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A Comprehensive Study on Capital Market Developments in Bangladesh

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* For the fulfillment of Bangladesh Bank's policy's commitment to gearing monetary policy analysis, the Research Department of the Bank conducts research works on macroeconomic issues as a part of central bank's routine activities. The topics under the series of studies are chosen by the management of Bangladesh Bank (BB). These papers reflect research in progress, and as such comments are most welcome. It is anticipated that many of these papers will eventually be published in learned journals after completion of the due review process. The views expressed in the paper are not necessarily reflected the positions of BB, or any agency of the Government of Bangladesh.

The views expressed in this paper are based on professional analysis carried out by the authors. The author presented this research work in a seminar that was organized by BB in February 2010 where higher authority of BB and its high officials from different departments, high official of different ministries of Bangladesh government, top executives of SEC, DSE, CSE and other research staffs of different research institutions of Bangladesh were presented. Much of the views, recommendations and suggestions of the seminar may have potentially important consequence for capital market are tried to be incorporated in the paper. In addition, data has been used upto June 2010. Lastly, the authors would like to thank Dr. Ahsan H. Mansur, Executive Director, Policy Research Institute (PRI) of Bangladesh, who provided valuable insights and guided the research study.

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Abstract

In this paper, it has been comprehensive analyzed the overall developments of the capital market of Bangladesh and has been examined the acceleration trends of stocks prices during the period 2008-2010 (upto June) with capital market debacle in 1996 tend to be associated with the stock market crisis in many other developed and SAARC countries. A prudent policy stance on capital market development to be associated with the acceleration of stock prices sustained in the long-run. It was observed that like some selected developed countries (USA, Japan, China, KSA, India and Sri Lanka), those have already been experienced the capital market bubbles and bust, the bubbles of the capital market of Bangladesh during the period has been shown almost the same trend. Bangladesh's capital market developments has improved and gaining momentum despite the very low contribution of institutionalized investment. It is almost experiencing the investment of small savings of very poor knowledgeable and new investors in the market which belong a high risk for the development and long-term sustainability of capital market of Bangladesh.

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Introduction

Investment in the capital market is one of the key factors in the long run for a country to attain higher rates of industrialization. An efficient and sound capital market plays an important role in terms of mobilizing increased capital flow and maintaining the stability of the financial system. Traditionally the trend has been to associate bubble and busts with stock price misalignments. Despite having prudent regulatory facilities, bubble and bust can be commonly associated with stock markets around the world. Furthermore, the degree of stress of retail investors is also an important factor when discussing bubble and bust.

Bubble and bust periods are common features of capital markets across both developed and developing countries. Commonly the boom is driven by a rapid expansion of credit to the private sector accompanied with rising prices of commodities and stock market index. On the other hand the bust brings a considerably large reduction in investment and fall in consumption which an economic recession may tag along. The various stock markets across the world such as NASDAQ (USA), Tokyo Stock Exchange (Japan), Shanghai Stock Exchange (China), Tadawul (Saudi Arabia), Bombay Stock Exchange (India) and Colombo Stock Exchange (Sri Lanka) have all been exposed to these situations over the years. Like other countries the Bangladesh Stock Market had also experienced a boom and bust episode in 1996.

Both endogenous and exogenous shocks may lead to a bust. With global financial market linkages stronger than ever exogenous shocks such as the recent global financial crisis (Sub Prime mortgage crisis during 2008-2010) had far out-reaching negative effects on stock markets across the globe. However, due to the limited exposure of the Bangladesh stock market with the rest of the world, the affects of the global financial crisis on Bangladesh stock market has been very much limited. Stock market bubble and bust episodes show certain features which tend to be common when the markets go through these episodes. Bubble periods are usually characterized by a number of characteristics but the two most striking features are: a) a period of liquidity expansion; and b) a persistent increase in stock price which sometimes leads to speculative behaviour among traders especially small and retailed traders. Moreover, these features are usually followed by rapid reversals. Empirical or academic literature and practical knowledge have not been very successful in forecasting when and how such periods occur or are initiated, therefore making the system vulnerable.

During the second half of 1996 the General Price Index (DGENI) of the Dhaka Stock Exchange (DSE) began to show tendencies of a sharp bubble and on the 5th of November 1996 it peaked and subsequently the "Bubble Burst" happened, leading to a downward trend in the DGENI. Interestingly, for the economy as a whole, the correction of the DGENI of the DSE did not exhibit any major affect on both financial stability and economic growth. Furthermore, increased levels of speculation have been blamed for causing the bubble in 1996. Some of the negative after effects of the bubble bursting were a) that many of retail investors couldn't stay in the market and b) that the market failed to retain investor confidence.

During the period July 2009-June 2010 the trend in the stock markets depicted that the bulls were surging forward as increase in share price indices were observed in both Dhaka and Chittagong Stock Exchanges. Given the above discussion the main objectives of the study which was undertaken when the bubble was at the middle stage of its formation, is to analyze:

1) whether currently DSE and CSE were going through a bubble or not;
2) Are there common features in market activities and conditions that were present during 1996 bubble and burst periods?

3) How are the capital market authorities responding to the market developments?
4) Is the market fundamentally moving in the right direction?

Keeping these objectives in focus, the study also examines the trends and developments surrounding booms and correction period in Bangladesh from a regional perspective (Please refer to Section-III, Section IV and Section V). Essentially these sections focus on depth (How bad/good?), length (time) and volatility situation (How erratic?) of the Bangladeshi equity/capital market developments in comparison to other regional counterparts. The study also includes an analysis of why the markets performed poorly pre 1997 (Refer to Section VI and Section VII). Furthermore, the study also assesses the potential impact of the correction on financial sector stability and economic growth (Refer to Section VIII). Finally, from the analysis conducted the study draws some specific recommendations to improve market resilience (Refer to Section IX).

Section-II: Methodology of the study

Asset price bubbles are one of the major causes of concern for an economy because of its strong and close association with the stability of the financial sector. A stock market bubble may be defined as a situation when the price of stocks rises sharply and sometimes to unprecedented levels and become overvalued by any measure. Often asset price bubbles are difficult to identify ex ante since policy makers are constrained by imperfect information, limited effectiveness of policy instruments, time constraints and face the complicated task of choosing the instrument correctly. Furthermore, even if the right instrument is chosen it may create additional distortions.

Many models have been used in the literature to examine stock market bubbles. However, there seems to be no single model that is considered suitable for analyzing stock market bubbles across different countries and episodes. The models currently being used depends on the structure and behaviour of the market. The three main market behavioural characteristics are:

- Rational Expectation
- Behavioral Finance
- The Operational Definition used to determine the equity market bubble

It has been argued that equity prices contain a rational bubble if the investors are willing to pay more than what they know is justifiable by the value of discounted dividend stream of the equity. Essentially they will acquire the equity at a higher value since they expect that the demand from other investors will push prices even higher, and in turn they will be able to sell it at a profit, thus making the current high price the equilibrium price.

The behaviuoral model allows irrational pricing and the associated irrational bubbles. One of the key assumptions of the model is that human behaviour is sometimes less than rational: less than perfect rational behaviour is central to the understanding of financial market behaviour and among investment professionals (Shiller 2001). A lot of the elements that can explain the bubble mechanism of this model have to do with the nature of the subjective probability, intuitive and personal judgments, the social environment in which the decisions are made, the prominence of the news media and the nature of human interactions within organizations. According to an operational definition a bubble episode exist when the realized asset return over a given future period is more than two standard deviations from its expected return. Finally an operational definition model is only operational ex-post and therefore is not very useful to predict or identify current price increase as a bubble.

The operational definition model requires information on cash flow realized over a period of time in order to determine whether a specific increase in price of stock episode could or could not be identified as a bubble. Furthermore, analyzing the Behavioural model requires collecting data on investor expectations regarding the performance of stocks and their assessment of the existence of overvaluation. Therefore there is a need to conduct a survey to obtain information on investors' opinion about future performance of markets.

Although a number of methodologies exist in the current literature to assess whether the stock price levels are affected by capital market bubbles, none of them could unfortunately be effectively applied to the Bangladesh equity market in this study. In terms of gaining an understanding about the structure, size, trends and behaviour of the Bangladeshi capital markets no rigorous mathematical/statistical model was used to carry out analysis in the current study. Limitations on model specification, the need for long data series, and the lack of available indices are among the main factors that made these methodologies unsuitable. Accordingly, this study provides a descriptive analysis of the most common warning signs of speculative behavior which includes a high increase in the price index compared to other economic variables linked to fundamentals, weak correlation between price and economic value of stocks; high price volatility; acceleration in money and credit expansion including heavy use of margin lending; and an increasingly narrow market leadership. The study has also analyzed other financial and macroeconomic indicators. Furthermore, the data used in the current study is secondary data and has been collected from their respective sources.

Section-III: Historical Trends and Developments of Bangladeshi Stock Market

During January 2009-June 2010 the level of confidence shown by investors has been extremely positive and as a result of that, more investors are being lured by the equity markets. Moreover the stock market has achieved phenomenal growth in size, depth and maturity due to the various pragmatic policy and institutional reforms undertaken by the Securities Exchange Commission (SEC), other government bodies and private sector stakeholders. Record levels of price index, market turnover and capitalization week after week justifies the above statement.

Since the bust of 1996 the market has shown good signs of recovery. A lot of the confidence that was lost during that episode has been slowly being revived. For instance there is an increasing trend of investor confidence on corporate governance and financial disclosure practices of majority of the companies listed in the stock market. Moreover, some important companies with a handsome amount of issued/share's capital and sound financial indicators have been listed in the Bangladesh stock market and as result of this the market has now got greater breadth and is more attractive to investors than in any previous period. The increased level of investors' participation in the market has fuelled the current price hike and lead to bullish tendencies and in general there seems to be significant gains in all indicators of the capital market.

Market capitalization[1] of DSE, the main bourse of the Bangladesh stock market increased significantly in the past three years as reflected by the ratio of market capitalization to GDP (at current market price). From paltry levels of 0.9 percent in 1991 and 2.5 percent in 2001 the ratio of market capitalization to GDP

[1] Market capitalization represents the aggregate value of listed securities in the market. It is obtained by multiplying the number of shares outstanding by their current market prices per share. The ratio of market capitalization to GDP shows the depth of a stock market relatively to the economy. The ratios can also used to determine whether an overall market is undervalued or overvalued.

shot up to 39.1 percent in end June 2010 (Table 1). Interestingly this ratio was almost constant around the below three percent level during the pre-2003 period, with the only stand out being 1996 (the bubble and bust year) when the ratio climbed to the 10 percent mark.

Table 1 : The Size of Bangladesh Capital Market

Year	Number of listed securities		Issued capital (Billion Taka)		Market Capitalization (Billion Taka)		Mrkt. cap (DSE) to GDP Ratio (in %)	Turnover (Billion Taka)			Indices	
	DSE	CSE	DSE	CSE	DSE	CSE		DSE	CSE	Total	DGENI	CASPI
1	2	3	4	5	6	7	8	9	10	11	12	13
1986	82	-	2.65	-	5.73	-	1.23	0.05	-	0.05	244.00	-
1991	138	-	5.59	-	10.40	-	0.94	0.12	-	0.12	296.00	-
1996	205	117	23.05	18.73	166.04	147.04	9.98	30.14	6.08	36.22	2,300.15	1,157.90
2001	249	173	33.26	29.65	67.45	56.34	2.51	39.86	14.95	54.81	829.61	1,352.39
2006	310	212	118.44	70.53	315.45	267.50	7.59	65.07	16.72	81.79	1,609.51	3,724.39
2009	415	217	522.10	155.88	1,903.23	1,489.25	30.95	1,475.90	162.02	1,637.92	4,535.53	13,181.38
FY10	450	225	607.26	206.77	2700.74	2,122.31	39.11	2,564.11	216.51	2,780.62	6153.68	18,116.05

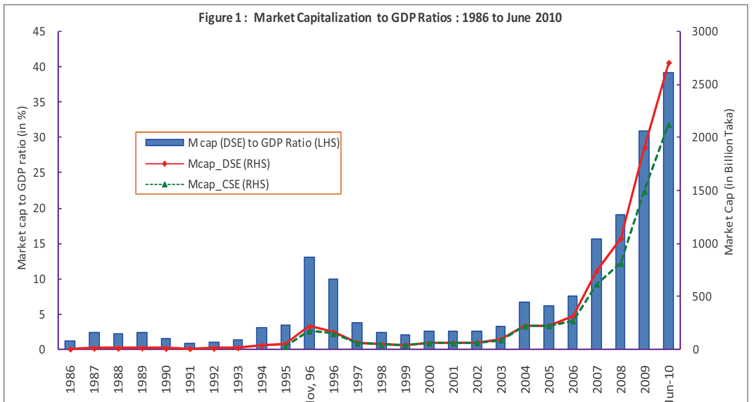
Note: 1. The figure of GDP at current market price are end of June of each year.
2. Except FY10 other figures are end of December.

Source: 1. Monthly Review and Annual Report (different issues) of DSE and CSE.
2. Monthly Economic Trend and Annual Report (different issues), Bangladesh Bank.
3. Economic Review, 2010, Ministry of Finance, Government of People's Republic of Bangladesh.

During 2004-2009 market capitalization increased by an unprecedented 749 percent. Since late December 2009 market capitalization in the DSE increased from Taka 1,903 billion to Taka 2,701 billion amounting to a 42 percent increase. These figures are monumental when compared to the past capitalization levels, for instance during the period between1986-1995 market capitalization was below the Taka 50 billion mark and during the 1997-2003 period it was below the Taka 100 billion mark (Please note that 1996 is an outlier since market capitalization rose to Taka 166 billion). Two observations that come out by analyzing the markets are i) the upward trend in market capitalization and the ratio of market capitalization to GDP started since 2004 and ii) market capitalization of CSE has an almost one-to-one relationship to market capitalization of the DSE (Figure 1).

In recent times it has been observed that market turnover has followed a similar upward trend along with market capitalization, and this has been reflected by the percentage ratio of turnover to market capitalization ratios.

Figure 1 : Market Capitalization to GDP Ratios : 1986 to June 2010



Source: Dhaka and Chittagong Stock Exchanges; and Economic Review 2010-MoF.

The market turnover has recorded an increase since 2007 (Figure 2). In DSE, a total of 10.13 billion shares and debentures worth of Taka 2,563.51 billion were traded in FY10 compared to 5.76 billion shares and debentures valued of Taka 893.79 billion in FY09. This highlights an increase of 187 percent in value and 76 percent increase in volume than that of the previous year. In FY10, the daily average transactions were 41.51 million at Taka 10.51 billion in terms of volume and value respectively compared to 24.09 million shares at Taka 3.74 billion in FY09. During FY10 the level of turnover reached its peak at Taka 24.86 billion in June with a daily average of Taka 17.62 billion. The staggering increase in turnover can only be understood in its truest sense when we compare it with the figures attained in the years gone by. For instance in FY07, a total of 1.98 billion shares and debentures worth of Taka 164.67 billion were traded in DSE with daily average trade value of Taka 0.70 billion and before 2007, the yearly turnover in DSE was below Taka 60.0 billion.

The benchmark price barometer of the DSE, DGENI, started to shown signs of a slight surge from the first quarter of 2004 with some modest fluctuations in the last quarter of 2006. It would be fair to comment that the market was moderately vibrant during 2004-2006. Moreover at the beginning of 2010's bullish tendencies, the Bangladeshi equity markets were fairly underpriced with the weighted average market price earnings ratio (PER) at about the ten percent mark. Therefore since 2004, the surge in the stock prices pushed the indices of the DSE and CSE to new zeniths.

Since the third quarter of 2009, the bullish market surged. At the beginning of 2009, the DGENI was at 2808. The DGENI grew by almost 62 percent in the period between January-December 2009. Furthermore, it accelerated to the peak level at 8919 mark point on the 5th December 2010. However, this increase was more pronounced in the period between January and December 2010 when the DGENI increased by 97 percent. Similar increases in DGENI were observed during 1991-1995, for example it increased by 182 percent during 1991-1995 with the index standing at 835 at the end of December 1995.

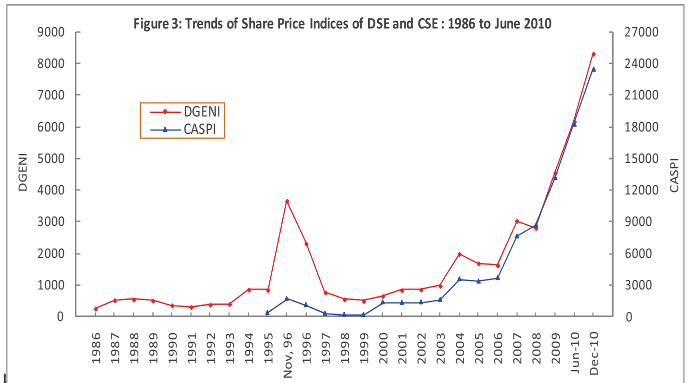
The DGENI was at an historical level up until February 1996. Furthermore it recorded a remarkable increase of 337 percent on November 5th, 1996 compared to the index of end December 1995. From the beginning of 1996, stock prices of DSE started show signs of a bubble and from July 1996 onwards DGENI grew alarmingly. The index reached to its peak on November 5th, 1996 and in the subsequent five months it increased by 281 percent.

However, after the stock price bubble was busted, the market collapsed. Essentially due to market correction, the DGENI was on a downward trend losing almost 2892 points over the year. The price index slumped below to what it was one year before the peak. Moreover during 1998-2003 the DEGNI was below the 800 mark (Figure 3).

The bullish market tendency reminds us of the bubble and crash episode of 1996. Even though the recent surge in stock prices pushed the indexes upward, the two episodes- bubble and burst of 1996 and recent (July 2009 – June 2010) are not exactly the same.

