

Do Weaker Companies List in the Stronger Market Conditions? An Empirical Study from the Indian Equity Market

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ABSTRACT

It is of intense interest, to know, whether companies with different fundamental qualities, access the primary market through IPO in similar market conditions or not. As the literature shows, that the number of companies raising money through Initial Public Offer (IPO) and quantity of money raised, both increases, when the market condition is perceived to be good. In our analysis, we analyzed 167 companies from the Indian capital market, between 2007 and 2013, to understand whether, there is any difference in market conditions as far as timing in accessing the primary market, among various companies of different quality is concerned. In 2007 Indian capital market regulator SEBI (Securities Exchange Board of India), introduced IPO Grading as a pioneering concept. The mandatory assignment of grade is based on the fundamental strength of a company; for our analysis we have taken this as a proxy for the fundamental strength of the company, and prior 3 months average increase in money supply (M3) and the compounded average return of the benchmark 30 share BSE (Bombay Stock Exchange) Sensex (Sensitive Index) is taken as a proxy for the market conditions. As the data is not normally distributed, non-parametric statistical analysis is used. It is concluded that, there is no significant difference in the variation of the money supply, however there is significant difference in terms of prior equity market return among different time frame, when companies of different fundamental quality accessed the primary market for the equity capital.

KEY WORDS: Market Condition, Fundamental Strength, Money Supply, Compounded Average Return.
JEL Classification: G0, G14, G24

INTRODUCTION

Capital market (both debt and equity) is an important channel, through which savings can be moved to productive sectors of an economy. Stock markets play a major role in the development of national economies (Bohnstedt, 2000). Developed Equity Market is one of the pillars on which success of a market oriented

economy depends.

There is always a perception amongst the analysts and researchers that weak companies want to bask in the glory, when going is strong in the equity market. There is a good amount of literature, already existing in this regard. For example, Initial Public Offerings (IPO), come in clusters, to give the impression, that they are

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taking advantage of windows of opportunity (Ibbotson and Jaffe (1975). Investors may also forego their own information and instead use information disseminated from the other sources, for example Scharfstein and Stein (1990), Bikchandani, Hirshleifer, and Welch (1992) and Welch (1992) show that investors may rationally ignore their own information and follow the decisions of other investors. This fuels irrationality in the market, as evidenced from the cyclic boom and bust.

INFORMATION ASYMMETRY IN THE IPO MARKET

The primary reason, for this is the information asymmetry in the market. Investors, specially retail investors, lack the knowledge and analytical tools to decipher the relevant information. In this context it is relevant to discuss 'Market for "Lemons" theory'. This theory was propagated by the noted economist George Akerlof in his seminal paper, "The Market for Lemons: Quality Uncertainty and the Market Mechanism" (The Quarterly Journal of Economics, Aug., 1970). Using the example of Lemons (slang of used cars) in the US market, he showed that trust is important for a functioning market, where seller knows more than the buyer, the resulting information asymmetry causes problem for the consumer. IPO grading is important in this context.

To bridge the information asymmetry in the developed western markets, some informal certification acts as the signal, these include and not limited to venture capital, lead manager and underwriter affiliation. But these informal certifications do not work in the Indian market (Khurshed, Paleari, Pande & Vismara, 2011).

To overcome these difficulties and disseminate knowledge in a transparent way, Securities Exchange Board of India (SEBI), the capital market regulator of India, introduced IPO grading on voluntary basis in April, 2006. It was optional till 30th April, 2007. However, the experiment was not successful as borne out by the relevant data; although around 40 companies tapped the primary market in that time frame, only 4 companies approached Credit Rating Agencies (CRAs) for grading. These 4 companies also did not accept the grade assigned to them. This situation aroused because there were no incentive for companies to opt for rating/grading. On the one hand a fundamentally good company had an apprehension, that if they do not get a good rating, their plan to raise money may jeopardize, on the other hand fundamentally not so good companies had fear that, their careful cover ups may get exposed (Poudyal, 2008).

