STOCK PRICE PERFORMANCE OF INITIAL PUBLIC OFFERINGS: EVIDENCE FROM INDIA

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Abstract

This paper examines the price performance of Initial Public Offerings (IPOs) in India. The study was conducted among 27 book building IPOs in India comprising of a period of five years from 1990 to 2004. All the issues were priced at premium. Since all are premium issues, they were categorized as low premium IPOs and high premium IPOs. Low premium IPOs were taken as those whose issue price is five times the face value of its shares and High premium IPOs were those whose issue price is ten times the face value of their shares. The sample comprised 5 low premiums and 22 high premium IPOs. For the purpose of the analysis, Shapiro Wilks "W" test and Mann Whitney "U" test were conducted. The study shows that there is no much difference between low and high premium issues, and suggests that mostly low premium issues are under priced and are more consistent as regards to returns than that of the high premium issues.

Key Words: Initial Public Offerings, premium issues, underwriting, mean returns, book building, investment banking, initial market returns, aftermarket returns, bull market, bear market, annualised returns.

JEL Classification: G24, D53, D81, C12, C14, G24

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Introduction

Capital market is an essential pre-requisite for the economic development of the country. It provides external source of finance to firms engaged in manufacturing as well as non-manufacturing activities and government and its departments. The development of the capital market depends on the availability of savings, proper organization of intermediary institutions to bring investors and business ability for mutual interest, regulation of investment. The present study examines the price performance of IPOs.

An Initial Public Offering is the sale of equity of a firm in the form of shares of common stock through an investment banking firm. These shares are traded on a recognized stock exchange. An IPO can be debt or equity security. It is risky and speculative investment which increases equity financing and stimulates entrepreneurial and venture capitalist activities. Hence, IPO is an important channel through which an entrepreneur or venture capital gets rewarded for his initial public acceptance.

Review of Literature

Barry (1989) focused that the initial return measures the under pricing lost as a fraction of wealth of pre-issue holders under certain circumstances, It was observed that the initial returns overstated the cost that flows from under pricing measured in terms of wealth of pre-issue shareholders. **Carter. R and S. Manaster (1990)** analyzed the returns earned by subscribing IPOs of equity. Results showed that the returns are required by uninformed investors and that IPOs with more informed investor capital require higher returns. **Carter R. B., F. H. Dark and A.J. Singh (1998)** found that the underperformance of IPO stock relative to the market over a three-year holding period is less severe for IPOs handled by more prestigious underwriters. Results showed that IPOs managed by more reputable underwriters are associated with less short-run underwriting.

Dawson (1987) demonstrated that the traditional investor oriented measure of under pricing misleads issuers. The study suggests that for issuers it shows that the appropriate pricing target is the market value of the shares without under pricing rather than the post- issue market price. **Gijoon (2004)** took a longer view of IPO market by evaluating the fundamentals of firms that went to public over the two decades from 1980 to 2000 and reveals a striking decline in the pre IPO financial condition of the issuer. Results show that the pre IPO profitability and related

measures are very good predictors of firm's ability to survive in the aftermarket. **Harjeet** and **Richard (2003)** attempted to determine the usefulness of data from the IPO prospectus to a potential investor and its relation with long run performance which showed that the prospectus information is useful in the after market over a short period. **Welch (1991)** examined the contract choice decisions, and observed that minimum sales constraints serve to reduce the winners' curse of the riskier issues. **Levi (1993)** analyzed the underperformance of IPO firms and sought whether the underperformance extends over 36 months. Results showed that firms with highest initial returns have worst aftermarket performance. **Zingales (1995)** focused on the role of IPO in maximizing the proceeds of an initial owner in selling his company. Results provide implications on the strategy to be followed in selling a company as well as on the timing of IPOs and going private transactions.

Majumdar (2003) focused on the initial and aftermarket excess returns of the immediate post liberalization era. The study observed that the aftermarket excess returns rises sharply for the first four days of trading and then taper off to again rise at a slower pace.

