# UNDERDEVELOPED BOND MARKET IN BANGLADESH: REASONS AND MEASURES TO IMPROVE

by

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A project submitted in partial fulfillment of the requirements for the degree of Professional Master in Banking and Finance

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## Abstract

There are a lot of impediments to the development of bond market in Bangladesh. The bond market is still at a budding stage. It is attributed by a limited supply of debt instruments, especially long-term instruments. Consequently, the reliable benchmark for long-term bonds or debentures does not exist. The market is illiquid and trading is motionless. It is slowed down by the relatively high interest rate bearing risk-free national savings scheme, though interest has been reduced a little bit in recent years. In addition, the issuance process of bond is burdensome and costly, which becomes a disincentive to the development of effective bond market. Finally, the investor base has to be extended in parallel with a suitable investor education. Recommended measures must be undertaken for developing the bond market.

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# List of Abbreviations

| | |
|---|---|
| BB | : Bangladesh Bank |
| BDT | : Bangladesh Taka |
| BGTB | : Bangladesh Government Treasury Bonds |
| BOP | : Balance of Payment |
| CDBL | : Central Depository Bangladesh Limited |
| CRR | : Cash Reserve Requirement |
| DMD | : Debt Management Department |
| DPA | : Debt Portfolio Analysis |
| DSE | : Dhaka Stock Exchange |
| CSE | : Chittagong Stock Exchange |
| DvP | : Delivery versus Payment |
| EFT | : Electronic fund transfer |
| EMT | : Electronic Money Transfer |
| ERD | : Economics Relations Division |
| FABA | : Finance and Budgets Accounts Branch |
| FCB | : Foreign Commercial Bank |
| FD | : Finance Division |
| FDI | : Foreign Direct Investment |
| FX Market | : Foreign Exchange Market |
| FY | : Financial Year (FY10 means: 2010-11) |
| GDP | : Gross Domestic Product |
| GNI | : Gross National Income |
| GOB | : Government of Bangladesh |
| ICB | : Investment Corporation of Bangladesh |
| IPO | : Initial Public Offering |
| IRD | : Internal Resources Division |
| MPD | : Monetary Policy Department |
| NBFI | : Non-Bank Financial Institution |
| NCB | : Nationalized Commercial Bank |
| NIB | : National Investment Bond |
| NITA | : Non-resident Investor’s Taka Account |
| NSD | : National Savings Directorate |
| PCB | : Private Commercial Bank |
| PD | : Primary Dealer |
| REER | : Real Effective Exchange Rate |
| REPO | : Re-purchase Agreement |
| SCB | : State-Owned Commercial Bank |
| SLR | : Statutory Liquidity Requirement |
| STP | : Straight through Processing |
| T-Bills | : Treasury Bills |
| T-Bonds | : Treasury Bonds |


BB : Bangladesh Bank
BDT : Bangladesh Taka
BGTB : Bangladesh Government Treasury Bonds

Chapter 1

# Introduction

## 1.1 Background

The financial sector is a crucial sector of any economy. A country's business environment, investment, economic prospects, social dimensions even poverty are affected by financial market. The available vast empirical and analytical literature suggest that in addition to other economic factors, the performance of long term economic growth and welfare of a country are related to its degree of financial sector development. Developed countries' experience suggests that strong government bond market creates favorable environment for the development of an efficient corporate bond market although it is not always essential for a country to develop a government securities market. The financial markets, pivotal point of financial sector, execute a crucial role within the global economic system such as attracting and allocating savings, setting interest rate and discovering the prices of financial assets (Rose, 2003). A well diversified financial sector is highly dependent on the extreme collaboration of financing from equity market, bond market, and banks**.** The government bond market forms the backbone of a modern securities market in both developed and developing countries.

Bangladesh has not been blessed with the contribution of both Corporate and Government bonds and consequently experiences the poor economic growth. With the current financial structure, characterizing the dominating presence of commercial banks, particularly the State Owned Commercial Banks (SCBs), the debt market of Bangladesh is very small relative to other South Asian countries amounting only 5.5 percent of country's GDP (Mujeri and Rahman 2008). It is in the light of above perspective; this report seeks to explore some prerequisites to a sustainable bond market by studying available literature, especially for the Government segment, and putting some instructions for the development of Bangladesh bond market. However, the objectives of this project are to put essential prerequisites to the development of bond marketing an economy in general and to recommend some worthy lessons for bond market development of Bangladesh.

## 1.2 Problem Statement

The issue of overall debt securities market has long been a foremost concern for policy makers in Bangladesh. High government debt stems from unrelenting budget deficit which in turn has a significant negative effect on the economy. Bangladesh is a poor country with very low per capita income (US $700). Historically the country has been reliant on external debt for development. The flow of external debt in the recent past has been decreasing increasing the significance of domestic debt many folds.

Bangladesh Bank plays an important role in mobilizing domestic debt on behalf of Government of Bangladesh (GOB). The finance ministry in collaboration with Bangladesh Bank assesses the needs of government's finances; prepare the auction calendar for government securities. Bangladesh Bank (BB) acts as the banker and debt manager to Government of Bangladesh (GOB). BB's role as a debt manager involves raising borrowings for GOB as and when required.

The process of debt creation starts with automatic monetization.

Both in theoretical literature and in practice by most countries, it is considered desirable to keep fiscal and monetary operations distinct. Not only in developed countries, but also most of the Asian countries especially in the neighborhood of Bangladesh have actively pursued development of debt markets not only to improve efficiency of financial system, but also for a more effective and cheaper borrowing for the Government in the medium to long term. It is necessary to analyze the composition of government debt to identify possible risks. In addition it is also necessary to find out the impact of government borrowing in macroeconomic context of the country. This report has been prepared to explore these areas of debt management.

### 1.3 Scope

The report describes constraints for developing a bond market and the role of Bangladesh Bank in managing the domestic debt for Government of Bangladesh. The report also attempts to analyze the sustainability of debt portfolios of Bangladesh. It mainly focuses on domestic debt. Information on external debt is only used for checking the sustainability of public debt.

### 1.4 Objectives

The main objective of this study is to contribute to developing an effective bond market and to explore the role of BB in efficient domestic debt management in Bangladesh. The specific objectives of this study are:

i) To get an overview of the history and evolution of bond market in Bangladesh
ii) To identify the specific characteristics of bond market in Bangladesh.
iii) To identify the role of Bangladesh Bank in effective domestic debt management.
iv) To estimate the current debt composition of Government of Bangladesh
v) To identify the constraints and to tackle the problems in order to enhance the development of bond market and
vi) To make recommendations for the developments of the bond market.

### 1.5 Methodology

Both the primary and the secondary data are used to make the report. They are mentioned below:

**Primary Data**
Most of the primary data are collected from Bangladesh Bank (BB), Securities and Exchange Commission (SEC), Dhaka Stock Exchange (DSE) and Central Depository Bangladesh Limited (CDBL). Some key personnel are interviewed to collect necessary information.

**Secondary Data**
The secondary data are collected from the following sources:

- Debt Management Department, Bangladesh Bank (BB).
- Research publications from Policy Analysis Unit, BB.

- Economic Relations Division, Ministry of Finance, Government of Bangladesh (GOB).
- Finance Division, Ministry of Finance, GOB.
- Donor publications.
- Government publications.
- Newspaper clippings.
- Website materials.

