Relative Analysis of Price Discovery Tools Operative in Indian Capital Market

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1. INTRODUCTION

Present Indian Capital Market is known as strong & vibrant component of Indian financial system. Many governmental and non-governmental efforts are being put to bring it at par with International Financial Market. Establishment of SEBI as an apex regulatory body has proved to be a revolutionary step towards bringing the structural changes in order to regain the confidence of Indian investors & to attract the foreign investment. In this direction, the primary market has witnessed a number of reforms over the time. Major changes involved abolition of control over pricing, designing and tenure of instruments etc. SEBI has introduced various stringent disclosure norms. One important reform, which needs consideration, is "Pricing of Issue." It is the most critical element of any public issue. Under CCI regime, all companies coming with a public issue had to price their issue based on CCI formula. It was felt to be an anti-market practice because all companies whether fundamentally sound or not had to price their issue very conservatively. As a result, all the issues coming into market were easily oversubscribed leaving few scopes for further rise in price on its listing. In 1992, CCI was abolished and companies were allowed to price their issue freely subject to some disclosure requirements. Following this, the guidelines have been provided that allow the issuer to decide the price in consultation with merchant banker. There is no price formula stipulated by SEBI. However, company and merchant banker are required to give full disclosures of the parameters which they had considered while deciding the issue price. Basically there are two modes of pricing the offer: (a) Fixed Price Method (b) Book Building Method. In case of **Fixed Price offer**, an issuer company is allowed to freely price the issue. The basic of issue price is disclosed in offer document. The company can mention a price band of 20% (the cap in price band should not be more than 20% of floor price) in draft offer document filed with SEBI and actual price can be determined at a later date before filing of final offer document with SEBI/ROC. Whereas Book Building is a process by which a demand for securities proposed to be issued by a body corporate is elicited & built up and price for securities is assessed on the basis of bids obtained for quantum of securities offered. So, under Free Pricing Era, companies can freely price their issues either through Fixed Price or Book-Building. Book Building is assumed to be optimum price discovery Mechanism over last four five years. In this context, this paper is an attempt to analyse the preference of Book Building process & Fixed Price Method for pricing the issue & also an attempt has been made to study the impact of price method on the performance of the issue.

2. REVIEW OF LITERATURE

So far only few studies have been conducted in India related to the issue. Bose, S. (2005) while comparing Indian Securities Market to other global markets concluded that Book Building was no doubt better than fixed method in this respect but still required lot of support in form of regulatory framework. Indian Label Shows (2005) in their study reported that Book Building Process was dominated by high networth investors or QIBs as 97% of retail applications during 2004 were at cut off prices. By not bidding actively during Book Building process, these investors were frittering away their powers. ET Survey (2004) provided that out of 16 IPO's last year, 13 were 100% Book Building. Investors had lost Rs. 16000 Cr till then. Chokhani, M. (2004) viewed that true hallmark of an IPO's success was not the degree of over subscription achieved. Because over subscription implied conscious sale of IPO at discount to build up a habit of investor to invest in that company. Moreover, it implied a missed opportunity for company to satisfy additional demand or more importantly obtaining a better price. Sachdev, S. (2004) remarked that Book Building route for price determination provided room for manipulation. Saha, S.S. (2004) found that although book-building mechanism in Indian Capital Market had not arrived with expected success. But Indian Capital Market would also move like international capital market with sufficient success through Book Building process provided that lead merchant banker, Issuer Company, regulators and investors discharged their responsibility to best of the interest of investors. Pandrey, V. and Israni, S.D. (2004) observed that Book-Building system was heavily against retail investors to the advantage of QIB's. Pandey, A. (2002) compared fixed priced and Book Building IPO's in terms of issuers, initial returns and long run performance and found that Book Building process for

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IPO was associated with lower underpricing or initial returns. Keeping into consideration the present review and need of conduct of comparative study of fixed priced and Book Building tools used in pricing the issue, following specific objectives were undertaken in conducting this study:

3. OBJECTIVES:

- To examine various tools of price discovery in operation in Indian Capital Market.
- To access the relation between size of issues and the choice of price discovery tool.
- To measure and compare long term and immediate performance of the issues raised through Fixed Price and Book Building method.
- To find the correlation between size of the issue and their market performance.

3.2 HYPOTHESES:

To meet the objectives of the study following hypotheses were framed and tested:

- **H.1** Book Building is a Mechanism preferred for optimum price discovery.
- H.2 Issues of extreme relevance are raised through Book Building Process.
- H.3 Issues of small size are raised through Fixed Price method.
- H.4 Issues raised through Book Building Process attract high opening price as compared to Fixed Price issues.
- **H.5** Issues raised through Book-Building process perform better in long run as compared to Fixed Price issues.
- **H.6** Larger the size of issue, greater are the chances of its success and smaller the size of issue, lesser will be the chance of its success in stock exchange.

3.2 DATA BASE AND RESEARCH METHODOLOGY:

For the purpose of the study, the data was collected from secondary sources like Websites of BSE, NSE, Economic Times & related companies, Journals like The Chartered Accountant, the Dalal Street, The Financial Analyst, Newspapers like The Economic Times, The Times of India, The Financial Express etc. All of the 147 Companies were considered which had raised their public issues from April 2001 to 31 March 2006. The Company's current stock price was taken as average of 52 week high and low price for the year 2005-06. For the purpose of analysis, the statistical techniques like the Spread Analysis, the Percentage Analysis and the Correlation (Karl Pearson's Coefficient of Correlation) were made use of. In order to check the relevance of the degree of correlation measured through Karl Pearson's Method, the Probable Error Method was used. For the purpose of analysis, Spread analysis had been defined as the gap between two extreme values i.e. the range between maximum and minimum value. It had been interpreted as if; higher the spread more will be the uncertainty of the real value. Further, the percentages had been calculated for knowing the change in performance. For calculation purposes, MS Excel version Windows 99 was used.