Peary (1990) provided new and empirical evidence about IPO returns, and showed that closed fund IPOs do not exhibit positive initial returns. The new funds have insufficient initial price decline to offset initial over pricing and experience significant negative aftermarket returns. **Wilhelm (2005**) analyzed the book building, auction and futures of IPO process. The study showed that companies going public will not succeed by asking questions investors to trust them when their participation in the capital market reputation is sporadic at best.

Statement of the Problem

The study has been undertaken to analyze the price performance of IPOs in India and in general in the initial and aftermarket. This may predict a general view of the initial issues in the recent past years.

Scope of the Study

The study relates to the performance of IPOs during a specific period in India and in general in the initial and aftermarket. This may predict a general view of the initial issues in the recent past years.

Objectives of the Study

- Highlights the developments of the capital market in India.

- Evaluates the performance of returns of newly listed stocks in the initial and aftermarket in the recent past years.
- Analyzes the performance of the IPOs during various phases of the stock market.
- Makes a comparative study as to whether high premium IPOs is similar to low premium IPOs.

Hypotheses Developed

- Ho[1]: "There is no significant difference in the mean excess returns from low premium and high premium IPOs".
- Ho[2]: "There is no more than even chance of earning mean positive excess returns from high premium IPOs".
- Ho[3]: "There is no more than even chance of earning mean positive excess returns from low premium IPOs".
- Ho[4]: "There is no more than even chance of earning mean positive excess returns from all the issues of IPOs".
- Ho[5]: "There is no significant difference in the earning mean positive excess returns from low premium IPOs as well as from high premium IPOs".
- Ho[6]: "There is no significant difference between mean excess returns from IPOs during bull and bear market."

Sources of Data

The principle source of data for the study is the daily stock prices from the National Stock Exchange and NSE Sensex figures. They were accessed from database of Centre for Monitoring Indian Economy (CMIE) Pvt. Ltd., a prime data source of stock market in India.

Sampling Design

The sample comprised of newly listed issues of 27 book-building IPOs only. All the issues were priced at premium. Since all are premium issues, they were categorized into low premium IPOs and high premium IPOs based on the data provided in table 12.

Sampling Procedure

The low premium IPOs were considered as those whose issue price is five times the face value of their shares, while the high premium IPOs were those whose issue price is ten times the face value of their shares. On the above basis, the sample comprised of 5 low premium IPOs and 22 high premium IPOs.

Research Methods

The performance of IPOs in India during the period from 1999 to 2004 has been analyzed with the help of various return metrics as well as with issue size and listing delay. Two forms of return metrics are used to study the performance of selected IPOs in India as shown below:

$$(AR_i) = r_i - r_m$$

$$\bar{R}_{mt} = \frac{\sum_{d=1}^{n}}{N_t}$$

Non-Annualised Excess Returns

These returns are based on actual closing of an issue to the first quotation date adjusted for changes in the NSE index in the same period. The computation is based on the following:

Non-Annualised Excess Return $(AR_i) = r_i - r_m$

Where $r_i = \ln(P_1/P_0)$ and $r_m = \ln(Q_1/Q_0)$ and P_0 is the issue price, P_1 is the closing price on the first trading date, Q_0 is the closing value of NSE on the actual closing date of the issue and Q_1 is the closing value of NSE on the first trading date.

Annualised Excess Returns

The annualized excess returns are obtained from non-annualised excess returns after adjusting for listing delay because unlike abroad, in India, usually there are large time gaps between the offer date and the listing date. It is computed as follows:

Annualised Excess Returns (AR annual))= ARix(365/Listing Delay)

Where ARi= Non-Annualised excess return. The above calculation is based on the following:

$P_1 = P_0 * e^{rt}$

$P_1/P_0 = ert$

Taking natural logs on both sides

$\ln (P_1/P_0) = rt$

Given t=1, measure of r_1 can be arrived. Similarly for rm. Now t=1 is equivalent to listing delay divided by 365. Thus, the adjustment for excess returns is 365/listing delay for both r_i and r_m.