**Analytical framework/ Analysis techniques**
The report is mainly descriptive in nature. Sustainability of debt is analyzed based on some debt ratios and market risk indicators.

## 1.6 Limitations

Certain data set pertaining to government borrowing especially for state owned enterprises is unavailable. Not all data are verified/ validated due to data characteristics.

## 1.7 Report Layout

- ✓ Chapter 1 gives background, scope, methodology, objective and limitations of the report.
- ✓ Chapter 2 describes the definition, types, features, risks and participants of bond market
- ✓ Chapter 3 states bond market history of Bangladesh and constraints to develop the market.
- ✓ Chapter 4 highlights secondary market of Government securities, primary dealer system a money market operation and debt portfolio of Bangladesh.
- ✓ In chapter 5 findings and recommendations are made.

Chapter 2
# Literature Review

## 2.1 Introduction

Economists consider financial markets as a primary pillar supporting and stimulating economic growth and also in setting the velocity of growth. The markets help in allocating savings and deciding on the optimal use in the economic circuit. The markets in addition provide an avenue for raising capital mainly for the private sector, the government and also public sector units. Every capital market has distinctive characteristics, resulting from history, culture, and legal structure though gradually today they tend to operate on common ground with identical basic features.

Bond market is a connected part of the financial market (figure 2.1). Since the focus of this research is on bond markets, the discussion is restricted to bond markets. Further discussion in this chapter will provide some theoretical understanding about bond markets, its features, and general obstacles faced by bond markets in Asian countries in developing the strategies.

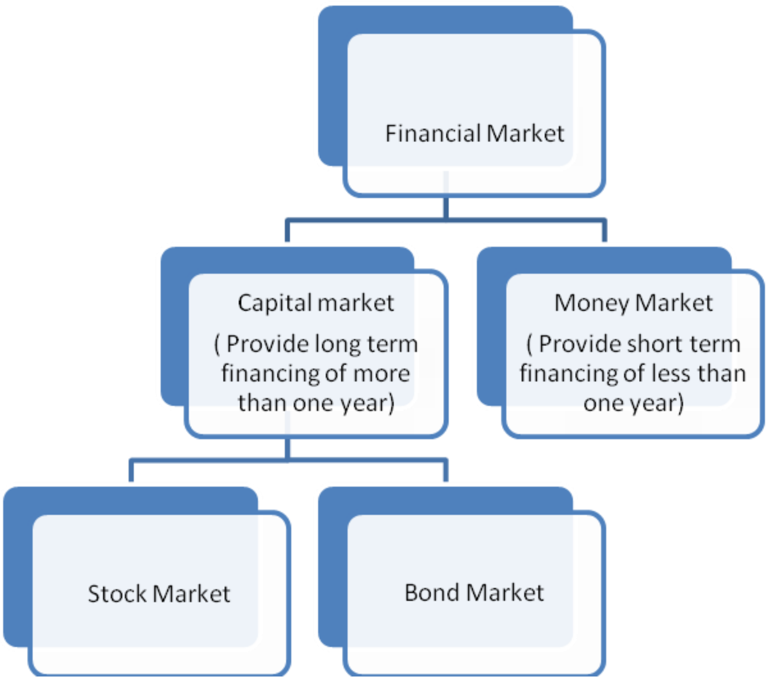


**Figure 2.1: Simplified form of financial market**

## 2.2 Definition of Bond

A bond is debt instrument issued for a specific period for the purpose of raising capital by borrowing. A bond is a long-term obligation. Generally, a bond is fixed interest financial instrument issued by Government, Corporate, and other large entities. In other words, a bond is an agreement to repay the principal along with the interest or coupon. There are some bonds which carry a zero coupon or interest but have fixed term. These bonds are called as zero coupon bond or deep discount bond bonds. These bonds are sold at a price which will be far below the face value of the bond depending on the risk characteristics and prevailing interest rates in the market.

Bonds are tradable and basically the price of a bond depends on the existing interest rates in the market for a equally risky instrument and the coupon on the bond. A bond market has the role to facilitate the flow of long-term funds from surplus units to deficit units.
Thus bond acts as a loan where the buyer or holder of the bond is the lender or creditor, the issuer is the borrower or debtor and the coupon is the interest.

## 2.3 Types of Bonds

A simple way to classify bonds is based on the different kind of the issuers. The three main issuers are government, governmental agencies, and corporations (figure 2.2).

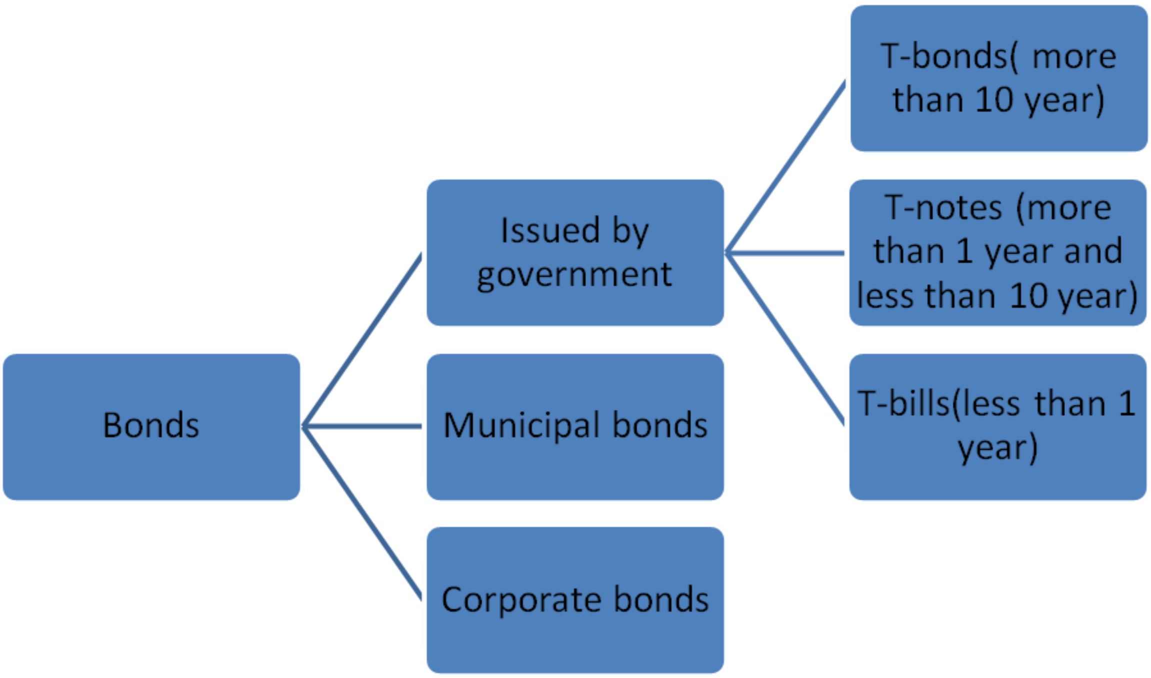


**Figure 2.2: Major Types of Bonds**

### Government Bonds

According to the length of duration, government bonds can be classified into three main categories. They are as follows.

