

Full Length Research Paper

High credit rating IPOs and determinants of underpricing

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In this paper, we declare that such objective, autonomous and exogenous certifying mechanism provides a better opportunity to test the well-established credit rating hypothesis, especially in the context of emerging markets with institutional voids. Employing a sample of 142 Indian IPOs (January 2007 to December 2012), we also experiment Ex-ante uncertainty with the efficacy of IPO (Initial Public Offerings) grading mechanism. We procure; grading decreases IPO underpricing and positively influences demand of retail investors, issue size, earnings before interest and dividend, long-term debt-equity ratio and profit to the book value ratio. Grading diminishes the number of share offered, a debt-equity ratio, and earnings before interest, dividend and tax, fixed to assess ratio and is having much impact on Ex- Ante uncertainty. Notwithstanding, grading does not affect subscription rate, offer timing (difference in days between offer days and listing days), firm's age, debtors turnover ratio, creditor payment method, cash to price earnings ratio, PIPH (post issue promoter's holding), interest coverage ratio, inventory turnover ratio, market capitalization, price earnings ratio, return on capital employed and return on net worth of the IPOs. IPO grading is prominent to capture firm size, business group affiliation and firm's quality of corporate governance. Our findings put forward that, in emerging markets, regulator's role to signal the quality of an IPO contributes with respect to the market welfare.

Key words: Initial Public Offerings, underpricing, credit rating, ownership structure, Ex-ante uncertainty.

INTRODUCTION

Initial Public Offerings (IPOs) are distinguished by high levels of information asymmetry. Many Firms are planning to go public, often use various certification mechanisms such as high-quality underwriters, venture capital affiliations, high-quality auditors and lockup agreements to reduce information asymmetry and to signal their quality to potential investors. The pricing and performance of initial public offerings (IPOs) is one of those experimental is sued that attract attention from many researchers in finance. The empirical evidence on the pricing of IPOs provides a puzzle to those who in other respects believe in efficient financial markets. Even

though there is the extensive amount of studies on the abnormal initial returns provide d by IPOs there is not even a single study to speak on the price cap phenomenon during the first days of trading. The pre-eminent purpose of this study is to fill this gap using not one but three regulations changes over the covered period. Regulations and listing requirements have played a major role of the life of IPOs. A request for a stock exchange listing is the basis of an introduction prospectus whose contents are subject to regulations and, which is generally filed a few months before the admission date. In order to compile the IPO prospectus, lawyers, together

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with the underwriting bank examines the company regarding its legal, financial and commercial aspects. The process of a firm's IPO is characterized by the expansion of its ownership structure (Pham et al., 2003) to include a much larger number of outside investors. This leads to higher trading liquidity (Fidrmuc et al., 2006) which curtails transaction costs in future equity raising (Ibbotson and Ritter, 1995) and increases the firm value (Amihud and Mendelson, 1986). Promoting trading consist with general perception that the large trading volume in initial public offerings is mostly due to flipping activity and Rating IPOs by Deb and Mariestty (2010), certification grading (Arif et al., 2011), ownership structure at BSE by Bansal and Khanna (2012). Pricing mechanism at BSE tested by Bansal and Khanna (2012).

LITERATURE REVIEW

Several papers discussed the vital role played by underpricing in achieving the desired ownership structure. Among these papers, LaPorta (1999) point out that for emerging market countries, ownership structure plays a very important role in corporate finance. Kim et al. (2004) study the relationship between managerial ownership and firm performance using Thai IPO firms. Yong (2001) suggested that ownership has a positive relationships between managerial ownership and the change in performance. Stoughton and Zechner (1998) indicates that IPO companies use underpricing to create a more practical ownership structure. As a result, how underpricing affects ownership structure is a question and we, provide direct evidence in this present study. However, underpricing may affect liquidity directly without the link of a broad ownership structure. It can be said that underpricing attracts investor attention and creates a broad base of possible traders. We endeavor to find the answers of these all questions.

Financial theories suggest that underpricing can be used to affect ownership structure. Booth and Deli (1996) examine that small investors are preferred and underpricing is used to help achieve a dispersed ownership. Reese (1998) reveals that, there is a significant positive relationship between under-pricing and post-listing trading volume for up to three years after listing. He suggested the level of investor interest in each IPO, which is represented by the extent of financial media coverage, to be a possible explanation for this relationship. He also states that this relationship is formed through the mediation of owner ship structure formed after the allocation process.