Descriptive statistics such as mean, median, range and standard deviation on the main variables used in the analysis are presented in Table1. It can be inferred that average issue size is greater for low premium IPOs (1972.99) than for high premium IPOs (523.36). But, the range, which is the difference between the largest and smallest observation of issue size is high for high premium issues when compared to their counterparts. However, the time taken to list is lesser for low premium IPOs than the high premium IPOs. The average time taken to list is around 25 days for low premium IPOs and 34 days for high premium IPOs while it is about 32 days for all the issues together.

Table 1

Descriptive Statistics for Issue Size, Time Taken to List, Non- Annualised Excess Returns and Annualised Excess Returns

Descriptive Statistics	Low premium Issues	High premium Issues	All issues Together
Issue size(₹ in lakh)			
N	5.00	22.00	27.00
Mean	1972.99	523.36	791.81
Median	585.00	61.40	99.37
Range	6215.87	8644.59	8644.59
Standard Deviation	2589.68	1826.84	2014.09
Time Taken to List (Days)			
N	5.00	22.00	27.00
Mean	24.80	34.09	32.37
Median	21.00	29.50	22.00
Range	34.00	77.00	80.00
Standard Deviation	13.24	18.85	18.10
Non-Annualised Excess Returns(in percentage)			
N	5.00	22.00	27.00
Mean	41.59	24.94	28.02
Median	15.17	18.84	18.69
Range	101.42	157.07	157.07
Standard Deviation	47.55	35.68	37.68
Annualised Excess Returns(in percentage)			
N	5.00	22.00	27.00
Mean	599.76	406.90	442.61
Median	123.05	239..58	203.59

Range	1302.58	3087.73	3087.73
Standard Deviation	672.25	621.34	622.23

Source: Computed results based on compiled data from CMIE Prowess data base.

Based on the data referred to in table 12, the mean, median, range and standard deviation of all the issues were calculated. It is inferred that both non-annualised and annualized excess returns from low premium issues are more than that of from the high premium issues, of course with high standard deviation, which shows that mean figures are higher than the median figures of both non-annualised and annualized excess returns, which in turn indicates that the distribution of returns from both low premium issues, high premium issues as well as from all the issues is asymmetrical and positively skewed. To test the distribution of excess returns statistically, Shapiro Wills W test of normality has been used and the results are shown in table 2.

Table 2

Results of Shapiro Wills "W" Test

Category of Issues	Shapiro Wills "W" Test	'p' Level	Test Results
All Issues	0.8245	P<0.0002	Normality Assumption is rejected
Low Premium Issues	0.7261	P<0.0196	Normality Assumption is rejected
High Premium Issues	0.7723	P<0.0001	Normality Assumption is rejected

Source: Computed results based on compiled data from CMIE Prowess data base

It is inferred that the returns from low premium, high premium and from all the issues are significant, which reveals that there is no normality in the data. Due to the non-normality of the distribution of returns, a non-parametric method –Mann-Whitney "U" test has been applied to test for various hypotheses regarding the comparison of mean returns between the two groups of IPOs.

Comparison of Low Premium and High Premium Issues

From the results of the descriptive statistics (table1), it is inferred that there is a significant difference between the mean returns of issues at low premium and that of the high premium. A null hypothesis has been framed and non-parametric Mann-Whitney test has been used for testing the hypothesis.

Ho^1: "There is no significant difference in the mean excess returns from low premium and high premium IPOs".

Table 3

Results of Mann-Whitney Test for comparison between Low Premium and High Premium Issues

Category of Issues	N	Mean	Rank Sum	U Value	Calculated Z Value	Critical Z value	Level of Significance
Low Premium Issues	5	599.76	80	45	0.62	1.96	NS
HighPremium Issues	22	406.90	298				

Source: Computed results based on compiled data from CMIE Prowess data base

Table 3 shows that Z value (0.62) is lower than the critical value (1.96) at 5 per cent level of significance. It reveals the fact that the difference between mean returns of low premium and high premium issues is not significant, hence it is inferred that the issues made at low premium fetch returns similar to that of the issues made at high premium (Ho^1 is accepted).