**Bills:** debt securities whose maturity period is less than one year.
**Notes:** debt securities whose maturity period is 1 to 10 years.
**Bonds:** debt securities whose maturity period is more than 10 years.

### Municipal Bonds

These are called governmental agency bonds. These bonds are not issued directly by the government but with the backing of the government. In most countries, the returns from municipal bond are free from government tax. Because of this tax advantage, the interest on a municipal bond is normally lower than that of a taxable bond. Thus, a municipal bond can be a great investment opportunity on an after-tax basis.

### Corporate Bonds

A company can issue bonds like stocks. Corporate have many options to increase its capital from the market, the perimeter is whatever the market will bear. Corporate may issue short-term (less than 5 years), medium-term (5 to 10 years) and long-term (more than 10 years) bonds. Corporate bond may be convertible i.e. the holder can convert it into stock. It can be callable also, which allows the company to redeem an issue prior to maturity.
There are some other types of bonds such as lottery bond, war bond, serial bond, revenue bond, climate bond etc.

## 2.4 Features of Bonds

The key features of bond are discussed below.

- **Face value:** It is the amount on which interest is paid and normally which has to be repaid by the issuer at maturity. It is also called principal, nominal or par value.

- **Issue price**: It is the amount which buyers pay when the bonds are first issued. Generally, this value will be approximately equal to the face value. Thus the net amount which the issuer receives is the issue price minus issuance fees.

- **Maturity**: It is the date on which the issuers have to repay the principal amount. The issuers have no more obligations to the bond holders when they repay the principal amount at the maturity date. Usually bonds can be divided into three categories on the basis of maturity.
    - Short-term: bonds which have maturities between 1 to 5 years;
    - Medium term: bonds which have maturities between 5 to10 years;
    - Long-term: bonds which have maturities more than 10 years.

- **Coupon**: It is the interest rate at which the issuer has to pay to the bond holders. Normally the rate is fixed throughout the life of the bond.

- **Convertibility**: When the bondholders are allowed to exchange the bonds into the issuer's common stocks, these bonds are called convertible bonds.

### 2.5 Bond Market Participants

Both the bond market participants and the financial market participants are similar. They are basically buyers, sellers or both. Normally bond market participants include individuals, traders, institutions, and governments**.**

### 2.6 Risks Associated with Bonds

Generally bonds are considered as risk-free instruments though they have risks. Bonds are usually safer than stocks. Some risks which are associated with bonds are discussed below.

**Interest rate risk:** The prices of bonds are negatively related to interest rates. If the interest rates increase, the prices of bonds will decrease. The coupon (interest) of a bond is set at the time of issuance. The buyers will not be willing to purchase the bonds in the secondary market at earlier rate if the interest rates increase. For example, if the coupon is 7% and the interest rate of an equally risky instrument in the market is at 8%, the interest rate on bond is less what makes investors motivated to invest the high interest bearing instruments. Thus it can be risky to buy long-term bonds at the time of low interest rates.

**Credit risk:** A few organizations who issue bonds rarely default on their obligations just as individuals occasionally default on their loans. The value of the investment is completely lost in this case. Bonds issued by government, are usually protected from default. Municipal bonds are defaulted very infrequently. The best part s of municipal and corporate bonds are that the holders of the bonds are compensated with a higher interest rate for assuming a higher risk. The interest rate on corporate bonds is higher than that of municipal bonds, which is higher than that of government bonds. Furthermore, there is a rating system that helps the investors to know the amount of risk for each class of bonds.

**Call risk:** The Company may call back some bonds which are issued earlier. When a company wants to issue new bonds at lower price, it redeems it existing bonds. This creates forces to the investors to reinvest the principal earlier than expected, usually at a lower interest rate.

**Inflation risk**: Usually the yield on the bond is set at time of issuance, as is the principal which will be returned at maturity date. The real value of the investment will suffer if there is a significant inflation over the period the investor holds the bond.

### 2.7 Factors Affecting the Bond Market Development

There are some fundamental economic factors (variables) that have the effect (positive or negative) on the development of bond market in a country. Table-2.1 shows 14 fundamental variables and their relations on bond market development.

**Table: 2.1 Variables and Effects on Development of Bond Market in an Economy**

| Sl No. | Name of the Variables | Relation | Nature of Bond Market Development |
|---|---|---|---|
| 1 | Economic Size Measured in the Size of GDP | Positively associated | Greater economic size to greater bond market development and smaller economic size leads to smaller bond market development. |
| 3 | Development stage of economy Expressed in GDP Per capita | Positively associated | If economy is expanded to a higher degree in a country. It will increase the level of bond market development. |
| 3 | Natural Openness Measured in Ratio of export to GDP | Merely associated | There is merely and strong relationship between the level of Export and a country's bond market development. |
| 4 | Banking Concentration: Expressed in moral suasion to Issue public placement | Negatively correlated | If the bans highly persuade the issuer in against of the public placements or their spread is so high. The bond market will not be developed. |
| 5 | Size of the banking system | Association of togetherness | As the presence of bank is needed to play the role of market .both these two should develop in a line. |
| 6 | Riskiness of investment Environment Measures in Credit quality of issuer | Positively correlated | Issuer of higher credit quality means low amount risk for Investor. As such high quality investment profile increases the degree of bond market development. |
| 7 | Level Interest rate | Negatively correlated | High interest rate tends to have depressing impact on Issuance and poorly capitalized bond market. |
| 8 | Interest rate variability | Negatively correlated | High level of interest rate volatility in the fixed income securities market lends to lower bond market development. |
| 9 | Exchange rate regime | Positively associated | Countries with stable exchange rate are conducive to bond market development. |
| 10 | Law and Order : international country Risk Level of corruption | Negatively correlated | Lower level of corruption lads to higher level of bond market development |
| 11 | Legal System : Measured in Investor right index | Strongly associated | Stronger legal protection for investors: stronger bond market development & weaker legal protection Gives weaker development |
| 12 | Absence of public sector funding Needs | Positively associated | If the public sector bond market an private sector bond market work together. The total bond market will be developed. |
| 13 | Poor regulatory enforcement: Bureaucratic quality | Positively associated | High bureaucratic quality indicate that the country have Good practice of disclosure principal. Sanction and punishment for manipulation. This tends to develop the bond market more positively. |
| 14 | corporate governance and transparency : Expresses in accounting standards | Positively associated | High accounting standard gives the rise of positive Development of bond market. |

**Note**: Summary of the findings of Barry and Piapot study is tabulated.

## 2.8 Prerequisites for Development of Bond Market

For establishing an efficient and effective bond market the followings are prerequisites.

- Sound monetary and fiscal policy;
- Stable and credible government;
- Safe, sound, and smooth settlement procedure;
- Efficient tax, legal and regulatory procedure; and
- A liberalized financial system with rational intermediaries.

Chapter 3

# Bond Market in Bangladesh

## 3.1 History

Currently Bangladesh bond market plays a small role in the economy. The bond market is very thin compared to the neighboring countries. Government should take actions to improve the scope of bond market in Bangladesh. At the end of 2006, the outstanding bond amount was only 2 % of GDP, compared to Sri Lanka (55%), India (35%), Pakistan (31%) and Nepal (10%). The share of the Bangladesh bond market among South Asian countries was only 0.2% the smallest among the five countries.