POST MANDATORY IPO GRADING PERIOD

SEBI has made Initial Public Offer Grading mandatory with effect from May 1, 2007. Explaining the rationale behind making the IPO grading mandatory, the then SEBI chairman M. Damodaran explained, "When the market started going up suddenly a lot of people (companies) started coming to the market. It is not that only the best and the brightest continue to come to the market, there are a lot of other people (companies) who started entering the market. One of our concerns is whether we are going to have another round of 'vanishing companies' which will raise money and never spend it for the intended purpose. I firmly believe that (IPO) grading, if

made mandatory, will prevent vanishing companies in future." A pertinent point in this regard is, the phenomenon of 'vanishing companies', that India witnessed in the mid-1990s, when due to regulatory lacuna, hundreds of companies, disappeared after raising thousands of crores of equity capital from the primary market through IPO.

Credit rating agencies like CRISIL, CARE, ICRA, India Rating (earlier Fitch India) and Brickwork Rating are entrusted with the job of IPO grading, and they are registered with the SEBI for this purpose. The rating scale used is 1 to 5, with 1 being the worst, and 5 being the best. Securities Exchange Board of India (SEBI) has made IPO grading mandatory primarily to safeguard the interest of retail investors.

Investment in IPOs depend primarily on three factors namely, i) Fundamental analysis of the company, ii) Pricing of the issue, and iii) Investor preference. IPO grading addresses the issue of fundamental analysis of the company.

IPO GRADING FRAMEWORK

SEBI mandates CRAs to grade IPO bound companies, as per the following scale:

Grade / scale	Grading Definition
5/5	Strong Fundamentals
4/5	Above Average Fundamentals
3/5	Average Fundamentals
2/5	Below Average Fundamentals
1/5	Poor Fundamentals

Table No.1: IPO Grading Framework

According to SEBI guidelines, Credit Rating Agencies (CRAs) are supposed to analyse companies, for the purpose of grading on the following parameters:

- a. Business Prospects and Competitive Position
 - i. Industry Prospects
 - ii. Company Prospects
- b. Financial Position
- c. Management Quality
- d. Corporate Governance Practices
- e. Compliance and Litigation History
- f. New Projects-Risks and Prospects

On the basis of guidelines issued by the SEBI, we can assume, that any company graded 4 or 5 are above average in fundamentals; Companies with grade 3 are average in fundamental and companies having grade assigned 1 or 2 are below average in the fundamental strength.

We have considered all the companies that got listed in the Indian equity market, after IPO Grading was made mandatory. Only companies which got listed in SME (Small and Medium Enterprise) platform of BSE (Bombay Stock Exchange) and NSE (National Stock Exchange), the leading two SME exchanges of India are exempted, as the IPO Grading is not mandatory for companies, getting listed in the SME Platform.

The distribution of 167 companies, that offered IPO between 2007 and 2013 are as follows:

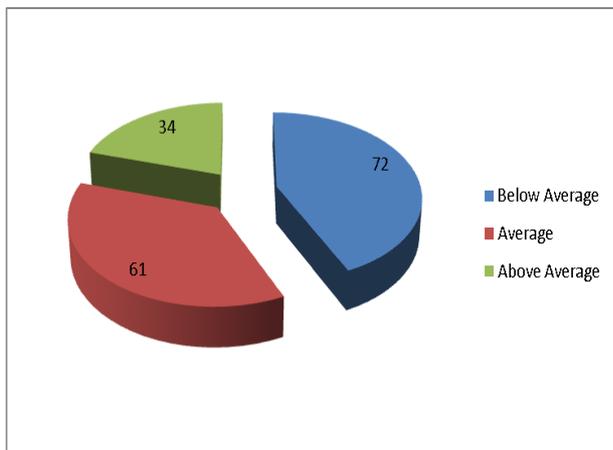


Figure1: Break up of companies in different categories

The factors that are being considered as a proxy for the market sentiment are:

- i) Increase in the money supply (M3), through 3 months, prior to the listing of the company.
- ii) Prior 3 months, average equity market return.

