

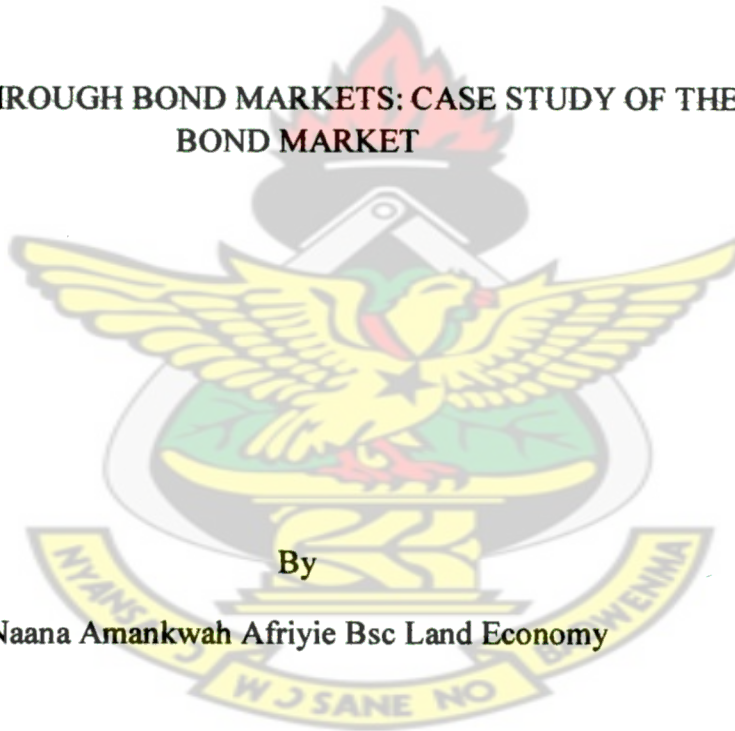
**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**COLLEGE OF ARTS AND SOCIAL SCIENCES**

**SCHOOL OF BUSINESS**

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**RAISING CAPITAL THROUGH BOND MARKETS: CASE STUDY OF THE GHANAIAN  
BOND MARKET**



By

**Naana Amankwah Afriyie Bsc Land Economy**

**August 2009**

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# **RAISING CAPITAL THROUGH BOND MARKETS: CASE STUDY OF THE GHANAIAN BOND MARKET**

**By**

**Naana Amankwah Afriyie Bsc Land Economy**

**A thesis submitted to the Department of Accounting and Finance**

**Kwame Nkrumah University of Science and Technology**

**In partial fulfillment of the requirement for the degree of:**

**MBA BANKING AND FINANCE**

**School of Business**

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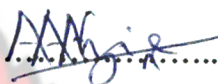
**August 2009**

## DECLARATION

I hereby declare that this work to the best of my knowledge is my original work and no material apart from the parts which have been duly referenced in the text has been previously submitted for the award of any other degree in the University.

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signature

Date

## **DEDICATION**

This work is dedicated to my mother Esther Kwakye and uncle Dr. Kwame Adom Frimpong.

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## ACKNOWLEDGEMENT

I am most grateful to the almighty God for his manifold blessing in my life.

This thesis could not have been successful without the help of other people who contributed in diverse ways and are therefore worth mentioning.

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## ABSTRACT

The over-reliance on predominantly bank loans and the failure to establish strong and robust Ghanaian bond market are among the factors that affects companies' ability to get long-term capital and hence their performance in the country. The development of efficient bond markets is therefore a precursor to reducing the dependence of the Ghanaian companies on short-term capital flows. When a full-fledged bond market is present, market forces have a much greater opportunity to assert themselves, thereby reducing the cost of using bonds, the companies can easily raise the needed capital to finance their activities.

The purpose was to examine the factors influencing the speed of development of the bond markets and, within that, to investigate the factors that companies consider important in using bonds as a financing method and the barriers they perceive as inhibiting issuing of bonds and describe how companies could use the bond market.