The market is dominated by the fixed income government debt instruments. The maximum savings of small investors are mobilized by only one instrument name National Saving Certificate. The interest on this saving certificate is higher than that of other bonds in the market. Besides the national saving certificate, the other government debt instruments are treasury bills and treasury bonds. In December 2003, government issued 5 and 10 years' maturity treasury bonds and 15 and 20 years' bond were issued in July 2007. The capital raising pattern has been changed from a focus in treasury bills to a noteworthy increase in treasury bonds. Consequently, the ratio of treasury bills from about 20 : 80 in 2005 to 80 :20 in 2011. Bank an financial institutions are the main buyers of treasury bonds. Commercial banks have obligation to purchase government securities as it is accepted security to meet their statutory liquidity requirement (SLR) under the Banking Companies Act. This is still a small market. Banks and financial instruments which have SLR obligations are the only participants in this market. The government bonds are rarely traded on the exchange.

In September 2006, the Ministry of Finance started publishing the yearly treasury bills and bonds auction calendar. The calendar shows the information of dates, types of instruments and amount of each auction. Bangladesh bank also started publishing the auction results on its website.

Bangladesh corporate debt market is very small in size. The outstanding amount is only 0.2% of GDP. Thus corporate bond market in Bangladesh is at a budding stage. During 1988-2011, only 3 corporate bonds and 14 debentures were issued by public offerings (Table-3.1). Many of these bonds and debentures were partially convertible to common stocks. The biggest issue of corporate bond was made first in 2007. It was a perpetual bond named 'IBBL Mudaraba Perpetual Bond' with a size of Taka 3,000 million (approximately US$ 40 million). It is an Islamic bond on profit sharing basis since interest is prohibited by Sariah Principles. At the end of 2011, three corporate bonds and eight debentures were outstanding. The corporate bond market of Bangladesh faces manifold impediments although it has a good prospectus because of an expected growth in financial market. It is believed that the availability of long-term instruments is a prerequisite for developing an efficient market structure.

**Table: 3.1 Issue of Corporate Debt Securities in Bangladesh**

| Serial no. | Securities | Year of issue | Features | Size(BDT million) |
|---|---|---|---|---|
| 1 | × 17% Baximco Pharma Debenture | 1988 | 20% Convertible | 40 |
| 2 | × 17% Baximco limited Debenture | 1989 | | 60 |
| 3 | × 17% Baximco Infusion Debenture | 1992 | | 45 |
| 4 | × 17% Bangladesh Chemical Debenture | 1993 | 20% Convertible | 20 |
| 5 | × 17% Baximco Synthetic Debenture | 1993 | | 375 |
| 6 | 17% Baximco Knitting Debenture | 1994 | 20% Convertible | 240 |
| 7 | 17% Baximco Fisheries Debenture | 1994 | | 120 |
| 8 | × 15% Eastern Housing Debenture | 1994 | 10% Convertible | 800 |
| 9 | 14% Baximco Textile Debenture | 1995 | | 250 |
| 10 | 14% BD Zipper Debenture | 1995 | 20% Convertible | 40 |
| 11 | 14% Baximco Denims Debenture | 1995 | | 300 |
| 12 | 14% BD Luggage Debenture | 1996 | 20% Convertible | 150 |
| 13 | 14% Aramit Cement Debenture | 1998 | 20% Convertible | 110 |
| 14 | 15% BD Welding Electrodes Debenture | 1999 | | 20 |
| 15 | IBBL Mudaraba Perpetual Bond | 2007 | Profit Sharing | 3,000 |
| 16 | ACI Zero Coupon Bond | 2010 | 20% Convertible | 1,070 |
| 17 | Sub Bonds Of BRAC Bank Ltd | 2011 | 25% Convertible | 3,000 |

**Note**: × marked debentures are not available at present.
Source: SEC, DSE and CSE report.

### 3.2 Constraints on Development of Bond market

The sluggish growth of the bond market in Bangladesh has been recognized due to a number of factors. They are discussed below.

- **Limited number of investor:** Only limited number of investors compared to total population is interested in investing in bond or stock market.

- **Capital gain**: Impact of cliental effect, most of the investors in Bangladesh look for capital gain rather than fixed flow of income while making their investment decision. In case of bond chance of capital gain is limited.

- **High return in risk free government bond:** Rate of return in case of risk free government bond is too highs so corporate bonds have to offer even higher rate for covering additional risk to the investors which make the rate non-viable for the issuers.

- **Alternative sources of debt financing:** Other sources of debt financing, especially borrowings from commercial bank are very easy and widely used in Bangladesh. The charged by bank is less than borrowing rate through bond issuance. Besides these, borrowing from bank is flexible and quick. So, issuers don't have to depend on bond issue only to design their capital structure and to generate tax benefit from use of debt.

- **Limited private management of pension fund:** In Bangladesh private management of long-term pension fund is very limited. State owned bodies & government organizations do not raise fund through issue of debt instrument. They depend on deficit financing & printing money from central bank for financing their projects. So, all these factors make secondary market for bonds very illiquid & discourage issuance of Bond.

- **Weak regulations and market infrastructure:** Laws & regulations regarding governance of bond market are inadequate. Market failure is common scenario in Bangladesh. Risk free investors just prefer government bonds while risk takers go for investment in stock market. There are not enough investors for corporate bond market.

- **Underdeveloped tax system**: Tax system in Bangladesh is not properly developed. Tax can be evaded through unfair means (bribe and other means). So, tax incentive for issuing bonds is not very high which causes underdeveloped corporate bond market.

- **Illiquid secondary market**: Illiquidity in secondary market of government debt securities makes constraints on determining proper pricing of the treasury bonds in the primary market.

- **High interest rate:** Individual savings are attracted by national saving scheme due to its high interest rate (Table-3.2). National saving certificates are risk free though its interest rate is high; consequently other saving products are crowded out from the market. Thus a company has to propose a higher coupon rate to attract investors which might become unviable for the corporate.

- **High transaction cost of bind issuance:** The high transaction cost of bond issuance is considered as constraint. Particularly, the registration fees, stamp duties, ancillary charges and annual trustee fees on outstanding amount put forth to diminish the bond issue.

- **Cheap syndicated loans**: It is a common phenomenon that a syndicate is formed by a number of banks to finance large project. Syndicated loan is cheap as well custom-made and flexible which makes bonds non-attractive to the corporate issuers.

- **Default on interest payment**: In early 1990s, the interest payments of some corporate debenture were defaulted. In the 90s, the regulations of financial market were not adequate and credit rating was not mandatory. Besides, investors' confidence was eroded due to the failure of trustees to protect the debenture holders' rights which makes the investors averse to invest in corporate bonds.

- **Inexperienced investor**: In Bangladesh most of the investors are inexperienced. They are very much familiar with the bonds. They consider that return (interest) on debt instrument is very small with no chance of capital gain. Therefore, they take investment decision in stocks for abnormal capital gain.

- **High inflation**: Comparatively high inflation has been prevailing since last decade, which has made potential investors introverted to invest in corporate securities.