A steady rise in stock prices does not necessarily mean the formation of a bubble. Stock prices may also rise across the board when something changes fundamentally in the economy or in the economic outlook, such as the developments in the Spanish and Irish stock markets[2] on the eve of their joining the European Union (EU). Such price surges cannot be characterized as bubbles since the indices may stabilize at their new high levels with earning potentials realized over time. However, in general, most stock market bubble

Figure 3: Trends of Share Price Indices of DSE and CSE : 1986 to June 2010



Source: DSE and CSE.

[2] The indices of Spanish & Irish stock markets rose by 51

episodes have some common characteristics. Some of these characteristics include exuberant demand manifested through weak correlation between price and economic value, high price volatility, acceleration in money and margin lending, narrow market leadership, structural weakness like the lack of institutional investors' regulatory regime and inadequate financial knowledge of retail investors and speculation.

Box 1: Developments of Capital Markets' Institutions in Bangladesh

Bangladesh has two main bourses, The Dhaka Stock Exchange Limited (DSE) and The Chittagong Stock Exchange Limited (CSE). In both these bourses trading are conducted using Computerized Automated Trading System. The two exchanges are self-regulated and private sector entities must have their operating rules approved by the Securities Exchange Commission (SEC), the regulatory authority of the capital market in Bangladesh.

The Securities and Exchange Commission

The SEC has been established on June 8th, 1993 through the enactment of the Securities and Exchange Commission Act, 1993 as a capital market regulator with a mandate to ensure proper issuance of securities, protection of the interest of investors in securities, developments of the capital and securities markets, and regulation of the capital and securities market in Bangladesh. The Commission is a statutory body and is attached to the Ministry of Finance, Government of the People's Republic of Bangladesh. The Chairman and Members of the Commission are appointed by the Government and have the overall responsibility to administer securities legislation. The Commission formulates capital market related laws, rules and regulations for capital markets and related stakeholders such as issuer companies, stock exchanges, the intermediaries and institutions related with capital market. The Commission is responsible for monitoring the activities of DSE and CSE, Merchant Bankers, Portfolio Managers, Mutual Funds, Stock-Brokers/Dealers, Issues and all other intermediaries as well as institutions operating within and externally for the securities market. The basic laws of the capital market are as follows:

i. Securities Act, 1920;
ii. Securities and Exchange Ordinance, 1969 as amended in 1993;
iii. Securities and Exchange Commission Act, 1993;
iv. Company Act, 1994;
v. Securities and Exchange Rules, 1987;
vi. Securities and Exchange Commission (Stock-dealer, Stock broker and Sub-broker) Regulations, 1994 as amended in 1995;
vii. Securities and Exchange Commission (Appeal) Regulations, 1995
viii. Guidelines on Initial Public Offering to Local Investors
ix. Guidelines on Foreign Placement or Allotment of Securities
x. Guidelines on Issuance of Right Shares and Guidelines for Raising of Capital by Greenfield Public Companies.

Dhaka Stock Exchange Limited

The Dhaka Stock Exchange Limited began formal trading in 1956. It was established on April 28th, 1954 and was named as East Pakistan Stock Exchange Association Limited (EPSEA). Few years later its name was changed to East Pakistan Stock Exchange Limited (EPSE) on June 23rd, 1962 and finally on May 13th, 1964 it was renamed as Dacca Stock Exchange Limited (DSE). After the independence of Bangladesh, DSE restarted trading on August 16th, 1976. DSE is a self-regulated, non-profit organization and its Council is the highest policy making body of the stock exchange. Its membership is pursuant to the Dhaka Stock Exchange Council and Administration Regulation 2000.

The DSE calculates three major indices to reflect market behaviour namely i) DSE All Share Price Index (DSI), ii) DSE General Price Index (DGENI), and iii) DSE-20 of top 20 companies. The broader index DSI was introduced in November 1993 with a base-index of 350 points. On November 24th, 2001 the DSE introduced the benchmark price barometer DGENI with a base-index of 817.64 points including the prices of A, B, G and N categories stocks, with the exception of Z-category company stocks; this is calculated on the basis of price movement of individual stocks. The entire market capitalization excluding the Z-category stocks is taken into consideration in deriving the general index. Furthermore the DSE-20, an index of 20 blue chips companies was introduced on January 1st, 2001 with a base of 1000 points and inclusion of only A-category stocks.

Chittagong Stock Exchange Limited

The second bourse of Bangladesh capital market, the Chittagong Stock Exchange Limited, was set up in 1995 and it began formal trading on October 9th, 1995. It is also a self-regulated, non-profitable organization like the DSE. Council membership and processes are similar to that of the DSE. The exchange is administered under the Chittagong Stock Exchange (Board and Administration) Regulations, 2000 and also calculates three types of share price indices: i) CSE all share price index (CASPI), ii) CSE selective index (CSE-30) and iii) CSE selective categories index (CSCX). The CASPI of the CSE has been maintained since October 10th, 1995 and has been calculated on the basis of daily prices of all listed companies in the CSE. The CASPI adopted a new formula and base date on December 30th, 1999, with a new base-index of 1000 replacing the previous index. Furthermore a completely new selective index (CSE-30) incorporating 30 scripts (no Z-category stocks), with base date December 30th, 1999 and base-index 1000 was set up. The CSE launched another new index named the CSCX, comprised of A, B and G category companies on February 14th, 2004 based on a base-index 1000.

Central Depository Bangladesh Limited

The Central Depository Bangladesh Limited (CDBL) the depository for paperless, electronic issuance and trading of securities was accorded registration under the Depository Rules 2000. Legal basis for CDBL's operations is set out in the Depositories Act 1999, Depositories Regulations 2000, Depository (User) Regulations 2003, and the CDBL Bye Laws. The CDBL initiated its business operations by the end 2002.

Live operations of the CDS commenced with the inauguration of the Electronic Government Securities Registry (EGSR) by the Governor of Bangladesh Bank on 20th October 2003. The EGSR also serves as a platform for secondary market sale/purchase as well as Repo transactions of government securities to commercial banks which are linked online to the Central Depository System (CDS) operated by CDBL. Equity market securities dematerialization process, script-less electronic securities transactions i.e. eliminating physical certificate as record of security ownership and substituting it with an electronic book entry record in the CDS commenced on January 24th, 2004 with the entry of Square Pharmaceuticals Limited into the CDS through CDBL. Network connectivity to Depository Participants (DP), Issuers, Banks, Stock Exchanges and Bangladesh Bank is through Front End interfaces accessed by WAN link and dial-up telephone lines.

CDBL's core services cover the efficient delivery, settlement and transfer of securities through computerized book entry system which includes recording and maintaining securities accounts and registering transfer of securities; changing the ownership without any physical movement or endorsement of certificates and execution of transfer instruments. The CDS has proven to be a convenient and reliable means to settle securities transaction. The investor has been freed from the hassles of physical handling of certificates, errors in paper work and the risks associated with damaged, lost and forged certificates.

Section IV: The Bull Market of Bangladesh: Is it Sustainable?

The massive acceleration of share prices since July 2009, high volatility, high PER can be attributed to a number of factors, including: (i) the high level of exuberant demand; (ii) structural weaknesses in the market; and (iii) pre- and post-1996 correction policies such as Initial Public Offering (IPO) pricing and market liquidity policies. The following section discusses those in order to garner a better understanding of the capital market as it stands today.

4.1 Exuberant Demand

It is a very difficult task to assess the existence and size of exuberant demand because of the absence of complete information about economic fundamentals and their impact on prices especially when the capital market has a bullish trend. However, examining investors' perceptions about overvaluation and behaviour of specific market and economic indicators could help to assess the level of exuberant demand in the Bangladesh stock market, especially during boom periods (episode-I: 1995 to 1996 and episode-II: 2007 to June 2010). The capital market indicators that characterise the exuberant demand of stocks are i) a sharp rise in the price index; ii) a weak correlation between the price and economic value of stocks as measured by valuation indicators; iii) a high price volatility; iv) a sizable acceleration in money and credit expansion and heavy use of margin lending; v) an increasingly narrow market leadership in line with high price earnings ratios of the stocks where price hikes are concentrated in a few stocks; and vi) a large IPO calendar.

4.2 A Sharp Rise in the Price Index

During bubble episode of 1996 it had been observed that the price index increased at a rapid rate. The share price index of DSE, the DGENI reached its highest point at 3649 on November 5th, 1996. Interestingly just nine months before of the peak period, the index was only 770. Since early January 1996 most listed security prices in the DSE increased sharply as reflected by the DGENI to form a bubble. In the nine months leading to the bubble, the General Price index increased by 288 percent.

The newly elected government of that time initially misinterpreted this development in the stock market as fundamental strength of the economy and the materialization of people's confidence in the new government. However, the policymakers' enthusiasm was short-lived since the bubble burst and the market crashed. During October 1996 the price index increased from 1890 on 5th October to 2986 by the end of the month. However, by the time efforts were directed to stabilize the market, it was too little too late.

Within five days the DGENI of DSE reached its peak at 3649 on the 5th of November 1996, essentially increasing by 22 percent in the process. In a sudden turn of events after that day, most stock prices slumped and this led to the starting of a downward trend in both the stock prices and the indices. Unfortunately, at that time no effective mechanism could be devised so that the slump could be contained. As a result of this, Bangladesh faced its first stock market crash in its history. Evidence of the severity of the slump can be found by briefly looking at the results from September 1997 when the DGENI crashed to 761 roughly at the same level it was nine months back. In general it lost around 2888 points or a 79 percent drop from its peak.

As a result of the tarnished confidence of the investors it took a very long time for the markets to bounce back. From the end of September 1997 to the first quarter of 2004 the price index was around the 1000 point mark. However, in the second quarter of 2004 the markets showed signs of recovery as it crossed the 1100 marked point in April 2004 for the first time since July 1996. From April 2004, the price indices started to follow an upward pattern. For instance the DGENI almost doubled by the end of 2007 relative to 2006. Moreover in December 2007 for the first time in 10 years of post market crash of 1996, the market crossed the 3000 point. More recently the DGENI jumped sharply to 5746 points in February 10th 2010, this was a mammoth increase of 135 percent from March 2009. However, in the period in between March- April 2010 there was a bit of a slowdown mainly due to a cautionary approach by investors and subsequent market corrections. But from May-June 2010 the DGENI again took off, it reached 6154 in June 2010; this was an increase of ten percent from March 2010. The launch of Grameen Phone Limited (GP) in November 2009 accelerated the pace of DGENI although the DGENI overstates the price increase due to the inappropriate way in which the effect of GP was reflected in the index. All other indices of DSE and CSE moved in the same direction as the DGENI discussed above (Figure 4.a and Figure 4.b).

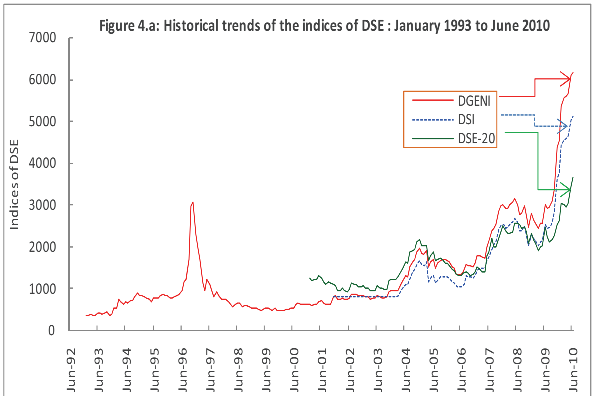


Figure 4.a: Historical trends of the indices of DSE : January 1993 to June 2010

Source: The Securities and Exchange Commission and Dhaka Stock Exchange.

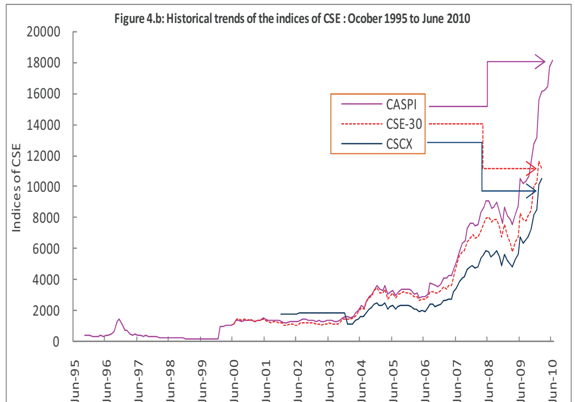


Figure 4.b: Historical trends of the indices of CSE : Ocober 1995 to June 2010

Source: Chittagong Stock Exchange.

4.3 Weak correlation between price and economic values' of stocks

The most common way to calculate the economic values of the stocks is through the present value of the dividends that investors receive. Price Earnings Ratios[3] (PER) of the stocks is a standard valuation indicator to measure whether the stocks are overpriced, and dividend yield of the securities is the indicator of economic value of the stocks. Thus the increase in the PER beyond what could be justified as an expected increase in future earnings is considered a clear sign of overvaluation of the stocks and market beyond fundamental.

During January-June 2010, the bullish tendencies of stock prices have been reflected in PER. PER grew rapidly and reached levels significantly higher than their historical levels. With the exception of the period between June 2004 - June 2007, the PER was in the range of 11-18, however it was mostly below 10 up till April 2004 (Please refer to Figure 5). The markets weighted PER of the listed securities in DSE increased gradually from June 2006; for instance the PER of DSE was 10.7 in June 2006 but it jumped to 24.8 by May 2008. The weighted average market PER of DSE increased significantly to the level of 30.6[4] in February

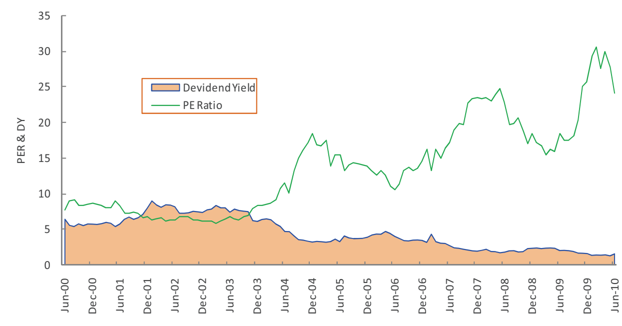
[3] The price earning ratios (PER) is the current share price of a company compared to its earnings per share. The high PER indicates that investors expect higher earnings in future or there is a strong change they will be able to make a capital gain by selling the stock. In other words, the value of the share will increase and the investor will be able to sell it for more than what he paid for.

[4] The high PER values of 30.6 means that on average it takes roughly 31 years to get back (through dividend) its purchase price to investors.

2010 from 15.6 in March 2009; however the PER declined slightly and stood at 24.1 by the end of June 2010.

On the other hand, as the PER increased, the market Dividend Yield Ratio (DY) declined steadily to its historical low level. The market DY ratio of DSE was 2.1 percent in December 2007 while PER was 23.6. The DY ratio plummeted to 1.8 percent in December 2009 and further to 1.4 percent in June 2010 while PER were 25.7 and 24.1 respectively. The big difference between PER and DY ratios indicate that there is a weak correlation between stocks' prices and their economic value.

Figure 5: Economic Values- the PER & DY of DSE: June 2000 to June 2010



Source: Monthly Review (different issues), DSE.

From the third quarter of 2009 the securities of 55 companies that were being actively traded had a PER of 60 with an astounding PER of 1234 for Niloy cement. GP's PER was very high from the beginning of its launch in the DSE. During November 2009, the first month of trade, it's PER was 81.5. Within three month the PER of GP was recorded to be 165 with a market price of Taka 395 per share against a face value of Taka 10 per share. The PER of GP, the only listed company of the telecommunications sector stood at 112.4 in May 2010. As, GP declared a 60 percent cash dividend for the year 2009, due to market corrections its market price fell to Taka 235.7 per share by the end of June 2010, PER declined to 19.5. It has been observed that there are essentially no concrete economic reasons behind the price hike and the high level PER of GP's securities. Speculative behaviour and exuberant demand among investors fuelled the increase in market price and the result of this was reflected in the PER.

When the stock prices show a tendency of a bubble then, PER tends to be elevated, thus indicating that the overpricing of stocks is a common phenomenon in the markets. The high PER levels shows a generalized overpricing of all industrial and emerging markets (refer to Table 2). At the peak of the Saudi stock market bubble, the markets average PER was 47.3 in February 2006. Moreover, the PER of the Saudi market approached the average PER level of 61 which was also the level that the NASDAQ reached at the peak of the NASDAQ bubble in 2000. In the case of other countries, at the peak of their bubble, the average PER during those episodes were as follows: the average PER of the Bombay Stock Exchange was 20.3 and the PER for the Shanghai Stock Exchange was 18.3. Interestingly both were quite close to the average PER of DSE. Similarly, the Dividend Yield (DY) compared less favourably both historically and when compared to other markets' levels.

Furthermore it has been noted that DY decreased substantially during bubble episodes. Even though the data of market PER and DY of the DSE are not available for the period of the bubble of 1996, the market scenario were similar to the countries that faced bubble episode at various points in time. Moreover, it is found that the securities of almost 30 companies had a PER of above 60 and dividend yield of below 1.5 percent for that period.

Table 2: Price earning ratios and dividend yield of selected stock markets

Country	Name of the stock market	Peak year	Peak Period		2009	
			Price earning ratio	Dividend Yield (%)	Price earning ratio	Dividend Yield (%)
Bangladesh	Dhaka Stock Exchange	November 5, 1996	n.a	n.a	25.65	1.75
India	Bombay Stock Exchange	January 8, 2008	20.3	1.3	21.99	1.1
Sri Lanka	Colombo Stock Exchange	September 13, 2007	n.a	n.a	14.44	n.a
Japan	Tokyo Stock Exchange	December 29, 1989	n.a	n.a	15.4	2.39
China	Shanghai Stock Exchange	October 30, 2007	18.3	2.7	20.00	n.a
KSA	Tadawul	February 25, 2006	47.3	1.4	17.26	n.a
USA	NASDAQ	March 10, 2000	35.36	0.67	18.51	0.7

n.a=not available.