4. ANALYSES

The whole study has been divided into 4 parts. Part I focuses on the Sector and Price Discovery Mechanism whereas, Part II analyses the relationship of the size of the issue and price discovery mechanism. Part-III shows the effect of price discovery tool on performance of the issue and part-IV examines the results of correlation analysis

4.1 PART I: SECTOR AND PRICE DISCOVERY MECHANISM

This segment analyses the preference of the particular sector regarding the method of price discovery. The data were selected from 15 sectors including 147 companies, which raised their public issues during 5 years starting from 1 April 2001 to 31 March 2006 as shown in Table 1. Out of issues floated in last five years, 20 were from Information & Technology sector, 19 were from Banking & Finance, 17 from Manufacturing, 12 from Media, 9 from Cement, 8 from Engineering, 7 from Pharmaceutical, 7 from Metal & Mining 5 from Energy, 5 from Service, 5 from Food & Beverages, 4 from Retail, 4 from Conglomerate, 2 from Power and other 22 companies belong to other sectors namely Auto, Airways, Shipyard etc. and were put under heading Miscellaneous. It was found that out of 19 companies under **Banking and Finance** sector, 16 preferred Book Building for pricing their issue. These were the Allahabad Bank, the Andhra Bank, the Bank of Baroda, the ICICI Bank Ltd, the ICICI Bank Ltd, the IL & FS Investment Ltd, the India Bulls Financial Services Ltd, the India Infoline Ltd., the Infrastructure Development Finance Company Ltd, the M&M Financial Services Ltd, the Oriental Bank of Commerce, the Punjab National Bank, the South Indian Bank Ltd, the Syndicate Bank, the Union Bank of India and the Yes Bank Ltd. Only three companies' namely, the

Bank of Maharashtra, the Indian Overseas Bank and the Vijaya Bank priced the issue through Fixed Price method. Thus, majority of Banking & Finance sector preferred Book Building as price discovery tool. Under Cement & Construction sector, 6 companies out of 9 used Book Building method. These companies were: the B.L Kaswhyap & Sons Ltd, the IVRCL Infrastructure & Project Ltd, the J.K Cements Ltd., the Nitco Tiles Ltd., the Pratibha Industries Ltd. and the Tantia Constructions Ltd. Only 3 companies namely, the Era Constructions (India) Ltd, the M.S.K Projects (India) Ltd and the PBA Infrastructure Ltd. used Fixed Price method. Thus, majority of Cement & Construction Sector preferred Book Building as price discovery mechanism. Fixed Price method was preferred in Conglomerate sector as all of 4 companies used Fixed Price method. These companies were: the Alps Industries Ltd, the Empex Ferro Tech Ltd, the Ram Krishna Forgings Ltd and the Rohit Ferro Tech Ltd. In Energy sector, all companies i.e. 5, including the Gas Authority of India Ltd, the Gujarat State Petronet Ltd, the Indraprastha Gas Limited, the Oil & Natural Gas Corporation Ltd and the Petronet LNG Ltd preferred Book Building to Fixed Price method. Majority of the companies under Engineering sector i.e. 5 out of 8 namely the AIA Engineering Ltd, the Punj Lloyd Ltd, the Sadbhav Engineer Ltd, the Treveni Engineering and Industries Ltd and the Suzlon Energy Ltd preferred Fixed Price method. 3 followed the Book Building method including the Birla Power Solution Ltd, the Indo -Tech Transformers Ltd and the Sunil Hi-tech Engineers Ltd. 3 companies out of 5 companies, under the Food & Beverages sector, followed Fixed Price method for pricing their issues. These companies were: the Beeyu Overseas Ltd, the Dwarikesh Sugar and the KM Sugar Mils Ltd. But 2 companies, namely the Shree Renuka Sugars Ltd and the Uttam Sugar Mills Ltd used Book Building method. Book Building method was preferred by majority of the Information & Technology companies, 15 out 20 namely the 3i Infotech Ltd, the Allsec Technologies Ltd, the Aurionpro Solutions Ltd, the CMC Ltd, the Datamatics Technologies Ltd, the D-Link (India) Ltd, the Educomp Solution Ltd., the Gokaldas Exports Ltd, the I-Flex Solution Ltd, the Patni Computer Systems Ltd, the Prithvi Information Solution Ltd, the RSystems International Ltd, the Sasken Communications Technologies Ltd, the Tata Consultancy Services Ltd and the Tulip IT Services Ltd. Only 5 companies namely the Compulink Systems Ltd., the FCS Software Solution Ltd, the Four Soft Ltd, the Paradyne Infotech Ltd and the Powersoft Global Solution Ltd followed the Fixed Price method. Under manufacturing sector, both methods were equally preferred. 9 companies used Book Building and 8 companies used Fixed Price method. Companies using Book Building method were: the Bannari Amman Spinning Mills Ltd, the Bombay Rayon Fashion Ltd., the Celebrity Fashion Ltd., the Ginni Filaments Ltd, the Jindal Poly Films Ltd, the Kernex, Microsystems (India) Ltd., the Kewal Kiran Clothing Ltd., the Nitin Spinners Ltd and the Raj Rayon Ltd. The companies using Fixed Price method were: the Malu Paper Mills Ltd., the Nadam Exim Ltd, the Radha Madhav Corporation Ltd, the Sakuma Exports Ltd., the Shivalic Global Ltd., the Shree Ganesh Forging Ltd, the Sree Shakti Paper Mills Ltd and the Yash Papers Ltd. Same is the case under the Metal & Mining sector where 4 companies followed Fixed Price method and 4 followed Book Building process. The Adhunik Metaliks Ltd., the S.A.L Steel Ltd, the Shri Ramsarup Balaji Steels Ltd and the Visa Steel Ltd followed Book Building process. The Gallantt Metal Ltd, the M.S.P Steel & Power Ltd, the Ramsarup Industries Ltd and the Vikash Metal & Power Ltd followed Fixed Price method. As far as **Media** sector was concerned, 11 companies namely the Mid-Day Multimedia Ltd, the Entertainment Network (India) Ltd, the H T Media Ltd, the Infox Leisure Ltd, the Jagran Prakhashan Ltd, the K Sera Sera Production Ltd., the New Delhi Television Ltd., the PVR Ltd, the Shrinagar Cinemas Ltd, the T.V Today Network Ltd, the UTV Software Communications Ltd used Book Building process. Whereas, only 1 company namely the Cyber Media (India) Ltd used Fixed Price method. In Pharmaceutical sector, 6 companies out of 7 followed Book Building process and only one company followed Fixed Price method. The companies following Book Building process were: the Amar Remedies Ltd., the Biocon Ltd, the Dishman Pharmaceuticals & Chemicals, the Divi's Laboratories Ltd, the Indoco Remedies Ltd and the Nectar Lifesciences Ltd. The Vivimed Labs Ltd priced its issues through Fixed Price method. Both companies, the Power Trading Corporation Ltd and the National Thermal Power Corporation Ltd under Power sector followed Book Building method. All of the 4 companies under the **Retailing** sector priced their issues through Book Building mechanism. These included the Emami Ltd, the Piramyd Retail Ltd., the Provogue (India) Ltd and the Shopper's Stop Ltd. In the Service sector, 4 out 5 companies namely, the Bharati Tele Venture Ltd, the Gateway Distriparks Ltd, the Gitanjli Gems Ltd and the Royal Orchid Hotels Ltd followed Book Building process whereas the Spanco Telesystems & Solutions Ltd followed Fixed Price method. Out of all 22 categorised under Miscellaneous, 19 namely the ABG Shipyard Ltd, the Bartronics India Ltd, the Bharati Shipyard Ltd, the Deccan Chronicle Holdings Ltd, the Dredging Corporation of India Ltd, the Everest Kanto Cylinder Ltd, the Gujarat Industries Power Co Ltd, the GVK Power &