**Table: 3.2 Interest Rate on Saving Products by Source and Maturity (July 2011)**

| Source | 3 to 6 months | 6 months to 1 year | 1 year and above |
|---|---|---|---|
| Foreign banks | 3.75—12.50 | 4.00—12.25 | 4.50—11.00 |
| Private banks | 7.00—12.75 | 7.25—13.00 | 8.00—11.75 |
| State owned commercial banks | 5.50—7.50 | 6.75—8.75 | 8.00—11.50 |
| Specialized banks | 5.75—7.25 | 6.00—7.50 | 6.75—9.00 |
| Post office | NA | NA | 11.50 |
| National savings certificates | NA | NA | 12.00 |

Source: Bangladesh Bank

### 3.3 Corporate Debt Market in Bangladesh

Bank loans are the main source of finance for corporate (Table-3.3). The corporate bond market in Bangladesh is very small in size. Banking sector is dominating corporate finance since other sources of corporate debt instrument are underdeveloped. Alternative sources of finance other than bank loans should be developed by diversifying the debt instruments in order to establish sound financial market in Bangladesh. A complete set of guidelines on bonds and debentures must be developed to promote the corporate bond market. The government has to reduce the interest rate on national savings certificates in order to a favorable environment for developing corporate bonds.

**Table: 3.3 Instruments Available in Bangladesh**

| Instruments | Nominal Amount(Billions of BDT) | Relative size % |
|---|---|---|
| Deposits | 4032 | 37.20% |
| Bank Loans | 3501 | 32.30% |
| Term loans (as of June 2011) | 1333 | 12.30% |
| Government saving certificates | 965 | 8.90% |
| Government bonds | 534 | 4.93% |
| Treasury bills | 271 | 2.50% |
| Equity (issued value) | 192 | 1.77% |
| Private placement | Not publicly available | -- |
| Debentures & bonds | 11 | 0.10% |

Source: Dhaka Stock Exchange, National Saving Bureau, and Bangladesh Bank

## 3.4 Government Debt Market in Bangladesh

Bangladesh Bank Order-1972, article 20 and Treasury rules-1998 (Appendix-1, Section-3) empowers Bangladesh Bank for the issue and management of Government securities. As per the above mentioned laws and regulations, Bangladesh Bank (BB) acts as the banker and debt manager to Government of Bangladesh (GOB). Tax is the main source of government's revenue. Government meets its deficit through sale of debt securities when expenditures exceed its tax receipts.

In the past the financing of budget deficit for Government of Bangladesh was being done through issuance of 'ad hoc' Treasury Bills. Bangladesh Bank subsequently partially offloads these 'ad hoc' Treasury Bills through the issuance of Treasury Bills and Bonds to the market, leaving the Government's cash position unaffected. 'Ad hoc' Treasury Bills were thus accessed both to meet cash mismatches as well as for financing the budget deficit. Issuance of 'ad hoc' Treasury Bills has been discontinued now. Financing budget deficit for Government of Bangladesh takes place through the issuance of (i) Special bonds, (ii) Bangladesh Government Treasury Bonds (BGTBs), and (iii) savings instruments (NSD).

However, for small deficit, Bangladesh Bank maintains a pretty cash account named 'Ways and Means Advance' (WMA). Normally, government borrows from WMA first and then through Treasury Bills. For this advance a floating interest rate (bank rate + 1%) is charged. At present the bank rate is 5%.

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Chapter 4

# Secondary Market of Government Securities

## 4.1 History

Secondary market for government securities is still not active. Bangladesh Bank periodically conducts secondary trading and also buys back the government securities as per instructions of the government.

Developing liquidity in the secondary market is a gradual process. There is a substantial effort and time required to develop the trading behavior among institutions. The best that any institution which intends to promote secondary trading is to create a condition that is conducive for developing a safe and efficient market place. Trading volume in Government securities is currently negligible in Bangladesh. To activate the market, it is necessary to push institutions (banks and other financial institutions) to encourage a culture of trading, develop safe and efficient trading and settlement systems, sensitize market participants to internalize effective risk management practices and stabilize market standards.

The following bottlenecks were identified as impediments to development of secondary market and corresponding recommendations are made to solve them by Bangladesh Bank.

- **Problem:** Almost all bond markets in the world have addressed the issue of settlement risk by introduction of Delivery versus Settlement (DvP). There is no established settlement system for the few secondary market transactions that take place in bond markets in Bangladesh.

**Solution:** Delivery versus Settlement (DvP) based settlement have been introduced from January 2010 for all marketable Government securities However network connectivity and electronic settlement systems have not been established yet. In future, more efficient DvP mechanisms can be introduced coinciding with the increase in market activity.

- **Problem:** In the early stages of market development, there was a high degree of uncertainty regarding appropriate pricing. While a market determined price discovery in primary markets can act as an effective anchor for pricing, the problem still remains on how to price securities in between auctions.

**Solution:** It may be desirable for the Primary Dealers (PDs) (through a trade association recognized by BB) to disseminate a yield curve of Government securities based on secondary market transactions, on a monthly basis. In the initial period (about a year) BB may vet this yield curve before being released in the public domain. To facilitate year-end valuation, BB may itself announce a yield curve valid for the end of the year.

- **Problem:** Lack of proper mechanism for Dissemination of Trade Information among the market participants.

**Solution:** BB may take up the responsibility of collecting and disseminating secondary market trade information at the end of each day. The information it needs to disseminate should be – date of trade, settlement date, name of security, amount of trade (FV), price and yield. In the initial phase, the information may be collected from Banks and PDs, consolidated and placed on BB's website by end of day after suppressing buyer and seller names. In due course, as electronic network for banks and other institutions are established and an electronic reporting/settlement system is developed, dissemination of trade information can be real time.

- **Problem:** Typically Government securities trade Over-the-Counter (OTC) through a telephone market, although trading on electronic platforms is prevalent in some countries, e.g., MTS system in Europe. Availability of electronic trading platform would encourage secondary trading to a large extent.

**Solution:** It is learnt that the trading platform in the Dhaka Stock Exchange can be modified for trading bonds. This should be enabled and the primary dealers should be given the accountability of market making for government securities on the exchange. Market participants may also be given the choice of trading with each other on an OTC basis.

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### 4.2 Primary Dealers System

**History**

In 2003, eight banks and one non-bank financial institutions (NBFI) were selected as primary dealers (PDs) to deal secondary transactions of Treasury bills and other government bonds. The eight banks were Sonali Bank Limited, Janata Bank Limited, Agrani Bank Limited, Uttara Bank Limited, Prime Bank Limited, Southeast Bank Limited, Jamuna Bank Limited, and NCC Bank Limited, and the only NBFI was International Leasing and Financial Service Limited. Earlier all scheduled banks, financial institutions and interested parties are invited to drop applications to the Foreign Exchange Reserve and Treasury Management Department of Bangladesh bank by August 21, 2003. Eighteen commercial banks and one NBFI filed applications for getting primary dealer licenses. However, Bangladesh Bank activated the primary dealer system from July, 2007.
Bangladesh Bank granted license to six more banks and financial institutions to act as primary dealers in December, 2009. With the additional the total number of primary dealers is fifteen (Table-4.1).

**Role of Primary Dealers in Money Market**

Primary dealers are selected to perform as market makers for government securities. They act as underwriters of government securities at the primary auction. This helps the government to raise money from the market at a reasonable cost. Whenever government/ BB finds the interest rates for government securities unacceptable at primary auctions, it can collect the required amount from PDs. This reduces the borrowing cost for the government.

