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An Empirical Study of Capital Market Collapse in Bangladesh: 1996 & 2011

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Abstract

The Bangladeshi Capital Market has experienced two big crashes since its inception. In 1996, the market was crashed because of a speculative bubble, whereas; it was an asset bubble in the year 2011. The stock price was overvalued this time. Price was inflated about 500-700 percent compared to the face value. DGEN Index scrambled at point 8918.51 on December 05, 2010 which signaled a steeper bubble. The study hypothesizes the present scenario of Bangladesh Stock Market through various quantitative and qualitative data which are extracted from the secondary sources. Quantitative data are gathered from the web site of Dhaka Stock Exchange and other qualitative data are collected from published research journals, newspapers, websites, etc. This study has discovered that, Gap between the Demand and Supply of stock, extraordinary over pricing of stock, market manipulation, lack of knowledge about the stock market mechanism among the general investors, price distortion, inefficient regulations, political unrest, etc. caused the crash of DGEN Index in the FY2011. Security and Exchange Commission (SEC) of Bangladesh and government should encourage more public limited companies to offer more shares to meet the current demands. In order to get back the confidence among the existing investors, regulatory body may introduce an Income tax rebate, Injection of Market Stabilization Fund, Mandatory holding certain percentage of shares among the board of directors, short term incentive packages etc. Moreover, this study showed the trends of some capital market exogenous variables like, market capitalization, market all share index, the market value of the transaction, Number of deal and inflation over the last ten years. Ordinary lease square method of log linear regression analysis was used to analyze the data.

Introduction

The Sound Capital Market is an indispensable part of an Economy. Without sound and efficient capital market, rapid economic development could be hampered as capital market provides long term funds to entrepreneurs. Capital Market of Bangladesh is still highly speculative and lacks transparency due to the poor regulatory framework. In Bangladesh, financial sector was historically driven by banks and capital market had fewer rules to play as people had mixed perception

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about the risk pattern in the capital market that discouraged them mostly to invest there. But in the mind of ninetieths of the last century capital market started to show vibrant behavior that makes people interested about the stock exchanges. As the index was rising sharply and everyone was making money, many people started to invest their money in the heated market that made a bigger bubble and finally the bubble bursts. Benchmark index came down to 700 points in November 1997 from its highest 3600 points in November 1996. Thousands of investors lost their money that made them reluctant to invest in the capital market again. It took one decade for them to forget the history of collapse.

After that, regulators had taken many steps to stabilize the market. Hundreds of new issues came to the market. Central depository, circuit breaker, online trading, etc. were introduced in the market to attract investors. As a result, the market started to grow again. Investors started to forget the history of 1996 and started to invest again. This time most investors were new and young with little knowledge about stocks and did not care about market risk. They invested their money and finally lost everything when the bubble started to burst in December, 2010 that had started to grow from the year 2009. This time Benchmark index came down to 3616 points in early February 2012 from its highest point 8918 in December 2010. Millions of investors lost their money and came down to the street. This is the small picture of stock market crashes in Bangladesh. In both cases, regulators had failed to take proactive measures to not grow the bubble and caused losses for millions of investors when the bubble burst. When analysts were anxious about the bubbles, regulators were ignoring them and even defended the bubbles.

The recent volatility of the capital market of Bangladesh is an abnormal phenomenon and such volatility tends to economic instability. I believe it will be interested enough to look into the causes of the problem. As such volatility affects mass people (many investors), it is essential to try to minimize such volatility by identifying the causes (esp., Regulatory failure) and solving the problems. In my study, I will try to identify the reasons of this volatility and also to recommend some suggestions to minimize such volatility in the future.

Justification of the Study

1. This study will be helpful for the concern academic discipline of economics, finance and capital market development of the country.
2. The policy maker of the GOB, SEC, DSE and the investor may be benefited from the findings of study for taking decisions.
3. This study would point out the problems or impediments which are prevailing for strengthening the economy and overall development of the country.

