



# The Bubble Period and Its Effect on Share Market in Bangladesh: Expedient or Confusion

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**Abstract:** This study was conducted to analyze the short run and long run price performance of IPOs in Bangladesh. Based on the information's that was issued during the period between 2001 and 2010. A bubble is a financial cycle described by fast heightening of advantage costs took after by a withdrawal. At the point when no more financial specialists will purchase at the hoisted value, a huge selloff happens, bringing on the rise to empty. This study also includes that when there is an overabundance of IPOs in a bubble market, a large portion of the IPO companies fail completely and never achieve what is promised to the investors, or can even be vehicles for fraud. The absence of price variation may result in a loss of investors' interest to participate in the market.

**Keywords:** Share Market, Bubble Period, IPO, Short Run, Long Run

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## 1. Introduction

This is obvious that the initial return from IPO stock would be better than long term perspective. The behavior of IPO stock is widely researched in many countries. During the last decades there has been increased attention paid to studying the prior and immediate aftermarket performance of initial public offerings. Investors are willing to invest anomalous amount of money to buy IPOs stocks. The easiest way to earning a lot of money by selling them immediately in secondary market. Everyone wants to be rich in short time. So there are always some buyers who will be buying those again for resell purpose. In this research paper an attempt has been made to analyze the long term performance of IPOs for this millennium in Dhaka Stock Exchange (DSE).

Conviction mutilations happen in light of the fact that frequently there is insouciant information to set up that a bubble is framing. For instance, if there has never been an across the nation decrease in ostensible house costs, specialists may extrapolate that house costs will likewise not decrease in the future (extrapolative expectations). Market members are particularly inclined to such extrapolative expectations if there is an absence of information. Then again,

conviction contortions might be founded on this-time-is-different" justification. While the advantage value blast watched might be out of line with recorded information, specialists may disregard this by contending that something key is different this time around, to such an extent that preventative signals from history don't make a difference. For example, financial crises may be associated with large exchange rate movements that occur when countries devalue their currency or come under speculative attack. "Such currency crises may go hand in hand with banking crises and those two channels may reinforce each other, a phenomenon that has become known as twin crises [1]".

The purpose of this study is to investigate the price behavior of initial public offerings of the Dhaka Stock Exchange during the period of 2001-2010. This study also includes the industry analysis of initial public offerings of the Dhaka Stock Exchange during same period.

## 2. Literature Review

The anomalies of IPO return have been widely researched. These studies focused on initial returns of IPO and its performance, second time IPO price performance, privatization IPO performance, competitive effects of IPO's.

Etc. Financial specialist developed different models to explain the abnormal initial return of IPOs. Hsu, Reed and Rocholl (2010) found that privatization IPOs significantly outperform their domestic stock markets in the long run [2]. They mainly searched for the performance of publicly traded firms in their industry and the underperformance reason by searching for relation of cross sectional differences and also survival in competitive market. They found that for investors short run IPO's are more profitable. Lian and Wang (2009) provided evidence that second time IPOs is sold at a significant discount rate [3]. Secondly the comparison between the first time IPOs and the second time IPOs is there is no significant difference in post IPO long run stock and operating performance. Lian & Wang (2009) stated that, "switching investment banks can mitigate, but not eliminate, the perceived higher risk of the second time offering [3]"

Bangladesh security markets IPO acts same way like other countries IPOs in the world. But the fluctuation rate of the market is very high. When it is bullish, markets bring more IPOs but when it is bearish, bring less IPOs. According to a study of security market of Bangladesh conducted by Solaiman (2005) we found that Bangladesh securities market has considerably failed to mobilize capital from the public in the past 50 years of its operations because of weaknesses in legal and regulatory regime, widespread corporate malpractice, a lack of active and competent market intermediaries and professionals [4].

It is documented that IPOs issued in a bullish market perform the worst in the long run while IPOs issued in bearish market outperformed the market. Islam, Malik & Uddin (2011) agreed on this fact, in Bangladesh 1994-1996 was a bullish period and the degree of long run underperformance relative to the industry had been worst for IPOs issued in that time. Firm size can also impact underpricing IPOs [5]. The larger of the size of the firm, the underpricing should be lower. According to Islam, Ali & Ahmed (2010) "Size of the company is found to be significant at 5% significance level (Sig t =.017) with a positive beta. This means that size of the company positively influences the degree of underpricing at Dhaka Stock Exchange."