Positive Excess Returns Earned

The possibility of earning positive excess returns by an investor who invest in an IPO has been measured by the ratio of number of issues earning abnormal returns to the total number of issues and the results are shown in table 4.

Table 4

Performance of Excess Returns

Excess Returns	Low Premium Issues		High Premium Issues		All Issues	
	N	%	N	%	N	%
Positive	5	100.00	18	81.82	23	85.19
Zero	0	0.00	0	0.00	0	0.00
Negative	0	0.00	4	18.18	4	14.81
Total	5	100.00	22	100.00	27	100.00

Source: Computed results based on compiled data from CMIE Prowess data base

For the purpose of the analysis, data has been considered from table 12, which provides details regarding the issue start date, issue end date, issue size, issue price and the listing delay. The proportion of IPOs earning positive excess returns is 85.19 % and remaining is the proportion of IPOs earning negative excess returns. None of the IPOs have zero excess returns. Further, testing for the significant difference between proportion of earning positive excess

returns from low premium IPOs as well as from high premium IPOs is carried out. For this purpose, the following null hypotheses, one for each category of IPOs as well as one each for comparison of low premium issues and high premium issues are developed and tested by comparing the two proportions using Z statistics. The results are presented from Tables 5 to 8.

Ho^2: "There is no significant difference in mean earning positive excess returns from high premium IPOs"

Ho^3: "There is no significant difference in mean earning positive excess returns from low premium IPOs"

Ho^4: "There is no significant difference in mean earning positive excess returns from all the issues of IPOs"

Ho^5: "There is no significant difference in mean earning positive excess returns from low premium IPOs and earning positive excess returns from high premium IPOs".

Table 5

Results of comparison of the proportion of positive excess returns from issues at low premium with risk neutral proportion of 50 per cent

Particulars	Proportion	Calculated Z Value	Critical Z Value	Level of Significance
Positive Return from Low Premium Issues	1.0000	17.13	2.57	P<0.01
Risk Neutral Proportion	0.5000			

Source: Computed results based on compiled data from CMIE Prowess data base

For analyzing the proportion of positive excess returns from low premium issues with risk neutral proportion of 50 %, Z value was calculated. It is found that the calculated Z value (17.13) is higher than the critical Z value (2.57) at 1 % level, hence it can be inferred that with 99 per cent confidence level the probability of earning positive excess returns is greater for issues made at low premium. Hence Ho^2 is rejected.

Table 6

Results of comparison of the proportion of positive excess retuns from issues at high premium with risk neutral proportion of 50 per cent

Particulars	Proportion	Calculated Z Value	Critical Z Value	Level of Significance

Positive Return from High Premium Issues Risk Neutral Proportion	.8182 .5000	9.93	2.57	P<0.01

Source: Computed results based on compiled data from CMIE Prowess data base

The calculated Z value is highly significant at 1% level, which shows that there is a more than even chance of earning positive excess returns from high premium IPOs, hence the results evidence, rejecting Ho^3, the chances of earning positive excess return is more for issues of IPOs made at high premium.

Table 7

Results of comparison of the proportion of positive excess returns from all issues with risk neutral proportion of 50 per cent

Particulars	Proportion	Calculated Z Value	Critical Z Value	Level of Significance
Positive Return from all Issues Risk Neutral Proportion	.8519 .5000	11.15	2.57	P<0.01

Source: Computed results based on compiled data from CMIE Prowess data base

The result has been same in the case of all issues as has been for low as well as for high premium issues with regard to earning positive excess returns in excess of even chance of earning. The computed Z statistics between the proportion of earning positive excess returns from all the issues and risk-neutral proportion of 50% is 11.75, which is much greater than the table value (2.57) at 1 % level; hence it shows that there is a more than even chance of earning positive excess returns from all IPOs of any size.