MONEY SUPPLY AND STOCK PRICES

Money supply means, the amount of money that is in circulation in an economy at any given point of time. Typically, the central bank of any jurisdiction controls the money supply. For our analysis, we have taken M3 or 'broad money', as it is called, as a proxy for money supply.

According to the Reserve Bank of India (RBI):

M2 = Currency with the Public + Current Deposits with the Banking System + Savings Deposits with the Banking System + Certificates of Deposit issued by Banks + Term Deposits of residents with a contractual maturity up to and including one year with the Banking System (excluding CDs or Certificate of Deposit) + 'Other' Deposits with the RBI

M3 = M2 + Term Deposits of residents with a contractual maturity of over one year with the Banking System + Call/Term borrowings from 'Non-depository' Financial Corporations by the Banking System.

The paper is organized as follows: Section 2 reviews the literature regarding the timing of the IPOs; section 3 discusses the hypotheses of the research, section 4 is about the research methodology being employed, section 5 covers the empirical results and the analysis, section 6 concludes the research and section 7 throws the light on the limitation of the present research and the direction of the future research.

LITERATURE REVIEW

There is significant amount of literature available in this domain. Prior research shows that there are no statistically significant differences between firms who go public during a recession and those who wait for markets to improve (Blum, 2011).

The Initial Public Offering (IPO) is considered to be one of the most significant events in the life cycle of a company (Celikyurt, Selvilir, and Shivdasani, 2010; Latham and Braun, 2010). An IPO is the first sale of stock by a private company to the public and the consequential listing on a stock exchange. Going public allows firms to raise and access funds necessary to accelerate growth in order to achieve market leadership.

The IPO market serves as an economic indicator in both practice and academia due to its proven pro-cyclical nature (Lowry, 2003). During an economic expansion, IPOs experience a 'boom' market; characterized by an increased number of firms tapping primary market to raise resources,

while - bear markets, occurring during a recession, exhibit low levels of IPO activity (Blum, 2011). Lowry (2003) and He (2007) recognize that variation in IPO volume cannot fully be explained by financing requirements, and identify the economically significant factors contributing to the aggregate IPO fluctuations. Bugstallen (2008) suggest that firms issue equity following period of high stock market valuations to benefit from the accompanying low cost of equity, at that phase.

Brau and Fawcett (2004) in a survey of 336 CFOs (Chief Financial Officer's) found that, while considering IPO, timing of the issue is in top of their mind. Rosen, Smart and Zutter (2005) found that firm quality does not differ significantly among firms that access primary market at the boom or the bust time.

According to Sprinkel (1964) a bear stock market was predicted 15 months after each peak in monetary growth, and that a bull market was predicted two months after each monetary trough was reached. Homa and Jaffe (1971) in their research concluded that the average level of stock prices is positively related to the money supply. Pesando (1974) was of the opinion that a structural and stable relationship between money supply and common stock prices was not there. Kraft and Kraft (1977) used time series analysis and found no causal relationship from money supply to stock prices. Pearce and Roley (1985) examined the effects of money supply news on stock prices, finding a negative relationship between unanticipated increases in the money supply and stock prices. Jain (1988) also noted that announcements about money supply are significantly associated with stock price changes.

Karamustafa and Kucukkale (2003) showed that money supply was co-integrated with stock returns with respect to the Turkish equity market.

Brahmasrene and Jiranyakul (2007) showed in the context of the equity market of Thailand, that money supply had a positive impact on the Thai stock market.

From this it can be hypothesized that the quantum change in the money supply (M3) can be taken as a factor in the market condition. Similarly market return of the benchmark index of the equity market can be taken as a proxy factor for the market condition.

Equity market return is the primary driver of the sentiment in the equity market. In this study, two factors, i.e. prior 3 months, i) average increase in the money supply (M3) and ii) average compounded return of the Sensex, are taken as a proxy for the market conditions.

The current research, studies the Indian equity market in this context, over the period of 2007 to 2013.

HYPOTHESIS OF THE RESEARCH

NULL HYPOTHESES

H01-There is no difference in the market conditions, in terms of the increase in the money supply (M3), across listing time of companies with the different fundamentals.