The main objective of appointing PDs is to support the primary issuance process of Government securities and activating the secondary market. However their other objectives are:

- To support the primary issuance process of Government securities by developing underwriting capabilities and promote price discovery process in auctions for government securities;
- To assist in developing efficient and effective liquidity management, and to facilitate open market operations of monetary policy management.
- To increase liquidity and intensity in the securities market by developing price detection.

PDs are required to underwrite government securities at primary auction at the following rates (Table-4.1).

**Table: 4.1 Rate of Underwriting Obligations**

| SL No | Primary Dealer | Proportion of Underwriting Obligations (%) |
|---|---|---|
| 1 | Sonali Bank Limited | 9.00 |
| 2 | Janata Bank Limited | 9.00 |
| 3 | Agrani Bank Limited | 9.00 |
| 4 | Prime Bank Limited | 8.00 |
| 5 | Southeast Bank Limited | 8.00 |
| 6 | Uttara Bank Limited | 8.00 |
| 7 | NCC Bank Limited | 8.00 |
| 8 | Jamuna Bank Limited | 7.00 |
| 9 | International Leasing and Financial Services Limited | 1.00 |
| 10 | Mutual Trust Bank Limited | 7.00 |
| 11 | Mercantile Bank Limited | 8.00 |
| 12 | Industrial Promotion and Development Company | 1.00 |
| 13 | Lanka Bangla Finance | 1.00 |
| 14 | AB Bank Limited | 8.00 |
| 15 | National Bank Limited | 8.00 |
| | **Total** | **100** |

Source: Debt Management Department, BB

Bangladesh Bank issued a guideline for the primary dealers in order to stimulate and simplify the country's secondary bond market in 2003 and afterward also made some amendments. As per the guideline, the primary dealers will subscribe and underwrite primary issues and make secondary trading deals with two-way price quotes. The primary dealers cannot make short sale in any particular issue and cannot carry a short position in secondary dealings. The primary dealers cannot act as inter-bank or inter-dealer brokers.

**Current Scenario**

Bangladesh Bank introduced the Scheme of PDs in October 2003. While the Scheme had the necessary prerequisites for a successful primary dealer system the PD system has not kicked off yet. A major reason is the absence of secondary market, which deters PDs from bidding in primary auctions.

PDs have formed an association namely Primary Dealers Bangladesh Ltd (PDBL). The association has been working to form and build up a strong market mechanism for government treasury bills and bonds. They are working on different aspects of making the treasury bills and bonds more striking to the prospective investors.

PDBL is also involving the Central Bank and is attempting to make the association strong to develop the market mechanism by awareness building campaign among non-resident Bangladeshis (NRB's). They also help in arranging meetings and workshops with Bangladesh Bank and other related associates at regular intervals for strengthening the secondary market by inspiring prospective global investors and connecting them as development partners.

## 4.3 Money Market Operations

### Repo

Repo (repurchase agreement) is a contract to sell a security at market value, including accrued interest, and to repurchase it in the future for the initial repurchase amount plus accrued interest on the repurchase agreement.

It is a contract where the seller of securities agrees to buy them back at specific time and price. The cash loan is made by the buyer of the securities to the seller and is repaid when the securities is repurchased by the original owner.

Repos serve several distinct purposes. Central banks use Repos as a monetary policy tool and in some cases as a means of fostering a secondary market for government securities. Securities dealers utilize Repos to reduce the cost of financing their inventories. Finally, commercial banks and other investors utilize Repos for temporary cash management.
Bangladesh Bank has introduced Repos for commercial bank and financial institutions as an indirect monetary instrument for day to day liquidity management to smoothen short-term and unpredicted turbulences in the supply and demand for money. This opportunity will give temporary liquidity in the money market against an eligible security without necessitation of the security.

### Reverse Repo

A security resale agreement (Reverse REPO) is a contract to buy a security at market value, including accrued interest, and to resell it in the future for the initial resale amount plus accrued interest on the resale agreement. Banks and financial institutions can deposit money in Bangladesh Bank when they have excess liquidity. This is normally recognized as Reverse Repo.
A Reverse Repo auction is held along with the treasury bills auction.

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**Inter-bank Repo**

The inter-bank Repo is one type of secondary market for treasury bills and government securities. It was introduced in July 2003. Banks are free to buy funds from the interbank market against the Government securities under Repo agreement. In such cases, rates charged by the lending banks is not fixed, It is determined on the basis of supply of money in the market and on the basis of the market prices of the securities up to their maturities. Repo in the inter-bank market may be for any tenor and fund can be availed for any purpose for any period.

## 4.4 Money Market Indicators

**Yield Curve of Treasury Securities**

Yield curve is the graphical representation that represents the relationship between the yield (interest rate) and maturity dates for a set of parallel bonds, generally Treasures, at a specified point of time. It is the graphic illustration of the relationship between the yields on the bonds of the same credit quality but different maturities. The yield curve can perfectly estimate the turning points of the business cycle. It represents the relationship between interest rates and the time to maturity of a set of debt securities with same issuer and same currency. Yield curves, in particular zero coupon curves are commonly used to calculate the market price of bonds/ portfolios of bonds.

The interest rates of long-term bonds are normally higher than that of short-term bonds in an upward sloped yield curve. The yield curve generally has a positive slop because interest rates of long-term bonds normally exceed that of short-term bonds. The shape of yield curve is affected by a lot of factors including the relative risks between long-term and short-term securities and by investors' expectations with regard to the level of future interest rates.

The maturities are depicted on the horizontal axis and the yield is depicted on the vertical axis on the yield curve. That is to say, if the yield curve trends upward, it represents that interest rates for long- term securities are higher than short-term securities, it is called a normal yield curve. On the other hand, a negative yield curve represents that interest rates for short-term securities age higher, and a flat yield curve represents that they are around the same. Yield curves are most usually plotted with government treasuries with different maturities. Thus it is used to forecast future trends in interest rates. Two separate graphs representing yield curve for T-Bills (Figure-4.1) and Bangladesh Government Treasury Bonds (Figure-4.2) are given below.