Infrastructure Ltd, the IBP Co. Ltd, the Indian Petrochemicals Corporation Ltd, the Jai Prakash Hydro Power Ltd, the Jet Airways (India) Ltd, the Maruti Udyog Ltd, the Repro India Ltd., the Solar Exposives Ltd., the SPL industries Ltd, the Talbros Automotive Components Ltd and the Vardhman Acrylics Limited preferred Book Building method and only four companies followed Fixed Price methods. These were: the Dyanamic Products Ltd, the Sah Petroleum's Ltd and the Southern Online Bio Technologies Ltd.

4.2 PART II: SIZE OF THE ISSUE AND PRICE DISCOVERY MECHANISM

This section analyses the relationship between size of the issue and price discovery method followed by the companies. For this purpose frequency distribution with the interval of 50 crores was drawn. This distribution includes 39 open end classes ranging from "upto 1 crores" to above "1850 crores" as shown in Table 2. Sizes of all issues exceed Rs 1 crores. Out of 50 companies which raised capital from 1-50 crores, 64 % companies followed Fixed Price method. Rest of 36 % used Book Building method. Under 50-100 crores, size of issue category, it was found that out of 28 companies, 82.14% preferred Book Building to 17.86% which used Fixed Price method. Under category 100-150, all of 12 companies followed Book Building method. Under category 150-200, all of 13 companies; under 250-300, all of 5 companies; under 300-350, all of 2 companies; under 350-400, all of 4 companies; under 400-450, 1 company; under 450-500, 1 company; under 550-600, all of 3 companies; under 700-750, 1 company; under 800-850, all of 2 companies; under 1000-1050, 1 company; under 1050-1100, 1 company; under 1350-1400, 1 company; under 1400-1450, all of 2 companies; under 1450-1500, 1600-1650 and 1800-1850 one company each followed the Book Building process. All of the 4 companies with the size of issues in excess of 1850 crores followed Book Building Method. Out of 6 companies falling in 200-250 crores category of size of issue category, 66.67% used Book Building and rest of 33.33% followed Fixed Price method. Similarly under category 750-800, 66.67% used Book Building and rest of 33.33% followed Fixed Price method. No public issue lay among the ranges 600-650, 650-700, 850-900, 900-950, 950-1000, 1050-1100, 1100-1150, 1200-1250, 1250-1300, 1300-1350, 1500-1550, 1200-1250, 1250-1300, 1300-1350, 1500-1550, 1200-1250, 1250-1300, 1300-1350, 1500-1550, 1200-1250, 1250-1300, 1300-1350, 1500-1550, 1200-1250, 1250-1300, 1300-1350, 1500-1550, 1200-1250, 1250-1300, 1300-1350, 1500-1550, 1200-1250, 1250-1300, 1300-1350, 1500-1550, 1200-1250, 1250-1300, 1300-1350, 1500-1550, 1200-1250, 1250-1300, 1300-1350, 1200-1250,1550-1600, 1650-1700, 1700-1750, 1750-1800, 1900- 1950 and 1950-2000.

4.3 PART-III: EFFECT OF PRICE DISCOVERY TOOL ON PERFORMANCE OF THE ISSUE

This part is devoted to the impact of price discovery tool on the performance of the issues. Here, the term 'performance' has been considered in two ways: one is immediate performance and another is long-term performance. Along with it, correlation between size of issue and performance of the stock in secondary market has also been calculated. It has been further divided into 2 segments. Part (A) analyses the relationship between price discovery tool and immediate performance and Part (B) analyses the relationship between price discovery tool and long-term performance.

(A) Effect of Price Discovery Tool on Immediate Performance

This segment analyses whether price discovery tools had any impact on the performance of the issue in the secondary market. For the purpose of analysis, immediate performance was measured by considering the difference between issue price and the price at which issue was listed in the stock exchange as shown in table 3.

Table revealed that 133 out of 147 issues i.e. 90.48% issues were listed at premium and only 14 i.e. 9.62% issues were listed at price less than issue price. Among gainers, top 3 were the Tantia constructions Ltd with 260% premium, the FCS Software Solution Ltd with 200% premium and the Entertainment Network (India) Ltd with the premium of 160.25 %. As far as comparison of Book Building issues with Fixed Priced issues was concerned, 92.5% of issues raised through Fixed Price method, were opened at premium whereas only 89.72% of Book Building issues gave positive returns on listing. However, issues raised through Book Building process attracted high opening prices as compared to issues those followed Fixed Price mechanism. Statistically, premium of Book Building issues ranged from –26.6% to 260% where as, range of Fixed Price issues was between –19.6% to 200%.