In order to fulfill the purpose, a qualitative method was used and interviews with different operators of the market were conducted. The respondents were sampled from issuing companies and the major intermediaries. The study analyzed subjects as cost, rate of return, size, capital market segmentation, regulations and volume.

The study concluded that the Ghanaian bond market is somewhat underdeveloped. This is due to the lack of public information regarding the bonds, such as prices, outstanding bonds and interest rates. There needs to be a review and more education of participants about the institutional and legal frameworks already in existence.

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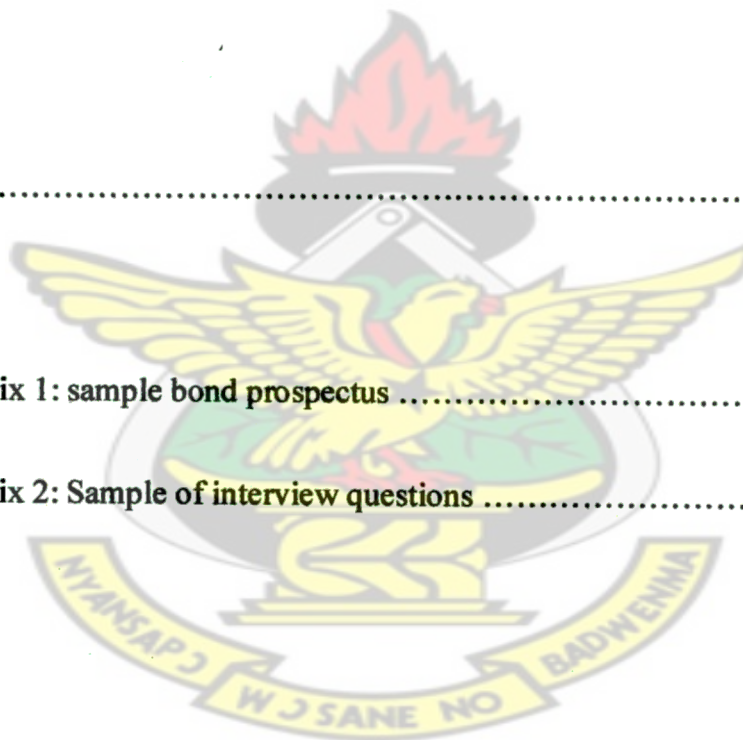


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## **LIST OF ABBREVIATIONS**

<b>BOG</b>	<b>Bank of Ghana</b>
<b>CMS</b>	<b>Capital Market Segmentation</b>
<b>FRN</b>	<b>Fixed Rate Note</b>
<b>GGILB</b>	<b>Government of Ghana Index Linked Bonds</b>
<b>GSE</b>	<b>Ghana Stock Exchange</b>
<b>HFC</b>	<b>Home Finance Company</b>
<b>IDA</b>	<b>International Development Association</b>
<b>IPO</b>	<b>Initial Placement Order</b>
<b>LDM</b>	<b>Licensed Dealing Member</b>
<b>MTN</b>	<b>Medium Term Note</b>
<b>OTC</b>	<b>Over the Counter</b>
<b>SCB</b>	<b>Standard Chartered Bank</b>
<b>SEC</b>	<b>Securities and Exchange Commission</b>
<b>SSNIT</b>	<b>Social Security and National Insurance Trust</b>
<b>WAAC</b>	<b>Weighted Average Cost of Capital</b>

## CHAPTER ONE

### GENERAL INTRODUCTION

#### 1.0 Introduction

This chapter gives the general introduction to the research, problem statement and research questions; and how the study will be conducted.

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#### 1.1 Background of the Study

In recent years there have been increased government policies towards economic development in the country. There has therefore been a call on private- public partnership towards the development of the country. Many policies have been formulated in this direction which has not yielded the expected results because of many problems among which include ability of the companies to raise the necessary capital for setting up and expanding their operations.

In order to grow, a company has to invest in many assets such as personnel, equipment and information. This investment stage is often very costly for the company, and the cash flow from the revenue-generating entities are seldom enough to finance all the new investments (Chorafas, 2005 quoted in Höglund et al, 2006).