Table 8

Results of comparison of the proportion of positive excess returns from issues at Low Premium with positive excess returns from issues at high premium

Particulars	Proportion	Calculated Z Value	Critical Z Value	Level of Significance
Positive Return from Low Premium Issues Positive Return from High Premium Issues	1.0000 .8182	7.59	2.57	P<0.01

Source: Computed results based on compiled data from CMIE Prowess data base

The Z test results of comparison of the proportion of positive excess returns from issues at low premium and positive excess returns from issues at high premium reveals that the calculated Z value (7.59) is well above (2.57) the critical value at 1 % level. The earning positive excess returns from low premium IPOs is significantly more than that of the issues from high premium IPOs.

Performance of IPOs during Bull and Bear Period

Bull and ***Bear*** market is the measure of activity in the secondary market. A bull market is defined as a month in which market portfolio return (rmt) exceeds by more than half of one standard deviation (.50m) of the market's average monthly return for the total sample period. On the other hand, a bear market is a month in which the market portfolio return (rmt) is more than half of one standard deviation (.50m) below the market's average monthly return. The calculation for the daily returns in the market is as follows:

Rm = (Qt/Qt-1)-1

Qt-1= Level of the NSE on the preceding day

Qt=NSE level on the day the return is computed

The average market return for the particular month has been computed as the average daily returns over the number of days in that particular calendar month. Hence

$$\bar{R}_{mt} = \frac{\sum_{d=1}^{n}}{N_t}$$

Where n is the number of trading days in a month

$$\bar{R}_{mt} = \sum_{t=1}^{N} r_{mtd}$$

Where N is the entire study period

The details of excess returns for the bull and bear phases of the market from the issues listed during these phases are presented in Table 9. The significant difference between mean

excess returns from IPOs during the two phases of market is tested with z statistics by framing a null hypothesis and the results are shown in Table 9.

Ho[6]: "There is no significant difference between mean excess returns from IPOs during the bull and bear market".

It is inferred from table 9 that the mean excess returns from low premium IPOs are higher during bear phase when compared to that of during bull phase of the market. The computed Z-statistics, 0.5765 and 0.5472 for high premium IPOs and all IPOs respectively are much lower than 1.96, critical 'Z' value at 5% level. Therefore, the null hypothesis is accepted, which leads to infer that the mean excess returns from IPOs during bull and bear phases of the market are similar.

Table 9

Annualized Excess Returns during various phases at market at the time of listing and results of Z for difference between Mean Annualised Returns during bull and bear market

Phases of the Market	N	Mean	Standard Deviation	Z Value	Level of Significance
Low Premium Issues					
Bull	1	116.16	-	-	-
Bear	1	123.05	-		
Regular	3	919.86	720.82		
High Premium Issues					
Bull	5	371.68	621.52	.5765	Not
Bear	9	209.15	141.80		Significant
Regular	8	651.38	891.62		
All Issues					
Bull	6	329.09	565.61	.5472	Not
Bear	10	200.54	136.43		Significant
Regular	11	724.60	822.27		

Source: Computed results based on compiled data from CMIE Prowess data base

Table 10

Comparison of Nature of Annualised Excess Returns during various phases of the market at the time of listing

Excess Returns	Bull		Bear		Regular	
	N	%	N	%	N	%

Positive	4	66.67	10	100	9	81.82
Zero	0	0.00	0	0.00	0	0.00
Negative	2	33.33	0	0.00	2	18.18
Total	6	100.00	10	100.00	11	100.00

Source: Computed results based on compiled data from CMIE Prowess data base

Apart from comparing excess returns, the proportion of positive and negative excess return to total returns from IPOs during bull and bear phases of the market is also studied because positive excess returns is found to be an overwhelming phenomena in the primary market. Table 10 presents the details of positive and negative returns for various phases of market in India. It is inferred that the proportion of IPOs earning positive excess returns is 100 % during bear phase and 81.82 % during regular phase while it has been only 66.67% during bull phase of the market. Nearly one-third of the IPOs during bull phase have earned negative excess returns, however none of the IPOs have exhibited zero excess returns.

