	Tata Steel Ltd.	0.330784	-0.08407
532540	Tata Consultancy Services Limited	0.14145	0.095469
507685	Wipro Ltd.	0.41207	-0.15183

Table 4 represents the consolidated data for both pre and post bonus issue period. Out of these 19 companies, various companies have made bonus issues for than one time during the above mentioned period. It was assumed that for a particular company, every bonus issue made by it will have same effect over its share prices. Thus, for the purpose of analysis only one bonus issue for a company was considered. The pre average and post average was calculated according to the method described before.

T-test for T \pm 365 days

Comparing two means will help in concluding the inference whether there lies any difference between the average return of the two periods i.e., pre and post bonus issue period. With help of T-test this can easily be tested and a better conclusion will come forward when the calculated value of T is less then the tabulated value of T at 95% confidence level the Null Hypothesis is accepted and the Alternate Hypothesis is rejected.

Table 5: T-test, Group statistics

Sample	Period	N	Mean	Std.Deviation	Std.Error Mean
A	Average Pre Bonus Issue	19	.333426	.2588372	.0593813
B	Average Post Bonus Issue	19	-0.57937	.2435336	.0558704

Table 5 shows the mean, standard deviation and standard error mean for both the samples taken for the study, viz; Pre-bonus issue and Post-bonus issue average.

Sample 'A'

Sample 'A' here refers to the Pre Bonus Issue Average where the total No. of observation was 19 (n=19) with a mean of .333426 and a standard deviation of .2588372. The Standard Error mean was .0593813.

Sample 'B'

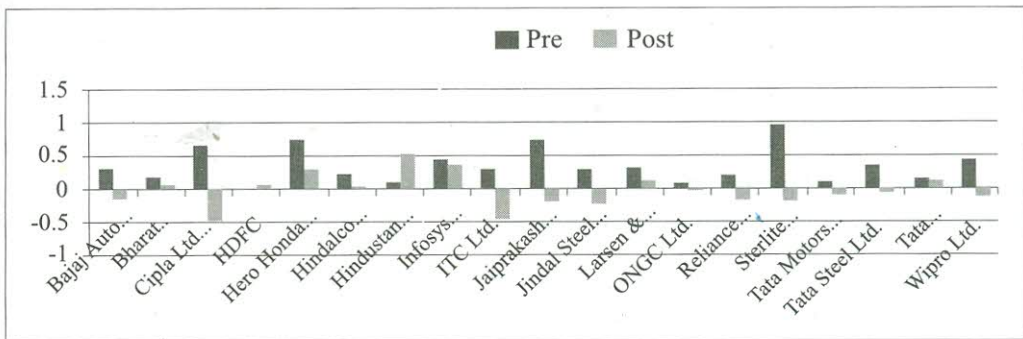
Sample 'B' here refers to the Post Bonus Issue Average where the total no. of observation was 19 (n=19) with a mean of -0.57937 and a Standard Deviation of .2435336. The Standard Error Mean was .0558704.

Table 6: Independent sample Test

	Levene's Test for Equality of variance		T-test for Equality of Means						
	F	Sig.	T	Df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% confidence Interval of the Difference	
								Lower	Upper
Average Equal Variance Assumed	.056	.815	4.800	36	.000	.3913634	.0815331	.2260066	.5567202

Table 6 represents the result of the independent sample test done with the help of SPSS. The mean difference was .3913634 with a Standard Error difference of .0815331.

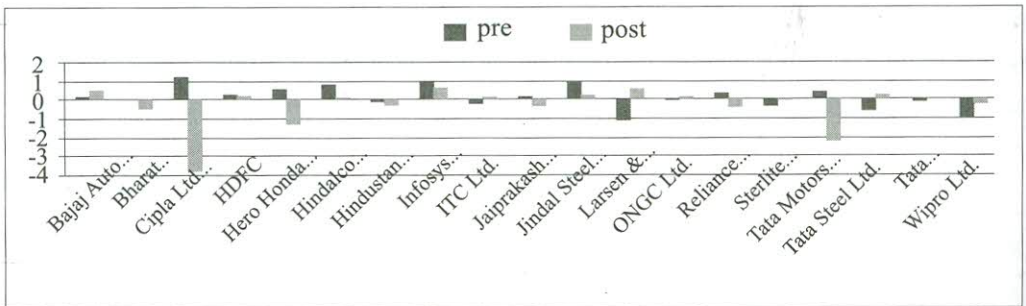
The 95% confidence interval of the difference was 0.2260066 - 0.5567202. The value of T at 95% confidence level and 36 degrees of freedom which was 2.576. Hence the calculated value of T was more than the tabulated value of T at 95% confidence level and 36 degrees of freedom and the Null Hypothesis was rejected. Thus, concluding that there was significance difference between the Pre Bonus Issue Average Return and Post Bonus Issue Average Return of the companies which made the Bonus Issue during the period under review.