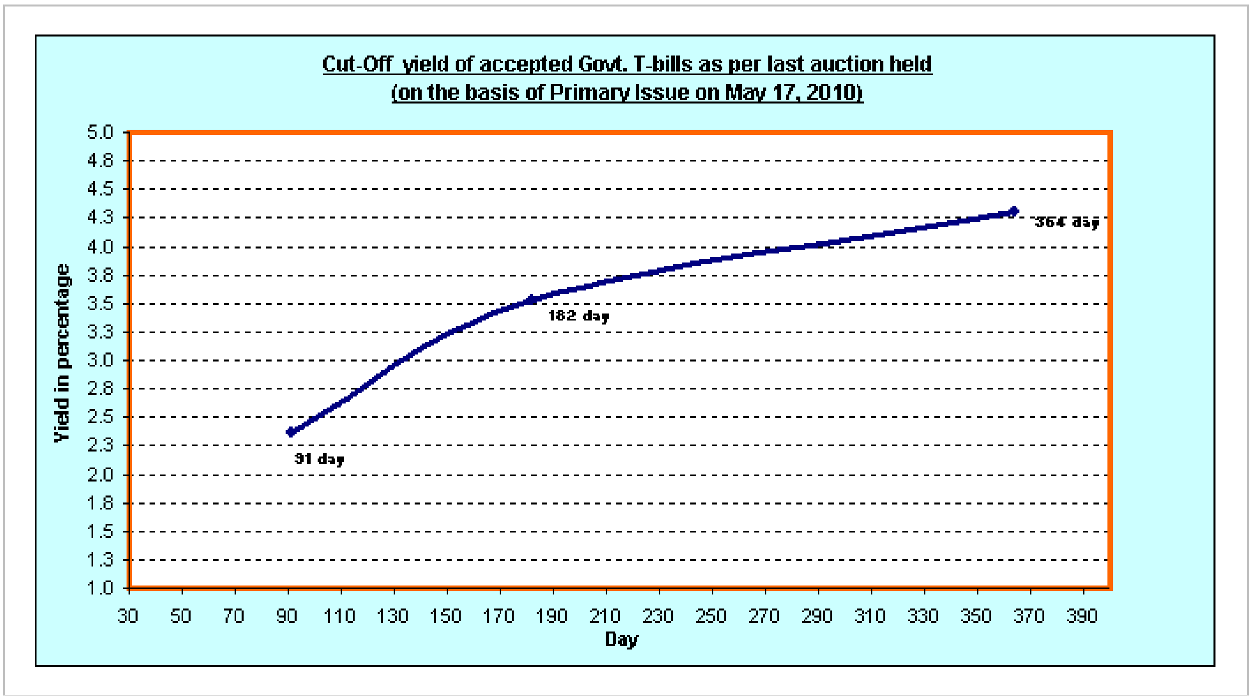


**Figure: 4.1 Primary Yield Curve for T-bills**

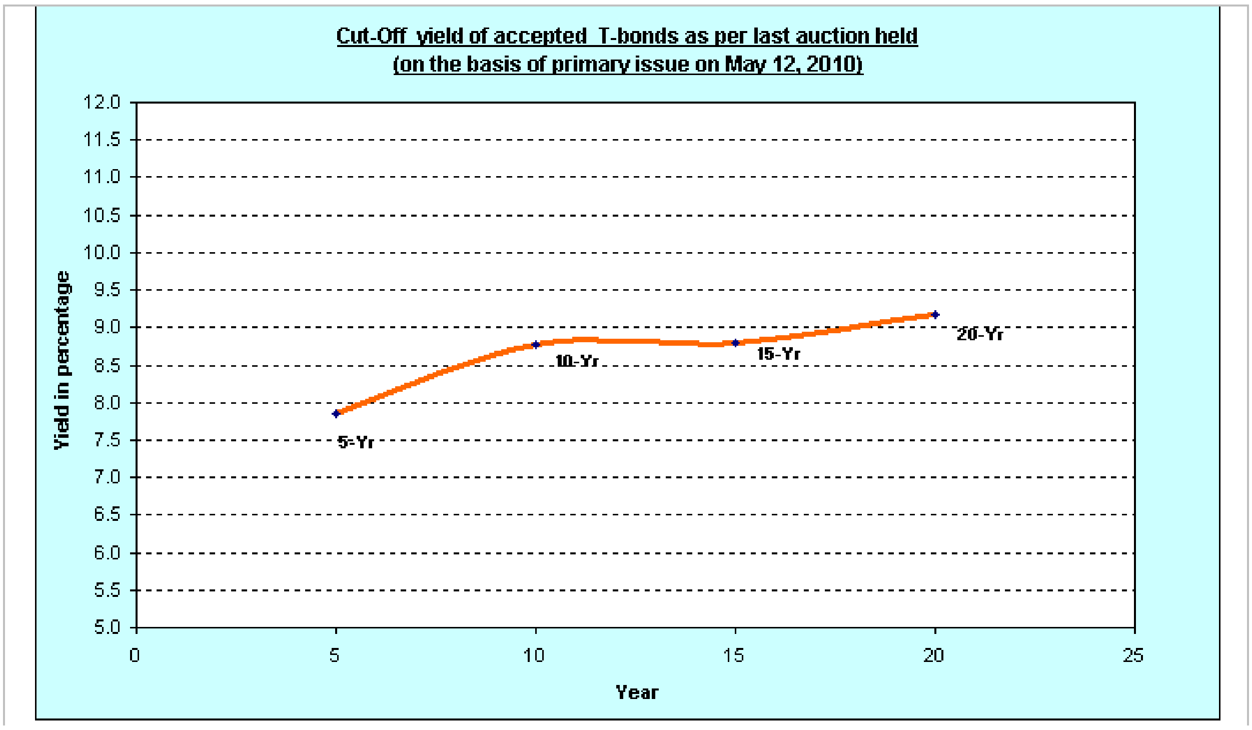


**Figure: 4.2 Primary Yield Curve for Bangladesh Government Treasury Bonds**

## 4.5 Debt Portfolio of Bangladesh

Central Government debt outstanding has increased consistently over the period of 2005-2010, registering an increase of 28% (US$30 billion in 2005 to US$40 billion in 2010). This trend was mainly driven by domestic debt, which increased by 60% during this same period. The increase in domestic debt was influenced by the sharp increase in overdraft facilities from the Bangladesh Bank in FY2006, government’s inclination towards borrowing from market sources and increasing the sale of NSD instruments.

The composition of total government debt is shifting from external to domestic. Domestic debt which was 38% of total debt in 2005 has increased to 48% in 2010. External debt, on the other hand, has decreased from 62% of total debt in 2005 to 52% in 2009. This was due to the continuing emphasis by the Government on soft loan borrowing from the development partners, the change in policy and priorities of partners, the scarcity of external soft loans, and the increasing levels of undisbursed loans. However the importance of external debt is still underscored by its major share in the total debt composition.

In terms of local currency, total domestic debt has increased by 81% (in dollar terms 60%) during 2005-2010. It shows a shift from non-marketable instruments to marketable instruments. It also emphasizes government’s inclination towards mobilizing funds from domestic sources.
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Bangladesh Government Treasury Bonds (BGTBs) however show an increasing trend. Their share of domestic debt increased to 31% in 2010 from 9% in 2005. It shows the preference of government to borrow funds from the market source at a competitive rate. It allows the government to collect long term fund from the market at a rate less than the NSD instruments. Currently, the implicit strategy of the government is to maintain a ratio of 75:25 while borrowing through T-bonds and T-bills respectively. It has also been planned to increase the ration to 80:20 in the upcoming Financial Year (FY 2011-12). All these efforts are designed to raise the average maturity of the outstanding debt stock to decrease the financing risk.

Chapter 5
# Findings and Analysis

## 5.1 Status of Bangladesh Bond Market

The debt market in Bangladesh comprises mainly of two categories, firstly the Government securities and the second category comprises of the non Government securities i.e. the corporate bonds and debentures. The actual status of the bond market of Bangladesh is stated below:

**i. Comparison of government bond market in some Asian countries:** The size of Bangladesh government bond market which is 17.1% of GDP has not developed on the similar line as of other **e**merging East Asian bond market like China, Singapore, Malaysia and Thailand (Table-5.1). India has the largest part of Government bond market of all the south Asian countries while Bangladesh holds the lowest position with the size of 17.1% of GDP.