It is inferred that for all the issues the beta co-efficient of issue size is negative. It indicates that the investors interpret the measure of riskiness as being negatively correlated with ex-ante uncertainty. However, 't' values are insignificant. The R^2 value is also very low for each model. If the R^2 value is high it would imply that the actual initial return on offering is predictable. The reason for the positive relation is that it is difficult for investors to predict the actual initial return on a high risk issue even though the average initial return in a large sample can be predicted with reasonable accuracy. The issue size is used as a measure of riskiness by the investors only for issues at a premium. However, study proves that the issue size, as a measure of riskiness, is immaterial to high premium issues and all issues. Hence, there is little scope left for the investors about excess return from IPOs if the issue size is considered.

Table 11

Results of Regression of Annualised Excess Returns with Issue Size (Proxy for Riskiness)

Dependent Variable: Annualised Excess Returns

Independent Variables	**Constant**	**Co-efficient of Independent Variable**	**R_2 Value**	**F Ratio**	**Level of Significance**
Low Premium Issues					
Issue Size	864.96 (2.22)	-.1344 (.13)	.270	1.09	NS

Log of Issue Size	862.23 (.69)	-40.67 -(.22)	.020	.05	NS
Inverse of Issue Size	721.6 (1.92)	-14640 -(.64)	.120	.41	NS
High Premium Issues					
Issue Size	414.96 (2.94)	-.02 -(.20)	.002	.04	NS
Log of Issue Size	345.35 (.77)	13.66 (.14)	.001	.02	NS
Inverse of Issue Size	535.92 (2.64)	-6412.3 -(.85)	.030	.72	NS
All Issues					
Issue Size	469.23 (3.59)	-.03 -(.55)	.010	.30	NS
Log of Issue Size	352.55 (.95)	18.51 (.26)	.003	.07	NS
Inverse of Issue Size	587.62 (3.47)	-8084.4 -(1.2)	.050	1.44	NS

NS-Not Significant

Source: Computed results based on compiled data from CMIE Prowess data base

Figures in parentheses are 't' values

Limitations of the Study

- The data is secondary in nature bearing its own limitations viz., accuracy and reliability.
- The study limits itself into IPOs listed in the national stock exchange that too during the period from December 1999 to December 2000 only.
- Selective firms for which data was available are only included in the study.
- The data for the study relates to 27 book building IPOs only. Hence, the problem of sampling error may exist.

Scope for Further Research

Study can be conducted on all IPOs listed in various stock exchanges in India. Further, the period of the study can be extended to a larger term and thereby in the study may bring a differing result/inference.

References

Barry, C. B. (September 1989). 'IPO Under pricing: The Issuer's Note- A comment'. Journal of Finance, 44(4), pp.1-31.

Bhabra, .H. S. and R. H. Pettway. (2003) 'IPO Prospectus Information and Subsequent Performance'. The Financial Review, 38, pp.369-397.

Carter, R. B, F. H. Dark and A. K. Singh. (1998) 'Underwriter Reputation, Initial Returns and Long Run Performance IPO stocks'. Journal of Finance, 53(1), pp. 285-311.

Carter, R. and S. Manaster. (September 1990)'IPOs and Underwriter Reputation'. Journal of Finance, 45(4), pp. 1045-1067.

Dawson, S. T. (March 1987) 'Initial Public Offer Under pricing: The Issuer's View- A Note'. Journal of Finance, 42(1), pp. 159-162.

Levis, M. (Spring 1993) 'The Long Run Performance of Initial Public Offerings: The UK Experience 1980-1988'. The Journal of Financial Management, 22(1), pp. 28-41.

Majumdar, U. 'Finance India'.17(3), pp. 899-929.

Peary, J. W III. (1990)'Returns on Initial Public Offerings of Closed-End Funds'. The Review of Financial Studies, 3(4), pp.696-708.

Peristiani, S. and G. Hong. (February 2004) 'Pre-IPO Financial Performance and Aftermarket Survival'. Current Issues in Economic and Finance, 10(2), pp.1-7.

Srivastava, R. M., Essentials of Business Finance, Himalaya Publications, 1986.