Sources: Dhaka Stock Exchange and websites of the respective stock exchanges.

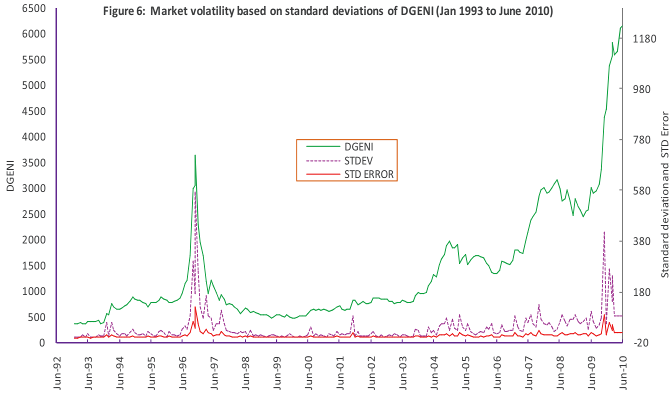
4.4 High price volatility

Standard deviation of share price index is a standard measured of stock market volatility. In this study, the Bangladesh stock market volatility has been measured based on monthly standard deviation and standard error of the DGENI. During the bubble episode of 1996, the market witnessed a substantial increase in volatility of the DGENI, starting in May 1996 when stocks' prices began to rise. In particular, the increase in standard deviation of DGENI was particularly acute prior and immediately following the peak on November 5th, 1996. On that day the value of standard deviation of DGENI increased from 87 (end September) to 574. This was well beyond the 376 standard deviation registered at the NASDAQ price index at the peak of the US market bubble in March 2000 and it was approximately one-fourth of TASI of Saudi Arabian market's bubble in February 2006.

The values of standard deviations of DGENI were below 50 up to June 1996. However, it accelerated during the bubble in 1996. The value of standard deviation recorded a high value in November 1996 when the DGENI was at its peak. It was observed that, when price index declined and was at an almost constant level, the value of standard deviation also declined (Figure 6). The DGENI slumped following the 1996 stock market crash, and along with the slump in the DGENI the standard deviation also declined considerably to lower levels.

From June 2009 the DGNI accelerated and along with it the standard deviation also began to rise and follow a cyclical pattern. Furthermore the market signals became volatile during the recent episode. The high value standard deviations accompanied by amplified frequencies is indicative of the high volatility of stock prices in the market. In Figure 6, the long spikes and frequent cyclical movement show this phenomenon clearly. However, the volatility increased significantly in the first half of 2010 to the levels which are

Figure 6: Market volatility based on standard deviations of DGENI (Jan 1993 to June 2010)



Sources: Dhaka Stock Exchange and Author estimate.

broadly in line with the market.

4.5 Sizable acceleration in money and credit expansion and heavy use of margin lending

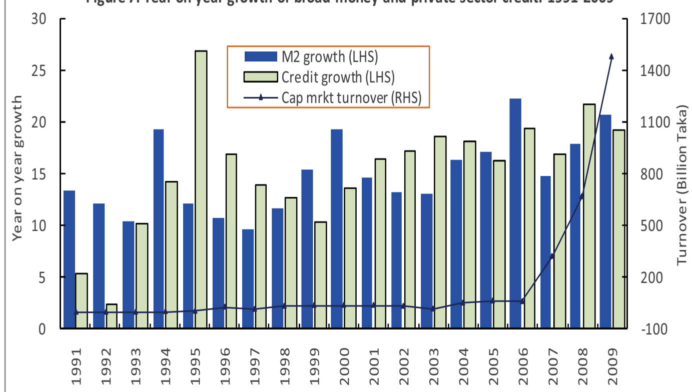
Money is injected into capital market through various channels. Liquidity is injected into the market through the conducting of monetary policy by increasing M2. This in turn is manifested through acceleration of credit to the private sector, consumer credit, provision of margin loans by commercial banks and NBFIs, and through foreign investments. Moreover, fresh investment by the general public also injects liquidity into the market. The rapid growth of these variables contributes substantially to raising the stock prices by pushing up the demand of the stocks.

4.5.1 Acceleration in money supply and credit to the private sector

In Bangladesh, money market, money supply and banks' credit expanded rapidly in tandem with the evolution of the market, and in the process fuelled exuberant demand in stocks. The acceleration in money growth, the 14 percent compound annual growth rate (CAGR) during 1993-1996, was attributed mainly to the strong growth of credit to the private sector, which grew by 19 percent (CAGR) during the same period. Moreover during the bubble episode of 1996, credit growth was substantially above the rate observed at 6 percent (CAGR) in 1993.

In recent years, due to investment friendly monetary policy conducted by Bangladesh Bank, the amount of credit to private sector increased significantly (Figure 7). During the period 2006-2009, M2 grew by 18 percent (CAGR) and this was an increase from 15 percent (CAGR) of 2005. The acceleration in money growth is attributed mainly to an increase of 19 percent (CAGR) in credit to private sector during that period. A major portion of the increase in credit to private sector was channelled into the capital market, as alluded to by the use of margin loan and personal facilities.

Figure 7: Year on year growth of broad money and private sector credit: 1991-2009



Source: Bangladesh Bank and Dhaka Stock Exchange.

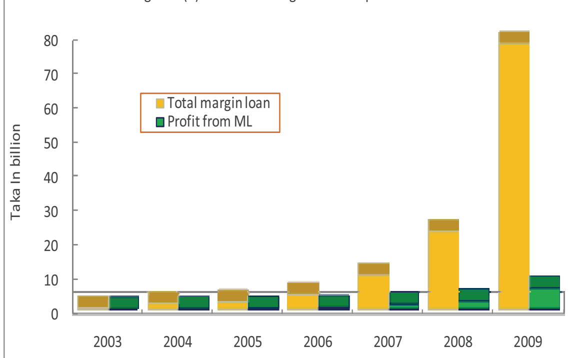
4.5.2 High growth of margin lending

In Bangladesh's stock market, margin loan providing institutions[5] such as banks, non-bank financial institutions (NBFIs), alliance financial institutions and permitted brokerage houses are providing margin loan to retail investors for buying securities from the secondary market. In December 2009, the total amount of margin loan provided by banks and NBFIs substantially increased by 164.41 percent (CAGR) to Taka 77.82 billion from Taka 4.21 billion in 2006 (Figure 8). Of this amount, Taka 59.87 billion was lent by banks and it grew by 180.71 percent (CAGR) and Taka 17.95 billion by NBFIs grew by 128.80 percent (CAGR) during the period. In recent years, against margin loans banks earned profits amounting to Taka 3.94 billion (3.04 percent of total profit) and NBFIs made profit amounting to Taka 2.17 billion (21.77

[5] Thirty-one institutions taking license from SEC are providing margin loan. Among them, 9 are banks, 8 are NBFIs and rest of 14 is capital market alliance institutions. But, actually it is found that 20 banks and 11 NBFIs are providing margin loan. Banking sector has started their margin lending business from 2003 and non-bank financial institutions from 2004.

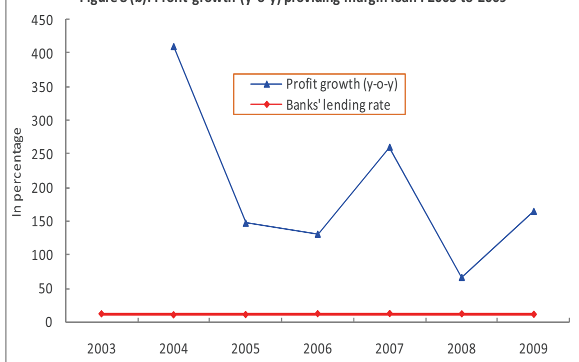
percent of total profit) in 2009 compared to 2006 when profits amounted to Taka 0.22 billion and 0.16 billion respectively. Margin loan business of banks and NBFIs are more profitable and considered less risky compared to the term loan disbursement. Due to this fact, investment in margin loan business increased significantly in recent years.

Figure 8 (a): Trends of margin loan in capital market: 2003 to 2009



Sources: All scheduled Banks, Non-bnak Financial Institutions and Bangladesh Bank.

Figure 8 (b): Profit growth (y-o-y) providing margin loan : 2003 to 2009

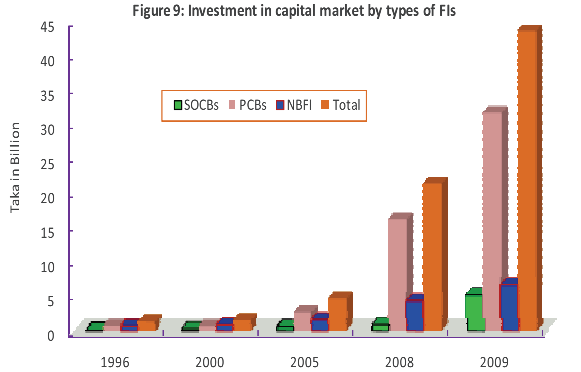


Sources: All scheduled Banks, Non-bnak Financial Institutions and Bangladesh Bank.

4.5.3 Institutional Investment

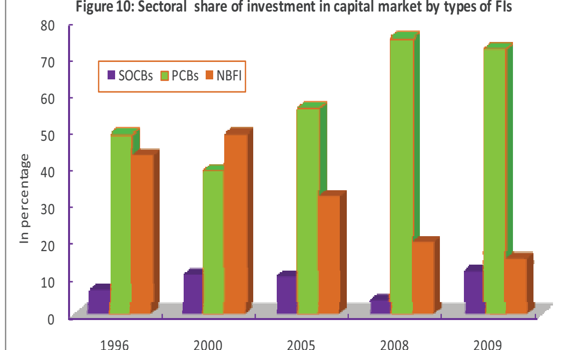
Excess liquidity, the idle money of banks registered at Taka 334.27 billion in December 2009, experienced a growth of 57.17 percent (CAGR) from Taka 86.10 billion in December 2006. This large accumulation of excess money in the banking sector traditionally could not be used in the capital market by banks and NBFIs. In recent years, however this trend of investment in capital market business by banks and NBFIs changed. In Bangladesh capital markets, the total investment by banks and NBFIs climbed by 87.30 percent (CAGR) to Taka 43.58 billion in 2009 from Taka 6.63 billion in 2006 (Figure 9). Of this, investment by banks[6] increased significantly by 97.55 percent (CAGR) to Taka 36.91 billion in 2009 from Taka 4.79 billion in 2006 and investments by NBFIs climbed to Taka 6.66 billion, a growth of 53.46 percent (CAGR) from Taka 1.84 billion in 2006.

Figure 9: Investment in capital market by types of FIs



Source: All schedule banks and NBFIs in Bangladesh.

Figure 10: Sectoral share of investment in capital market by types of FIs

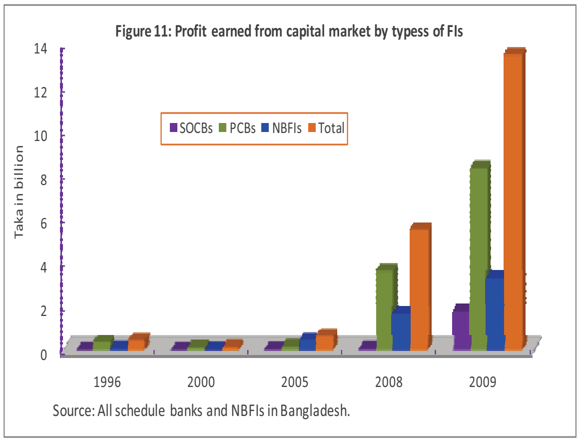


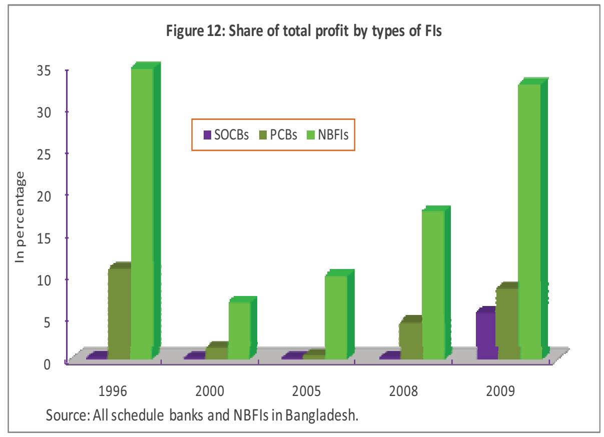
Source: All schedule banks and NBFIs in Bangladesh.

During the current episode, the banking sector made a hefty profit from investment in the capital market. In 2009, a profit of Taka 15.96 billion was earned by banks and NBFIs against investments in the stock market; these accounts for 10.89 percent of total profit of this sector, a growth of 131.91 percent (CAGR)

[6] Foreign commercial are not engaged with the business in capital market in Bangladesh. And, among FDIs only former BSRS and BSB have made investment in stock market.

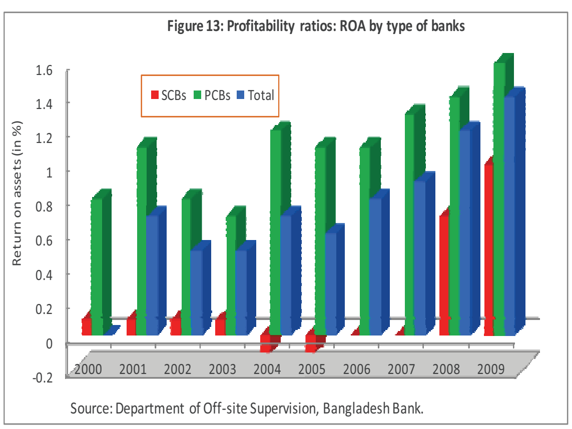
from Taka 1.28 billion in 2006 (refer to Figure 11). Furthermore in 2009, the banking sector earned profits amounting to Taka 12.69 billion (9.28 percent of total profit) and NBFIs earned Taka 3.28 billion (32.86 percent of total profit) from the market.

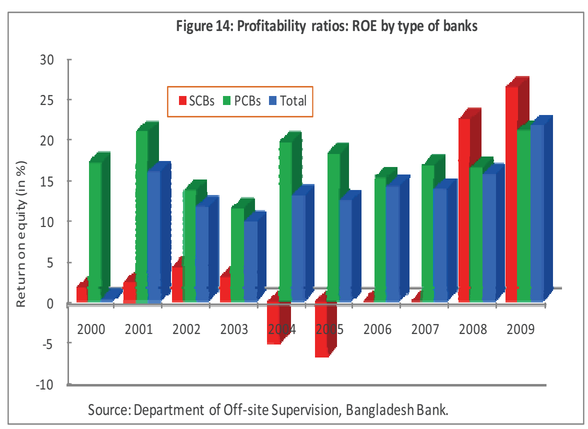




4.5.4 Earnings and Profitability in financial sector

The high growth in profit earned from investments in the capital market is reflected in the earnings and profitability of banks and NBFIs. Earnings as measured by return on assets (ROA) and return on equity (ROE) were very large within the banking industry. In the banking sector, ROA and ROE were 0.6 percent and 12.4 percent respectively in 2005 and rose to 1.4 percent and 21.7 percent in 2009 (please see Figure 13 and 14). Analysis of these indicators reveals that considering huge provision shortfall, the ROA of the state owned commercial banks (SCBs) have been less than one percent. Private commercial banks (PCBs) are at a satisfactory level and foreign commercial banks' (FCBs) ROA ratio has been consistently strong in recent years. SCBs' ROE ratio was 2.4 percent in 2001, but it rose to 26.2 in 2009. The ROE of both PCBs and FCBs were strong in 2009.

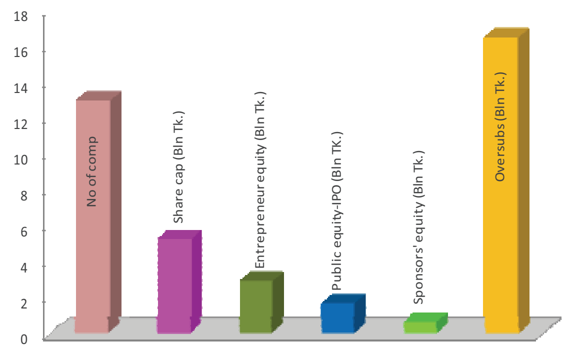




4.6 Excessive demand in IPO

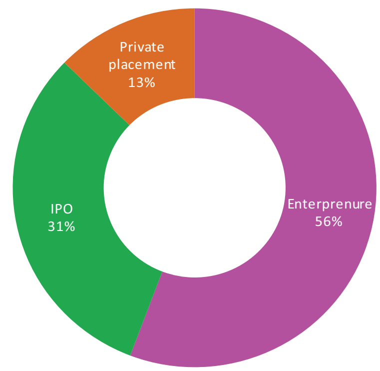
In Bangladeshi capital market, on an average, every year 13 companies have been listed in the capital market by offering public subscriptions. The average size of each company's issued capital/equity amounted Taka 0.42 billion, of which 56 percent ownership remained under the entrepreneur, 13 percent owned by sponsors and 31 percent owned by public. New issues raised their capital amount to Taka 5.3 billion every year (yearly average). Among the new issues, Taka 0.7 billion was raised through private placement and Taka 1.7 billion was raised through Initial Public Offering (IPOs). The IPOs were oversubscribed by ten times standing at Taka 16.5 billion.

Figure 15: Performance of new issues in a year (yearly average)



Source: Securities & Exchange Commission.