**Table: 5.1 Sizes of Some Asian Bond Markets (% of GDP)**

| Category | Korea | Mala | China | Sing | Thailand | Philip | India | Sri | Pak | BD |
|---|---|---|---|---|---|---|---|---|---|---|
| Government | 48.8 | 48.1 | 46.1 | 41.2 | 40.7 | 33.3 | 36.1 | 31.6 | 27.5 | 17.1 |
| Corporate | 61.8 | 37.5 | 4.7 | 30.7 | 15.9 | 3.5 | 3.9 | - | - | - |

Source: Asian Bond on Line, BIS, RBI, March 2008.

**ii. Maturity structure*:*** A mature bond market exhibits longer average maturity since investors' confidence is gauged by their willingness to commit resources to longer time horizons (Barry and Pipat 2004). In South Asia, India is the only country to have succeeded in building a risk-free sovereign yield curve that can provide guidance to market players across the broad spectrum of maturities.

**iii. Analysis on finance indicators*:*** In terms of the assessment of Finance Indicators as depicted in (Table-5.2), India has the soundest financial sector among the south Asian economies. It occupied the top rank with an overall composite score. India has exceedingly done well (ranked 1) on three micro indicators namely capital market development, market concentration and competitiveness, and financial stability.

**Table: 5.2 Finance Indicators for South Asian Countries during 2001-09**

| Individual indicators rank | India | Pakistan | Sri Lanka | Bangladesh | | Nepal |
|---|---|---|---|---|---|---|
| Overall rank | 1 | 2 | 3 | 4 | | 5 |
| Access to finance | 3 | 4 | 1 | 2 | | 5 |
| Performance and efficiency | 3 | 1 | 2 | 4 | | 4 |
| Capital market development | 1 | 2 | 3 | 4 | | 5 |
| Market concentration and competitiveness | 1 | 4 | 5 | 2 | | 3 |
| Financial stability | 1 | 2 | 3 | 4 | | 5 |

Source: Getting Finance Indicators.

**iv. Corporate governance:** The assessment of south Asian Bond Market in terms of Good Governance Indicators, leads to believe that India has a level of good governance in terms of political stability, voice and accountability, control of corruption, and regulatory framework which has led to the financial development (Table-5.3). Moreover, credit information index and the legal right (Table-5.3) shows that the lender and borrower of capital are not well protected in Bangladesh and they do not get the credit information easily.

**Table: 5.3 Indicators of Governances, South Asia 2008.**

| Country | Political Stability | Voice& Accountability | Control of Corruption | Regulatory Quality | Rules of Law | Government Effectiveness | Credit Info Index | Lega Righ Inde |
|---|---|---|---|---|---|---|---|---|
| Bangladesh | -1.4 | -0.63 | -1.05 | -0.86 | -0.81 | -0.81 | 2.0 | 8.0 |
| India | -0.01 | +0.38 | -0.39 | -0.22 | +0.10 | +0.03 | 4.0 | 8.0 |
| Pakistan | -2.44 | -1.05 | -0.83 | -0.56 | -0.93 | -0.62 | 4.0 | 6.0 |
| Sri Lank | -1.96 | -0.39 | -0.13 | -0.11 | +0.06 | -0.29 | 5.0 | 6.0 |

Source: South Asian Financial sector review, 2009.

**Note:** Governance score ranges -2.5 to +2.5, with higher scores representing better governance. The credit information index ranges from 0 to 6, with higher scores indicting more credit information available. The legal right index ranges from 0 to 10, with higher scores depicting better designed laws.

## 5.2 Measures to Improve Bangladesh Bond Market

In spite of earlier setbacks, the bond market of Bangladesh is ready for takeoff. It seems reasonable that Bangladesh can take the following steps to boost up its bond market**.**

**i. Establishing a sovereign yield curve to serve the pricing guide in the bond market:** Lack of benchmark bonds has been primary reason that the Bangladesh debt securities market has not taken off. Without benchmarks, all other fixed-income instruments, including corporate bonds will lack the pricing base. Based on the experience of say India the maturity of the bonds can be increased by issuing a bond with 30 years maturity.

**ii. Proving the government as a credible issuer and market developer:** The developed financial markets have been brilliant in issuing standard diversified and high quality debt instruments on a regular basis. For example Indian Government issues treasury bills of three maturities (91, 182, or 364 days) and medium and long-term securities (capital index bonds, floating rate bonds, zero coupon bonds, bonds with call and put options) and "plain vanilla" bonds (the most popular and actively traded). In contrast, the government of Bangladesh issues only Treasury bill, treasury bonds, National Investment Bonds, and National Saving certificates. Excessive dependence on NSD certificate by the government of Bangladesh has distorted the market by establishing a high benchmark rate for the corporate sector. This is primarily the reason that the Government of Bangladesh should come forward with a broad spectrum of government securities.

**iii. Developing a level playing field for foreign and retail investor:** Like developed countries, Security and Exchange commission of Bangladesh should permit registration to foreign institutional investor to invest in Bangladesh. The government of Bangladesh should also take necessary actions to encourage retail participation in the government debt security market.

**iv. Establishing a well-functioning system for primary dealers:** With fifteen primary dealers (12 commercial banks and 3 non-banking financial institutions) Bangladesh government bond market has not been served yet to full swing. Bangladesh should practice the scope, scale and regulation of the primary dealer system like India.

**v. Taking steps to enhance secondary market liquidity:** The secondary market for government debt securities in Bangladesh is still in a very budding stage. For example, in the DSE, 215 BGTBs are listed with a total worth of Taka 534 billion but only one 10 years BGTB was transacted on the secondary market since the inception of debt securities in DSE in 2005. Thus, in favor of Bangladesh government, BB can lower minimum denomination to Take 1000 and give wide range of facilities to the PDs.

**vi. Increasing transparency in the secondary market through dissemination of market information:** Transparency in the secondary market for government debt securities remains limited in Bangladesh. No central source of information on trading activity in the OTC market is available. Bangladesh bank does not publish the information while it receives reports on OTC trading from primary dealers. Information on debt securities and the money market should be distributed through press releases or by the Bank's publications.

**viii. Introducing delivery vs. payment system (DvP)**: The payments in securities transactions are handled manually though both stock exchanges, DSE & CSE have an automated system for the trading of securities, which means that securities cannot be settled on a delivery-versus-payment basis. Bangladesh may be benefited by introducing DvP mechanism.

**ix. Developing bond index:** An index is needed to compare the market participants' performance as well as the performance of different classes of assets. The government of Bangladesh can establish the bond index which will reflect the benchmark of this sector.

**x. Developing qualitative strength:** Bangladesh should develop its poor performance in macroeconomic environment, institutional environment, equity market development, corporate governance, voice and accountability, political stability, financial stability and regulatory quality.

## 5.3 Conclusion

This report investigates the current status of bond markets of Bangladesh. The skinny bond market in Bangladesh faces multiple challenges like excessive dependence on bank credit, dominance of primary auction based government debt instruments, lack of product variation, and absence of benchmark yield curve. The prerequisites of the bond market development and factors to influence the bond market indicates that the neighbor countries have dramatically progressed in almost all the categories while Bangladesh does not meet most of the preconditions to develop an efficient bond market. It is believed that Bangladesh will be able to accelerate its momentum in the bond market if she adopts all viable strategies, experiences and reforms program of developed bond markets.

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