Sundaram and Varshney, Banking and Financial Services.

Welch. (December 1991) 'An Empirical Examination of Models of Contract Choice in IPOs'. Journal of Financial and Quantitative Analysis, 26(4), pp. 479-518.

Wilhelm, W. J. (2005) 'Book Building, Auctions and Futures of IPO process'. Journal of Applied Corporate Finance, 17(1)

Zingales, (July 1995).'Insider Ownership and Decision to go public'. Review of Economic Studies, 62(3), pp.425-448.

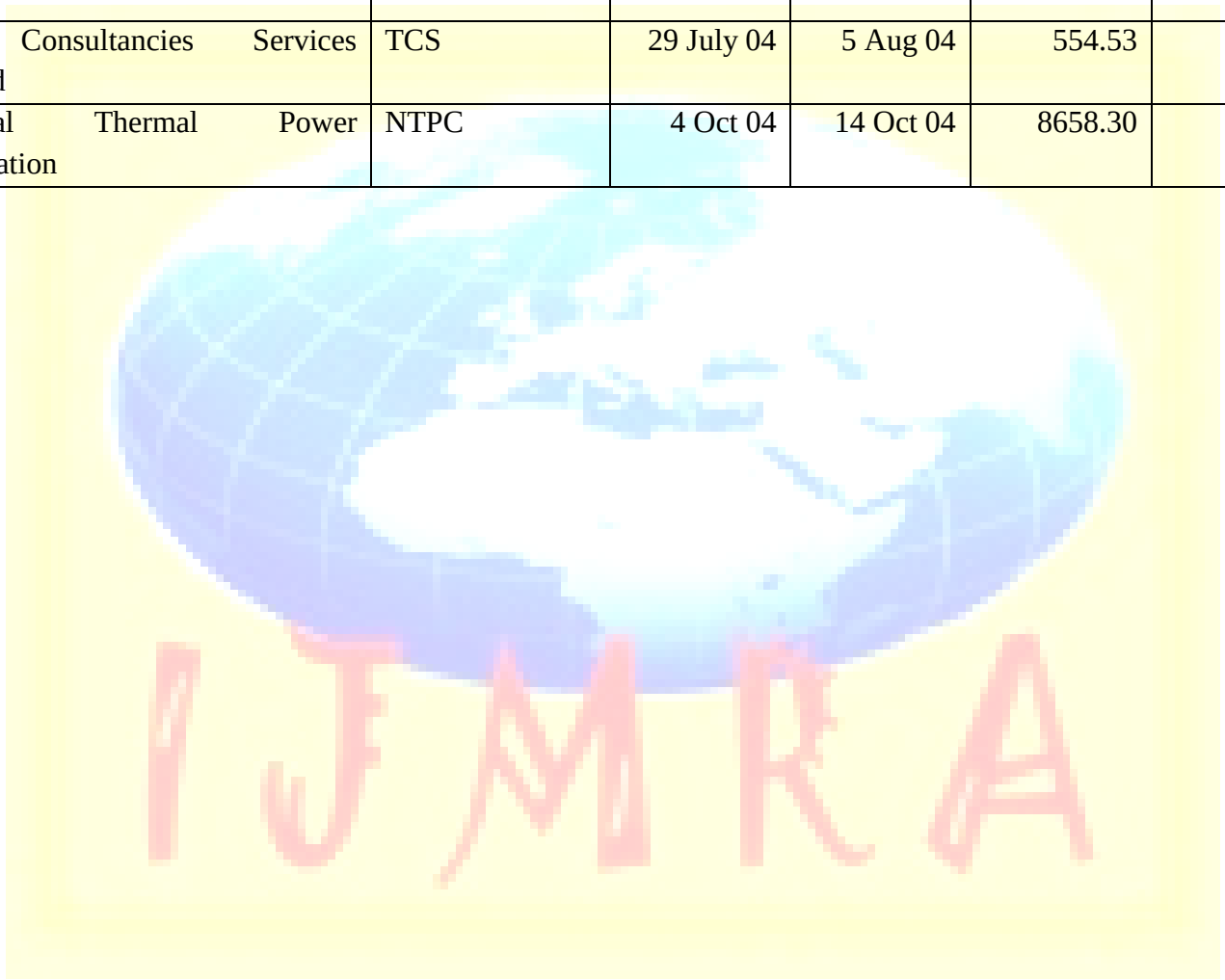
Table 12

Data of Book Building IPOs

Sl. No.	Name of the company	Company Code	Issue Start Date	Issue End Date	Issue Size	Issue Price	Listing Date
1	Hughes Software Systems Limited	Hughes	22 Sept 99	28 Sept 99	39.37	630	4 Nov 99
2	HCL Technologies Limited	HCL Tech	16 Nov 99	24 Nov 99	127.80	580	6 Jan 00
3	Shree Rama Multi Tech Limited	Shree Rama	15 Jan 00	21 Jan 00	99.37	120	13March00
4	I Gate Solutions Limited	I Gate	10 April 00	15 April 00	22.50	480	8 June 00
5	Tata Teleservices(Maharastra) Limited	Tata Tel	29 Aug 00	5 Sept 00	6243.00	12	20 Oct 00
6	MRO Tech Limited	MRO Tech	4 Sept 00	9 Sept 00	45.98	95	1 Nov 00
7	Pritish Nandy Communications Limited	Pritish	4 Sept 00	11 Sept 00	22.55	155	11 Dec 00
8	Balaji Telefilms Limited	Balaji Tel	6 Oct 00	12 Oct 00	25.20	130	22 Nov 00
9	AZTEC Software& Technology Services Limited	AZTEC	12 Oct 00	18 Oct 00	58.50	80	29 Nov 00
10	Creative Eye Limited	CREATEYE	3 Nov 00	9 Nov 00	45.04	50	20 Dec 00