Figure 16: Proportion of total equity in a year average

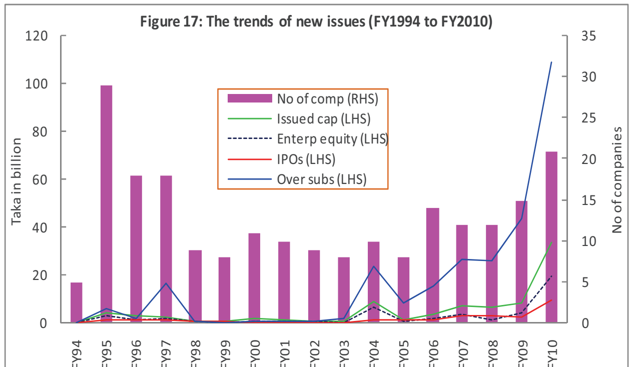


Source: Securities & Exchange Commission

Augmented investors' confidence is reflected in the large amount of public subscriptions. Moreover the huge amounts of public subscription from demand side can be interpreted as a sign of strong liquidity flow in the market. The excessive demand of equities and the high growth of liquidity hit the market via the overshooting of the prices of the stocks. The market mechanism brought the demand and supply to their equilibrium level by pushing prices to much higher levels.

Due to positive initiatives and capital market strengthening measures undertaken by the regulatory authority SEC, in recent years many fundamental public limited companies and state owned enterprises with strong financial records offloaded their shares in the stock market. In FY10, twenty-one new companies (including 8 mutual funds) offloaded their shares amounting to Taka 33.8 billion through public offering (Figure 17). Among the new issues Taka 9.7 billion was raised through public offerings and Taka 4.7 billion was raised through private placement. Against IPOs, Taka 109.2 billion was oversubscribed which is almost twelve times higher than the IPO subscriptions. For example, in case of GP, against IPOs amounting Taka 0.69 billion, Taka 16.88 billion was oversubscribed and this is almost 25 times higher than subscription offered.

Figure 17: The trends of new issues (FY1994 to FY2010)



Source: Securities & Exchange Commission and Dhaka Stock Exchange.

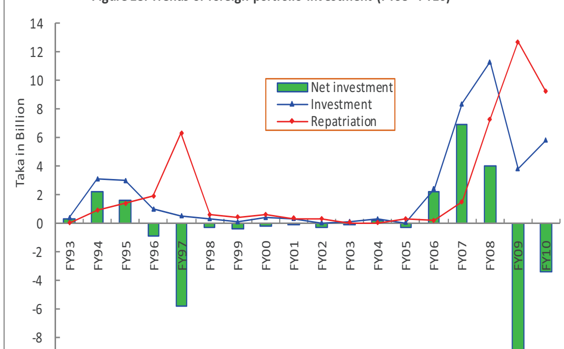
In this bullish episodes, during FY07 to FY10, 60 companies offloaded shares amounting to Taka 18.7 billion for public (IPOs) and Taka 7.8 billion for private placement against total equity that amounted to Taka 56.1 billion, where Taka 202.4 billion has been oversubscribed (about eleven times higher than IPOs) against public offering. During FY95 to FY98, seventy-four companies offered shares amounting to Taka 4.4 billion for the public through IPOs against a total share capital amount of Taka 11.5 billion; Taka 24.9 billion was oversubscribed (about six times higher than subscription offered) against public offering during that period. Among the listed companies, the sizes of most of the companies were very small and the proportion of public ownership of stock was below 30 percent and totalled below Taka 40.0 million. This creates the opportunity for the entrepreneurs or market gamblers to easily manipulate the market to suit their own benefit as evident from what happened in 1996.

4.7 Foreign portfolio investment

Foreign portfolio investment is an important aspect of capital markets. It indicates the integration of the domestic economy with the international marketplace. The depth and development of a capital market also depends on the size of the foreign portfolio investment. In Bangladesh's capital market, foreign portfolio investment came to a discussion point in 1996 as the market collapsed. Though foreign portfolio investments are not substantial, the recent withdrawal and repatriation of a large volume of funds have raised some signs of concern.

Foreign investment in the capital market was first introduced through the Non-resident Taka Account (NITA) in April, 1992. From FY93 through to FY95, there was a surge in portfolio investment which seemed to exceed sales. During this period, there had been an investment of Taka 6.5 Billion compared to a sales figure of Taka 2.4 Billion. In anticipation of a major market correction in the beginning of FY96, the trend had been reversed.

Figure 18: Trends of foreign portfolio investment (FY93 - FY10)



Source: Foreign Exchange Investment Department, Bangladesh Bank.

During FY96-FY99, gross outflow of repatriation of sale proceeds was Taka 9.3 billion (5.3 percent of total turnover in the DSE) against gross investment inflow into the market at Taka 1.9 billion (1.1 percent of total turnover in DSE). The net disinvestment inflow stood at Taka 7.4 billion at that period. Due to major market corrections after the bubble episode of 1996, and foreign investors withdrawing from the market, outflows as repatriation exceeded the investment inflows. In FY97 alone there was a massive outflow of foreign investment as Taka 6.3 billion was repatriated by gaining a profit of Taka 2.9 billion against Taka 0.5 billion in investment inflow (Figure 18). As Bangladesh capital market resuscitated in the beginning of FY06, the country had witnessed a major injection of foreign investment.

Bangladesh's capital market has fared well during the recent global market recession. During this time, the market became inflated as foreign investment increased in stocks. In FY08 Taka 11.3 billion was invested in Bangladesh's capital market through NITA. In FY10, Taka 9.3 billion was repatriated against an investment inflow of Taka 5.8 billion. From FY93 to FY10, the gross repatriation outflow stood at Taka 43.9 billion (1.6 percent of total market capitalization) against the gross investment inflow in to the capital market of Taka 39.9 billion, compared to Taka 12.3 billion and Taka 8.56 billion at the end of FY99 respectively.

Although the foreign portfolio investment in equity and debt securities indicates a level of stock market integration with the stock markets of other countries, as well as growth in the stock market, the portfolio size of foreign investment in the Bangladesh stock market (at well below 3 percent of the market capitalization, despite impressive gains of recent years) remains very small.

4.8 Narrow market leadership

Market observers showed that there were specific and recurring signs of narrow market leadership in Bangladesh's stock market during the bubble episode of 1996. The small group of speculative stocks[7] has shown a pattern of behaviour consistent with this warning signal. The rise and fall of prices of these speculative stocks also occurred immediately prior to and after the bubble in 1996. In that year, the bubble formed and burst because of the rising pressure of demand of these speculative stocks. A very small number of listed securities created the environment conducive for speculation. Initially, investor confidence was boosted by the restoration of political stability, but later they became highly speculative. The prevalence of a big kerb market (number of small investors reached over 25,000) provided a wider scope for rumours to effect share prices through infiltration into the kerb market by agents of the sponsors and member-brokers. An inadequate infrastructure; a weak settlement system; insufficient dissemination of information system; lack of credibility and transparency of the authorities of the listed companies; and weak policies by regulatory authorities contributed to manipulations in the market, creating an artificially hyped demand for speculative stocks.

In July 1996, rumours touting a profitable stock market climate spread throughout Bangladesh, and many new retailed investors, many of whom had no prior knowledge of investment, entered into the market. It was reported that even maid-servants, rickshaw-pullers and villagers sold their meagre assets or borrowed from relatives, to procure speculative stocks in hopes of an overnight success. Along with this sudden rise, there was heavy trading in the speculative stocks that did not correspond to their small market shares. Most of this trade went unrecorded at the end of the 1996 boom. During September-November 1996, the market was so speculative that the panic went beyond the reach of the regulatory authorities. Moreover, there were questions about the transparency of the stock market members, especially brokerage houses and sellers. All in all, this phenomenon was a contributing factor behind the price bubble of 1996. When market speculators left the market after realizing their profit, prices of speculative stocks slumped drastically and the bubble burst in mid-November 1996. In comparison, the current market is wider; the regulatory bodies are more concentrated; there is improved information and settlement systems in place; and issuer companies are more transparent with regular financial statement submissions. Nevertheless a similar phenomenon was observed in the second half of 2010 during the period leading up to the correction.

Section V: Regional and International Comparison

In this chapter we examine the developments of Bangladesh stock market in comparison with regional (Bombay Stock Exchange-BSE of India and Colombo Stock Exchange-CSE of Sri Lanka) and international (Tokyo Stock Exchange-TSE of Japan, Shanghai Stock Exchange-SSE of China, Tadawul of Saudi Arabia and NASDAQ of USA) stock exchanges. The countries' stock exchanges have already been faced the bubble and bust episode. Here, we emphasize the developments of the markets for the period of bubble, boom and corrections.

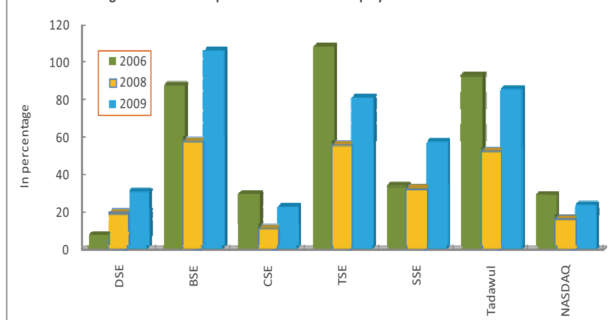
5.1 Equity markets in selected countries

5.1.1 Developments of selected stock markets

[7] In this study, speculative stocks defined as: listed companies having small number of shares with small market capital, along with weak financial indicators, which historically do not pay dividends due to their recurring losses or small profits. The price performance of speculative stocks is usually more dependent on rumours, and spread by speculations than by the companies' own track record.

Although in recent years, the size of Bangladesh's capital market increased significantly, its size and performances remain below the standard of regional and developed markets. In Bangladesh, market capitalization as a percentage of GDP increased to 39 percent in end FY10, from 8 percent of FY06. Among the comparable countries, the value is highest in Bombay Stock Exchange, India. In the BSE, the ratio increased to 106 percent in 2009 from 88 percent in 2006. At the end of 2009, the ratio stood at 86 percent in the Tadawul, 81 percent in the TSE and 58 percent in the SSE. Only the ratios 23 percent in the CSE and 24 percent in the NASDAQ was lower than that of DSE, Bangladesh (please see Figure 19).

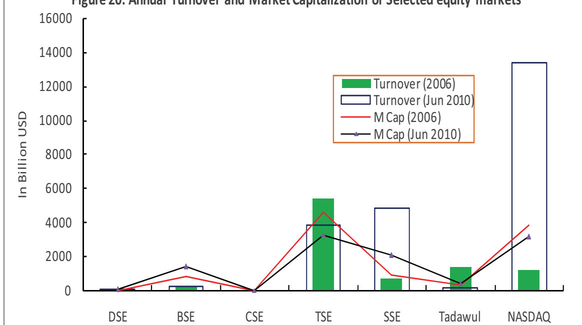
Figure 19: Market Capitalization of selected equity markets as a % of countries' GDP



Sources: Bangladesh Economic Review, MoF, GoB; Monthly Reviews of DSE; Annual Reports of the respective countries Central Bank and Stock Exchanges and www.world-exchange.org

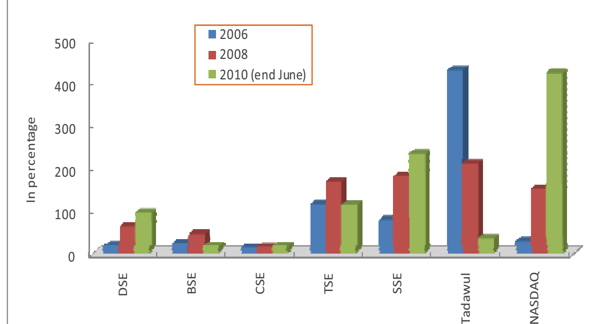
From 2006 to June 2010, among the comparing countries, the growth rate of all stock market indicators of the DSE recorded higher than others. During this period, market capitalization recorded an increase of 605 percent in the DSE, Bangladesh. The figure was 124 percent in the SSE, China; 68 percent in the BSE, India; 65 percent in the CSE, Sri Lanka; and 10 percent in the Tadawul, Saudi Arabia. On the other hand, market capitalization in the TSE, Japan and NASDAQ, USA decreased during the period under report.

Figure 20: Annual Turnover and Market Capitalization of Selected equity markets



Sources: Monthly Reviews of DSE; websites of respective Stock Exchanges and www.world-exchange.org.

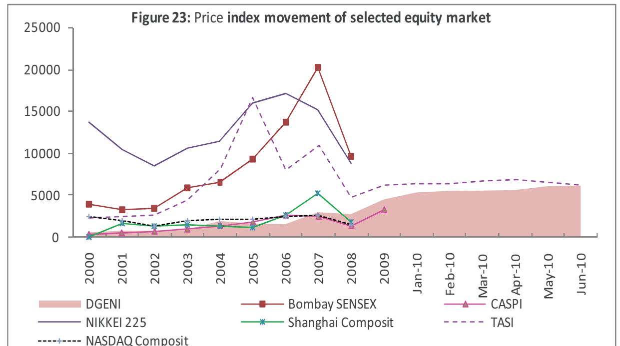
Figure 21: Trading Turnover as a % of market capitalization in selected equity markets



Sources: Monthly Reviews of DSE; websites of respective Stock Exchanges and www.world-exchange.org

Turnover in the DSE also increased remarkably from 2006 to June 2010 and reflected a trading turnover as a percentage of market capitalization ratios. In the DSE, turnover as a percentage of market capitalization ratio rose to 115 percent in FY10, from 21 percent in 2006 (CY). In 2009, the ratios of comparison markets crossed the one-hundred percent mark: the NASDAQ (420%); Tadawul (106%); SSE (187%); and TSE (97%). Regionally it can be seen that in 2009, the trading turnover as percentage of market capitalization of the BSE in India (17%) and CSE in Sri Lanka (18%) were less than those of the DSE. High values of turnover to market capitalization ratio may occur for the following reason: when a market is highly developed, i.e. transparent, with a more efficient settlement system in place; and there is sufficient availability of liquidity. Only the second condition applies to Bangladesh.

Figure 23: Price index movement of selected equity market



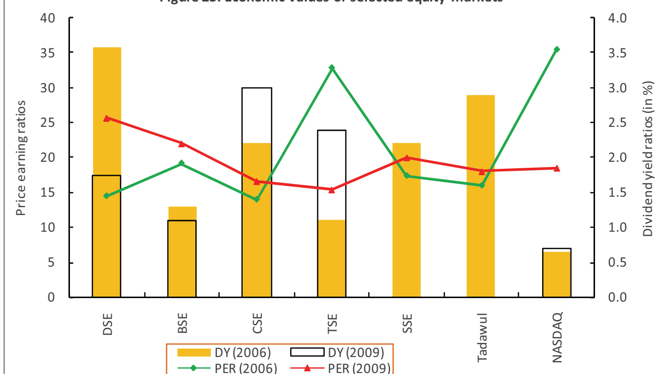
Sources: Monthly Review of DSE; www.colombo stock exchange; CMA and www.world-exchange.org.

5.1.2 Price Earnings ratio and Dividend Yield ratio of selected stock markets

The weighted average market PER in the DSE increased gradually from 2006 to 2009 with the gradual increased of DGENI. The DSE PER increased to 26 by the end of December 2009, from 15 at the end of 2006. It further increased to 31 percent by the end of February 2010, with a slight decline to 24 percent by the end of June 2010. The overheating of the markets resulted in the substantial price increase and deterioration of valuation ratios. Thus, during the period of price bubble, the PER increased, and consequently, dividend yield declined to 1.7 percent in end June 2010, down from 3.58 percent in end 2006. The level of PER in the DSE is higher than those of comparable countries in this study (Figure 24).

The widening gap between the increase in stock prices and growing perception of overvaluation results in a price correction in the markets. The triggering factors for the correction are related to market-specific factors and explain why prices began to decline on different dates.

Figure 23: Economic values of selected equity markets



Sources: Monthly Review of DSE; Respective stocks exchanges' website and www.world-exchange.org.

5.2 Bubbles in selected stock markets

5.2.1 Bubbles episodes of selected equity markets

As noted earlier, period of bubble, boom and bust in a stock market are not uncommon phenomena in the economy. Both developing and developed economies alike have endured these cycles at different times (Table 3). These cycles, however, are difficult to forecast as policy makers are constrained by imperfect information, limited effectiveness of policy instruments, and time constraints. It is only when prices of stocks have reached soaring heights and regulators realize the effect of asymmetric information, forcing them to step-in and cool off the market. It can be argued that such actions may lead to a drastic fall in prices, thus resulting in a collapse.

Table 3 : Bubble episodes of selected stock markets

Country	Name of Stock market	Year of establishment	Date of bubble peak
Bangladesh	Dhaka Stock Exchange (DSE)	1956 (1976)	November 5, 1996
India	Bombay Stock Exchange (BSE)	1875	January 8, 2008
Sri Lanka	Colombo Stock Exchange (CSE)	1896	February 14, 2007
Japan	Tokyo Stock Exchange (TSE)	1878	December 29, 1989
China	Shanghai Stock Exchange (SSE)	1990	October 30, 2007
KSA	Tadawul	1980	February 25, 2006
USA	NASDAQ	1971	March 10, 2000

5.2.2 Emergence of bubbles: Bangladesh vs. selected stock markets

A sharp increase in the price of stock index was the most obvious indicator of bubble formation in the DSE in 1996 and in the selected stock markets discussed in this study. Almost all indicators, i.e. speculative behaviour, bull run price index, the weak correlation between the prices of stocks and economic values, high price volatility, a sizable acceleration in money and credit growth, and heavy use of margin lending and narrow market leadership were active in Bangladesh and the selected markets at the time.