Objectives of the Study

i. To describe the component of the capital market.
ii. To find out the reasons of capital market crash in Bangladesh.
iii. To show the comparative study on share market crash in 1996 & 2011.
iv. To analyze the relationship between capital markets and economic growth of Bangladesh.

Review of Related Literature

The United States experienced the Nasdaq bubble in the late 1990s. The fluctuations beliefs generated by overconfidence among Bangladesh investors led to larger speculative component in stock prices, and the technical bubble of the U.S. market was identified as the result of "exuberance" (Shiller, 2000; Chen, Hong, and Stein, 2002). Given that markets in the advanced economies seemed to be more susceptible to speculative bubbles and crashes, and many emerging markets also display similar evidence, it seems reasonable that no one should look forward to these phenomena disappearing from the Bangladesh markets (Ahmed *et al.*, 2006).

A market is an economic bubble which occurs when Market participants drive stock prices above their value in relation to some system of stock valuation. A bubble occurs when speculators note first rise in the stock value and decide by in expectation of further rises rather than because shares are undervalued. Numerous factors have been responsible for the formation and collapse of stock bubbles from early times. One is the availability of easy credit approval and fungible investments funds that are invested in the market for buying company shares (Craven and Islam, 2008). Intermediary effects imply things one the one hand, there are interlinks consecutive or successive bubbles (Allen and Gale 2002) and also some mediatory dynamics cause to shape the bubbles on the other (Craven and Islam 2008). The interlinks can be interpreted as an existence of a long memory or long dependency of intermediate factors and stock bubbles (Ashraf and Rodriguez, 2006). There were also flows of information between London and Paris and other financial centers in Europe such as Amsterdam and asset price movement were independent (Craven and Islam, 2008). Similar Observation has been shared by Rahman (2010) in the case of Dhaka Stock Exchange (DSE) in which painful memories of 1996 bubble is linked with the recent-scenario of the highly inflated asset prices in early 2010 that is being termed as bubble because DSE has been risen by nearly 125 percent over the period from March 2009 to February 2010.Many times the asset price bubbles might result in economic downfall (Lewis et al 2010).

Methodology of the study

The study uses secondary information. Publications of both printed and electronic sources of different banks, Bangladesh Bank, Ministry of Finance and different organization of the Govt., International agencies like the IMF, World Bank, Asian Development Bank have been used as sources of data. This study is mostly qualitative in nature and employed annual time-series data from 1996 to 2012. In this study, we have used the multiple linear regression models to find out the relationship between capital markets and economic growth. After data collection, necessary screening has been performed before tabulation and graphical presentation. Finally, based on the findings and analyses, policy recommendations have been made. Statistical, financial and accounting tools and concepts have been applied in this study where appropriate.

Empirical Model Used in the Study

The model is used in this research work is based on Demirgue - kunt and Levine (1996). They investigated the linkage between the stock market and economic growth. Their model specified that socioeconomic development (proxy by Gross Domestic Product) is significantly influenced by the capital market indices (market capitalization, market all share index, no. of deals, inflation and value of transaction.

Multiple Linear Regression Model:

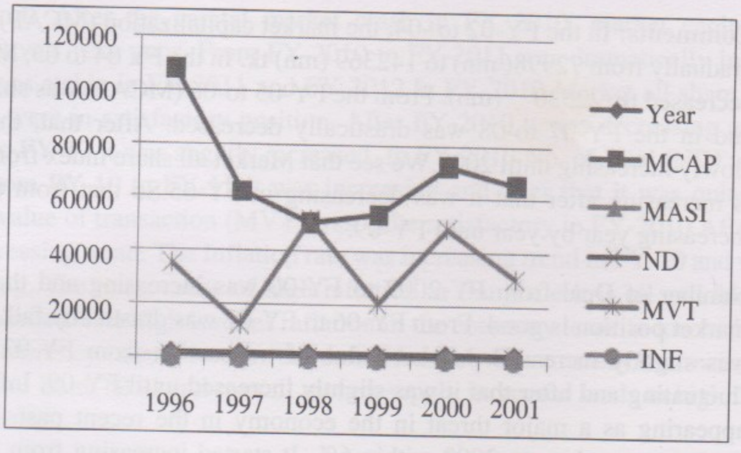
$$GDP = \alpha_0 + \alpha_1 MC + \alpha_2 MASI + \alpha_3 ND + \alpha_4 MVT + \alpha_5 INF + \mu \ldots\ldots (i)$$