H02-There is no difference in the market conditions, in terms of the return of benchmark index, across listing time of companies with the different fundamentals.

ALTERNATIVE HYPOTHESES

H11-There are differences in the market conditions, in terms of increase in the money supply (M3), across listing time of companies with the different fundamentals.

H12-There are differences in the market conditions, in terms of return of the benchmark index, across listing time of companies with the different fundamentals.

RESEARCH METHODOLOGY

In this paper it is explored whether market conditions in terms of prior 3 months average increase in the money supply in the country in the form of M3 and compounded average return of the Bombay Stock Exchange's (BSE) top 30 share benchmark "Sensitive Index" or Sensex differ significantly for the time frame of listing for companies, with the different fundamental strength, namely above average, average and the below average.

Secondary data from the Capital Market and the Reserve Bank of India (RBI) databases are being used, the software package being used is SPSS 16.

The average growth rate of M3 and the average return of Sensex are tested to check whether; they adhere to the normal distribution using Q-Q plot. Data for both the variables are found to be distributed, not according to the normal distribution norms.

Also for the data sets of the increase in the money supply (M3) and also for the average return of the benchmark index (Sensex), it is found out, how many outliers are there in terms of the values

outside the 2 standard deviation from the mean and these values are excluded for the analysis purpose. Five values are found to be outliers, for the increase in the money supply variable, where as eleven values are found to be outliers, as far as the average return of the benchmark index (Sensex) is concerned.

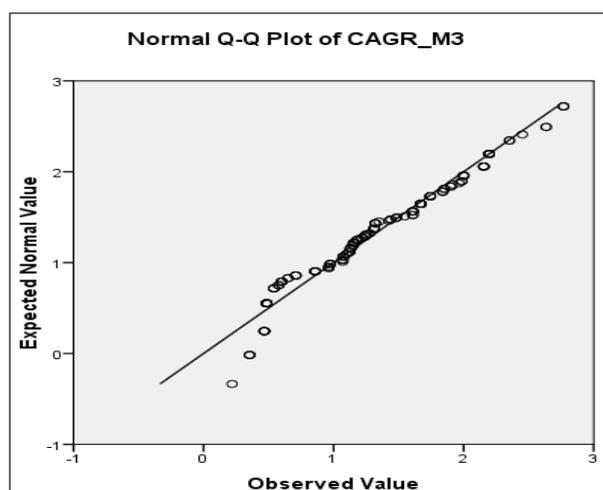
Since the data is not normally distributed, non-parametric statistical analysis tools are being used for the analysis purposes.

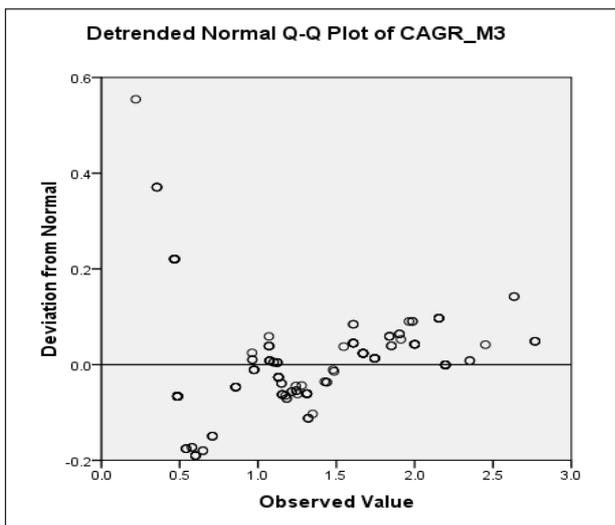
Kruskal-Wallis Test is deemed to be a proper tool to analyse, whether there is any difference between the market conditions, in terms of the two variables (prior 3-months average return of Sensex and prior 3-months average increase in the money supply in terms of M3 or broad money) for the listing time frame of the different categories of the companies.