Figure 1: Average Annual Return for the Pre and Post Bonus Issue period

The parametric test concluded that there was significant difference between the average return for the pre and post bonus issue period. Figure 1 depicts that the bonus issue have

affected the share prices of all the 19 companies considered for the study ,where the share prices of many companies have been negatively affected there were only two companies HDFC (Hindustan Development Financial Corporation) Ltd and HUL (Hindustan Unilever Limited) whose share prices have been positively affected. HDFC and HUL announced a bonus issue on 17/10/2002 and 30/09/1991 respectively, the average return for the period of one year prior to the announcement date was -0.1771 and 0.088738 respectively as compared to a positive return of 0.046514 and 0.520391 respectively. Bajaj auto Ltd. Announced a bonus issue on 22/07/2010, the average return for the period of one year prior to the announcement date was 0.307276 As compared to a negative return of -0.16269 for the post issue period. It can easily be seen that various companies experienced the same situation as by Bajaj Auto Ltd. The companies who were negatively affected by a bonus issue are BHEL (Bharat Heavy Electricals) Ltd, CIPLA Ltd, Hero Honda Motors Ltd, Hindalco industries ltd, Infosys technologies Ltd, ITC Ltd, Jai Prakash Associates Ltd, Jindal Steel & Power Ltd, Larsen & Toubro Ltd, ONGC Ltd, Reliance Industries Ltd, Sterlite Industries (India) Ltd, TCS (Tata Consultancy Services) Ltd, Tata Motors Ltd, Tata Steel Ltd, and WIPRO Ltd.

Figure 2: Monthly Average return for the Pre and Post Bonus issue period



The parametric test concluded that there was no significant difference between the average return for the one month pre and post bonus issue period. But Figure 2 above displays that there was a difference between the return of both period. Figure 2 depicts that the bonus issue have affected the share prices of all the 19 companies considered for the study ,where the share prices of many companies have been negatively affected there were only four companies Bajaj Auto Ltd, ITC Ltd, ONGC Ltd, Tata Steel and TCS Ltd, whose share prices have been positively affected. Bajaj Auto Ltd, ITC Ltd, ONGC Ltd, Tata Steel Ltd, and TCS Ltd, announced a bonus issue on 22/07/2010, 12/07/1994,

26/07/2006, 07/06/2004 and 17/04/2006 respectively, the average return for the period of one month prior to the announcement date was 0.202537, -0.2085, 0.00048, -0.58871 and -0.13561 respectively as compared to a positive return of 0.528334, 0.170798, 0.184239, 0.208142 and 0.041387 respectively. BHEL Ltd. Announced a bonus issue on 25/01/2007, the average return for the period of one month prior to the announcement date was 0.079523 As compared to a negative return of -0.4981 for the post issue period. It was noticed that various companies experienced the same situation as by Bhel Ltd. The companies who were negatively affected by a bonus issue are CIPLA Ltd, HDFC Ltd, Hero Honda Motors Ltd, Hindalco industries ltd, HUL Ltd, Infosys technologies Ltd, Jai Prakash Associates Ltd, Jindal Steel & Power Ltd, Larsen & Toubro Ltd, Reliance Industries Ltd, Sterlite Industries (India) Ltd, Tata Motors Ltd, and WIPRO Ltd.

IV SUMMING - UP

It was clear from the results that there was a magnificent difference between the pre and post period average returns for the companies. It was also noticed that the effect of bonus issue over the share prices was negative for maximum companies. Just two of the companies benefited from a bonus issue. It can thus be said that the bonus issue was not so fruitful for the investors because they were left with very poor return in the post period as compared to that pre period returns. There were two companies from the FMCG industry and only one company was benefited, viz; Hindustan Unilever Ltd. There was only one company from the finance industry (HDFC) and it was also positively affected by the bonus issue. The major findings of the study were:

1. There was a magnificent change in the average return of the shares of the companies reviewed. The average annual return for the T-365 days was 0.33 and that of the post issue period was -0.04. Thus, the bonus issue led to a negative effect over the return of the shares.
2. The negative average annual return for the post issue period also denotes the negative effect of the bonus issue over the share prices.
3. The bonus issue failed to hold the average return to the investors. Rather it led to major fluctuations in the share prices during the post issue period.
4. The pre issue period there was an upswing in the share prices, but the post issue period was the dark side. It was not expected of a bonus share.
5. The $T\pm 30$ days analysis concluded that there was no significant change in the share prices.

6. Contrary to the T-test results, it was seen that drastic changes took place in the share prices of some shares. On the next day of the bonus announcement, in case of Cipla Ltd., the price fell down to a level of 66 per cent below the previous days close. In case of the Hero Honda Ltd as well as that of Tata Motors the same trend was noticed. The share price of Tata Motors Ltd fell down by 25 per cent on three days after the bonus issue and that of Hero Honda Ltd fell down by 50 per cent in the next week of the bonus issue.
7. It is thus finally concluded that the post liberalization bonus issues have led to negative effect over the share prices of the companies who have made the bonus issue.
8. Also on the basis of the T±365 days analysis, it is sufficient to be concluded that although the bonus issue has affected the share prices, it had not done the same as expected positively.

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