Pham et al. (2003) discover that underpricing is positively related to the breadth of shareholding base and negatively related to blocking holder ownership in Australia. He also put forward that the main motivation of achieving a broad initial ownership through underpricing is to increase secondary market liquidity. Results evoke

that in the U.S. market, underpricing appears to improve liquidity throughout another dimension of ownership structure: the number of non-block institutional shareholders.

According to Arif et al. (2011), India has the unique distinction of grading its IPOs and demonstrating the IPO Book building process to investors. In the context of this backdrop we investigate the certification role of these mechanisms in bookbuilt IPOs in India. We find that contrary to the expectations, grading does not affect the underpricing of IPOs. We also find that though grading was introduced to help retail investors, it is instead being used by informed institutional investors to make their investment decisions in Indian IPOs. However, the benefits of grading do pass on to the retail investors, albeit indirectly. We show that the transparency of the IPO book building process offers a much stronger certification signal to retail investors as compared to that of IPO grading. Known certification mechanisms such as the reputation of the sponsor or VC affiliation are of limited importance in the Indian IPO market.

IPO grading regulation

The primary market for equity in India gained momentum after the liberalization initiative taken by the government in the early 1990s. Following the improvement in the growth rate of the economy of that time, there were a large number of IPOs, particularly during the period, 1990-2004. Unlike the US market, which is the basis for many IPO studies, the Indian IPO market has been dominated by retail investors. The dominance of retail investors can also be observed in the secondary market. During the last fifteen years, the Indian IPO market has undergone many changes that are widely seen to have improved its transparency and efficiency.

In particular, the initial years of liberalization, after 1990 to 1991, witnessed a boom in the Indian IPO market. With fewer regulations during this period, many entrepreneurs used the primary market as the main vehicle to raise capital (Khanna and Palepu, 1997, 2000). A majority of the IPOs in our sample were made during the first five years of liberalization (1990 to 1995). The spurt in interest in the equity markets also witnessed several instances of "fly-by-night" entrepreneurs who eroded investors' wealth. During 1995 to 1996, the new security's regulator, the Securities and Exchange Board of India (SEBI), introduced more regulations on IPO pricing and enforced other restrictions on promoters, such as the lock-in period for their holdings. This resulted in a slump in the IPO market immediately following this period. For encourage equity participation after the 1995 to 1998 slumps, between 1999 and 2000 the SEBI tried to shore up investor confidence by tightening its norms for public issues of equity. Some of the main changes are related to

(1) Financial reporting norms (For example, the eligibility

Table 1. Magnitude of Initial public offering listed at Bombay stock Exchange.

Year	BSE	BB	FPO	BB-Under	BB-Over	FPO-Under	FPO-over	% BBU	%BBO	% FPOU	% FPOO
2000	67	11	56	6	5	30	26	21.96	-46.87	191.32	-32.3
2001	10	2	8	0	2	2	6	0.00	-62.00	47.50	-52.0
2002	5	1	4	0	1	4	0	0.00	-50.93	16.07	0.0
2003	11	4	7	3	1	5	2	90.16	-87.41	97.86	-85.3
2004	25	17	8	9	8	6	2	54.43	-45.45	74.10	-56.0
2005	67	48	19	26	21	14	5	31.47	-51.75	60.37	-63.8
2006	89	68	21	36	32	14	7	36.75	-46.33	38.91	-25.0
2007	105	91	14	58	32	7	7	51.54	-21.42	113.67	-3.3
2008	38	33	5	16	17	2	3	36.45	-26.36	18.06	-32.3
2009	21	21	0	14	7	0	0	19.09	-14.52	0.00	0.0
2010	73	71	2	47	24	2	0	22.35	-12.85	60.77	0.0
2011	39	38	1	19	19	0	1	47.36	-33.32	0.00	-70.4
Total	550	405	145	234	169	86	59	34.29	-41.6	59.88	-35

Source: <http://www.bseindia.co.in>.

criterion for making a public offer was changed from “actual dividend payout” to “distributable profit”; the resulting emphasis on profitability ensured that only companies with a track record of financial performance enter the IPO market.)

(2) Allotment norms (For example, the minimum allotment to Qualified Institutional Buyers (QIBs) was reduced from 60 to 50%, giving greater scope for retail investor participation. Moreover, a minimum allotment of 25% was reserved for the retail public (investors with an investment below Rs. 50,000).