11	MIDDAY Multimedia Limited	MIDDAY	12 Feb 01	16 Feb 01	64.29	70	4 Aprl 01

12	D LINK(INDIA) Limited	DLINK	20 Feb 01	27 Feb 01	13.71	300	11 Aprl 01
13	I Flex Solutions Limited	I FLEX	5 June 02	11 June 02	39.62	530	28 June 02
14	DIVI Laboratories Limited	DIVISLAB	17 Feb 03	21 Feb 03	32.05	140	12 Mar 03
15	Maruthi Udyog Limited	MARUTHI	12 June 03	19 June 03	794.68	125	9 July 03
16	VardhamanAcrylics Limited	VARDHAMAN	15 Sept 03	19 Sept 03	27.13	10	30 Sept 03
17	Indraprastha Gas Limited	INDPRSTA	28 Nov 03	5 Dec 03	400.00	48	26 Dec 03
18	Patni Computers System Limited	PATNI	27Jan 04	5 Feb 04	187.24	230	25 Feb 04
19	Petronet LNG Limited	PETRONET	1 Mar 04	9 Mar 04	2609.80	15	26 Mar 04
20	Power Trading Corportion of India	PTCINDIA	1 Mar 04	8 Mar 04	585.00	16	7 Aprl 04
21	Bicon Limited	BICON	11 Mar 04	18 Mar 04	100.00	315	7 Aprl 04
22	Dishman Pharmaceuticals & Chemicals Limited	DISHMAN	26 Mar 04	7 Aprl 04	34.34	175	22 Aprl 04
23	Datamatics Technologies Limited	DATAMATICS	12 Aprl 04	19 Aprl 04	103.00	110	7 May 04
24	New Delhi Televisions Limited	NWDELTV	21 Aprl 04	28 Aprl 04	173.02	70	19 May 04

25	India Bulls Financial Services	INDIABULL	9 June 04	10 Sept 04	271.88	19	24 Sept 04
26	Tata Consultancies Services Limited	TCS	29 July 04	5 Aug 04	554.53	850	25 Aug 04
27	National Thermal Power Corporation	NTPC	4 Oct 04	14 Oct 04	8658.30	62	5 Nov 04



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