GDP = Gross Domestic Product
MC= Market Capitalization
MASI = Market All Share Index
MVT = Market Value of Transactions
ND = Number of deals
INF= Inflation
μ_i= Error term

Impact of Crash in Capital mark et trend

Year	1996	1997	1998	1999	2000	2001
MC	107827	62264	50748	54004	72168	65518
MASI	1111.55	676.47	546.79	561	716.06	819.74
ND	471.1	523.21	533.54	685.69	739.46	1003.5
MVT	35414	12616	51894	20825.52	49094.68	30596
INF	2.42	5.2	8.27	6.31	2.39	1.94

Source: Information collected from Annual report from 1996 to 2001

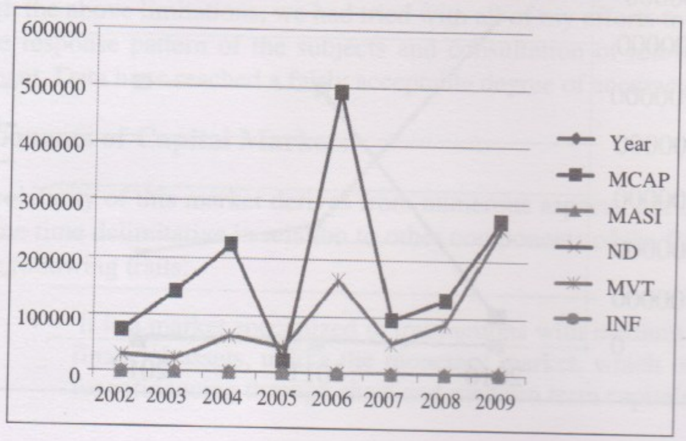


Comment: After the capital market crash in FY 1996, market capitalization (MCAP) was very poor. After that it was slightly decreasing. After FY-1996 MASI and No. of deal were drastically fall from FY 1996 to FY2001 MVT was unstable.

The Trend of Capital Market after and Before stock market Crash (FY 02-03 to FY 09-10)

Year	2002	2003	2004	2005	2006	2007	2008	2009
MCAP	72998	142369	224611	22530	491684	96480	131277.3	270074.5
MASI	823.14	1318.92	1713.17	1040.47	1764.18	2588.03	2520.15	5111.63
ND	1045.6	1187	1250.06	1552.3	1898.2	229.2	313.6	773.84
MVT	30596	24769.8	65172.9	45992.8	164670.9	54328.43	89378.92	256350.5
INF	3.37	5.59	7.62	7.03	6.77	9.07	8.94	5.43

Source: Information collected from Annual report from 2002 to 2009



Comments: In the FY-02 to -04, the market capitalization (MCAP) was increased gradually from 72998(mn) to 142369 (mn) tk. In the FY 04 to 05, MC was slightly decreased tk. 22530 (mn). From the FY-05 to-06 (MCAP) was sharply increased and in the FY-07 to-08 was drastically decreased. After that, the (MCAP)was slowly increasing until 2009.We see that Market all share index from FY-02 to -04 is increasing after that it was decreasing in FY-05.So that from the FY-06 was increasing year by year until FY-09.