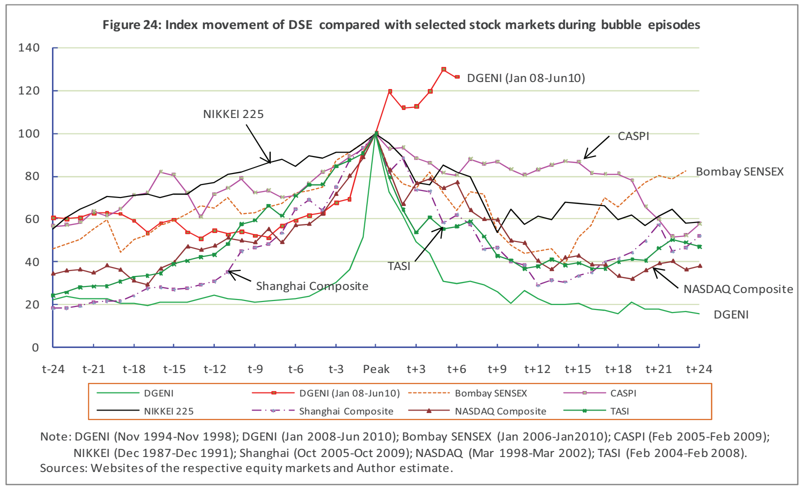


Figure 24: Index movement of DSE compared with selected stock markets during bubble episodes

Note: DGENI (Nov 1994-Nov 1998); DGENI (Jan 2008-Jun 2010); Bombay SENSEX (Jan 2006-Jan2010); CASPI (Feb 2005-Feb 2009); NIKKEI (Dec 1987-Dec 1991); Shanghai (Oct 2005-Oct 2009); NASDAQ (Mar 1998-Mar 2002); TASI (Feb 2004-Feb 2008).
Sources: Websites of the respective equity markets and Author estimate.

The 1996, the bubble formed in the Bangladesh stock market within a very short time. The DGENI of the DSE reached its peak on November 5th, 1996, increasing by 332 percent from six months prior. When price corrections set into the market, the index collapsed and fell sharply. Within six months it came down to the level what it was six months prior to the peak (Table 4 & Figure 24). With the exception of some fluctuations in the Bombay SENSEX and the ASPI of Sri Lanka, other equity markets' price indices such as the TASI, NASDAQ composite, and NIKKEI increased sharply during the bubble episodes of those stock markets. In all cases, bubbles were preceded by a steady increase in stock prices, leading to rapid change in the price index, which was then followed by a rapid fall.

Table 4: Equity valuations of selected countries (Equity indices rebased to 100 at peak price date)

Country	Index name	-2 years	-1 years	-6 months	Peak	6 months	1 years	2 years
Bangladesh (1996)	DGENI	22	24	23	100	30	23	16
India (2008)	Bombay SENSEX	46	65	72	100	64	45	83
Sri Lanka (2007)	ASPI	57	72	71	100	80	83	58
Japan (1989)	NIKKEI 225	55	77	85	100	82	61	59
China (2007)	Shanghai Composite	18	31	65	100	62	29	52
KSA (2006)	TASI	24	43	71	100	57	38	47
USA (2000)	NASDAQ Composite	35	48	57	100	77	41	38

Sources: Websites of the respective equity markets and Author estimate.

In the other markets, indices increased gradually up to 12 months prior to their peaks, after which price indices increased rapidly. The post-bubble scenario remained the same and price indices declined in the same manner as it had when it rose before the bubble. The bubble and bust cycle of 1996 Bangladesh capital market was steeper than the any other selected equity markets (Figure 25).

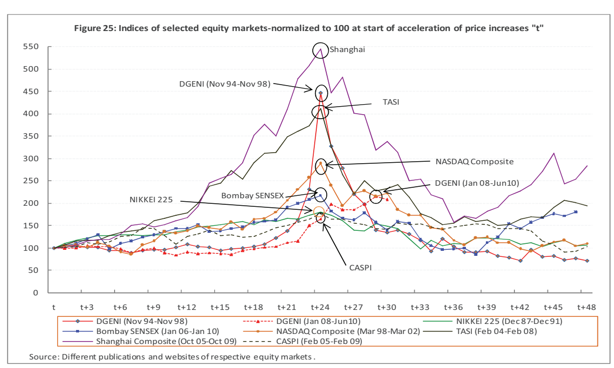


Figure 25: Indices of selected equity markets-normalized to 100 at start of acceleration of price increases "t"

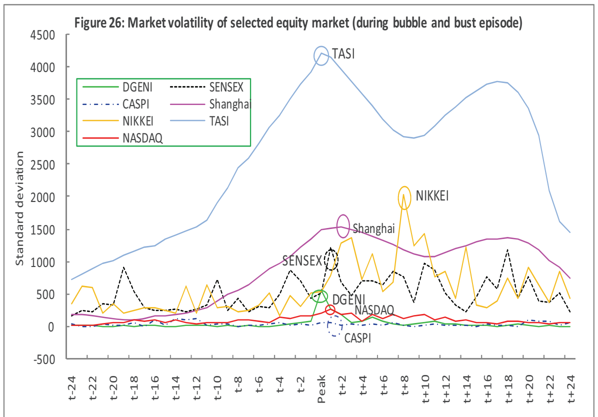
Source: Different publications and websites of respective equity markets.

5.2.3 Price volatility (during bubble and bust cycle): Bangladesh vs. selected countries equity markets

Volatility in the DSE and selected stock markets across the world rose considerably as measured by the standard deviation of price indices. Interestingly, prior to the starting of market corrections it was observed that there were remarkable increases in price volatility and it is well known that price volatility is frequently associated with bursting of the speculative bubble. Moreover, the hike in the standard deviation of the price volatility of DGENI tends to increases substantially prior to the bursting of the bubble. Therefore, it reflects considerable uncertainty among investors on whether to enter or stay out of the market. The result of the uncertainty will be reflected in the daily turnover of the market.

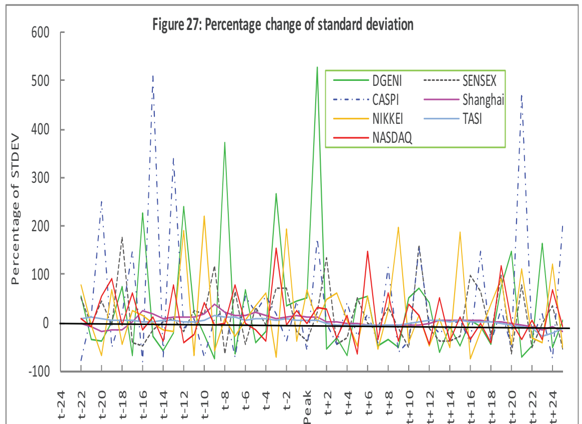
During the boom period, DGENI's standard deviation reached its highest peak at 528 percent relative to selected stock markets across the world during boom (Figure 26). Furthermore, the percentage change in the standard deviation during bubble episode is also indicative of the high volatility that persists in the market compared to other stock markets across the world (Figure 27). At peak periods, it seemed that the markets were more volatile in terms of standard deviation and percent changes in the standard deviation of the indices.

Figure 26: Market volatility of selected equity market (during bubble and bust episode)



Note: Standard deviation calculation from indices (where n=22)
Source: Web site of the respective equity market and Author estimate.

Figure 27: Percentage change of standard deviation

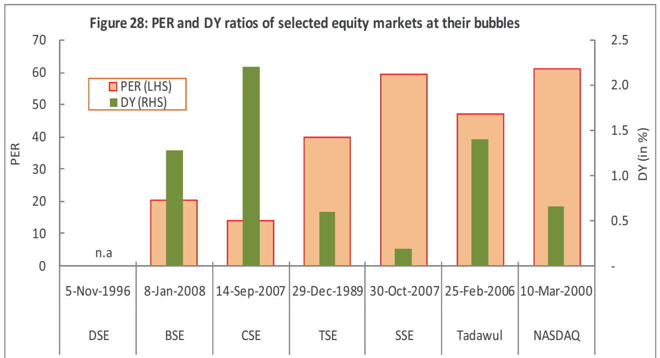


Source: Web site of the respective equity market and Author estimate.

5.2.4 Weak correlation

The valuation indicators, PER highlighted a progressively weak correlation between stock prices and economic value (DY). It has been observed that market gains have outpaced corporate earnings significantly, thus resulting in the PER exceeding their historical levels and average levels of developed markets. Vis-a-Vis the DY compared less favourably with historical markets' levels (Figure 28)

Figure 28: PER and DY ratios of selected equity markets at their bubbles



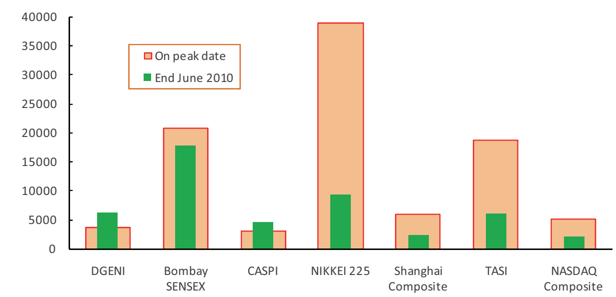
Sources: www.world-exchange.org.

At their peaks, the average market PER of the BSE (20.3), CSE (14.0), TSE (39.8), SSE (59.2), Tadawul (47.3) and NASDAQ (61.0) were much higher than those of any historical level. Similarly, dividend yields at their peaks were lower than their historical levels. Market PER and DY of DSE is not available for the period of 1996's bubble.

5.3 Recent developments in equity valuations of selected countries: Bubbles vs. current period

In the recent years, developments of the Bangladeshi stock market have been more stable compared to other equity markets across the world. Furthermore, the Bangladesh stock market is one of the best performing stock markets in the world in recent years. Moreover the size of the Bangladesh stock market increased significantly in terms of number of listed companies, number of shares, turnover in value and volume, market capitalization and price indices. Modernization of updated technologies and regulations are stronger than before. As a result that market was seen to be more stable and attractive to both domestic and foreign investors.

Figure 29: Development of Price indices of selected stock markets: Boom vs. current



Note: Peak dates- DGENI Nov 5, 1996; Bombay SENSEX Jan 8, 2008; CASPI Feb 14, 2007; NIKKEI 225 Dec 29, 1989; Shanghai Composite Oct 30, 2007; TASI Feb 25, 2006; NASDAQ Composite Mar 10, 2000.
Sources: Monthly Review of DSE and www.tradingeconomics.com

The Bangladesh stock market crash of 1996 led to the DGENI crashing from 3649 to 477 in the December of 1999. However, it has been observed that the stock markets have recovered and crossed the marked boom in price index in November 2009. With the exception of a slight gain (1.3 percent increased) in ASPI of the Colombo Stock Exchange, only the DGENI of DSE gained (increased by 60 percent) among the comparative markets (please refer to Figure 29). A crash in the stock market leads to a drastic fall in the general price indices for instance when the NASDAQ crashed in 2000 the indices fell from 5049 to 1134 and in the Japanese case the crash in the NIKKEI in 1989 meant that the indices dropped from 38916 to 7608.

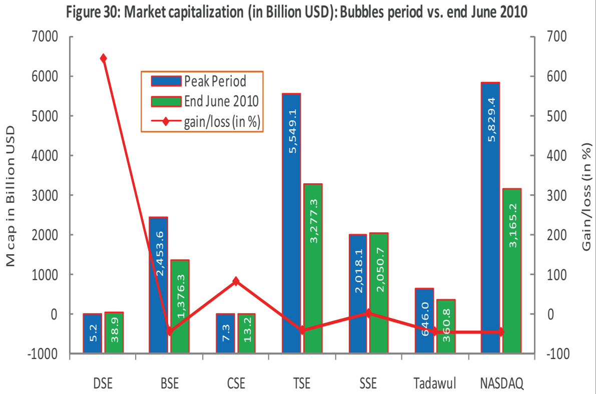
The rates of market capitalization and turnover of the DSE increased by a staggering 721 and 4563 percent respectively compared to the rates of 1996. However, when looking at the global market capitalization scenario, we can see a substantial decline in 2009 (as highlighted by the Table 5). Furthermore the results when compared to boom periods for the respective countries make for depressing reading.

Table5: Impact of global financial crisis in selected equity markets

Stock Markets	Rate of Growth/Decline (Market Capitalization)
NASDAQ	-44%
Tokyo	-32%
Tadawul	-51%
Bombay	-44 %

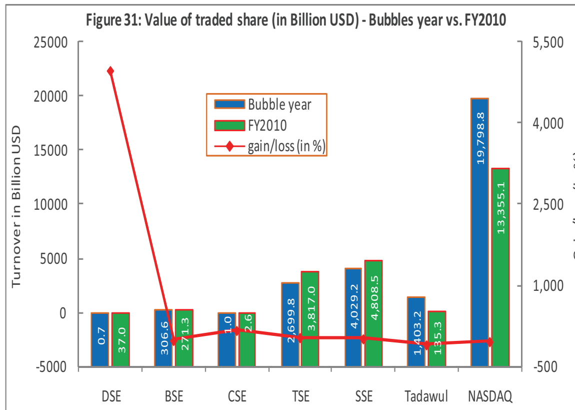
Source: www.world-exchange.org.

Figure 30: Market capitalization (in Billion USD): Bubbles period vs. end June 2010



Sources: Monthly Review of DSE and www.world-exchanges.org.

Figure 31: Value of traded share (in Billion USD) - Bubbles year vs. FY2010



Sources: Monthly Review of DSE and www.world-exchanges.org.

Secretion VI: Bangladesh Stock market development: recent vs. 1996

The recent acceleration of stock prices index in Bangladeshi capital market started from the last quarter of 2006. The bull-runs in stock prices and record levels of market turnover week after week reminded us the bubble and the subsequent market crash of 1996. However, a sharp rise in stock prices does not necessarily mean the formation of a bubble or that any two bubble episodes are identical across countries or across time. Moreover, stock prices may rise across the board when there is a fundamental change in the economy, in the economic outlook, or in people's expectation about future events. Bangladesh stock markets have matured over the course of time but it is still not fully developed or well organized as of yet.

Since 1996, the market has been relatively stable. The regulatory authorities, in order boost up investors' confidence have taken many institutional and important market oriented reforms. Currently investors are also more cautious and they have more knowledge about updated market information; usage of improved technologies and market integration increased in the recent years. Besides, many sound companies have been listed in the capital market, which also works as a signal to encourage the investors to invest in the market. Given the above discussion, a few issues surface, such as the question of what has changed in the market to induce the spiral price hike of stocks in the bullish market during the last one year. In the following section, the issues of market fundamentalism have been thoroughly analyzed. Furthermore, along with a discussion on current market trends of all the major indicators (price indices, turnover, market capitalization etc.) a comparison would be made with the 1996 episode.

6.1 Market scam in 1996

The condition of the share market became murky due to collusive behaviour between some brokers and companies, who kept an unusually high trend of some companies' stock prices between June and November in 1996. It has been identified that within the five-month period between June and November there was a sudden cash crunch in the Bangladeshi stock market since many big investors released their shares at higher prices and quit the market rapidly. Some new companies which had listed during 1994-1997, having small equity and a small number of shares, played an important role in crashing the market. For example, on 2nd February, 1997, Excelsior Shoes issued 11,850 shares at the DSE with a face value Taka 100 each. On its first day of trading, a trader purchased 10,000 shares of the company offering a price of Taka 503 each. In another case, the share price of Shine Pukur Holdings rose to Taka 700 from Taka 70. The Key & Que, Wonderland Toys, Jihil Bangla, Rupon Oil, Tulip Dairy, Mark Bangladesh and Excelsior Shoes were some of the controversial companies at the time. Among those, in August 2004, Mark BD and Rupon Oil were delisted from DSE due to their poor performance, weak financial conditions and irregularities in the preparation of the company's financial statement.

6.2 Acceleration in price index

The DSE started to recover in terms of indices since 2004 after the market crash of 1996. Moreover, the current bulls run of the indices started from the beginning of the first quarter of 2009. This has been reflected in the main share price index DGENI of DSE (please see Figure 32). The accelerated growth of DGENI started from November 2009 after the launch of trading of Grameen Phone[8] in DSE. On the 15th of

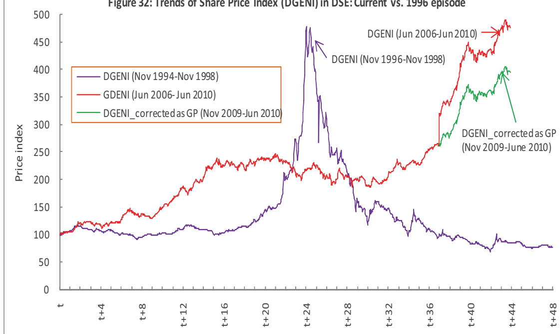
[8] In October 2009, a largest mobile telecommunications company, issued capital amounting Taka 13.50 billion offloaded its 1,350,299,997 shares offering Taka 70 per share (including premium Taka 60 per share) against face value of Taka 10 per share for IPOs. Of which, Taka 0.69 billion were for public subscriptions (5.14 percent of total shares/equity), Taka 0.66 billion (4.86 percent

November, 2009 (just one day before launching trade of GP), DGENI stood at 3383, which was a massive increase of 28 percent from 2650 from end of January 2009. In a single day on November 16th, 2009, the first trading day of GP in DSE, the DGENI jumped to record levels of 4148; an increase of 765 points or 23 percent.. The high growth rate was mainly due to inappropriate/incorrect calculation of the index with the launching of GP. The correct level would approximately be somewhere around at the level of 3439 or very close to it (estimated base on the last 30 days daily average growth 1.7 percent of DGENI).

From then on, the DGENI began to climb sharply and it stood at 5828 on February 17, 2010. Therefore, it essentially increased by 71 percent from the end of November 2009. During the third week of February 2010, until the first week of May 2010, the DGENI took a slight plunge but was still above 5500. From the beginning of the second week of May 2010, DGENI become to bubble again, and it jumped to 6333 on the 13th of June 2010. During the last week of June 2010, the DGENI was in the range of 6150 to 6250. By the end of June 2010, the DGENI reached to the level of 6154 points. The recent scenario indicates that the indices of DSE increased at an accelerated rate since June 2009.