(B) Effect of Price Discovery Tool on Long Term Performance

This segment analyzed whether the price discovery tools had any impact over long-term performance of the issue in the secondary market. For the analysis, long term performance was measured by considering the difference between issue price and the current price of the share which was the average of highest price and the lowest price of the security at which it was traded in stock exchange in last 52 weeks (1 April 2005 to 31 March 2006) as shown in Table 3. Table suggested that 122 issues out of 147 issues i.e. 83% were performing well in secondary market giving positive returns. Among gainers, top three were the Divi's Lab with 989.28% premium, the Bharti Tele Venture Ltd

Table 1 : Sector and Pricing Mechanism

No.	Sector & Company name Banking & Finance	Date of Closure of Issue	Mechanism Followed	Price Band	Issue Price
1	Allahabad Bank	12/4/05	BB	75-82	82
2	Andhra Bank	20/01/06	BB	82-90	90
3	Bank Of Baroda	20/01/06	BB	210-230	230
4	Bank Of Maharasthra	4/3/04	FP	23	23
5	ICICI Bank Ltd.	7/4/04	BB	225-295	280
6	ICICI Bank Ltd.	6/12/05	BB	505-545	525
7	IL & FS Investment Ltd	8/7/05	BB	110-125	125
8	India Bulls Financial Services Ltd	10/9/04	BB	16-19	19
9	India Infoline Ltd.	27/04/05	BB	70-80	76
10	Indian Oversees Bank	12/9/03	FP	24	24
11	Infrastructure Development Finance Company Ltd	22/07/05	BB	29-34	34
12	M&M Financial Services Ltd	24/02/06	BB	170-200	200
13	Oriental Bank of Commerce	29/4/05	BB	235-260	250
14	Punjab National Bank	11/3/05	BB	350-390	390
15	South Indian Bank Ltd	15/02/06	BB	60-66	66
16	Syndicate Bank	13/07/05	BB	46-50	50
17	Union Bank of India	21/02/06	BB	100-110	110
18	Vijaya Bank	17/10/03	FP	24	24
19	Yes Bank Ltd	21/06/05	BB	38-45	45
13	Cement &Construction	21/00/03	טט	JU-43	45
1	B.L Kaswhyap &Sons Ltd	23/02/06	BB	625-700	685
2	Era Constructions (india) Ltd	29/06/05	FP	72	72
3	I.VRCL Infrastructure & Project Ltd	23/03/05	BB	385-415	395
4	J.K Cements Ltd.	24/02/06	BB	145-155	148
	0.1.7 0 0.1.10 0.101		FP	40	
5	M.S.K Projects(India) Ltd	8/8/04	BB		40
6	Nitco Tiles Ltd.	27/02/06		140-168	168
7	PBA Infrastructure Ltd.	28/10/05	FP	60	60
8	Pratibha Industries Ltd.	22/02/06	BB	100-120	120
9	Tantia Constructions Ltd.	31/03/06	BB	45-50	50
_	Conglomerate	00/00/05		100	100
1	Alps Industries Ltd.	23/09/05	FP	120	120
2	Empex Ferro Tech Ltd	22/12/04	FP	10	10
3	Ram Krishna Forgings Ltd	10/4/04	FP	20	20
4	Rohit Ferro Tech Ltd.	11/3/06	FP	30	30
	Energy				
1	Gas Authority of India Ltd	5/3/04	BB	195	195
2	Gujrat State Petronet Ltd	28/01/06	BB	23-27	27
3	Indraprastha Gas Limited	5/12/03	BB	40-48	48
4	Oil & Natural Gas Corporation Ltd	13/03/04	BB	680-750	750
5	Petronet LNG Ltd	9/3/04	BB	13-15	15
	Engineering				
1	AIA Engineering Ltd.	22/11/05	BB	275-315	315
2	Birla Power Solution Ltd	29/03/06	FP	42	42
3	Indo Tech Transformers Ltd.	16/02/06	FP	130	130
4	Punj Lloyd Ltd	16/12/05	BB	600-700	700
5	Sadbhav Engineer Ltd	8/2/06	BB	165-185	185
6	Sunil Hitech Engineers Ltd	3/2/06	FP	100	100
7	Suzlon Energy Ltd.	29/09/05	BB	425-510	510
8	Treveni Engineering and Industries Ltd.	25/11/2005	BB	42-50	48
	Food &Beverages				
1	Beeyu Overseas Ltd	3/6/05	FP	14	14
2	Dwarikesh Sugar	3/12/04	FP	65	65
3	KM Sugar Mils Ltd	19/10/05	FP	52	52
4	Shree Renuka Sugars Ltd.	14/10/05	BB	250-300	285
5	Uttam Sugar Mills Ltd.	21/03/06	BB	290-340	340
	IT				
1	3i Infotech Ltd	4/4/05	BB	90-100	100
2	Allsec Technologies Ltd	20/04/05	BB	135-162	135
		1			-