Number of Deal from FY-2002 to FY-06 was increasing and that indicates the market position is good. From FY-06 to FY-07 was drastically fall and after that it was slightly increased. Market value of transaction from FY-02 to FY-07 was fluctuating and after that it was slightly increased until FY-09. Inflation has been appearing as a major threat in the economy in the recent past. Inflation had a moderate trend up to 2003 within 6%. It started increasing from 2004 and got a sharp rise in 2008 -2009.

The Trend of Capital Market after Stock market Crash (FY 10-11 to FY12-13)

Year	2010	2011	2012
MCAP	285389.2	2491613	2530246
MASI	5093.19	3877.64	4385.77
ND	2009.6	37343.2	42286.7
MVT	3259126	1171451	857089.7
INF	8.15	10.33	8.78

Source: Information collected from Annual report from 2010 to 2012

Comment: After the capital market crash in FY 2010, market capitalization (MCAP) was very poor. From FY-2010 to FY-2011 was dramatically increased, then it was stable in FY-2011 and FY-2012.In FY-2010 Market all share indexes (MASI) were in satisfactory position. After FY-2010 it was decreasing and from FY-11 to FY-12 it was slightly increased. In FY-2010 No. of Deal (ND) was very poor. From FY-10 to FY-11 it was increasing and after that it was quite stable. Market value of transaction (MVT) was quite satisfactory in FY-2010.After that it was decreasing trend. The Inflation rate was increasing trend in FY-10 and was still continuing. The main cause of high inflation in Bangladesh is oil and food price hike in abroad. The high level of inflation in the economy leads to lower the value of local currency taka. To cover the deficit budget, Government borrowings from the Central Bank (BB) and overall money supply increased leads to high inflation in the market.

Limitations of the study

To make a report various aspects and experience is needed. But, We have faced some barriers for making a complete and perfect report. This study only focuses on the role of the SEC and DSE. It ignores the role of Bangladesh Bank as the central bank of the country and its monetary policy which affected the market heavily in different time periods. These barriers or limitations, which hinder our work are as follows:

1. Due to short time, we could not collect enough necessary data about the study to prepare the report.
2. Some of key peoples of DSE were very much busy with their duties that they could seldom manage time to answer the questions.
3. Investors are not fluently giving opinion due to some restriction.
4. The researcher could not find sufficient data because of DSE great secrecy.

Though the above limitations, we had tried with all of my efforts to know and find out the response pattern of the subjects and consultation of relevant record and document. Data have reached a fairly acceptable degree of accuracy.

Components of Capital Markets

The specificity of this market derives from numerous aspects, but defining and at the same time delimitative in relation to other components of the financial market are the following traits:

- It is a market specialized in transactions with medium and long term financial assets, unlike the monetary market, which offers solutions for refinancing through short and medium term capitals;

- It is a public, open and transparent market, in the sense that anyone can be a participant in this market, without there being a notable entry or exit barriers, the transactions having a public character;
- The dissemination of information on this market, through its volume or, quickness and with the possibility of equal reception by all participants, is probably the best one of the ones existing in the structures of a market economy;
- The capital circulation vehicle is represented by securities, characterized through negotiability of the price and immediate transferability with very low transaction costs;
- The transaction is made through intermediaries, who have an essential role in connecting the owners or issuers of securities with the owners of capitals;
- It entails risks, both for the issuer and for the investor, specifically for each financial instrument in question, but at the same time it also offers complex solutions for minimizing and dispersing it, both the financial and the operational one;
- It is an organized market, in the sense that the transactions are performed according to certain principles, norms and rules known and accepted by the participants. This does not mean the administration of the market, but its regulation with the purpose of creating or preserving the conditions for the unfolding of free competition, so a system for guaranteeing the free and open character of all transactions.

In a market economy, the role of the capital market is of first rate. The well functioning of the capital market is vital in the contemporary economy in order to be able to perform an efficient transfer of money resources from those who save towards those who need capital and those who succeed to offer it a higher capitalization; the capital market can significantly influence the quality of the investment decisions.