(3) Cost/efficiency norms (For example, the secondary market infrastructure of the stock exchanges was used for the primary market also, and the number of collection centers for investor applications for new issues was reduced to cut issue costs).

(4) Transparent book building procedures: (Bids were invited from investors to aid price discovery). Consequently, there have been three distinct regimes in the Indian primary market, namely, (1) the immediate post-liberalization regime (1990 to 1995), (2) the initial regulated regime (1996 to 2000), and (3) the reformed regulated regime (2001 to 2004).

DATA AND METHODOLOGY

Data description

The study examines the initial performance of 168 IPOs listed in the Bombay Stock Exchange both in Main and Parallel board during the period from January 2007 through to December 2011 (Table 1). The sample contains only common and ordinary stocks. Preference stock as well as transfer from Parallel to Main market is excluded. All data are mainly extracted from IPOs prospectuses, daily press, SEBI reports (History of BSE, Fact Books, Annual and Monthly Statistical Bulletins), Annual Reports of Reserve bank of India, SEBI and some special internet sites.

Measure of underpricing

Consistent with the standard methodology, underpricing is calculated as the percentage change from the offer price to the closing price in the secondary market.

$$\text{Traditional underpricing} = \frac{(\text{Closing price} - \text{Offer price})}{\text{Offer price}} * 100 \quad (1)$$

$$\text{Log underpricing} = \ln(P1 - P0/P0) * 100 \quad (2)$$

Log underpricing = $\ln(\text{closing price}/\text{offer price})$ is used to determine the level of underpricing and to make standard practice and to avoid heteroscedasticity. The initial return is adjusted for market changes, taking into account movements of the Bombay Stock Exchange (BSE) between the offer price closing date and the end of initial day of trading. Raw initial return, which is calculated using equation 1, does not consider time lag symptoms between the offer price closing day and the first day of trading in the stock exchange. During this period, many changes in market conditions may occur. As a result, the initial return measured may be a result of changes in market conditions. So the raw introductory return is adjusted for market changes and variances.

Market adjusted rate of return (MAARO)

We tested marketed adjusted returns on securities (MAARO) as a benchmark to find out the degree of underpricing. Firstly, we calculated the return on, i security, where we used $R_i = (P1 - P0) / P0$ where, R_i = return on i = security, $P1$ = Price of i security on first listing day, $P0$ = offer price of i security.

$$R_i = (P1 - P0) / P0 \quad (3)$$

Secondly, we calculated index return on corresponding days, where we used $M_i = (I_i - I_0) / I_0$ where M_i = market return on i th day, I_i = closing index at listing day, I_0 = closing index at offer day.

$$M_i = (I_i - I_0) / I_0 \quad (4)$$

Finally, we premeditated market adjusted return on security, where we have taken R_i from equation (1) and M_i from equation (2). The

Table 2. Details for the IPO determinants by low and high grading.

Variables / IPO grading	Rank 1 to 2 (low grading)	Rank 3 to 5 (High grading)
Subscription	17.75	31.17
Issue size	222.25	1119.59
Market cap (Cr.)	1778.42	11885.25
PIPH	71.69	69.44
No. of shares	21269959	77031050

Table 3. Details for IPO credit ratings.

Grade agency	Grade					Total
	1	2	3	4	5	
CARE	7	20	23	13	1	64
CRISIL	6	11	9	11	1	38
ICRA	5	24	19	8	0	56
FITCH	1	3	4	2	0	10
Total	19	58	55	34	2	168

market adjusted initial return is calculated as follows:

$$MAARO = \{100 * [(1 + Ri,t) / 1 + Mli,t] - 1\} \quad (5)$$

Ri,t = Raw initial return of company 'i' at period t

Mi,t = Market adjusted (excess) initial return of company 'i' at period t

Ri,0 = IPO offer price as per prospectus of company 'i'

Mi,1 = Closing price of IPO of company 'i' at the end of the first trading day

Mli,0 = BSE Index at the date of prospectus company 'i'

Mli,1 = BSE General Index at the close of first trading day of company 'i'

Hypothesis model

Based on several empirical studies, we constructed various hypotheses for the IPOs underpricing including all independent variables. We tested several hypotheses related to our research problems, research objectives and variables. One tailed hypothesis test has been soiled to determine the significant association between different variables at the 5% significance level. Nonetheless, we formulated several alternative hypotheses.

Null hypothesis: H0: There is no significant disagreement between independent variables with the dependent variable that is level of underpricing.