		Date of Closure	Mechanism		Issue
No.	Sector & Company name	of Issue	Followed	Price Band	Price
3	Aurionpro Solutions Ltd	4/10/05	BB	81-90	90
4	CMC LTd	28/02/04	BB	485	485
5	Compulink Systems Ltd.	30/12/2005	FP	60	60
6	Datamatics Technologies Ltd	19/04/04	BB	101-110	110
7	D-Link (India) Ltd	27/2/01	BB	300	300
8	Educomp Solution Ltd.	22/12/05	BB	110-125	125
9	FCS Software Solution Ltd	29/08/05	FP	50	50
10	Four Soft Ltd	23/02/04	FP	25	25
11	Gokaldas Exports Ltd	6/4/05	BB	375-425	425
12	I-Flex Solution Ltd	11/6/02	BB	530	530
13	Paradyne Infotech Ltd.	7/10/05	FP	42	42
14	Patni Computer Systems Ltd	5/2/04	BB	200-230	230
15	Powersoft Global Solution Ltd.	29/03/06	FP	22	22
16	Prithivi Information Solution Ltd.	28/10/05	BB	250-270	270
17	R Systems International Ltd	31/03/06	BB	210-250	250
18	Sasken Communications Technologies Ltd	17/08/05	BB	230-260	260
19	Tata Consultancy Services Ltd	5/8/04	BB	775-900	850
20	Tulip IT Services Ltd.	15/12/05	BB	100-120	120
	Manufacturing	10/12/00			1.20
1	Bannari Amman Spinning Mills Ltd	25/10/05	BB	115-135	135
2	Bombay Rayon Fashion Ltd.	17/11/05	BB	60-70	70
3	Celebrity Fashion Ltd.	22/12/05	BB	160-180	180
4	Ginni Filaments Ltd.	23/12/05	BB	19-22	22
5	Jindal Poly Films Ltd	15/06/05	BB	360-400	360
6	Kernex Microsystems (India) Ltd.	3/12/05	BB	225-250	250
7	Kewal Kiran Clothing Ltd.	23/03/06	BB	250 -275	260
8	Malu Paper Mills Ltd.	10/3/06	FP	30	30
9	Nadam Exim Ltd	20/05/06	FP	20	20
10	Nitin Spinners Ltd.	12/1/06	BB	18-21	21
11	Radha Madhav Corporation Ltd	16/12/05	FP	20	20
12	Raj Rayon Ltd	18/01/06	BB	55-65	65
13	Sakuma Exports Ltd.	14/02/06	FP	50	50
14	Shivalic Global Ltd.	14/03/06	FP	60	60
15	Shree Ganesh Forging Ltd	24/05/06	FP	30	30
16	Sree Shakti Paper Mills Ltd	21/01/06	FP	30	30
17	Yash Papers Ltd	8/7/05	FP	14	14
17	Media	8/1/03	11	14	14
1	Mid-Day Multimedia Ltd	16/2/01	BB	70	70
2	Cyber Media (India) Ltd	9/5/05	FP	60	60
3	Entertainment Network (India) Ltd	27/01/06	BB	144-162	162
<u>3</u> 4	H T Media Ltd	10/8/05	BB	445-530	530
4 5	Infox Leisure Ltd	2/2/06	BB	100-120	120
<u>5</u> 6	Jagran Prakhashan Ltd	31/01/06	BB	270-324	320
7	K Sera Srea Production Ltd.	22/02/06	BB	64-70	68
8	New Delhi Television Ltd	28/04/04	ВВ	63-70	70
<u> </u>	PVR Ltd	14/12/05	BB	200-240	225
10	Shrinagar Cinemas Ltd	11/4/05	ВВ	47-53	53
11	T.V Today Network Ltd	27/12/03	BB	80-95	95
12	UTV Software Communications Ltd	25/02/05	BB	115-130	130
14	Mentals & Mining	23/02/03	סט	110-130	130
1	<u> </u>	17/09/06	DD	27.40	27
1	Adhunik Metallic Ltd.	17/03/06	BB FP	37-42 10	37
2	Gallantt Metal Ltd. M.S.P Steel &Power Ltd	10/3/06 24/06/05	FP FP	10	10
					10
4	Ramsarup Industries Ltd	16/12/05	FP	60	60
5	S.A.L Steel Ltd	5/11/04	BB	12 to 14	14
6	Shri Ramsarup Balaji Steels Ltd	14/07/05	BB	20-22	22
7	Vikash Metal & Power Ltd.	28/10/05	FP	20	20
8	Visa Steel Ltd.	27/02/06	BB	52-57	57
_	Misc	00/44/0005	DD	455 405	105
1	ABG Shipyard Ltd.	26/11/2005	BB	155-185	185
2	Bartronics India Ltd	24/12/05	BB	63-75	75

No.	Sector & Company name	Date of Closure of Issue	Mechanism Followed	Price Band	Issue Price
3	Bharati Shipyard Ltd	8/12/04	BB	55-66	66
4	Deccan Chronicle Holdings Ltd	2/12/04	BB	162-194	162
5	Dredging Corporation of India Ltd	4/3/04	BB	385-400	400
6	Dyanemic Products Ltd	25/01/06	FP	35	35
7	Everest Kanto Cylinder Ltd.	25/11/2005	BB	140-160	160
8	Gujrat Industries Power Co Ltd	19/10/05	BB	63-75	68
9	GVK Power & Infrastructure Ltd	7/2/06	BB	260-310	310
10	IBP Co. Ltd	1/3/04	BB	620	620
11	Indian Petrochemicals Corporation Ltd	27/02/04	BB	170	170
12	Jai Prakash Hydro Power Ltd	29/03/05	BB	27-32	32
13	Jet Airways(India)Ltd	24/02/05	BB	950-1125	1100
14	Maruti Udyog Ltd	19/06/03	BB	115	125
15	Repro India Ltd.	1/12/05	BB	145-165	165
16	Sah Petroleums Ltd	6/9/04	FP	35	35
17	Solar Explosives Ltd.	13/03/06	BB	170-190	190
18	Southern Online Bio Technologies Ltd.	24/09/05	FP	10	10
19	SPL industries Ltd	5/7/05	BB	60-70	70
20	Talbros Automotive Components Ltd.	9/9/05	BB	90-102	102
21	Uniply Industries Ltd	16/06/05	FP	24	24
22	Vardhman Acrylics Limited	19/9/03	BB	10	10
	Pharmaceutical				
1	Amar Remedies Ltd.	31/08/05	BB	24-28	28
2	Biocon Ltd	18/03/04	BB	270-315	315
3	Dishman Pharmaceuticals & Chemicals Ltd	7/4/04	ВВ	155-175	175
4	Divi's Laboratories Ltd	21/02/03	BB	130	140
5	Indoco Remedies Ltd	23/12/04	BB	220-245	245
6	Nectar Life sciences Ltd	28/06/05	BB	200-240	240
7	Vivimed Labs Ltd	13/07/05	FP	70	70
	Power				
1	Power Trading Corporation Ltd	8/3/04	BB	14-16	16
2	National Thermal Power Corporation Ltd	14/10/04	ВВ	52-62	62
	Retailing				
1	Emami Ltd	10/3/05	BB	60-70	70
2	Piramyd Retail Ltd.	16/11/05	BB	120-140	120
3	Provogue (India) Ltd	16/06/05	BB	130-150	150
4	Shopper's Stop Ltd	4/5/06	BB	210-250	238
	Services				
1	Bharati Tele Venture Ltd	2/2/02	ВВ	45	45
2	Gateway Distriparks Ltd	14/03/05	ВВ	60-72	72
3	Gitanjli Gems Ltd	21/02/06	BB	170-195	195
4	Royal Orchid Hotels Ltd.	17/01/06	ВВ	150-165	165
	Spanco Telesystems & Solutions Ltd	8/11/04	FP	25	25

with 643 % premium and the Deccan Chronicle Holdings Ltd with the premium of 132%. It revealed that issues raised through Fixed Price were more promising as 85.5% had current price higher than its issue price as compared to 83.18% of issues, which followed Book Building issues and gave positive returns. Spread of the returns of the issues raised through Book Building process was -56.17% to 989.28%, which was far greater than -21.43% to 570% of Fixed Priced issues.