EMPIRICAL RESULTS AND ANALYSIS

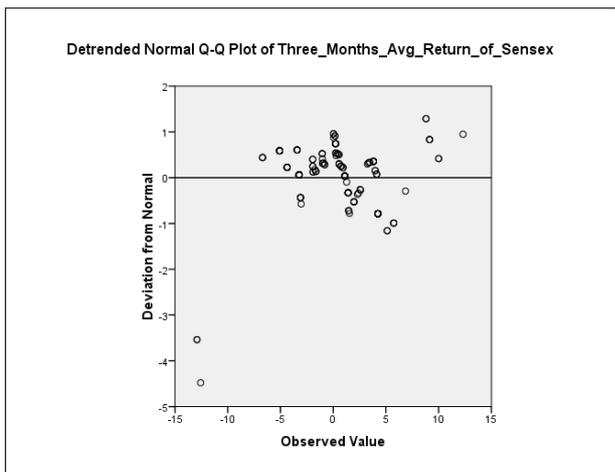
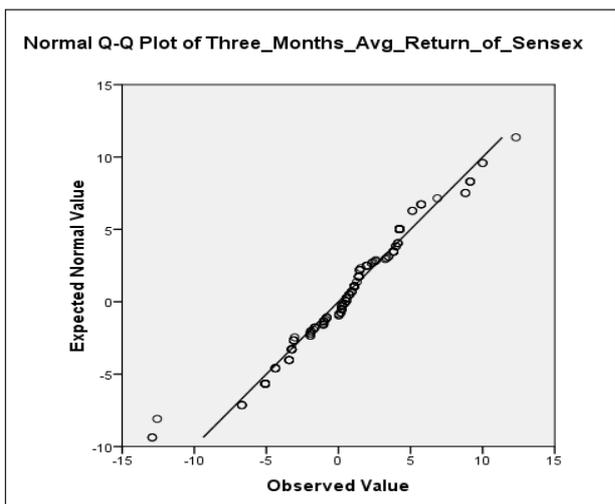
In this section the results from the SPSS software are put.

3 Months Average Increase of Money Supply (M3)





Three_Months_Avg_Return_of_Sensex



Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.028 ^a	.001	-.005	.610986119

a. Predictors: (Constant), Fundamental

b. Dependent Variable: CAGR_M3

Casewise Diagnostics^a

Case Number	Std. Residual	CAGR_M3	Predicted Value	Residual
7	2.165	2.635030	1.31223057	1.322799311E0
38	2.165	2.635030	1.31223057	1.322799311E0
43	2.383	2.767978	1.31223057	1.455747131E0
44	2.383	2.767978	1.31223057	1.455747131E0
157	2.456	2.767978	1.26760229	1.500375405E0

a. Dependent Variable: CAGR_M3

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.064 ^a	.004	-.002	4.033461308

a. Predictors: (Constant), Fundamental

b. Dependent Variable: Three_Months_Avg_Return_of_Sensex

Casewise Diagnostics^a

Case Number	Std. Residual	Three_Months_Avg_Return_of_Sensex	Predicted Value	Residual
10	2.185	9.137050	.32226311	8.814786841E0
12	2.185	9.137050	.32226311	8.814786841E0
17	2.401	10.005669	.32226311	9.683405633E0
40	2.104	8.807300	.32226311	8.485037090E0
50	-3.196	-12.568544	.32226311	-1.289080714E1
51	2.401	10.005669	.32226311	9.683405633E0
53	-3.282	-12.914092	.32226311	-1.323635521E1
92	2.102	9.137050	.65862238	8.478427565E0
94	2.020	8.807300	.65862238	8.148677814E0
127	-3.365	-12.914092	.65862238	-1.357271448E1
154	2.805	12.309247	.99498166	1.131426485E1

a. Dependent Variable: Three_Months_Avg_Return_of_Sensex

Kruskal-Wallis Test

Ranks

	Fundamental	N	Mean Rank
CAGR_M3	1	68	76.81
	2	61	89.37
	3	33	76.62
	Total	162	

Test Statistics ^{a,b}

	CAGR_M3
Chi-Square	2.759
df	2
Asymp. Sig.	.252

a. Kruskal Wallis Test

b. Grouping Variable: Fundamental

Kruskal-Wallis Test

Ranks

	Fundamental	N	Mean Rank
Three_Months_Avg_Return_of_Sensex	1	65	78.69
	2	58	68.70
	3	33	95.35
	Total	156	