#### *Bangladesh Capital market - An overview*

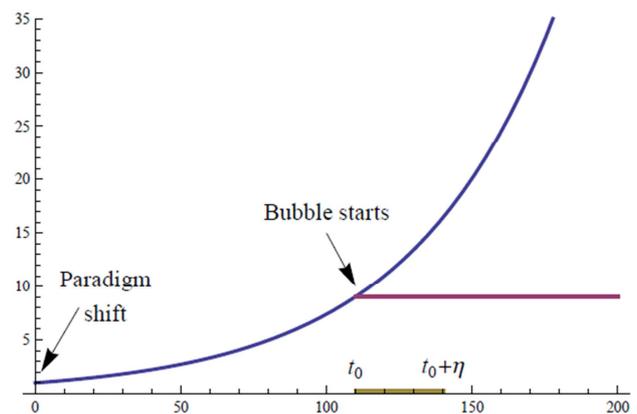
Bangladesh capital market is quite small compared to other regional market and the size of the economy. Bangladesh capital market has active stock market; the debt market is still in initial stage.

Bangladesh stock market consists of two stock exchanges. Those are Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE). Here we are discussing about DSE. DSE was established in early 1954. The earlier name was East Pakistan Stock Exchange Association Limited (EPSEAL). It was relocated to present premises in 14 May, 1964 and named Dhaka Stock Exchange (DSE). The Bangladesh securities market could not make any significant progress after liberation war because of some weakness. The weaknesses are legal and regulatory regime, widespread corporate malpractice, a lack of active and competent market intermediaries and professionals. In the 2005-07, the market was in very good condition. That bullish market turned

bearish during 2010. The market capacity of Dhaka Stock Exchange is approximately \$29 billion.

During the 'Bull Run' period new records were posted almost every day in both bourses for example market capitalization achieved to \$2 billion which is equal to 20% of total GDP. As market became overheated government took step by selling state owned institutions and Taka 2 billion will be given to ICB for buying shares and support the market. But the steps taken by the government did not work.

A synchronization issue emerges on the grounds that Abreu and Brunnermeier (2003) accept that no single broker alone can blast the bubble [7]. This prompts a circumstance where each broker tries to appropriate the accident while endeavouring to ride the rise as far as might be feasible. On the off chance that he assaults the bubble too soon, he renounces ports from the ensuing keep running up; in the event that he assaults past the point of no return and remains put resources into the bubble resource, he sours from the inevitable crash [8]. In harmony, every dealer ends it ideal to ride the rise for a certain number of periods, which thusly drags out the life range of the bubble and justices riding the bubble much more.



**Figure 1.** Explosive bubble path and sequential awareness in the model of Abreu and Brunnermeier (2003) [7].

### 3. Research Question

In this study we plan to investigate the long term price performance and industry analysis of Dhaka Stock Exchange. This research will address this question:

- What is the ramification of IPO underpricing on yearly basis of Dhaka Stock Exchange?
- What is the outcome of IPO underpricing on industry basis of Dhaka Stock Exchange?
- Have IPO return and issuance level enhanced in Dhaka Stock Exchange during bubble period?

### 4. Hypothesis

Following hypotheses are proposed:

- H1: IPOs listed with DSE are underpriced based on industry
- H2: IPOs listed with DSE are underpriced based on year
- H3: Enhancement of IPO issuance in bubble period
- H4: Direct bubble period influence on IPO prices

## 5. Methodology

Underpricing for IPOs is a well-known phenomenon both in advanced market and emerging market such as Dhaka Stock Exchange. This study examined new companies, which were listed on the DSE for the period 2001-2010. All the data used in this study will be secondary data gathered from: Prospectuses, DSE Daily Diaries, DSE and Stock Bangladesh website, and Annual Report of listed Companies [9]. The population of this study includes 106 companies in the DSE. This study includes IPO issuers in all sectors such as Financial sector that include Bank, Insurance and Investment Manufacturing sector that include Cement, Engineering, Ceramics, Food and Allied products, Paper and Printing, Pharmaceuticals and Chemicals, Tannery Industry and Textiles [10]. Finally Service & miscellaneous that include Fuel and Power, IT, Services and Real Estates, and Miscellaneous. The objective of this study is to gauge the new issue stock price behavior in IPO firms as listed in the DSE. This research also serves to examine the determinants of underpricing in the Dhaka Stock Exchange.