4.4 PART-IV: CORRELATION ANALYSIS

This section focused on the aspect that Can the size of issue be taken as indicator of its success in secondary market? For this purpose, coefficient of correlation (Karl Pearson's coefficient of correlation) was calculated between size of issue and percentage change in the issue price and list price of the same. In same manner, correlation was calculated between size of issue and percentage change in the issue price and current price of the same. Furthermore, using Probable Error method, as shown in Table 5, significance of the degree of correlation has been tested. Results revealed that in the case of Book Building issues, there existed a negative correlation between size of the issues and their immediate performance in the secondary market. The degree of correlation was -0.02293. However this degree was far less than its Probable Error, which was 0.0556 so it can be concluded that there was no significant correlation between size of the issue and their immediate performance in the stock exchange. In case of long-term performance,

Table 2 : Size of Issue & Pricing Mechanism

Sr. No.	Size (in crores)	Frequency	No. of Companies following				
			Fixed Price Method			Building hod	
			No.	%	No	%	
1	Up to 1 Cr.			nil			
2	1 – 50	50	32	64	15	36	
3	50 – 100	28	5	17.86	23	82.14	
4	100-150	16	-	0	16	100	
5	150-200	11	-	0	11	100	
6	200-250	6	2	33.33	4	66.67	
7	250-300	5	-	0	5	100	
8	300-350	3	-	0	3	100	
9	350-400	2	-	0	2	100	
10	400-450	3	-	0	3	100	
11	450-500	1	-	0	1	100	
12	500-550			nil			
13	550-600	3	-	0	3	100	
14	600-650		nil				
15	650-700		nil				
16	700-750	1	-	0	1	100	
17	750-800	3	1	33.33	2	66.66	
18	800-850	2	-	0	2	100	
19	850-900			nil			
20	900-950			nil			
21	950-1000			nil			
22	1000-1050	1	-	0	1	100	
23	1050-1100			nil			
24	1100-1150			nil			
25	1150-1200	1	-	0	1	100	
26	1200-1250			nil			
27	1250-1300			nil			
28	1300-1350	1	-	0	1	100	
29	1350-1400	1	-	0	1	100	
30	1400-1450	1	-	0	1	100	
31	1450-1500	2	-	0	2	100	
32	1500-1550			nil			
33	1550-1600			nil			
34	1600-1650	1	-	0	1	100	
35	1650-1700			nil			
36	1700-1750			nil			
37	1750-1800			nil			
38	1800-1850	1	-	0	1	100	
39	Above 1850	4	-	0	4	100	
	Total	147	40		107		

there existed a positive correlation with the degree of 0.008292. This was also not significant as it was not 6 times greater than its Probable Error, which was 0.0556. In case of Fixed Price issues, there existed a positive correlation between size of the issues and their immediate performance in the secondary market. The degree of correlation was 0.182796832. However, this was not significant as it was not 6 times greater than its Probable Error which was 0.0538. In the case of long term performance, there existed the positive correlation with the degree 0.459648 and it was significant as it was 6 times greater than its probable error i.e. 0.0439.

5. FINDINGS

From the forgoing analysis followings were the findings:

- **Hypothesis 1** which stated that Book Building was preferred as price discovery tool to Fixed Price method was accepted. It was proved from the fact that over last five years, out of 147 companies, 107 followed Book Building method.
- Sector wise analysis showed that the Conglomerate and the Engineering sectors preferred Fixed Price method. The Manufacturing and the Metal & Mining sectors, equally preferred both methods, whereas all other sectors,

Table 3 : Price Discovery Tool and Its Impact on Immediate Performance

Sr.No	Company Name	Issue Price	Listed Price	Change	Issue Price	Current Price	% Change
	Fixed Priced Issues						
1	Alps Industries Ltd.	120	111	-7.5	120	193.5	61.25
2	Bank of Maharashtra	23	35	12	23	31.5	36.96
3	Beeyu Overseas Ltd.	14	20.5	46.43	14	19.5	42.143
4	Birla Power Solution Ltd.	42	37.5	-10.7	42	46.5	10.71
5	Compulink Systems Ltd.	60	68.85	14.75	60	50.5	-15.83
6	Cyber Media (India) Ltd.	60	75	25	60	125	108.33
7	Dredging Corporation of India Ltd	24	36	50	24	52.5	118.75
8	Dwarikesh Sugar	65	100	53.85	65	209.5	222.31
9	Dyanemic Products Ltd.	35	37.6	7.42	35	27.5	-21.43
10	Era Constuctions (India) Ltd.	72	78	8.33	72	413	473.61
11	FCS Software Solution Ltd.	50	150	200	50	195	290
12	Four Soft Ltd.	25	20.1	-19.6	25	73.5	194
13	Gallantt Metal Ltd.	10	11.05	15	10	15.5	55
14	Impex Ferro Tech Ltd.	10	17.4	74	10	21.6	116
15	Indian Overseas Bank	24	27.45	14.37	24	101.5	322.92
16	Indo Tech Tranformers Ltd.	130	165	26.9	130	194.5	49.61
17	KM Sugar Mills Ltd.	52	65	25	52	75.5	45.19
18	Malu Paper Mills Ltd.	30	31.9	6.33	30	25.5	-15
19	MSK Projects (India) Ltd.	40	44	10	40	247.5	275
20	MSP Steel & Power Ltd.	10	14	40	10	15.5	55
21	Nandan Exim Ltd.	_	48		20	69	245
		20 42		140			
22	Paradyne Infotech Ltd.		51.25	22	42	76.5	82.14
23	PBA Infrastruture Ltd.	60	105	75	60	133.5	122.5
24	Powersoft Global Solution Ltd.	22	25	13.63	22	19.5	-11.36
25	Radha Madhav Corporation Ltd.	20	28.1	40.5	20	41	105
26	Ram Krishna Forgings Ltd.	20	30	50	20	118	490
27	Ramsarup Industries Ltd.	60	81	35	60	102.5	70.83
28	Rohit Ferro Tech Ltd.	30	50	66.67	30	45	50
29	Sah Petrolium Ltd.	35	35	-	35	205	485.75
30	Sakuma Export Ltd.	50	65	30	50	40.5	-19
31	Shivalic Global Ltd.	60	70	16.67	60	62	3.33
32	Shree Ganesh Forging Ltd.	30	43	43.33	30	58	93.33
33	Southren Online Bio Technologies Ltd.	10	17	70	10	14.5	45
34	Spanco Telesyestems & Solution Ltd.	25	52	108	25	167.5	570
35	Sree Shakti Paper Mills Ltd.	30	38	26.67	30	25	-16.67
36	Sunil Hitech Engineer Ltd.	100	125	25	100	134	34
37	Uniply Industries Ltd.	24	29.6	23.33	24	24.5	2.08
38	Vikash Metal & Power Ltd.	20	22.95	14.75	20	16.5	-17.5
39	Vivimed Labs Ltd.	70	115	64.29	70	185	164.29
40	Yash Papers Itd.	14	16.1	15	14	21	50
	Book Building Issues						
1	3i Infotech Ltd.	100	105.15	5.15	100	478	378
2	ABG Shipyard Ltd.	185	280	51.35	185	32.3	74.59
3	Adhunik Metaliks Ltd.	37	37	0	37	40.5	9.45
4	AIA Engineerring Ltd.	315	399.95	26.97	315	586	86.03
5	Allahabad Bank.	82	78	-4.88	82	85.5	4.27
6	Allsec Technologies Ltd.	135	110.55	-18.11	135	219	62.22
7	Amar Remidies Ltd.	28	50	44	28	71.5	155.36
8	Andhra Bank	90	90.5	0.55	90	89	-1.1
9	Aurionpro Solutions Ltd.	90	102.2	13.55	90	72	-20
10	B. L Kaswhyap & Sons Ltd.	685	749.9	9.47	685	1196.5	74.67
11	Bank Of Baroda.	230	233.5	1.52	230	240	4.35
12	Bank Of Maharasthra	400	480	20	400	605	51.25
13		_					-9.26
	Bannari Amman Spinning Mills Ltd.	135	175	29.63	135	122.5	
14	Bartronics India Ltd.	75	130	73.33	75	105	40
15	Bharti Shipyard Ltd.	66	130	96.97	66	328.5	397.73
16	Bharti Tele Venture Ltd.	45	55	22.2	45	334.5	643
17	Biocon Ltd.	280	292.65	4.52	280	538.5	92.32