Depending on the moment when the transaction is performed, the capital market is divided into two temporal dependant segments: primary and secondary.

Comparisons of Capital Market Collapse (1996 – 2011)

The Capital Market Collapse In 1996

There was a large surge in the stock market in the summer and fall of 1996 evidenced by a large increase in the market capitalization. The monthly closing index was 775.65 in January, 1996 which increased to 3064 in November, 1996.

After an increase in the general index of DSE for a brief period, the index started to fall dramatically. On December 1996 the index falls down to 2300.15. The short time quick profit generation persuaded the investors to invest more in the capital market. The confidence of the investors, however, damaged significantly because of excessive speculations, allegedly aggravated by widespread irregular activities.

The Capital Market Collapse In 2011

In July 2009, the general index of DSE was 2914.53 which increased and reached at 5654.88 in April 2010. Finally, in November 2010, the general index reached at the peak and became 8602.44, which was the peak of the capital market before the crash. After that, the general index started to fall.

In November 2009, the general index of DSE increased about 30.22 percent than the previous month. During the consecutive twelve months, the general index rose at an average of 1 to 12 percent per month. This long time growth continuum of the capital market index made a greater confidence among general investors. Consequently, in this period, no greater market price volatility of general index was observed. As a result, a continuous trend of a larger profit-seeking behavior induced general investors to reinvest their profits along with additional capital. During this time, the game planners collected the liquid money from the capital market by selling the shares. Therefore, the supply of shares increased and made the general index to fall. In December 2010, the general index first started to fall by 3.62 percent than that of the previous month. In February 2011, the general index decreased by 30.5 percent and reached at 5203.08.This falling trend of general index of DSE had been continuing and finally, fall to 4410.14 in October 19, 2011.

Tabular view of Comparison

Market crash in 2011	Market crash in 1996
Trading was automated	Trading was automated
Surveillance was strong	Surveillance was strong
Circuit breakers and international protections were in place	Circuit breakers and international protections were in place
Being automated there were no forged shares traded and the kerb market.	Being automated there were no forged shares traded and the kerb market.
There were also omnibus accounts in the market	There were also omnibus accounts in the market
The BO account value was 35 less	The BO account value was 35 less
The 2011 crash was an asset bubble	The 2011 crash was an asset bubble
While in 2011 it lost up to 660 points, nearly 10 percent	While in 2011 it lost up to 660 points, nearly 10 percent

Reason behind the crash of the capital market in Bangladesh

From our research and findings, the main reasons behind the crash in the stock market are as follows:

1. Banks and other financial institutions, including MFs have increased their participation directly in the markets and also through loaning money to BO a/c holders for trading on margins. Banks and also many other brokerage houses have been allowed to open brokerage houses in divisional and district making it easier and attractive to trade in shares. As a result, the number of BO accounts shoots up to 33 lakh from below five lakh. These BO account holders also acted as intermediaries of their friends and relations from all corners of the country as they were given promises of higher returns compared with savings accounts in banks and bonds. The lure of making a fast buck always attracts people.
2. The upsurge began a year or so back when Grameen Phone offered a large IPO (over 4000 crore) with much higher value over the face value of Tk. 10 only. There was a big jump in the index about 1000 points. So the faulty index gave the wrong signal to investors and the upward rise never stopped thereafter.
3. Around the same time some foreign firms set their feet into the market and created further push up. Since there was no capital gains tax on the earnings and no restrictions were placed by Bangladesh Bank on transferring their capital plus gains they took advantage of super returns and transferred money out of the country by buying dollars from the curb markets.
4. The book building method was allowed to raise prices of IPOs by using faulty accounting practices and many low earning companies took advantage of the system in private placements and then going to market with much higher valued IPOs without due regard to P/E ratios.
5. During the last two weeks of the crisis, Bangladesh Bank supplied Taka 400 crore to ICB to hold prices up by buying shares. That gave investors signal that more such bail out funds would be forthcoming. That did not come and the market collapsed in a free fall due to circuit breaker on the last day before it was closed for four days at a stretch.
6. By all these and other means a bubble was created and the small investors were sucked into the spiraling up prices in the markets while government functionaries were claiming super confidence of the people in the government. The bubble has burst and the lives of millions of people have been ruined like a weapon of mass destruction.
7. As the money that was pumped into the market from all over the country, it will create a crisis in confidence for these and other people to come forward to invest again.
8. Again, some fraud Multi Level Marketing (MLM) companies offering high profit against investment attracted general public and investors to withdraw