These are several alternative hypotheses:

H1: The degree of IPO underpricing should curtail in the post-grading regime compared to the pre-grading regime.

H2: IPO underpricing is supposed to be lower for highly graded IPOs compared to low graded IPOs.

H3: IPO grading should positively impact post issue promoters holdings demand in primary market.

H4: Grading should reflect firm's health, both in terms of financial stability and management quality.

H5: High IPO grading declining Ex- Ante uncertainty variables (such as subscription rate, market capitalization, issue size, number of

shares offered and offer timing).

Data and descriptive statistics

Magnitude of IPOs

Table 2 summarizes the statistics of the variables used in this study are re-reported in Table 4. Average initial return for the entire sample is 34.9%. Marisetty and Subrahmanyam (2010) report underpricing of more than 100% during 1991 to 2006. Therefore our result indicates that the IPO market in India has matured post year 2006. Table 2 reveals the magnitudes of IPOs after the Indian stock market crisis since October 2000 to December 2011. It is divided based on IPO that listed via book build and fixed price option. It also discloses the percentage of underpricing and overpricing in different years. It differentiates issue that is priced through the book build, and that is price through fixed price option. Data is collected with BSE websites and Capitaline database.

Detail of the IPO grading

Table 2 integrates the credit rating 1 and 2 on one column and rank 3, 4 and 5 in second columns. High credit ratings (3 to 5), reveals more subscription rate, more issue size of IPOs, highest market capitalization of issuing firms and maximum number of issue shares. Nevertheless, Low credit rank 1 and 2, expresses the low subscription rate, less issue size, fewer market capitalization amounts and fewer numbers of issued shares. In our sample, average issue size of the high graded IPOs is (1119.59) and post-issue promoter's holding is (69.44) respectively as compare to low grading issue size (222.25) and PIPH (71.69) correspondingly. The difference in the total subscription ratio between these two sub samples is very elevated; the mean values of total subscription are almost different. It is noticeable that QIB subscription is quite high for the graded IPOs (31.17 times) compared to the low graded IPOs (17.75 times). Numbers of shares are offered in high-grade IPO are much elevated as compare to low grade IPO (77031050) to (21269959) relatively.

Details of the IPO credit rating or IPO grading

Table 3 contains distribution of graded IPOs in our sample across different grades and various grading agencies. Table 3 reports details about the composition of our final sample. Our sample covers 168 graded IPOs. About 85% of the IPOs in our sample are offered through Book-Building method and rests of them are Fixed-Price IPOs. Table 3 shows details of the IPO grades in our sample. Only one IPO in our sample is graded by grading agency FITCH. It rests of graded issues are divided among three rating agencies – CARE, CRISIL and ICRA.

A probit regression model using the impact of higher grading IPOs at Ex-ante uncertainty variables, several sectors and IPOs

Table 4. Descriptive results for IPO underpricing and Ex-Ante uncertainty.

Variable	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Probability	Sum	Sum Sq. Dev.
IPO_GRADING	2.65	3.00	5.00	1.00	0.97	0.06	2.25	4.03	0.13	446.00	155.98
IPO_CODE_3_TO_5_1	0.54	1.00	1.00	0.00	0.50	-0.17	1.03	28.01	0.00	91.00	41.71
LGNOOFSHARE	16.27	15.80	21.24	14.56	1.40	1.35	4.22	61.79	0.00	2733.32	326.24
LOGCEPS	2.45	2.41	7.63	-0.56	1.18	0.73	6.28	80.68	0.00	368.17	205.76
LOGISSUESIZE	5.07	4.67	9.65	1.79	1.54	0.84	3.27	20.43	0.00	852.00	394.41
LOGMKTCAP	6.81	6.50	12.28	2.98	1.86	0.73	3.01	14.74	0.00	1144.71	578.55
LOGPBV	0.42	0.56	2.98	-3.22	1.01	-0.71	3.88	18.25	0.00	64.91	158.35
LOGPIPH	4.25	4.34	4.61	3.26	0.32	-0.98	3.37	26.48	0.00	684.40	16.79
LOGROCE	2.31	2.72	4.55	-1.14	1.34	-0.91	2.71	23.54	0.00	387.56	297.75
LOGRONW	2.47	2.83	4.60	-1.83	1.35	-1.07	3.26	32.68	0.00	414.74	305.57
LOGMAARO	2.95	3.25	5.65	-0.49	1.42	-0.58	2.61	10.64	0.00	496.40	337.74