Sr.No	Company Name	Issue Price	Listed Price	Change	Issue Price	Current Price	% Change
18	Bombay Royan Fashion Ltd.	70	82.3	17.57	70	169.5	142.14
19	Celebrity Fashion Ltd.	180	230	27.78	180	203	12.78
20	CMC Ltd.	485	499	2.89	485	540	11.34
21	Deccan Chronicle Holdings Ltd.	162	191.5	18.21	162	376	132
22	Dishman Pharmaceuticals & Chemicals Ltd.	110	86	69.09	110	87.5	-20.45
23	Divi's Labroratories Ltd.	140	161	15	140	1525	989.28
24	D-Link (India) Ltd.	300	220	-26.6	300	130	-56.67
25	Dredging Corporation of India Ltd.	195	208.2	6.77	195	265.5	36.15
26	Educomp Sloution Ltd.	125	185.3	48.24	125	311	149
27	Emami Ltd.	70	77.9	11.29	70	192.5	175
28	Entertainment Network (India) Ltd.	162	421.6	160.25	162	226.5	39.81
29	Everest Kanto Cylinder Ltd.	160	190	18.75	160	333	108.12
30	Gas Authority Of India Ltd.	16	31.1	94.37	16	62.5	290.13
31	Geteway Distripark Ltd.	72	90	-2.22	72	217.5	202.08
32	Ginni Filaments Ltd.	22	23.3	5.91	22	35.5	61.36
33	Gitanjli Gems Ltd.	195	215	10.25	195	208.5	6.92
34	Gokaldas Export Ltd.	425	566	33.18	425	632	48.71
35	Gujrat Industries Power Co Ltd.	68	67.15	-1.25	68	75	10.29
36	Gujrat State Petronet Ltd.	27	45	66.67	27	39.5	46.3
37	GVK Power & Infrastucture Ltd.	310	350	12.9	310	279	-10
38	H T Media Ltd.	530	685	29.24	530	573.5	8.21
39	I_Flex Solution Ltd.	530	549	3.58	530	1081	103.96
40	IBP Co. Ltd.	620	605	-2.42	620	498.5	-20
41	ICICI Bank Ltd.	525	574	9.33	525	538.5	2.51
42	ICICI Bank Ltd.	175	301.2	72.11	175	189.5	8.28
43	IL & FS Investment Ltd.	125	183.25	46.6	125	159.5	27.6
44	India Buuls Financial Servieces Ltd.	19	25	31.58	19	100	426.31
45	India Infoline Ltd.	76	87.15	14.67	76	154	102.63
46	Indian Petrochemicals Corporation Ltd.	170	184.9	8.76	170	235	38.23
47	Indoco Remedies Ltd.	245	440	79.59	245	330.5	34.89
48	Indraprastha Gas Ltd.	48	120	150	48	123.5	157.29
49	Infox Leisure Ltd.	120	185	54.17	120	174	45
50	Infrastucture Development Finance Co Ltd.	34	49.9	31.86	34	615	80.8
51	IVRCL Infrastructure & Project Ltd.	395	432.95	9.61	395	227	-42.53
52	J.K Cements Ltd.	148	155	4.73	148	170.5	15.2
53	Jagran Parkhashan Ltd.	320	376	17.5	320	293.5	-8.28
54	Jai Prakash Hydro Power Ltd.	32	36.8	15	32	30.7	-4.06
55	Jet Airways (India) Ltd.	1100	1211	10.09	1100	1001	-9
56	Jindal Poly Films Ltd.	360	345	-4.17	360	367	1.94
57	K Sera Srea Production Ltd.	68	69.15	1.69	68	65.5	-3.67
58	Kernex Microsystems (India) Ltd.	250	390	56	250	285	14
59	Kewal Kiran Clothing Ltd.	260	299	15	260	273	5
60	M & M Fimancial Services ltd.	200	241	20.5	200	231	15.5
61	Maruti Udyog Ltd.	125	158.4	26.72	125	703.5	463
62	Mid-Day Multimedia Ltd.	70	65	-7.14	70	82.5	17.86
63	National Thermal Power Corproration Ltd.	62	70	12.9	62	113.5	83.06
64	Nectar Lifescience Ltd.	240	298.9	24.54	240	219	-8.75
65	New Delhi Television Ltd.	70	1	52.86	70	213	204.28
66	Nitco Tiles Ltd.	168	172	2.38	168	189	12.5
67	Nitin Spinners Ltd.	21	28.05	35.71	21	21.5	2.38
68	Oil And Nature Gas Corporation Ltd.	315	400	26.98	315	431	36.82
69	Orientel Bank Of Commerce	250	255	2	250	233.5	-6.6
70	Patni Computer Systems Ltd.	230	305	32.61	230	404	75.65
71	Petronet LNG Ltd.	750	825	10	750	1162	54.93
72	Piramyd Retail Ltd.	120	146	21.67	120	177	47.5
73	Power Trading Corporation Ltd.	15	16.5	10	15	56.5	270.67
74	Pratibha Industries Ltd.	120	146	21.67	120	266.5	122.08
75	Prithivi Information Ltd.	270	324	20	270	375	38.8
76	Provogue (India) Ltd.	150	255	70	150	286	90.67
77	Punj Lloyed Ltd.	700	989	41.28	700	977	39.57