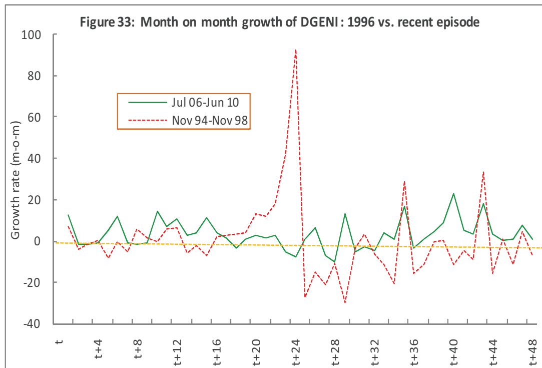
The Bangladeshi capital market landscape showed that during the bubble and subsequent market crash episode in 1996, within 6 months, DGENI reached the peak level index 3649, essentially increasing by 316 percent. Before that, for a long span of time the DGENI of DSE was at a horizontal level with the index level below 1000. During the 1996 bubble episode, except some fluctuations, the DGENI slumped sharply, and during the next six months, it came down to the level it was six month before of the peak of November 1996. After 24 monthsat the peak the DGENI came down at the level below it base level. The month on month growth of DGENI are shown in Figure 33.

Figure 32: Trends of Share Price Index (DGENI) in DSE: Current vs. 1996 episode



Source: Monthly Reviews of DSE and author estimate.

Figure 33: Month on month growth of DGENI : 1996 vs. recent episode



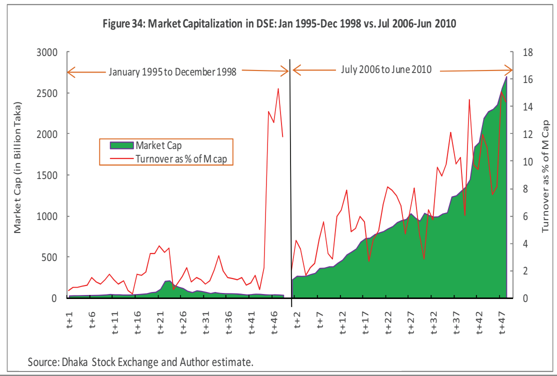
Source: DSE and Author estimate.

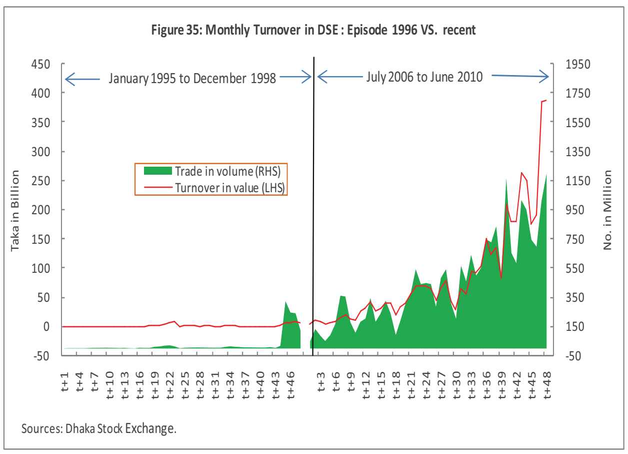
6.3 Market Capitalization and Turnover

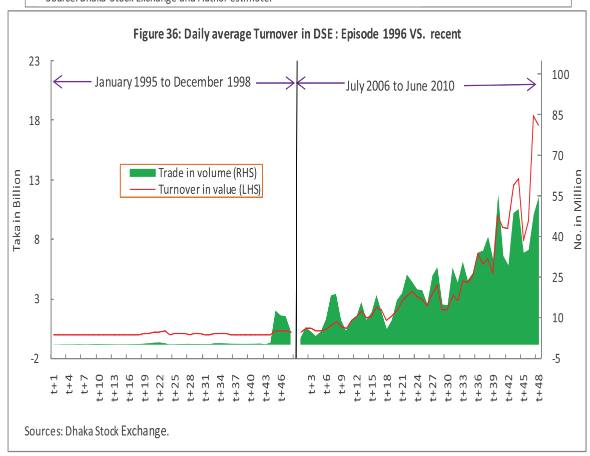
Reflecting the increase in the price index, market capitalization, daily turnover and price-earning ratio of listed securities in DSE recorded an unprecedented growth during the period under report. The market capitalization of DSE was Taka 1016 billion by the end of January 2009. It climbed to Taka 1504 billion on November 15th, 2009 increasing by 48 percent from the end of January 2009. Within a single day, with the launching of GP trading, the market capitalization jumped to Taka 1764 billion on November 16th, 2009 increasing by 17 percent. The stock price, bubble is reflected in the index and as well as in the market capitalization.

of total equity) for private placement and for entrepreneurs Taka 12.15 billion (89.99 percent of total equity). GP launched its trade from 16 November 2009 in both the bourses DSE and CSE.

Furthermore, market capitalization also increased gradually and it stood at Taka 2701 billion by the end of June 2010. To put it in perspective the market capitalization was only Taka 216 billion in June 2006 at the very beginning of the current bull-run in DSE. During the bubble episode of 1996, at the peak of the bubble, the market capitalization stood at Taka 218 billion at the end November 1996 an increase of 235 percent from Taka 65 billion during June 1996. It was only Taka 54 billion during the same time in 1995. As compared to 1996, the market capitalization increased almost fourteen times in June 2010.







Stock market activity in terms of turnover of all stocks during a day also recorded a remarkable upward trend during the recent period. The daily average turnover in DSE, increased from Taka 3,293 million in January 2009 to Taka 10,024 million in October 2009. Furthermore, it stood at 17,624 million in June 2010. The daily average turnover was Taka 3,180 million in June 2008 and Taka 158 million in June 2006. During 1996 episode, the daily average turnover begun to grow from Taka 51 million in June 1996 to Taka 350 million in November 1996. Before 1995, the daily average turnover was below Taka 20 million. After the 1996 crash the daily average turnover fell drastically and it fell below the level of Taka 60 million in 1997.

6.4 Acceleration demand for securities

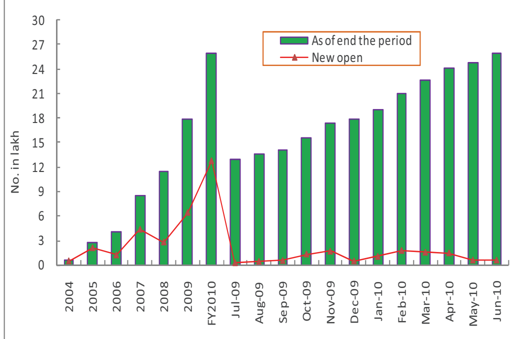
Demand for stocks from both local and foreign investment pushed the stocks prices up which in turn also hit the market turnover. Given the recent market situation, it has been observed that, a large number of new investors have been joining the market with a huge amount of fresh money; this has been pumping the stock prices balloon. Besides, institutional investors like banks, NBFIs, insurance companies, pension fund holder are increasing their portfolio size by investing in capital market at an increasing trend. Huge amounts of money have been or are being injected into the stock market through these channels (have been discussed earlier in chapter 4) which have also fuelled the increase in stock prices and market turnover.

6.4.1 Large number of new investors

The investors' demand for securities push prices of stocks up and the steady increase of turnover have a good return from the stock market. Among a number of other factors, huge number of new retail investors with fresh funds is primarily responsible for stock price hike and acceleration of market turnover. As demand for stocks increased due to an increase in the number of investors it was observed that the number of Beneficiary Owners' (BO) Accounts in CDBL went up to 19.07 lakh in January 2010 from 17.94 lakh in end December 2009. The increase in the number of BO account holders has accelerated further to 25.88 lakh in end June 2010. This means 1.26 lakh new retail investors have been joining the market every month in FY10.

To put the increase in proper perspective it has to be noted that during the 1996 episode, the total number of small/retail investors were reported to be 25,000 only, almost one-fifth of the additions to BO accounts in every month of FY10. Huge amounts of new investments are being channeled into the stock market through these accounts, thus undoubtedly pumping the stock market balloon to grow bigger with time.

Figure 37: Number of BO Accounts holder (2004-June 2010)

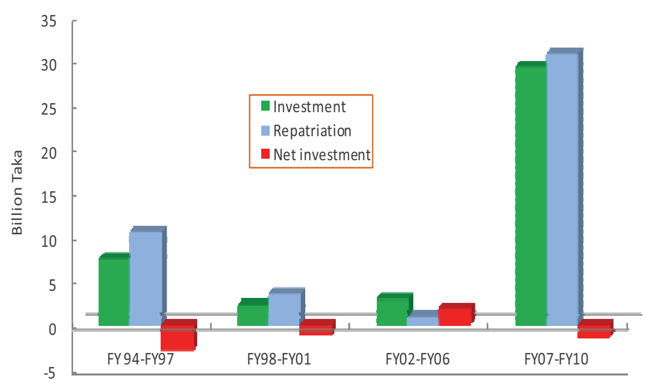


Source: Central Depository Bangladesh Limited (CDBL).

6.4.2 Increasing trend of Non-resident portfolio investment inflow

Investment and sales in Bangladesh capital market by Non-resident Bangladeshi (NRB) increased significantly. In FY10, the amount of repatriation of sale proceeds by NRB stood at Taka 9.28 billion against the investment inflow in shares and securities that amounted to Taka 5.83 billion. Moreover, in FY09, the amount of repatriation outflow was Taka 12.73 billion against an investment inflow of Taka 3.82 billion. Furthermore, the amount of investment in shares and securities by non-resident Bangladeshis stood at Taka 11.30 billion in FY08. Against the investment inflow, they repatriated Taka 7.30 billion during the year.

Figure 38: Non-resident portfolio investment in DSE: FY 1994-FY2010



Sources: Foreign Exchange Investment Department, Bangladesh Bank and Annual Report of SEC.

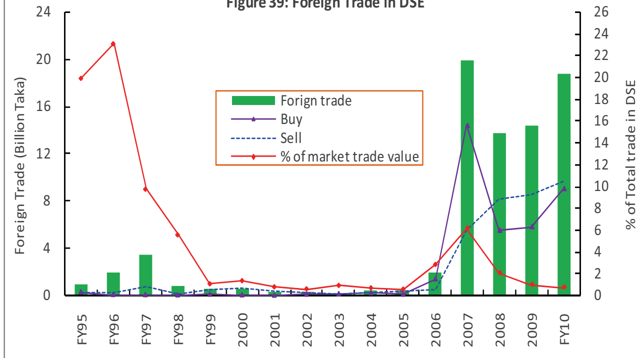
Post 1996 episode in FY97 investment inflow declined to Taka 0.52 billion compared to Taka 2.98 billion in FY95 and Taka 3.10 billion in FY94. The amount of repatriation outflow went up to Taka 6.33 billion in FY97 from Taka 1.39 billion in FY95 and Taka 0.92 billion in FY94. During FY94-FY97, the amount of repatriation was higher than investment inflow. Moreover, during that period, the non-resident investors gained a handsome profit amounting to Taka 3.97 billion from capital markets in Bangladesh. Huge sales and repatriation by foreigners created a panic and this was reflected negatively in capital markets.

6.4.3 Foreign Trade in DSE

Foreign investments in capital market also fuelled the price hike of shares and securities. It was observed that during the stock price bubble general investors waited to realize their holdings in order to earn more profit expecting higher prices in the very near future. The foreign investors conducted smart business during the inflationary period in the market.

Trade by foreigners in DSE increased significantly in recent years. In FY10 foreign trade turnover stood at Taka 18.70 billion essentially growing by 58.00 percent compared to FY09, which was almost 0.73 percent of total turnover in DSE. In FY09, shares and securities sold by foreigners amounting Taka 9.63 billion against an inflow of money amounting to Taka 9.04 billion. The amount of foreign trade turnover stood at Taka 13.66 billion in 2008; 2.04 percent of total turnover of which Taka 8.15 billion were sold against the buying of shares amounting to Taka 5.51 billion. Foreign trade was only Taka 0.34 billion in 2005 which was roughly 0.53 percent of total market turnover. The market witnessed that when price of shares went up, foreign investment in capital market increased and realizing potential profit, they released their holdings (Figure 39). In FY96, foreigners sold shares amounting to Taka 0.19 billion against their acquired amount worth Taka 0.07 billion. Furthermore, the turnover was 23 percent of total turnover in DSE.

Figure 39: Foreign Trade in DSE



Source: Dhaka Stock Exchange.

6.5 Supply constraint (in terms of IPOs)

Demand for stocks further accelerated stock prices since there is an existing supply constraint. The remarkable increase in stocks price and market turnover occurred in an environment where supply of stocks, as reflected through the number of listed companies[9], remained almost unchanged. In a capital market, where there are constraints of supply of quality shares, the excess demand push up the price level. Then the price level not only overshoots the value of the stocks in secondary market, it also affects IPO subscriptions in primary market for new issues. The aggressive demand for shares and securities of new issues are reflected in the figure of oversubscription. In recent years, during FY07 to FY10, sixty new companies, including nine mutual funds amounting to a share capital worth of Taka 56.1 billion, offloaded their shares in the market through public offerings. During the period, Taka 204.4 billion was oversubscribed against Taka 18.7 billion for public offerings (IPOs) of the new issues. Augmented investors' confidence and increased demand for new issues affected the public subscription. This amounted to Taka 223.09 billion which was almost 11 times higher than the public offering.

During the bubble period from FY95 to FY98, seventy-four companies offloaded their shares amounting to Taka 11.5 billion, of which, Taka 24.9 billion oversubscribed (almost six times higher than IPOs) against public offering of Taka 4.4 billion. The number of companies of new issues enlisted in the market during the period FY95 to FY98 is far greater than the number in FY07 to FY10, but the size of shares' capital are almost five times lower than the recent (please see Table 6).

[9] In DSE, in June 2006, number of listed companies was 256 which stood at 236 (28 companies trade in OTC market) in December 2009 and 240 in March 2010.

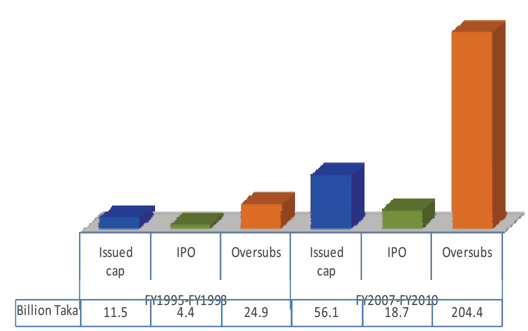
Table 6: IPO performance of Bangladeshi capital market

Fiscal Year	No. of companies offered for IPOs	Issued capital	Entrepreneurs' equity	Public equity		Over subscription	Proportions of total equity (as %)		
				IPOs	Pre-IPOs		Entrepreneur	IPO	Pre-IPO
		Billion TK	Billion TK	Billion TK	Billion TK	Billion TK	%	%	%
1	2	3	4	5	6	7	8	9	10
FY 95-FY98	74	11.5	7.1	4.4	Nil	24.9	62.0	38.0	0
FY 99-FY02	38	5.6	3.1	1.1	1.5	2.1	54.4	19.6	26.0
FY 03-FY06	40	15.8	9.8	4.0	2.1	49.3	61.9	25.1	13.0
FY 07-FY10	60	56.1	29.6	18.7	7.8	204.4	52.8	33.2	14.0

Source: Dhaka Stock Exchange and The Securities and Exchange Commission.

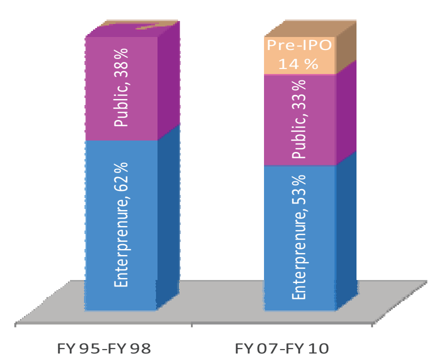
However, the size of new issues increased in recent years but the proportion of shares for public is still not at a significant level. It observed that during FY07 to FY10, among the companies that offloaded shares 53 percent ownership was owned by entrepreneur, 14 percent owned by sponsors and 33 percent owned by public. In FY95 to FY98, the proportion for entrepreneur ownership was 62 percent and the proportion of public ownership was 38 percent period (see Figure 40 & 41). The figure and facts showed that due to small size of the companies and the small portion shares reserved for public, and as highlighted earlier there was scope for manipulation as seen in 1996.

Figure 40 : Demand for new issues



Sources: SEC and DSE.

Figure 41: Propotion of total equity

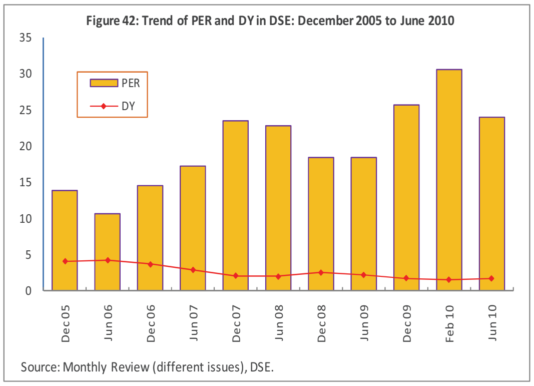


Source: SEC and DSE.

6.6 Correlation between stocks' prices and economic value

In recent times the investor demand did not match the corresponding increase in supply of stocks, this has caused the PER to go beyond rational levels in many cases. With the increased pace of price indices in DSE, weighted average market PER has increased significantly. The weighted average market PER of DGENI in DSE crossed the level 20 in September 2007. Moreover, it jumped to 30 in February 2010 and stood at 24 by the end June 2010. Except some fluctuation in between June 2004 and March 2007, weighted average market PER of DSE was below 10 till April 2007. The market dividend to yield (DY) ratio decreased substantially to 1.7 percent in June 2010 from 1.8 percent in December 2009. In January 2002, it was 9.1

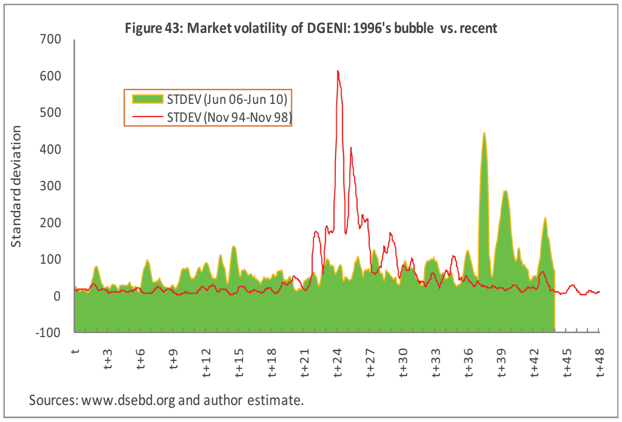
percent. Data on PER and DY for period of the bubble episode during 1996 are not available, however it is thought that most of the stocks PER was above 70.