To be able to finance these investments, the company either has to raise money from its shareholders (through initial placement order (IPOs)) or borrow to raise debt capital. Examples of those types of financing sources can be banks, venture capitalists or simply

private investors. The cumbersome procedure coupled with the high interest rates in the country and short term nature of loans makes it difficult for private businesses to secure loans from the bank. The capital market has therefore become the alternative for private businesses to raise long-term capital for financing their activities.

To achieve this, an instrument that can be used to keep the company's cost of debt down is by issuing bonds on the primary market. A bond is a loan that the bond purchaser, or bondholder, makes to the bond issuer. A bond is a security that obligates the issuer to make specified payments to the holder over a period of time. (Bodie Z. et al, 2004)

A well-functioning bond market can strengthen corporate restructuring through the provision of long-term capital and thus accelerate the growth of companies.

## **1.2 Problem Statement**

The bond market in Ghana until recently had been relatively inactive. For example Home Finance Company (HFC) which was the first company to issue corporate bond still remains the only issuer of corporate bond on the market. The Government of Ghana over the years has taken steps to revive the bond market through the introduction of additional bonds and the adoption of policies directed towards economic development so as to boost investment. Although the economic conditions have improved, there still remain some bottlenecks that could retard the growth of the bond market; these include:



- The blue-chip companies that can make successful issues are very few in Ghana.
- For the few eligible companies that exist, there is lack of ratings to guide investors in subscribing to the paper.
- The banks in Ghana are unwilling to grant back-up lines of credit as a guarantee to companies that want to issue bonds and other financial papers.
- The absence of institutional funds such as pension funds and mutual funds to invest in such papers. For those that exist, the relatively attractive returns on government paper offers them an easier way of investing their money. (Addision, 2008)

Bonds have been used as an alternative source of long term capital for financing corporate growth and investment instrument in many parts of the world since it offers a better rate of return than either the regular bank account or an investment in a government bond.

This was a starting point for this thesis as it sparked the researcher's interest in the subject. Compared to other bond markets like the US market, the numbers of companies that issue bonds are very small. This led the researcher to the question as to why there are few companies in Ghanaian bond market by analyzing the availability to the market for companies that have issued bonds before and companies that could be potential issuers in raising capital.

### **1.3 Research Question**

The research intends to answer the following broad question: How can the Ghanaian bond market be used to raise capital to finance company growth and expansion? Some sub questions that would help in answering the broader research question are:

- How liquid is the secondary market and how this affects the companies' decision to choose bonds when searching for financing?
- To what extent is the size of the company and issuing volume a vital factor when issuing bonds?

### **1.4. Objectives of the Study**

1. To find out the size of the bond market in Ghana.
2. To identify the participants in the Ghanaian bond market.
3. To find out the requirements for participation and regulation on the market.
4. To identify the problems participants face and possible barriers to entry.
5. To make recommendations on how to improve the current situation and analyze how companies in Ghana can use the Ghanaian bond market in raising capital.

### **1.5. Justification for the study**

Although the Ghanaian Bond market has been a source of financing for companies, it remains small and illiquid. Secondly, most companies have about 84 percent of the total debt coming from short-term sources (Yartey, 2006). This result has implications for financial stability as the reliance on short term debt makes the corporate sector highly

vulnerable to changes in the economic situation. Various studies and reports conducted by the World Bank and other people have also identified bond markets as important source of finance for funding company growth and expansion. This topic was chosen for several reasons; there has not been much research within the subject and also, most of the research on capital and financial market in Ghana has either excluded the bond market or has considered the bond market to a minimal extent. Secondly, the issue of the bond market is highly topical, as it has been identified as a means of raising long term finance.

### 1.6. Methodology

A primary research was conducted in institutions that are involved in the market. Interviews were conducted on managers of selected institutions who have issued bonds and major intermediaries. This was to help assess the current situation on the market and also identify areas in which the bond market was supporting and those that have been neglected. Data from the primary research were analyzed qualitatively. Secondary data sources such as journals, books, annual and periodic reports were also used to triangulate the data from the interview.