Sr.No	Company Name	Issue Price	Listed Price	Change	Issue Price	Current Price	% Change
78	Punjab National Bank.	390	392	0.51	390	431.5	10.64
79	PVR Ltd.	225	266.35	18.38	225	274.5	22
80	R. Systems International Ltd.	250	285	14	250	232	-7.2
81	Raj Rayon Ltd.	65	58.45	-10.08	65	75	15.38
82	Repro India Ltd.	165	209	26.67	165	220	33.33
83	Royal Orchid Hotels Ltd.	165	240.1	45.52	165	185.5	15.45
84	S.A.S Steel Ltd.	14	23.5	67.86	14	215	53.57
85	Sadbhav Engineer Ltd.	185	235	27.03	185	429	131.89
86	Sasken Communications Technologies Ltd.	260	400	53.85	260	448.5	72.5
87	Shopper's Stop Ltd.	238	335.5	40.97	238	518.5	117.86
88	Shree Renuka Sugars Ltd.	285	310	8.77	285	960.5	237.02
89	Shri Ramsarup Balaji Steels Ltd.	22	29	31.82	22	20	-9.09
90	Shrinagar Cinemas Ltd.	53	53.9	1.7	53	75	41.51
91	Solar Explsives Ltd.	190	219.9	15.74	190	226	18.95
92	South Indian Bank Ltd.	66	65.75	-0.38	66	119	80.3
93	SPL Industries Ltd.	70	90	28.57	70	83.5	19.28
94	Suzlon Engergy Ltd.	510	640	25.49	510	304.5	-40.29
95	Syndicate Bank	50	72.8	45.6	50	77.5	55
96	T. V Today Network Ltd.	95	210	121	95	100	5.26
97	Taibros Automotive Componentes Ltd.	102	110.1	7.9	102	111	8.82
98	Tantia Constuctions Ltd.	50	180	260	50	209.5	319
99	Tata ConSultancy Services Ltd.	850	1076	26.49	850	16553.5	94.53
100	Treveni Engenieering & Industries Ltd.	48	53.25	10.94	48	9.15	90.62
101	Tulip IT Services Ltd.	120	180	50	120	278.5	132.08
102	Union Bank Of India.	110	122	1.91	110	120	9.09
103	Uttam Sugar Mills Ltd.	340	380	12	340	414	21.76
104	UTV Software Communications Ltd.	130	165	26.92	130	195	50
105	Vardhman Acrylics Ltd.	10	12	20	10	11.5	15
106	Visa Steel Ltd.	57	58.9	3.33	57	45	-21.05
107	Yes Bank Ltd.	45	65	44.44	45	82.5	83.33

Table 4: Correlation Analysis

Price Discovery Tool		K	Carl's Coefficient	of correlation		
	With % change of Issue Price and List Price			With % change of Issue Price a Current Price		
	r	Probable Error	REMARKS	r	Probable Error	Remarks
Book Building	-0.02293	0.0556	Not Significant	0.008292	0.0556	Not Significant
Fixed Price Method	0.182796832	0.0538	Not Significant	0.459648	0.0439	Significant

namely, Services, Retailing, Power, Pharmaceutical, Media, IT, Food &Beverages, Energy, Cement & Construction, Banking & Finance and even companies falling under miscellaneous followed the Book Building method.

- The Size wise analysis showed that small size issues i.e. only up to 250 crores followed the Fixed Price method. Whereas, all large size issues preferred Book Building as price discovery tool. So **hypothesis 2 and 3 were accepted**.
- **Hypothesis 4** stating that the issues raised through Book Building attracted high opening price as compared to the issued raised through Fixed Price method, **was accepted.**
- The issues raised through Fixed Price method were relatively more promising in long term as compared to the issued raised through Book Building. So hypothesis 5 was rejected as it was found that issues raised through fixed price method performed better in long term.
- There existed statistically significant positive correlation between size of Fixed Price issues and their long term performance in the secondary market. The correlation between size and immediate performance of fixed price issues was also positive but the degree was not statistically significant. In case of Book Building issues there was statistically insignificant negative correlation between size of issues and their immediate performance. As far as (Contd. on page 25)

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(Contd. from page 17)

correlation between size and long-term performance of issues was concerned, there was positive correlation. However degree was statistically insignificant. So it could be said that in case of Fixed Price issues, hypothesis 6 was accepted whereas, in case of Book Building issues, hypothesis 6 was rejected.

6. RECOMMENDATIONS

- Large size of issue should not be treated as indication of success of the issue.
- Short-term investors may invest in Book Building issues as they attracted high opening price. But long-term investors may rely on issues raised through Fixed Price method, as they were more promising in long term.
- Whole amount for shares applied should be received in advance from QIB's just like retail investor so that they can quote real worth of the company in terms of money that they are ready to pay for it.
- Book -Building method should be improved in the term of transparency. To make it more transparent and investor friendly, companies should disclose the basis for fixing price band / floor price and the reason that why are they preferring a particular tool for pricing to another.
- Every Company should be required to use Green shoe Option every time while offering the shares.

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