money from the market and invest in those companies which caused the price fall of the shares and liquidity crisis in the market. Finance Minister Abul Mal Abdul Muhit accused these companies as the main culprits in the share market fall, though there were many other big reasons stated above.

Empirical Analysis

Multiple Linear Regression Model:

$$GDP= \alpha_0+\alpha_1 MC + \alpha_2 MASI +\alpha_3 ND +\alpha_4 MVT + \alpha_5 INF + \mu \ldots\ldots (i)$$

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.936	.572		6.884	.000
MC	9.768E-7	.000	.829	.470	.648
MASI	5.483E-5	.000	.095	.256	.802
ND	-4.853E-5	.000	-.671	-.398	.698
MVT	-1.660E-7	.000	-.144	-.483	.639
INF	.211	.095	.582	2.222	.048

a. Dependent Variable: GDP

Comment: In Multivariate regression model (i), if we change one unit of ………… (MC) and MASI, GDP will increase on an average 9.768E-06 Tk. And 5.483E-05 respectively but GDP decrease on an average 4.853E-05 tk and 1.660 E-07 for ………… (ND) and ……. MVT variable respectively. Again, if we change one unit of INF, GDP will increase on an average 0.211 Tk. We conclude that there, is more an effect of GDP on INF.

ANOVA[b]

Model	Sum of Square	Df	Mean Square	F	Sig.
Regression	6.986	5	1.397	2.179	.131a
Residual	7.053	11	.641		
Total	14.039	16			

a. Predictors: (Constant), INF, MVT, ND, MASI, MC

b. Dependent Variable: GDP

Comment: Statistically, it is not significant for the variable GDP on INF, ND, MASI, MC, and MVT.

Findings and Recommendation

Findings:

1. The regression result confirms that, there exists a negative relationship between the capital market and economic growth. The relationship is statistically insignificant. This is in essence means that, the impact of the capital market on economic growth is weak and insignificant.
2. Another key outcome of the study is that, an unit increase in market capitalization results in an increase in GDP. It indicates that, the economy responds favorably to measures taken to increase MC in Dhaka Stock Exchange.
3. There was a big bubble in 1996 followed by a catastrophic crash. DSE index jumped from 957 on 2 November 1996 to a record high of 3649 on 5 November 1996. The index continued a downhill march thereafter with the lowest level record on at 463 on 3 May 1999.Since then the market remained in a state of doldrums. It started on a path of resurgence from 2003 (Islam, 2005).
4. Finally abnormal rise of share prices started to fall and Bangladesh stock market experienced its first crash of the history in 1996. The index lost over 233 points on Nov 6, 1996. After the bubble burst DGEN index dropped to its lowest point and stood at 957 in April 1997. It stood at around the same point where it was 10 months before and DSE General Price index lost almost 70 percent from its highest point of November 1996.
5. The capital market of Bangladesh holds the dramatic faces since its inception. It flipped in FY11 after a high rise in FY10. DSE index lost 36.6% in 2011 while the return was 83% in 2010. This scenario almost destroyed, "the confidence" of the investors. This two sides of scenario turned the most investors almost empty hand while very few people made money out of nothing. This scenario began during FY 10 without any major correction, finally burst on December 19. FY10 while DGEN recorded the steepest till date single day fall of 552 points or 6.7% to 7654 since FY09. The negative slope of the industry continued till January 10, 2011. That set new records and breaks.
6. The stock markets of Bangladesh witnessed another bout of wild crash in 2010. The general index of Dhaka Stock exchange stood at 4535 at the end of December 2009, nearly doubled in less than a year to 8912 on 5 December 2010, suffered drastic loss of more than1200 points over a period of two days to dip to 6499 on January 2011 and then regained more than 500 points on the next day to reach 7512 following some policy pronouncements by Securities and Exchange Commission (SEC) and the Bangladesh bank. The index was 7378 on 17 January 2011. The downward march continued thereafter. As of now, index seems to have reached unjustifiably low level equalizer at around 4500.
7. The constructive result of the market capitalization implies that funds raised by the industries and governments in the capital market are spent on productive sector which enhance economic growth.