Securities of companies that are not properly organized are being actively traded in the market at PER well above 80! These types of stocks influenced the creation of an environment of speculative demand in the market that was observed during the period of bubble 1996. High PER and its rapid increase coincided with a substantial decrease of DY in Bangladesh stock market indicating weak correlation between stocks' prices and its economic value.

6.7 Market volatility

The market volatility in Bangladesh stock market rose substantially in recent years. The hike in standard deviation of DGENI ranged from 50 to 100 during January 2004 to June 2009, and gain reached 418 in November 2009. Later on, it declined to just above 100. The spikes of standard deviation (Figure 43) clearly indicate that market the volatility is very high. A sizeable increase in price volatility, frequently associated with the bursting of speculative price bubbles, was observed just prior to the start of the market corrections that we can find during the bubble episode of 1996 in Bangladesh stock market.



The correction has been particularly strong with regard to a group of speculative stocks. During 1996-1997, overshooting on both price gains and losses on the group of speculative stocks was one of the reasons explaining the persistence of high volatility in the Bangladesh stock market. The accelerated fall of those speculative stocks, accounting for a large part trading volume, also helped spread the panic to small investors in general. In 1996, the speculative stock's volatility was higher than DGENI volatility.

Section VII: Sectoral Developments of Bangladesh Capital Market

Financial sector plays a dominating in the Bangladesh capital market. Among the financial sector, banks are far more stable. This is reflected in a stable price, market capitalization and both turnover in value and volume. Bonds are not so well known in the market as yet. The sectoral performances are discussed in the following section.

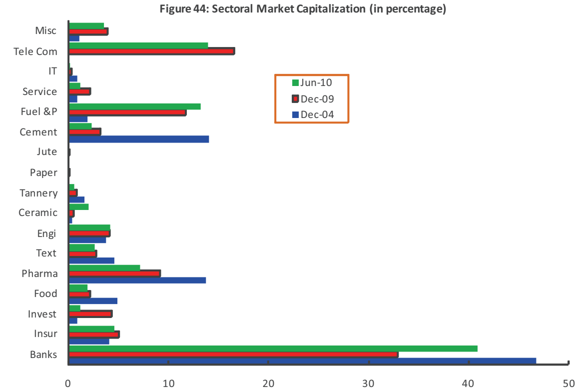
7.2 Banking sector dominates the market

In Bangladesh, the banking sector, which dominates the financial sector, has served the economy very well, and extended its performance in the capital market in terms of the share in the total market capitalization and turnover in value and volume of capital market.

7.1.1 Banking sector owned the largest share in market capitalization

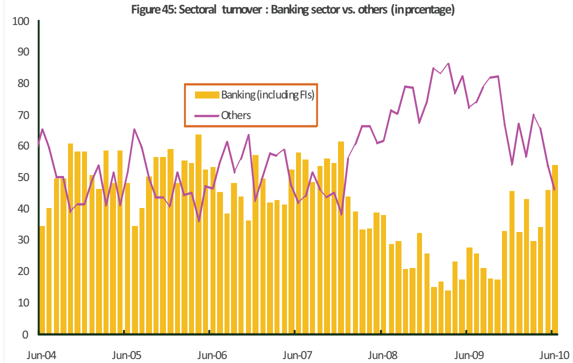
Over the period during June 2004 to June 2010, the contribution of banking sector's market capitalization in DSE, almost hold 40 percent share of the total market capitalization. It came down to 40.82 percent in June 2010 from the top of 63.58 percent in August 2007. The banking sector is followed by pharmaceuticals, fuel and power, and ceramic industries. Despite notable progress of the other service sectors including telecommunications and real estate, its share is still negligible in the stock market. Like market capitalization, in terms of turnover, baking sector also holds the major share in the total market turnover. In June 2010, the share of banking sector's turnover stood at 53.88 percent, which was 45.79 percent in December 2009, 61.55 percent in December 2007 and 59.19 percent in December 2005 (Figures 44 & 45).

Figure 44: Sectoral Market Capitalization (in percentage)



Source: Monthly Review (different issues), DSE.

Figure 45: Sectoral turnover : Banking sector vs. others (in prcentage)



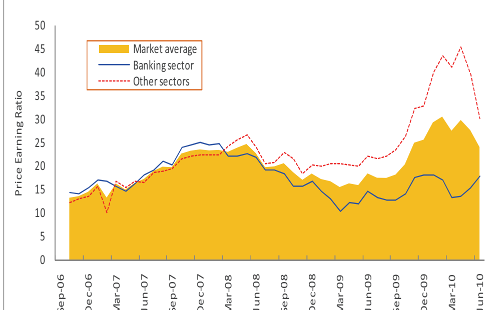
Source: Monthly Reviews (different issues), DSE.

7.1.2 Stable income based PER in banking sector

PER, in the banking sector was stable, it was below 20, and lower than the weighted average market PER. On the other hand, during 2008-2009, that the PERs of telecommunication, IT, services & real estate, and the ceramic sectors were very high and above 45. PER of the telecommunication sector (Grameen Phone Ltd being the sole company) crossed 150 in on February 23, 2010.

Banking sector’s PER has been more stable and generally below most other sectors in the market. The better performance of the banking sector in both financial and capital markets in Bangladesh is the result of proper monitoring, supervision and guidelines of Bangladesh Bank.

Figure 47: Price Earning Ratios: Banking sector vs. others sector (Octo 2006-June 2010)

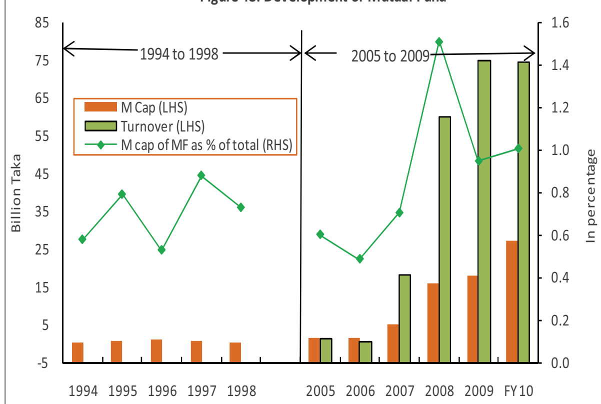


Source: Monthly Reviews (different issues), DSE and Autor estimate.

7.2 Performance of Mutual Fund

Given the small number and the size, the mutual funds in Bangladesh capital market could not have played the kind of stabilizing role that institutional investors could have in more developed markets. In DSE, up to end June 2010, 26 mutual funds[10] were recorded as listed among 450 listed securities in DSE. The size of the mutual funds' issued capital was Taka 12.57 billion. In 1996, the number of listed mutual funds were eight (seven were government owned-ICB-MF and one was managed by BSRS) among 205 listed securities, with the amount of issued capital being Taka 0.18 billion. In end June 2010, market capitalization of all listed mutual funds stood at Taka 27.23 billion (1.01 percent of total market capitalization), which was Taka 1.40 billion in 2005. In 1996, market capitalization of 8 listed mutual funds was Taka 0.89 billion (0.53 percent of total market capitalization).

Figure 48: Development of Mutual Fund



Source: Securities and Exchange Commission, and Dhaka Stock Exchange.

Turnover of mutual funds also increased significantly during the period. In FY10, the mutual funds worth of Taka 74.47 billion (2.9 percent of market turnover) were traded in DSE, which was 50 times higher than Taka 1.48 billion of 2005.

Table 7: Performance of Mutual Funds (MF)

Year	No. of MF	Size of the scheme	Turnover		Market Capitalization	
			Amount	% of total	Amount	% of total
		Billion Taka	Billion Taka	Percentage	Billion Taka	Percentage
1994	6	0.10	n.a	n.a	0.24	0.58
1996	8	0.18	n.a	n.a	0.89	0.53
1998	9	0.23	n.a	n.a	0.37	0.73
2005	13	0.74	1.48	2.27	1.40	0.60
2007	14	0.87	18.33	5.68	5.23	0.70
2009	19	4.82	75.13	5.09	18.06	0.95
FY10	26	12.57	74.47	2.90	27.23	1.01

Note: n.a= Not available.
Source: Monthly Review (different issues), Dhaka Stock Exchange.

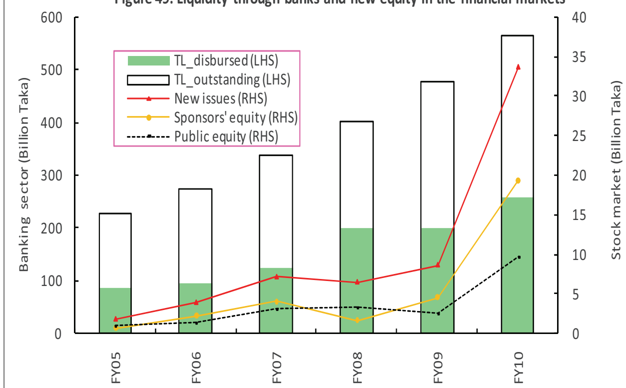
7.3 Investment financing: Large term loan and narrow equity in capital market

In Bangladesh, debt financing has traditionally been the strongest sources of business financing, with bank borrowing dominating the scenario. The dominance of term loans in investment financing implies low equity stake and risk exposure of the entrepreneurs, with disproportionately high incidence of risk on the lending banks and financial institutions, including liquidity risk arising from the funding of these long-term loans with typically shorter-term deposits.

[10] Among the 26 Mutual Fund, 8 are managed by the government owned Investment Corporation of Bangladesh (ICB), 7 are managed by ICB Asset Management Company Ltd. (AMCL), one is managed by former Bangladesh Shilpa Rin Sangstha (BSRS) and remaining 10 are privately owned.

Despite the phenomenal growth of capital market in Bangladesh, the role of the market is still limited in terms of new issues compare to industrial term loans disbursed by banks and non-bank financial institutions (NBFI). During FY08 - FY10, the amount of industrial term loans disbursed by banks and NBFIs stood at Taka 660.05 billion (of which the amount disbursed by banks were Taka 584.49 billion and NBFIs were Taka 75.56 billion). The term loans disbursed are many-fold higher than the amount of Taka 48.93 billion raised by new equity issues through IPOs of Taka 15.57 billion and Taka 7.79 billion for private placement in the capital market. This indicates the overwhelming preference for bank finance in industrial investment financing. The Taka 565.42 billion outstanding balance of industrial term loans of banks and NBFIs as of end-FY10 was lower than market capitalization Taka 2700.74 billion of the securities listed in DSE. Moreover, market capitalization of the industries (excluding banks, NBFIs, MF and insurance companies) amounting Taka 1215.65 billion in FY10 was also higher than the outstanding level of industrial term loan financing by the banks and NBFIs.

Figure 49: Liquidity through banks and new equity in the financial markets

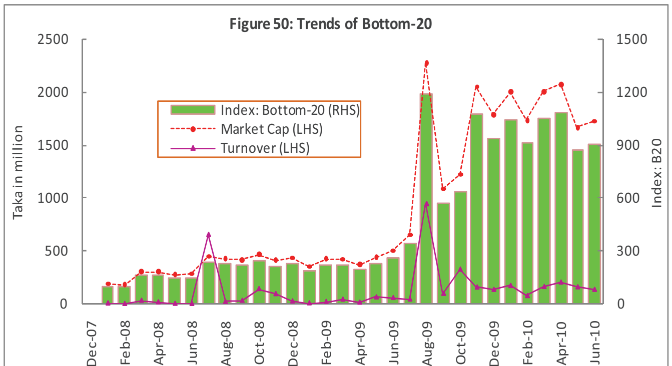


Source: Bangladesh Bank and The securities & Exchange Commission.

7.4 Performance of Bottom-20

The speculation of stocks' price hike is one of the main reasons for the bubble and bust of a stock market. The speculation is associated with the small cap companies. It is observed that in Saudi stock market, during 2005, small cap index gained 236 percent vis-a-vis the 104 percent gain in the TASI. Along with this rise, there was heavy trading in the speculative stocks that did not correspond to their small market capitalization. In 2006, the speculative stocks' volatility of Saudi market was 25 percent higher than TASI volatility. It is found that more than 8 million Saudis, over half of the total population of Saudi Arabia including children, had trading accounts in Tadawul that propelled the speculative demand during the boom and bust period in February 2006. Stock markets in USA, Japan, Chain, India, and many other countries those have already faced the bubble and bust, experienced the same. The performance of bottom 20 companies (Bottom-20) in the DSE, during the period January 2008 to June 2010, based on minimum capital (in terms of market capitalization and issued capital) is discussed in this section.

Figure 50: Trends of Bottom-20



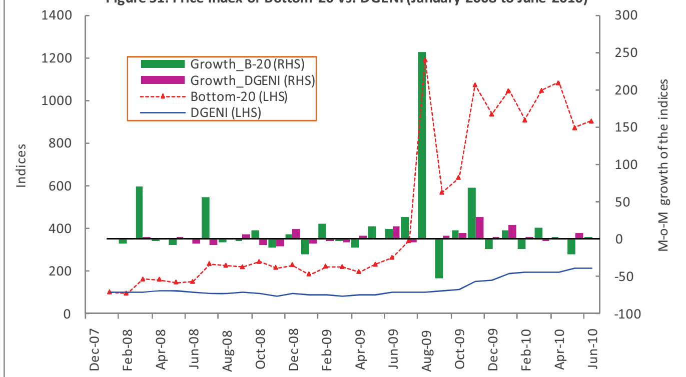
Sources: Monthly Reviews of DSE and Author estimate.

7.4.1 Sharp price rise of Bottom-20

In DSE, the main bourse of Bangladesh capital market, before the current bull run that started from beginning of 2009, the index of small cap companies, Bottom-20[11], was in horizontal level below 300. With the sudden surge from June 2009, Bottom-20 increased significantly. During January 2008 to June 2010, the prices of small cap companies increased significantly as well as their market capitalization.

The index of small cap companies Bottom-20 accelerated to 1193 in August 2009 growing by 249 percent from the index level of July 2009. Whereas, the DGENI gained only 0.92 percent during the same period. During July 2009 to June 2010, index of Bottom-20 increased by 245 percent to 904, where as the DGENI gained by 104 percent to 212. During the period, the index of Bottom-20 of small cap companies was always higher than the main barometer index DGENI (Figure 51). The index of Bottom-20 accelerated to 904 in June 2010 increasing by 804 percent from the base index 100 of January 2008 in comparison the DGENI gained by 112 percent to 212 during the same period. The index of Bottom-20 was more than four time higher than DGENI in June 2010.

Figure 51: Price index of Bottom-20 vs. DGENI (January 2008 to June 2010)

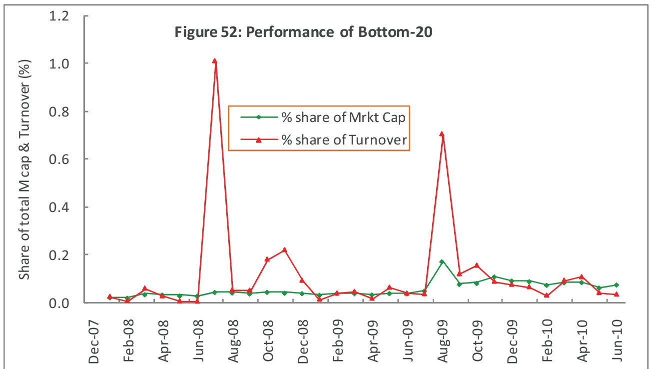


Note: Base index January 2008 = 100.
Sources: Monthly Review (different issues) of DSE and Author estimate.

7.4.2 Market cap and turnover of Bottom-20

Indicators such as market capitalization and turnover in value and volume run on the same platform of index of small cap companies (please see Figure 50). The market capitalization of Bottom-20 increased to Taka 0.41 billion at the end December 2008 from Taka 0.19 billion of end January 2008. It reached its peak on August 2009 at Taka 2.28 billion and at the end June 2010, the market capitalization of Bottom-20 stood at Taka 1.73 billion. The percentage share of market capitalization of small cap companies also increased gradually (please see Figure 52). It increased to 0.08 in June 2010 from 0.04 in June 2009. It was 0.03 percent in June 2008 and 0.02 percent in January 2008.

Figure 52: Performance of Bottom-20



Sources: Monthly Review (different issues) of DSE and Author estimate.

In August 2009, turnover of Bottom-20's crossed it highest level. Seven million shares of small cap companies were traded in DSE worth Taka 947 million, which is 0.71 percent of total market turnover. In the first half of 2010, small cap companies trade amounted to Taka 7.0 million on a daily average basis, which was many times lower than the daily market turnover amounting Taka 13226.0 million. In 2009, the daily average turnover of small cap companies was

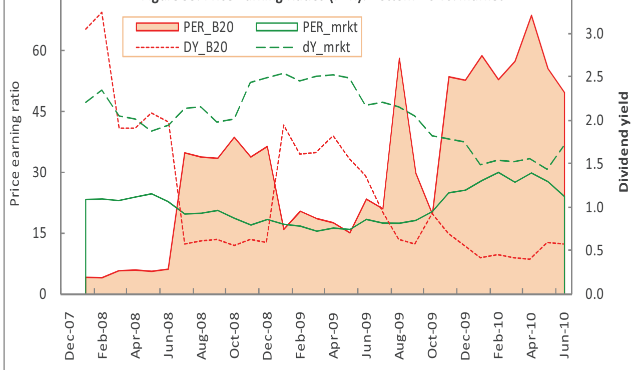
[11] The price index of Bottom 20 has been calculated by taking the stocks' price of 20 companies that hold minimum capital and those listed in DSE. The index Bottom-20 has been estimated from January 2008 based on 100.

almost Taka 8.0 million and in 2008, the turnover was Taka 5.0 million. In 2008, daily average turnover of the market was Taka 2818.42 million.