Test Statistics ^{a,b}

	Three_Months_Avg_Return_of_Sensed
Chi-Square	7.340
df	2
Asymp. Sig.	.025

- a. Kruskal Wallis Test
- b. Grouping Variable: Fundamental

Test Statistics ^{a,b}

	Three_Months_Avg_Return_of_Sensed
Chi-Square	7.340
df	2
Asymp. Sig.	.025

- a. Kruskal Wallis Test
- b. Grouping Variable: Fundamental

CONCLUSION

H-value for the first factor, i.e. compounded increase of the money supply (M3) is 2.759; where as H-value for the second factor (return of the benchmark index) is 7.34. At 5% significance level, first null hypothesis is accepted (as the p-value is .252 and it is significantly higher than 0.05). So the difference in the increase in the money supply has a 25.2% probability of

occurring by chance. As a result, it can be safely concluded, that there is no significant difference in the increase in the broad money supply, among listing time frame of companies with the different fundamentals.

For the second null hypothesis, H-value is 7.340, and at the degree of freedom of 2, p-value is 0.025; which is significantly lower than 0.05 (at 5% significance level). It means that there is only

2.5% chance of the difference being occurred due to chance. So the second, null hypothesis is rejected. As a result, it is concluded that, there is significant difference in the 3 months prior average return of the benchmark equity index, across listing time frame of the companies with the different fundamental quality.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH AREAS

The study concentrated on two factors, where as future studies can focus on other factors, such as growth rate of the Gross Domestic Product (GDP), Change in the Foreign Portfolio Investment etc., as they proxy for the market sentiment.

REFERENCES

1. Akerlof, G. (1970). The market for lemons: quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84, 488-500.
2. Alatiqi Sara and Fazel Shokoofeh (2008). Can Money Supply Predict Stock Prices?, *Journal for Economic Educators*, 8, 54-59.
3. Barry, C. B., Muscarella, C. J., Peavey, J. and Vetsuypens, M. (1990). The role of venture capital in the creation of public companies. *Journal of Financial Economics*, 27, 447-471.
4. Beatty R. and J. Ritter (1986). Investment Banking, Reputation, and the under pricing of Initial Public Offerings. *Journal of Financial Economics*, 15, 213-232.
5. Bikhchandani Sushil, Hirshleifer David and Welch Ivo (1992). A theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades. *Journal of Political Economy*, University of Chicago Press, 100(5), 992-1026.
6. Blum Rachel (2011). Ph.D Thesis "IPO Timing Determinants" submitted to Duke University, retrieved from <http://econ.duke.edu/uploads/assets/BlumRachel.pdf>.
7. Bohnstedt, A. (Ed). (2000). Recent Development in Uganda's Finance Sector: "Crises of Transition? Kampala: Bank of Uganda. FSD series No. 3.
8. Carter, R., Dark, R., and Singh, A. (1998). Underwriter reputation, initial returns, and the long-run performance of initial public offering stocks. *Journal of Finance*, 53, 289-311.
9. Deb, S. S. and Marisetty, V. B. (2010). Information content of IPO grading, *Journal of Banking & Finance*, 34(9), 2294-2305.
10. Gupta, Manak C. (1974). Money Supply and Stock Prices: A Probabilistic Approach. *Journal of Financial and Quantitative Analysis*, 9(1), 57-68.
11. He, P. (2007). A Theory of IPO Waves. University of Illinois at Chicago.
12. Homa, Kenneth E. and Dwight M. Jaffee, (1971). The Supply of Money and Common Stock Prices. *The Journal of Finance*, 26(5), 1045-1066.
13. Ibbotson, R. and J. Jaffe, (1975). Hot issue markets, *Journal of Finance*, 30, 1027-1042.