underpricing are presented as follows:

$$\text{LOG CREDIT_RATING} = A + B1 \text{ DEB-EQ} + B2 \text{ INVENTORY} + B3 \text{ LOG NO. OF SHARE} + B4 \text{ LOG DIFF IN AGE} + B5 \text{ LOG AGE} + B6 \text{ DEBTORS} + B7 \text{ LOG MARKET CAPITALIZATION} + B8 \text{ LOG ISSUE SIZE} + B9 \text{ LOG EBIDTM} + B10 \text{ LOG EBAPTM} + B11 \text{ LOG PERE} + B12 \text{ LOG PBV} + B13 \text{ LOG PIPH} + B14 \text{ LOG SUBSC} + B15 \text{ LOG CEPS} + B16 \text{ LOG EBIDTAM} + B17 \text{ LOG INRTC} + B18 \text{ LOG ROCE} + B19 \text{ LOG RONW} + B20 \text{ LOG MKTCAP} + \bar{E} \quad (6)$$

Wherever, the dependent variable higher IPO grading or high credit ratings consults to initial return of the IPOs calculated as (IPO grading by several rating's agencies to IPOs, FITCH, CRISIL, ICRA and CARE). Elevated Grade_Dummy takes value 1 to indicate high graded IPOs (ratings 3 to 5) otherwise 0 in the sample. Number of shares offered to issuers is the natural logarithm of the number of shares issued to investors. Ln(Difference in age is the), distinctions in days between IPO offer date and IPO listing days, natural logarithm taken to make that value in standard practice. Age applies to age of the firm (in number of years) at the time of the IPO. Ln(Issue_size) is the natural logarithm of the issue amount in Rs. Crores; Ln (subscription) of the IPOs is symbolized by entire subscription; cash to price earnings ratio is measured to acquire the value of earning per share by investors. Market capitalization refers to market capital of the issuing firms.

Ln(mktcap) is the natural log of the amount in Rs. Crores; P/BV is the profit to the book value ratio, pre IPO return on net worth is RONW and natural logarithm of return on net worth Ln(RONW).

DESCRIPTIVE RESULTS

Summary statistics of the variables used in this study are given as; therefore our result indicates that the IPO market in India has matured post year 2006. Mean value of initial return for ungraded sample is marginally (2.95%) higher than the graded IPOs 1.95 (Bansal and Khanna, 2012), this difference is higher in median initial return. Standard deviation are maximum at (2.03), (1.42), (1.44) for Institutional non promoters, Log maaro and sub-scription respectively. Skewness is under 0 to 3 for all variables used in our models.

The impact of high IPO grading at the level of underpricing and Ex-ante uncertainty by Logit regression are model as follows:

$$\text{Log Credit_rating} = \alpha + \beta 1 \text{ DEB-Eq} + \beta 2 \text{ LOG No. of share} + \beta 3 \text{ LOG age} + \beta 4 \text{ LOG market}$$

$$\text{capitalization} + \beta 5 \text{ LOG Issue size} + \beta 6 \text{ LOG EBIDTM} + \beta 7 \text{ LOG EBAPTM} + \beta 8 \text{ LOG PERE} + \beta 9 \text{ LOG PBV} + \beta 10 \text{ LOG PIPH} + \beta 11 \text{ LOG Subsc} + \beta 12 \text{ LOG CEPS} + \beta 13 \text{ LOG INRTC} + \beta 14 \text{ LOG ROCE} + \beta 15 \text{ LOG RONW} + \bar{E} \quad (7)$$

The dependent variable higher IPO grading or high credit ratings consults to initial return of the IPOs is calculated as (IPO grading by several ratings agencies to IPOs, FITCH, CRISIL, ICRA and CARE). High Grade_Dummy takes value 1 to indicate high graded IPOs (ratings from 3 to 5) otherwise 0 in the sample. IPO_Type method is dummy variable, which obtains the value 1 for book-building IPOs and 0 if the offer is the fixed price. Number of shares offered to issuers is the natural logarithm of the number of shares issued to investors. Ln(difference in age) is the distinctions in days between IPO offer date and IPO listing days, natural logarithm taken to make that value in standard practice. Age refers to age of the firm (in number of years) at the time of the IPO. Ln(Issue_size) is the natural logarithm of the issue amount in Rs. Crores; Ln(subscription) of the IPOs is symbolized by entire subscription;

Table 5. Binary Logit results for high IPO grading and its impact on Ex- ante uncertainty.