To conduct the research, the short term and long term analysis of these IPOs. For the short term performance we have recorded 2 year span closing price. i.e. For 2001 IPOs we have recorded the closing price of 30 December, 2003 and also same for the rest of all. For the long term performance of the closing price of 30 December, 2013 for all the IPOs is recorded.

The underpricing or overpricing was measured by taking the difference of the closing price at the specific date in question with the offering price and divided by the offer price as shown below:

$$R_{j,ST} = \frac{P_{j,ST} - P_{j,0}}{P_{j,0}} [\text{For Short Term}] \quad (1)$$

$$R_{j,LT} = \frac{P_{j,LT} - P_{j,0}}{P_{j,0}} [\text{For Long Term}] \quad (2)$$

Where  $R_{j,ST}$  is the return of stock  $j$  in the period  $ST$ ,  $P_{j,ST}$  is the price of stock  $j$  at the period  $ST$ , and  $P_{j,0}$  is the offer price of stock  $j$ .

Similarly,  $R_{j,LT}$  is the return of stock  $j$  in the period  $LT$ ,  $P_{j,LT}$  is the price of stock  $j$  at the period  $LT$ , and  $P_{j,0}$  is the offer price of stock  $j$ .

Later on the subtraction of the short term return from the long term return and Statistical measurement of mean, maximum, minimum and the standard deviation to show the whole calculation.

## 6. Data Analysis

This study is based on the IPOs that were issued in Bangladesh during the period between 2001 and 2010. During this period, an average of about 9 IPOs entered the capital market every year. Among them 34 IPOs were issued during the three year period between 2005 and 2007. The highest number of 17 IPOs entered the market in 2005. It is documented that IPO issued had been relatively higher surrounding the period of bubbles.

### a. Level of Underpricing/Overpricing

Stock the utmost degree of cheapening at the Dhaka Exchange was registered in the year 2008 (-752.80% with a standard deviation of 5.90). There were 12 companies listed in this year. The next uppermost level of underpricing was recorded in the year 2005 (-668.81% with a standard deviation of 6.71). There were 48 companies listed with DSE in this year. The CSE was launched in this year. 466.36). There were 7 companies listed in this year. The 3rd highest level of IPO underpricing at DSE was recorded in the year 2005 (-587.68% with a standard deviation of 5.93) next highest level of underpricing recorded in the year 2007 which recorded underpricing of -536.55% with a standard deviation of 2.94. Table 3 presents the IPO underpricing on a yearly basis among DSE listed companies. The lowest number of underpricing recorded in the year 2010. The level of underpricing was -14% with a standard deviation of 0.099. Here in table 3 the negative figures symbolizes the under price level of IPO's and positive sign shows the overprice level of stocks (Table 3).

### b. Underpricing on Industry Basis

Among 85 listed IPO companies the mean was -2663% and the standard deviation is 25.79. Where The uppermost level of cheapening recorded at the Dhaka Stock Exchange was the Engineering sector (-642.63% with a standard deviation of 9.44). There were four companies underpriced from this sector. The next highest level of underpricing registered in the insurance sector (-600.18% with a standard deviation of 6.20). There were 23 companies underpriced from this sector. The Financial institutions sector recorded the next highest level of underpricing (-589.29% with a standard deviation of 4.33). There were 16 IPOs listed in this sector during the particular period. The lowest level of underpricing recorded in the Mutual Fund sector (-67.43% with a standard deviation of 1.05). IT sector recorded the next lowest level of underpricing (-77.69% with standard deviation of 0.523). There were 4 IPOs underpriced in this sector. Here in table 3 the negative figures symbolizes the under price level of IPO's and positive sign shows the overprice level of stocks (Table 4).

### c. IPO price and issuance rise in bubble period

After analyzing the data it is determined that the period from 2005 to 2009 is considered as stock price bubble period. We have considered beginning of year 2010 as rise of stock price bubble in Dhaka Stock Exchange. So according to our analysis during Bubble period in 2005, 16 IPOs enlisted in DSE whereas in 2004 was only 3 IPOs issuance. Consecutively in 2006 to 2010 there were 7, 11, 12, 13 and 14 issued IPOs. The mean for the short run return between 2003 to 2008 was 518%. Whereas the return of the Long-term (2013) mean return of the IPO was -35%. As the Long term return was after 2010 period or during post bubble burst period, it is clear that during bubble period (2005-2010) the Short term IPO return was significantly higher than the Long Term return.