14. Joshy Jacob and Sobhesh Kumar Agarwalla, (2012), "Mandatory IPO Grading: Does It Help Pricing Efficiency?", W.P. No. 2012-12-07, IIM, Ahmedabad.
15. Khanna Tarun and Krishna Palepu. (2000). Is Group Affiliation Profitable in Emerging Markets? An Analysis of Diversified Indian Business Groups. *The Journal of Finance*, 55(2), 867-891.
16. Khurshed, A., Paleari, S., Pande, A., and Vismara, S. (2011). Grading, transparent books and Initial Public Offerings, Online paper, retrieved from <http://www.unibg.it/dati/persone/1823/4211-Grading%20paper.pdf>.
17. Kraft, John and Arthur Kraft, (1976). Determinants of Common Stock Prices: A Time Series Analysis. *The Journal of Finance*, 32(2), 417-425.
18. Krishnamurti, Chandrasekhar and Thong, Tiong Yang and Vishwanath, S. R" Does certification work in emerging markets? evidence from the Indian IPO market.", Published in the Conference Proceedings of JCF Conference on Emerging Market Corporate Finance, 24-25 Aug 2009, Beijing, China.
19. Latham, S., & Braun, M. (2010). To IPO or Not to IPO: Risks, Uncertainty and the Decision to Go Public. *British Journal of Management*, 21(3), 666-683.
20. Lee, P. M., and Wahal, S. (2004). Grandstanding, certification and the under pricing of venture capital backed IPOs, *Journal of Financial Economics*, 73, 375-407.
21. Ljungqvist, A. IPO Under pricing" *Handbook of corporate finance: Empirical corporate finance*, 1.375-422.
22. Ljungqvist, A., Nanda, V., and Singh, R. (2006). Hot markets, investor sentiment, and IPO pricing, *The Journal of Business*, 79(4), 1667-1702.
23. Maksimovic, V., and Unal, H. (1993). Issue size choice and under pricing in thrift mutual-to-stock conversions", *Journal of Finance*, 48, 1659-1692.
24. Megginson, W., Weiss, K. (1991). Venture capitalist certification in the initial public offerings, *Journal of Finance*, 46,879-903.
25. Michaely, Roni and Kent L. Womack, (1999). Conflict of Interest and the Credibility of Underwriter Analyst Recommendations, *Review of Financial Studies*, 12,653-686.
26. Pearce, Douglas K. and V. Vance Roley (1985). Stock Prices and Economic News, *The Journal of Business*, 58(1), 49-67.
27. Pesando, James E. (1974). The Supply of Money and Common Stock Prices: Further Observations on the Econometric Evidence, *The Journal of Finance*, 29(3), 909-921.
28. Pham, P. K., Kalev. P. S., and Stein, A. (2003). Under pricing, stock allocation, ownership structure and post-liquidity of newly listed firms, *Journal of Banking and Finance*, 27, 919-947.

29. Poudyal Sanjay, Grading Initial Public Offerings (IPOs) in India's Capital Markets A Globally Unique Concept, Working Paper No.2008-12-08, IIM, Ahmedabad.
30. Rajan, R., Servaes, H. (1997) Analyst following of initial public offerings, *Journal of Finance* 52, 507-530.
31. Scharfstein, D.S., Stein, J.C., (1990). Herd behavior and investment. *American Economic Review*, 80, 465-479.
32. Siva Meera "What's a 'Hindu' rate of growth", published on June 8, 2013 in Business Line, retrieved from <http://www.thehindubusinessline.com/features/investment-world/market-watch/whats-a-hindu-rate-of-growth/article4795173.ece>
33. Shah. A. and Thomas. S. (2001). Policy issues in the Indian securities market, Working Paper No. 106, Stanford University.
34. Sprinkel Beryl (1964). *Money and Stock Prices*. Homewood, Illinois: Richard Irwin, Inc.



QUOTES

Love begins at home, and it is not how much we do... but how much love we put in that action
Mother Teresa

If we have no peace, it is because we have forgotten that we belong to each other
Mother Teresa

I try to give to the poor people for love what the rich could get for money. No, I wouldn't touch a leper for a thousand pounds; yet I willingly cure him for the love of God
Mother Teresa

If you can't feed a hundred people, then feed just one
Mother Teresa