Dependent variable: IPO_CODE_3_TO_5_1				
Method: ML - Binary Logit (Quadratic hill climbing)				
Included observations: 134				
Convergence achieved after 6 iterations				
Covariance matrix computed using second derivatives				
Variables	Coefficient	Std. error	z-Statistic	Prob.
C	3.786981	3.956841	0.957072	0.3385
LGNOOFSHARE	-0.307404	0.193092	-1.692007	0.1014***
LOG_DEBEQ	-0.942290	0.436094	-2.160751	0.0307**
LOGAGE	0.297042	0.245042	1.212207	0.2254
LOGAPATM	1.108457	0.673982	1.644640	0.0870***
LOGCEPS	-0.663264	0.800181	-0.828892	0.4072
LOGCPM	-0.837434	1.069131	-0.783285	0.4335
LOGFIXDAST	-0.292659	0.176615	-1.657047	0.0975***
LOGISSUESIZE	0.803242	0.517515	1.552115	0.1206
LOGMKTCAP	0.179074	0.404095	0.443149	0.6577
LOGPBV	0.954233	0.338100	2.822341	0.0418*
LOGPIPH	-0.596519	0.479640	-1.243679	0.2136
LOGROCE	-0.211715	0.416779	-0.507978	0.6115
LOGRONW	-0.255899	0.434399	-0.589088	0.5558
LOGSUBSC	1.097918	0.142437	0.687447	0.4918
LOGTERMDEBTE	0.830736	0.392272	2.117755	0.0342**
McFadden R-squared	0.219607	Mean dependent var		0.321388
S.D. dependent var	0.401373	S.E. of regression		0.404314
Akaike info criterion	1.076566	Sum squared resid		14.81825
Schwarz criterion	1.017207	Log likelihood		-51.82990
Hannan-Quinn criter.	1.196265	Deviance		97.6598
Restr. deviance	185.4947	Restr. log likelihood		-12.74735
LR statistic	87.83490	Avg. log likelihood		-0.401716
Prob(LR statistic)	0.000000			
Obs with Dep=0	78	Total obs.		168
Obs with Dep=1	90			

1% significance level (*), 5% significance level (**), 10% significance level (***).

cash to price earnings ratio is measured to obtain the value of earning per share by investors. Market capitalization refers to market capital of the issuing firms. Ln(mktcap) is the natural log of the amount in Rs. Crores; P/BV is the profit to the book value ratio, pre IPO return on net worth is RONW and natural logarithm of return on net worth Ln(RONW). We obtain firm's age ln(ag) and offer timing (difference in listings days and offer days) in our model.

LOGIT RESULTS

Model-A exhibits the impact of IPO high grading at the level of underpricing. Table 5 report estimated

parameters to the model described in Equation (7), simultaneously with the z-statistics, P-value, Std. errors and R^2 value from the model. The models are appraised over a sample of 134 IPOs issues over the period of Jan 2007–December 2012. The dependent variable high IPO grading relates to high grades of the IPOs considered as per the details provided in Table 3. We additionally investigate how different investor classes acknowledge to IPO grading. Basic intention behind IPO grading is that it furnishes information on the fundamentals of fewer known private firms, and as a consequence investors can make informed decision. We investigate whether investors' demand significantly varies across the different grades of IPO. We experiment the equation characterized in the model-A, over the sub-sample of graded IPOs. The

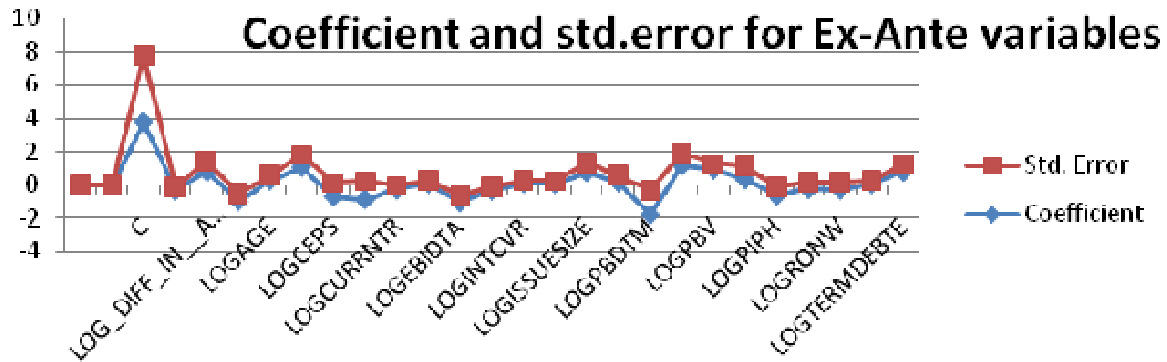


Figure 1. Coefficient and standard deviation for Ex- ante variables are used in regression model.