### 1.7. Scope of the study

Since the market is very complex with a large number of actors, without delimitations, this topic would be an endless field of research. To completely narrate the market and all relevant factors would be an impossible task and therefore, the researcher decided to limit the study in some aspects. The focus of the research is on companies that have outstanding



bonds and those who have not entered the bond market. All companies chosen are listed on the Ghana stock exchange. The researcher decided to do so since bonds and stocks are closely related. It is common that companies that issue, or would like to issue, bonds are already active in the securities market, and hence it is easier to choose a trustworthy respondent. The third group of respondents consists of the intermediaries, and since there are a lot of active intermediaries, the researcher made a selection here as well. The selection was based on how active they are on the market.

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### **1.9. Limitations to the study**

The Ghanaian bond market is still young and in its development stage and as such having access to large volume of data especially on secondary trading for analysis was a problem. Therefore most of the data used in the work were on primary issues.

### **1.8. Organization of the study**

This report will be organized into five chapters. Chapter one will consist of a general introduction, background to the study, statement of problem, statement of objectives, justification, methodology, scope of study, limitations and organization of the study.

Chapter two will be a review of relevant studies on the topic and related theories.

Chapter three will include the design of the research, sampling techniques used and the procedure used in the collection of data.

Chapter four will also include analysis of the data gathered; findings and discussion of results whiles the summary of conclusions and recommendations will be in chapter five.

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## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter provides a review of the theoretical literature on bonds, bond market and other theories that will be relevant for this study.

#### **2.1 Definition of Bonds**

A bond according to Brigham and Ehrhardt (2002) is a long term contract under which a borrower agrees of interest and principal to make payments of interest and principal on specific dates to the holder of the bond.

Madura (2006) puts it as a debt obligation with long-term maturities commonly issued by governments or corporations to obtain long term funds. Gan (2007) explains further by describing bonds as financial contracts that pledge to repay a specified or fixed amount of money, with interest paid to the lenders upon maturity of the contract.

According to Watson and Head (2007) bonds are medium to long-term debt instruments. Most bonds have maturities between 10 and 30 years. When a bond is issued, the price paid by the holder is either at par, discount or premium. Buying a bond at par means that the lender pays the face value (returning amount) of the bond. At discount means that the holder pays less than par and premium means that the holder pays more than par.

Regardless of the amount paid at issue, the lender will be given the face value back at closing date (Madura 2006).

A coupon bond obligates the issuer of the bond to make interest payments to the holder, on specified dates for the life of the bond. These payments are called coupon payments. When the bond matures, the issuer repays the debt by paying the bondholder the bond's face value. The coupon rate of the bond determines the interest payments. The annual payments equals the coupon rate times the bond's face value. The payments are usually done semi-annually (Bodie et al, 2000).

To illustrate this, a bonds face value is equal to 100 000 cedis the coupon rate is 8 % which gives an interest payment of 8 000 cedis a year. The holder of the bond receives 8 000 cedis a year throughout the life of the bond, e.g. 10 years, and also receives the face value of 100 000 cedis on maturity date.

Bodie et al, (2000) express fixed-rate bonds as fixed-income securities because they provide a fixed stream of income or a stream of income that is determined according to a specific formula. To them this type of bond is relatively easy to understand because the payment formulas are specified in advance.

Unlike loans which require periodic repayment of the principal and interest, bond coupon payment involves only interest payment with repayment of the principal or face value at maturity. This feature according to TetraVova, (2007), allows issuers to have more funds at its disposal to finance their activities.



Given the fact that total debt is the most important in a company's finance, the source of the debt is very important. Even though short-term financing is cheaper than long-term financing, they are riskier for a number of reasons. First, if a firm borrows on a long-term basis, its interest costs will be relatively stable over time, but if it uses short-term loans its interest expense will fluctuate widely, at times going quite high. Second, if a firm borrows heavily on a short-term basis, a temporary recession may render it unable to repay this debt. If the firm is in a weak financial position, lenders may not extend the loan, which could force the firm into bankruptcy (Yartey, 2006).