## 7. Findings

The sample data is consisted of companies that are listed into DSE between the periods of 2001 to 2010. Table 3

presents the sample profile of listed companies in the sample period at DSE. Table 3 shows that the highest number of companies that were listed with the Dhaka Stock Exchange was in 2005 year. There were 16 companies listed during this period and the return from every year was underpriced in the long-run so H1 has been proved. Similarly the industry basis table 3 also shows long term performance is underpriced and it approves H2. From 2003 to 2008 the IPOs were overpriced and issued in handsome amount. So it justifies the H3 and H4 in a proper manner.

## 8. Conclusion

This study had been conducted to analyze the long run price

performance of IPO stock of The Dhaka Stock Exchange. In the short run IPOs provide abnormal return and in the long run IPOs severely underperform their respective industry. Islam, Ali & Ahmed (2010) documented that the degree of underpricing in Bangladesh capital market is rather high compared to that of other Asian and advanced stock market. China's securities exchange has fallen strongly over late weeks regardless of measures by authorities in Beijing went for quieting speculators' nerves and shoring up worldwide trust in the nation's abating economy. Besides, specialists say policymakers don't have numerous apparatuses accessible to shore up the worldwide economy this time around. The bubble term is legitimately justified in Bangladesh as the IPO price and IPO issuance completely influential on this period.

## Appendix 1

*Table 1. New issues on an industry to industry basis.*

Sector	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Bank	1	0	5	1	0	2	3	1	0	0	13
Cement	0	0	1	0	0	0	0	0	0	0	1
Ceramics Sector	0	0	0	0	0	0	0	0	0	1	1
Engineering	0	0	0	0	0	1	1	1	2	1	6
Financial Institutions	0	1	1	0	4	3	4	2	1	0	16
Food & Allied	2	1	0	0	0	0	0	0	0	0	3
Fuel & Power	0	0	0	0	1	0	0	0	0	0	1
Insurance	1	0	0	1	10	1	3	4	3	0	23
IT Sector	0	3	2	0	0	0	0	0	0	0	5
Miscellaneous	0	0	0	0	1	0	0	0	0	0	1
Mutual Funds	0	0	0	1	1	0	1	2	7	10	22
Paper & Printing	1	0	0	0	0	0	0	0	0	0	1
Pharmaceuticals & Chemicals	1	0	0	0	0	0	0	0	1	2	4
Services & Real Estate	0	0	0	0	0	0	0	1	0	0	1
Telecommunication	0	0	0	0	0	0	0	0	1	0	1
Textile	1	1	0	0	0	0	0	1	2	1	6
Travel & leisure	0	0	0	0	0	0	0	0	0	1	1
Total	7	6	9	3	17	7	12	12	17	16	106

## Appendix 2

*Table 2. Overall levels of IPO underpricing and overpricing.*

	Number of Companies	Mean Level	Maximum	Minimum	Standard Deviation
Underpricing	93	-378%	-2050%	-1%	4.714129844
Overpricing	13	128%	514%	7%	1.560156085
Total	106	-250%	-1536%	6%	6.274285928

## Appendix 3

*Table 3. IPO underpricing on a yearly Basis.*

Year	Number of Companies	Mean Level	Minimum	Maximum	Standard Deviation
2001	3	-359%	-48%	-975%	5.33997549
2002	5	-216%	-64%	-479%	1.85300676
2003	9	-291%	-1%	-465%	1.4394386
2004	3	-141%	-62%	-249%	0.96849953
2005	16	-588%	-82%	-2016%	5.93722167
2006	7	-669%	-197%	-1913%	6.707569
2007	11	-537%	-276%	-1226%	2.93990579
2008	12	-752%	-26%	-2050%	5.89697579
2009	13	-60%	-3%	-301%	0.86974667
2010	14	-14%	-2%	-35%	0.09908326
Total	93	-3626%	-760%	-9709%	32.0514226

## Appendix 4

*Table 4. IPO underpricing on an Industry Basis.*

Industry	Number of Companies	Mean Level	Minimum	Maximum	Standard Deviation
Bank	13	-359%	-26%	-975%	2.17129658
Engineering	4	-643%	-35%	-2050%	9.4399498
Financial Institutions	16	-589%	-11%	-1301%	4.33404137
Insurance	23	-600%	-19%	-2016%	6.20466228
IT Sector	4	-78%	-1%	-117%	0.52271094
Mutual Funds	21	-67%	-2%	-349%	1.04759906
Textile	4	-327%	-43%	-485%	2.07913594
Total	85	-2663%	-136%	-7294%	25.799396

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