estimated parameters of these models are furnished in Table 5 and Figure 1. It examines primary market demand from retail investors/non institutional investors and as the results, investigates the demand of the institutional investors. Outcomes from Model A indicate the demand of the retail investors, which are positive and significantly related to IPO grades. Accordingly, Results also display that no. Of shares offered, Debt-equity Ratio, Profit after tax management, Earning before tax, dividend, fixed assets ratio, issue size, Profit before interest, depreciation and tax, Profit to book value and long-term debt equity ratio are a prominent determinant of retail demand in primary market. All other variables that are included in our models, the difference in age, firm's age, CPM, cash to price earning ratio, current ratio, debtor turnover ratio, interest coverage ratio, inventory turnover ratio, market capitalization, profit before interest and dividend, price earnings ratio, post issue promoters holding, return on capital employed, return on net worth and subscription ratio are not significant in explaining the impact at the high IPO grading. Following Brennan and Franks (1997), he concludes high IPO grading positively and significantly affects primary market demand of the retail investors. Its consequence is equivalent to Marisetty and Subrahmanyam (2010). There is no significant association between CEPS, CPM, current ratio and debtor turnover ratio at the high grading IPO. Nevertheless, issue size, profit before interest and dividend, profit to book ratio and, long-term debt equity indicate a pessimistic relationship at the high IPO grading (5% significance level).

Summary

In order to safeguard retail investors' wealth from low-quality IPOs, for the first time in the world, Indian stock market regulator SEBI introduced grading of initial public offerings and made it mandatory since May 2007. In this study, we investigate whether IPO grading provides information on the IPO quality and more specifically helps

retail investors in their investment decisions. We also investigate whether better graded IPOs exhibit higher liquidity and lower risk in the post-issue secondary market. We determine that underpricing is lower in the post-grading regime compared to a pre-grading regime, and underpricing is low for high-grade IPOs compared to the low-grade ones. Retail investors' interest on IPO turns on the quality of the IPO. Better graded IPOs attract higher interest from the retail investors. These results indicate that retail investors believe IPO grading provides credible certification. On the other hand, our results reflect that institutional investors' subscription does not depend on IPO grading. We look for that the demand of the institutional investors is primarily determined by profitability and financial risk of the firm.

Our analysis on the Ex- ante uncertainty suggests that, to a certain extent, mandatory IPO grading has reduced short term post listing risk and improved secondary market liquidity. Highly graded IPOs enjoy lower risk in the periods immediate after listing in the stock exchanges. Finally, we analyse whether IPO grading really captures firm characteristics. We find that, among other factors, firm size and board independence explain IPO grading. In summary, we conclude that, in markets where credible institutions that provide certification for IPOs are less prevalent, regulator's role to certify the quality of an IPO adds value to the market welfare.

Conclusion

The results obtained from this study reveal that fresh issues on the BSE are subject to underpricing, consistent with developed and other emerging markets. In this respect, prospective investors should pursue the strategy of buying the fresh issues at the offer and selling them immediately on the first day of trading. Nevertheless, the study also exposes that investors should not hold new issues very long as the highest component of the introductory returns is found on the initial day of trading and that the average initial returns turn negative on the

fourth day of trading. We determine that IPO underpricing is positively related to post-IPO growth in sales and EBITDA, but is not significantly related to growth in earnings. Our evidence recommends that accrual reversals or earnings management may cause this inconsistency.

The results obtained from this study indicate that fresh issues on the BSE are subject to underpricing, consistent with developed and other emerging markets. In this respect, prospective investors should pursue the strategy of buying the fresh issues at the offer and selling them according to their need. The study provides useful insights into which firm specific ratios or market-related ratios are important in determining the extent of underpricing of IPOs. We explain the ROCE, PER, PBV and EBITDA as measures of firm quality, and conclude that our evidence supports the notion that IPO firms with greater efficiency and profitability are of better quality and lesser the level of underpricing.

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