7.4.3 Economic values of Bottom-20

The demands of small cap companies' stocks are comparatively higher than the stocks of the market, which is reflected in the higher PER of small cap companies. During the recent bull run in August 2009 to June 2010, the PER of Bottom-20 were almost double than market PER. During the period, the PER of Bottom-20 was above 50 where as the market PER was below 30 (Figure 53). It is recorded that, earnings per share of most of small cap companies were negative and they did not declare any dividend during the period under report. Here we can assume that the speculative demand for the stocks of small cap companies did not match the rational behaviour of the retail investors and it has caused the PER to increase irrationally.

Figure 53: Price Earning Ratios (PER): Bottom-20 vs. market

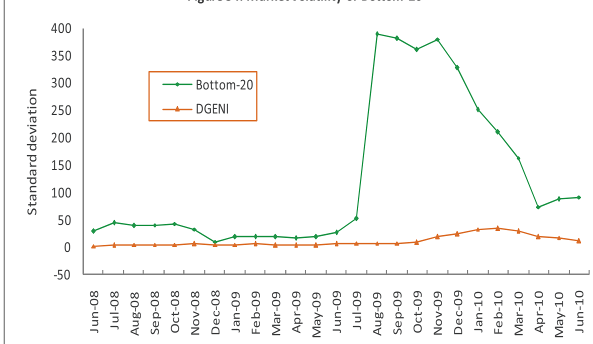


Sources: Monthly Review (different issues) of DSE and Author estimate.

7.4.4 Volatility of Bottom-20

The prices of small cap companies were more volatile than market prices of the stocks in terms of standard of the indices. The standard deviation of Bottom-20 stood at the maximum level 388 in August 2009, where the value of standard deviation of DGENI was only 8 at the same period. From November 2009, though standard deviation of Bottom-20 declined gradually, they were still higher than the overall market volatility. In June 2010, standard deviation of Bottom-20 came down to 92 from 328 of December 2009 (Figure 54).

Figure 54: Market volatility of Bottom-20



Sources: Monthly Review (different issues) of DSE and Author estimate.

Section VIII: Measures taken by Regulatory Authorities

Because of comprehensive policy support and time-bound implementation combined with satisfactory level of investors' confidence, the country's capital market observed expected level of progress in recent years. To strengthen the capital market by boosting the investors' confidence, regulatory authorities have taken different measures from time to time. The Bangladesh capital market is the most promising market in the region especially when measured against growth. The rules and regulations in the country's capital market should be to attract more fundamental and sound companies to the market. The policy makers and other relevant stakeholders should have paid more attention to this statement so that steps could have been taken to increase the supply of shares to meet the existing demand. This would have greatly helped reduce the demand and supply mismatch.

To establish a sound and pragmatic capital market, different regulatory authorities of Bangladesh capital market have taken the following market oriented measures in recent years.

8.1 Government effort for stronger stock market in Bangladesh

The Government of Bangladesh has taken a number of steps to encourage foreign and domestic investors to invest in the securities market. These are:

- Except for a few reserved sectors, any foreign investor in Bangladesh can make 100% investment in any company. Foreign investors enjoy the similar facility as enjoyed by Bangladesh investors as per Foreign Investment (Promotion and Protection) Act, 1980. However, they do have to comply with the foreign exchange regulations of Bangladesh Bank.
- To encourage the foreign investment in Bangladesh stock market, there is free repatriation of capital and capital gain tax has been fully abolished.
- Withdrawal of all regulatory restrictions on international investors for investing in the secondary stock market.
- Fixing of quota for private placement to foreign investors to the extent of one-third of IPO and right issue subject to a lock-in period for one year.
- Underwriting by foreign investors up to one-third of IPO and right issue.
- Allowing foreign investors to participate in IPO and right issue without any regulatory restrictions.

8.2 Recent measures taken by SEC to contain the stock market

The Securities and Exchange Commission (SEC), regulatory authority of Bangladesh capital market have taken the measures to contain the market in the fundamental as follows.

- To calm the market through controlling the credit flow, the SEC have taken a measure in capping credit exposure to a single-client borrower at Taka 100 million both for the merchant banks and for the stockbrokers, which came into effect on July 25, 2010. The SEC also directed the margin loan providers to adjust the margin loan for those clients whose credit exposure was over the limit of Taka 100 million.

- To reduce the flow of excess liquidity, the SEC has taken measures by resetting the margin loan criteria to cool down the stock market. According to the circular dated June 15, 2010, investors are not entitled to get margin loan to buy equity shares with a PER exceeding 40. On February 1, 2010 the SEC reset the PER at 50, down from 75 on December 9, 2009 to reduce risk and market volatility.

- The recent move by SEC with a view to increase the supply of shares and securities in the country's capital market, issued a circular on June 1, 2010 containing mandatory provision for public limited companies (PLC) having paid-up capital of Taka 500 million or more must apply for IPO to off-load shares in the capital market. The PLC will have to apply for IPOs within one year of reaching or exceeding Taka 500 million in paid-up capital. The companies will have to be in operation for at least three years and this timeframe will be counted from the date of incorporation from the tax authorities. Earlier, if a PLC with Taka 500 million in paid-up capital intended to raise its capital base, it had to offer primary shares valued at least one-third of the added paid-up capital. The SEC said it amended the provision in a bid to increase the supply of quality shares in the market. Again, according to the circular, when paid-up capital of any private limited company exceeds Taka 400 million it must be turned into a PLC.

- To stop the opening of fake or shady BO accounts by using another person's information, the SEC first introduced a Taka 300 annual maintenance fee against each BO account in 2007. The government has taken a decision to increase it further to Taka 500 effective from July 1, 2010.

- Discontinuing the financial adjustment facilities (i.e. netting facilities) provided by the stock brokers to their customers in respect of trading shares of Grameen Phone Ltd. No person shall be allowed to buy GP's share against value of sale of other securities (i.e. by using Fund in Transit) within the existing settlement and clearance period effective from February 8, 2010.

- To tighten the margin loan facilities, it has been fixed several times. It has been re-fixed at 1:1 on February 3, 2010 from the earlier limit at 1:1.5 on Feb 1, 2010.

- To encourage the fundamental and sound companies to be listed in the capital market with a view to boost up the investors' confidence, SEC introduced the Book Building Method, a scientific process for discovering prices of shares, as an alternative valuation system of the securities of a company through issuing a Gazette Notification in March 11, 2009. An issuer may determine issue price of its security being offered following Book Building Method subject to compliance with i) the issuer must have at least Taka 300 million net worth; ii) shall offer at least 10% shares of paid-up capital (including intended offer) or Taka 300 million at face value, whichever is higher; iii) shall be in commercial operation for at least immediate last three years; iv) shall have profit in two years out the immediate last three completed financial year; v) shall have no accumulated loss at the time of application; vi) shall be regular in holding annual general meeting; vii) shall audit at least its latest financial statements by a firm of chartered accountants from the panel of auditors of the commission (SEC); viii) shall appoint separate person as issue manager and registrar to the issue for managing the offer; and ix) shall comply with all requirements of these rules in preparing prospectus. Any company by fulfilling these requirements can off-load its shares determining the equilibrium price through demand and supply mechanism of the market.

- The SEC has asked commercial banks, other financial institutions and insurance companies to form separate subsidiary companies to run brokerage and dealer activities.

- Stopped credit facilities to purchase/accept, as "marginable securities" the units of all listed Mutual Fund, the current market price of which exceeds 7.5% of the Net Asset Value (NAV) based on market price effective from December 17, 2009.

- To trade of all listed securities under a single umbrella of automated Central Depository System, the stock exchanges shall not entertain the paper securities of the issuers. In addition, securities of the companies under 'Z'-category and the securities of those companies, which have failed to submit the updated accounts and have failed to join the Central Depository System within December 31, 2009, as "marginable securities", the exchanges would not allow them to be traded. In this regard, a circular was issued on October 1, 2009.

- Restrictions have been made, so as to provide loan facilities to purchase any newly listed security in between 1st to 30th trading day after listing of the said security, and to purchase any existing listed security in between 1st to 30th trading day after change of categorization of the said security, effective from October 1, 2009.

- To ensure good governance and to build-up accountability of the issuer companies, it is mandatory for the companies that the Board of Directors of the issuer company of a listed security shall have to declare the Net Asset Value (NAV), Earning Per Share (EPS) and Net Operating Cash Flow Per Share (NOCFPS) in the same Board Meeting, while considering/adopting any audited financial statements.

8.3 Budgetary measures

As a continuous efforts for developments and regulate the Bangladesh capital market, the Bangladesh Government have taken the following budgetary measures in recent years.

- Rationalized the rates of return from different government saving instruments. Personal savings chased higher returns in capital markets, which entail much higher risks. Capital markets have been increasingly drawing away the savings of small and medium savers.
- To extend the tax area and to bring financial income of companies in the tax-net in the budget FY11, the government for the first time has imposed, i) a 10 percent tax on institutions/companies that earned profit from trading shares of listed companies in the capital market; ii) a 5 percent tax on the income made by sponsor shareholders or directors of listed companies has also been proposed; and iii) the government also considered imposing a 3 percent tax on the premium value of shares of the company that will float in the market, and also imposed the same amount in the case of right issues. Till date, capital gain tax for individual investors has been exempted.
- Tax-free limit of dividend income for an individual is Taka 165,000, and an extra facility has been extended from Taka 150,000 to Taka 180,000 for three classes of individuals such as senior citizens aged over 70 years, physically disable people and women.
- Investment limit for tax credit for individuals was increased to 25 percent from 20 percent of total income and the maximum limit from Taka 250,000 to Taka 500,000.

8.4 Steps taken by Bangladesh Bank (BB) to contain the stock market

To reduce the market volatility and to contain the inflation rate in the targeted level of that estimated by BB in its monetary policy statement, BB has also taken the following steps that related to the capital market.

- BB curbs stock holdings of financial sector in the circular dated 22 August 2010. It has restricted financial institutions' investments in the stock market to 25 percent of their paid-up capital and reserves. The FIs that have crossed the ceiling will have to calculate the investment to fall in line with others.

- With a view to reduce the market volatility and to tie-up the cord of speculative and risk investment in capital market by banks, BB has directed the commercial banks on June 15, 2010 to invest in capital market not more than 10 percent of their total liabilities as an exposure limit.

- Bringing the merchant banking activities into a single platform, BB has directed the commercial banks on June 15, 2010 to form separate subsidiary companies to operate merchant banking or brokerage activities. A bank will have to take permission from BB to set up a subsidiary company for merchant banking and no bank will be allowed to operate merchant banking activities from October 1, 2010 without forming a subsidiary merchant banking company.

- As a result of different measures taken by BB, interest rates on bank deposits declined gradually, which acted as an incentive to invest in the stock market.

Section IX: Findings of the study/Weakness of Bangladesh stock market

The major findings are as follows:

- **Excessive demand for stock**

  To some extent, individual investors' confidence increased significantly due to positive measures taken by regulatory authorities for the developments of Bangladesh capital market. Thousands of new investors (more than six thousands new BO account opened everyday in CDBL) entered the market with millions of Taka in cash since the beginning of 2009. Huge amounts of margin loans and direct investments by commercial banks, NBFIs, and insurance companies from their own portfolio have contributed to the excess liquidity that has been reflected in the daily turnover. With the liquidity glut, share prices are also on the rise, as excess liquidity increases demand. On the other hand, new issues, right and bonus shares alleviated only marginally the market supply situation. Given this supply constraint, investors had no other option but to put funds on the existing stocks, most of which have become over-bought, as huge demand for shares beat scanty supply of securities.

- **High PER**

  The average PER of DGENI was the highest among the major regional stock exchanges. At the end of June 2010, the PER on DSE reached to 24.1. Whereas the PER in India was slightly over 20, while the ratio was 8 in Pakistan, 14 in Sri Lanka, 12 in Thailand, 16 in Malaysia, 19 in Hong Kong and 14 in Singapore. The reason behind the higher PER on DSE is mainly a mismatch between demand and supply.

- **Inactive bond market**

  Among the total listed securities (company, mutual fund, Govt. Treasury Bond-TB, corporate bond and debenture), only companies and mutual funds' shares are traded on the floor; TBs and the debentures were never traded on the floor, meaning it is an inactive bond market.

- **Huge investment by banks and NBFIs**

  Investment in capital market by commercial private commercial banks (PCBs) and NBFIs from their own portfolio observed a significant increase during 2009-10. PCBs and NBFIs have made hefty profit by investing in non-banking business in the stock market rather than term financing, sometimes violating the banks' limit rang of investment criteria directed by BB. According to the statistics, PCBs have recorded 30-40 percent growth and NBFIs at 130-166 percent in operating profit in the first half of 2010 compared to the same period 2009. At least 30 percent of their business during the period came from stock market operations.

Despite various measures taken by the SEC, there are still some identified structural weaknesses of the capital market of Bangladesh that hinder its overall development. Some of the key weaknesses are:

- Bangladesh capital market is expanding, but the supply side remains poor in comparison with the growing demand of the investors. Thus, in DSE and CSE, there is inadequate supply of stocks and securities with good fundamentals, and corporate and government bonds are in short supply;
- Slow growth of institutional investments including mutual funds, pension funds and professional portfolio managed fund;
- Lack of investors' financial knowledge and professional investment analysts;
- Inadequate flow of research based information and disclosure;
- Listing of new companies through issuing IPOs of good and fundamental companies has been very limited;
- Absence of a sound secondary bond market;
- Listing of multinational companies in the stock market is very limited;
- Inefficient pricing mechanism due to poor corporate governance and high cost of listing;
- Weak monitoring and enforcement capacity of the regulator;
- Increased volatility;
- Lacking of good governance of the listed companies in the stock market.

Section X: Concluding Observations

A fair degree of consensus now exists recognizing the need to develop the capital market of Bangladesh, especially for financing the country's long-term capital investments. On the other hand, inflationary trends observed in the asset prices in general and in stock prices in particular are matters of concern. Containing the CPI and fostering real economic growth are the primary objectives of Bangladesh Bank's monetary policy. These considerations notwithstanding, it should keep in mind that developments in the capital market are very sensitive issues both economically and politically. Instability, formation of price bubbles and eventual collapse of stock price indices could cause serious macroeconomic instability. BB should adopt a pragmatic MP to contain liquidity in the targeted level. For that by using BB's instruments, it should regulate commercial banks and NBFIs. To protect the interests of depositors, the authorities should control speculative behaviour of commercial banks and NBFIs. To enhance the operations of the capital market in this light, some recommendations have been put forward:

- Absence of data on exposure of commercial banks to the stock market has prevented us from assessing the risks posed by a potential stock market meltdown for the financial position of the commercial banks.
- BB should take immediate steps to collect information of banks and NBFIs on exposure to the stock market in the form of lending, investment and profits and should take the necessary measure to prevent the kind of situation that led to the recent bullish nature of the stock market.
- In addition to recording information on direct exposure, there is need to assess the extent of indirect exposure to the stock market since borrowers may take loans for different purpose and redirect them into the stock market for quick profit. To regulate the financial market, BB and SEC should develop more expertise in this area. Education on surveillance techniques through foreign training and other steps related to the capital market should be taken immediately.
- For commercial banks, increasing significantly the risk weights associated with investments in the stock market could have discouraged them from excessive risk taking.

- Requiring commercial banks to stop all new investment in the stock market and even requiring them to phase out all their excess holdings in a specified manner and over a certain period. This kind of measure, if adopted as a last resort, should be temporary and used only for stabilizing the stock market. If implemented, should be withdrawn once the objective (market stabilization) is achieved.

The recent moves by the SEC to increase the supply of shares in the country's capital market through issuing a number of time-bound circulars are praiseworthy. After all, the rules and regulations in the country's capital market should be to attract more fundamentally sound companies. The government and SEC could have also considered a number of other steps, such as:

- Introduction of capital gains tax on realized capital gains from the sale of shares, including withholding at the time of sales.
- All relevant government agencies, including SEC, BB, and the Ministry of Finance needed to jointly work out and implement a strategy for stabilizing the stock market. A Steering Committee could have been formed by including officials of BB, SEC, MoF, DSE, CSE and capital market professionals as members of the committee.
- In designing such a strategy, we need to understand that while bringing new companies into the market will be desirable to increase supply of stocks, it will take time to do so on a significant scale.
- The measures have to be implemented immediately and should include strong public pronouncements urging common people not to come to the stock market in the near term until the situation stabilizes.
- The crucial way to strengthen the stock market is to encourage large, reputed, emerging and innovative local, foreign, and multinational companies to collect finance for a long term from the equity market by selling/off-loading companies' shares to the public and thereby, get quoted to the stock exchange.
- With a view to reducing the investors' risk in capital market, investment instruments like derivative products should be introduced as alternative instruments in the capital market.
- The stock bourses should calculate sector-wise price index, analyze the performance of Bottom-20 companies and disclose this information. The DSE-20 also should be recalculated in accordance with best criteria.
- Calculation of price index Method should be reviewed.

The recent records of share price indices, daily turnover and market capitalization and its ratio to the GDP in Bangladesh capital market, theoretically show that market is becoming bigger. Nevertheless, it is a matter of worry that the growth is based on share prices, instead of new securities. Without higher company earnings, the only possible way to maintain sustainable market growth is by bringing in more securities.

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