8. The optimistic results of the market all share index and number of deals implies that, the market is a expansion, so that, the investors try to invest in the market and the capital market (DSE) is competent to attract more investors to invest. As a result, the capital market is moved with enormous fund and economic growth is upword.
9. The unenthusiastic impact of a number of deals also called for shocking policies to be implemented so as failed to attract more investors to invest in the market.
10. The depressing result of the value of transaction in the capital market means that, the simplicity in buying and selling of securities hasn't any potentiality to influence economic growth positively.
11. During this time the rate of inflation is bit constructive so that, it has optimistic consequence on economic growth.

Recommendations

- To bring more companies which have good track record in terms of financial performance tax gap between listed and non-listed companies could be made in such a way that they are encouraged to enlist in the market. For this purpose, for different sectors different margins can be considered as well.
- Government can also take pro-active role in building a stable market through tapping the growing interest of general people in the market by increasing supply of shares.
- The market should be free from fake certificates. The government should offer income tax rebate on the income of share market and encourage the banks and non banking institutions to come to the market directly. Some incentives package for the investors like getting financing at a low cost has to be offered to bring back the investors in the market. Market stabilization fund must be introduced so that it can help to meet up with crisis situation.
- Off-loading State Owned Enterprises (SoEs) in the capital market will entail government to sell corporations in a profitable manner and will also diversify the market.
- Public utilities and infrastructure related projects can also be asked to raise a part of debt through issue of marketable bonds.
- Considering the growing interest of mass people, facilities of share business e.g. brokerage house should be spread all over the major points of the country. In this connection, expansion of information technology, especially availability of internet facilities at root level can be very helpful.
- Spread of capital market educational program up to root level needs to be strengthened, as to protect the interest of new investors minimum level of knowledge on capital market is very important.
- Finally, setting up a separate judiciary mechanism for settlement of disputes in the share markets (within a specified time limit) and restore the investors' confidence can be considered seriously.

To guide and restore the confidence of individual investor in capital market, the regulatory authority should take necessary actions to encourage corporate governance rating among listed companies, which will enable investors to differentiate the good governance companies from the rest and can then attach higher value to those firms as well. And, without improving the governance of the market and eliminating scope of manipulation, it will be difficult to attract good scripts at the desired level. In this endeavor, regulators must adapt continuously to the changes in the economy and the pressures of globalization.

Conclusion

The study tries to initiate some problems like – Big Gap between the Demand and Supply of stock, astonishing over pricing of stock, market manipulation, liquidity problems, lack of knowledge about the stock market mechanism among the general investors, price distortion, inefficient regulations, political unrest and unnecessary intervention of Bangladesh Bank etc caused the steepest downward fall of the DGEN Index in the FY2011. As a result, about millions of investors lost their capital, which turned them empty within a few months. Security and Exchange Commission (SEC) of Bangladesh and government should take the short term and long term initiatives to stabilize the market. They should encourage more public limited companies to offer more shares to meet the current demands. Income tax rebate, Injection of Market Stabilization Fund, Mandatory holding certain percentage of shares among the board of directors, short term incentives packages should be introduced to get back the confidence among the existing investors. Regulatory bodies of the Bangladesh stock market must educate the current and potential investors about the market mechanism and provide them the accurate information so that investors trade their shares carefully. Unless, there are any corrective measures, the Bangladeshi stock market will be facing this irrational downward of DGEN Index again in the near future.

The government should announce incentives through SEC to attract companies to the capital market. The government should also take long-term actions in the market. Actions should be taken against those who were involved in the recent stock market crash. Improvement in security laws and penalties for breaking rules, balancing of demand and supply of shares, and protection against any kind of manipulation should be ensured.

Reference

- Abarbanell J. and Bernard V. (1995) 'Is the U.S. Market Myopic?' University of Michigan Working Paper.
- Ahmed E., Li H., Rosser J. B. and Eastern Jr. (2006) 'Nonlinear Bubbles in Chinese Markets in the 1990', *Economic Journal* Vol. 32, No. 1.

- Campbell, John Y. and Robert J. Shiller (1998, 2001) 'Valuation Ratios and the Long-Run Market Outlook:.An Update', NBER Working Paper 8221, April.
- Dominguez, K. M. (1998) 'Central Bank Intervention and Exchange Rate Volatility', *Journal of International Money and Finance,* 17, 161–190. http://dx.doi.org/10.1016/S0261-5606(97)98055-4.
- Dominguez, K. M., & Frankel, J. A. (1993) 'Does foreign-exchange intervention matter? The portfolio effect', *American Economic Review,* 83(5), 1356–1369.
- Dornbusch, R., & Fisher, S. (1980) 'Exchange rates and the current account', *American Economic Review,* 70, 960–971.
- Engle, R. F., & Granger, C. W. J. (1987) 'Cointegration and error correction: Representation, estimation and testing', *Econometrica,* 55, 251–277. http://dx.doi.org/10.2307/1913236
- Evans, M. D., & Lyons, R. K. (2001) 'Portfolio balance, price impact, and secret intervention'. Working Paper No. 8356. Retrieved from http://www.nber.org/papers/w8356
- Fama, E. (1970) 'Efficient capital markets: A review of theory and empirical work', *Journal of Finance,* 25, 383–417. http://dx.doi.org/10.2307/2325486
- Frank, P., & Young, A. (1972) 'Stock price reaction to multinational firms to exchange realignments', *Financial Management,* 24, 459–464.
- Ghosh, A. R. (1992) 'Is it singaling? Exchange intervention and the dollar-deutschemark rate', *Journal of International Economics*, 32, 201–20. http://dx.doi.org/10.1016/0022-1996(92)90017-E
- Hung, J. (1997) 'Intervention strategies and exchange rate volatility: A noisy trading perspective', *Journal of International Money and Finance,* 16.
- Kumar, M. (2008) 'A Bivariate Linear and Nonlinear Causality between Stock Prices and Exchange Rates', *Economics Bulletin,* 29(4).
- Leon, N.K. (2008) 'The Effects of Interest Rates Volatility on Stock Returns and Volatility: Evidence from Korea', *Euro Journal of Finance and Economics,* 14.
- Solnik, B. (1987) 'Using financial prices to test exchange rate models: a note', *Journal of Finance,* 42, 141–149.
- Thomas R. L. (1997) *Modern Econometrics: an Introduction,* pp 461, United Kingdom: Longman Group.
- Wei, Y. (2005) 'The Development of the Securities Market and Regulation in China', *The Loyola of Los Angeles International and Comparative Law Review (ILR),* pp. 479-514, Vol. 27, No. 3.
- Yenshan, H. (1996) 'Margin requirements and stock market volatility another look at the case of Taiwan', *Pacific-Basin Finance Journal,* pp 409-419, Vol. 4, Issue 4, December