## **2.2 Types of Bonds**

There are several types of bonds based either on the issuer or the bond structure. To better understand the subject of this research, a brief descriptions of the most prevalent ones are discussed below;

### **2.2.1 Government Bonds**

Government bonds are issued by central governments to raise capital to finance government expenditure. Central Governments according to Coyle (2008) are major borrowers in the bond market. It is reasonable to assume that the government will make good its promised payments so these bonds have no default risk. The government bond sector is a broad category that includes 'sovereign' debt, which is issued and backed by a central government. A number of governments also issue sovereign bonds that are linked to inflation. In addition to sovereign bonds, the government bond sector also includes a number of subcomponents such as: agency and "Quasi-Government Bonds; emerging

market bonds issued by countries with developing economies and local government bonds. ([www.pimcobonds.com](http://www.pimcobonds.com))

Coyle (2008) explains that Government bonds have a very strong influence on the corporate bond market in the setting of interest rates on corporate bonds and prices companies have to pay to attract investors to invest their bonds. Government bonds are the backbone of most fixed-income securities markets in both developed and developing countries, they provide a benchmark yield curve and help establish the overall credit curve. Government bonds typically are backed by the “faith and credit” of the government, not by physical or financial assets (IMF and the World Bank handbook 2006).

### **2.2.2 Corporate Bonds**

Corporate bonds as the name implies, are issued by corporations. According to Gan (2007) Bonds issued by private entities or companies consist of debentures, secured (mortgaged bond) and convertible bonds. Unlike government bonds, corporate bonds are exposed to default risk, depending on the issuing company's characteristics and the terms of the specific bond. Default risk often is referred to as credit risk and the larger the default or credit risk, the higher the interest rate that the issuer must pay (Brigham and Ehrhardt, 2002).

Corporate Bonds is the next largest segment after the government bond sector in the bond market. Corporations borrow money in the bond market to expand operations or fund new business ventures. The corporate sector is evolving rapidly and is one of the fastest segments of the bond market, particularly in Europe ([www.pimcobonds.com](http://www.pimcobonds.com)).

When you buy a corporate bond you are lending the money to corporation that issued it. The corporation promises to return your money, or, principal, on a specified maturity date. Until that time, it also pays a stated rate of interest usually semi-annually to the bondholder. The interest payments received from corporate bonds are taxable. Unlike stocks, bonds do not give you an ownership interest in the issuing corporation.

Harper (nd) points out that, there is additional risk associated with investing in corporate bonds. Two of the most important ones are call risk and event risk. If a corporate bond is callable, then the issuing company has the right to purchase (or pay off) the bond after some minimum time period. If you hold a high-yielding bond and prevailing interest rates decline, a company with a call option will want to call the bond in order to issue new bonds at lower interest rates (in effect, to refinance its debt). Not all bonds are callable, but if you buy one that is, it is important to note the terms of the bond. It is important that, you be compensated for the call provision, with a higher yield.

### **2.2.3 Floating-rate Bonds (FRN)**

These are bonds that have variable interest rates that are adjusted periodically according to an index tied to short-term Treasury bills or money markets. While such bonds offer protection against increases in interest rates, their yields are typically lower than those of fixed-rate securities with the same maturity. Floating rate bonds are common with investors who are worried about the risk of rising interest rates, since the interest paid on such bonds increases whenever market rates rise (Brigham and Ehrhardt, 2002).

The major risk with floating-rate bonds has to do with changing credit conditions. The spread of the yield is set for the life of the bond, which could be many years. If the financial



health of the company deteriorates, then a greater yield premium would be required than is offered by the existing bond. In this case, the price of the bond would fall. The floating-rate bonds adjust to changes in the market rates but they unfortunately do not take changes in the financial condition of the company into consideration (Bodie, et al, 2000).

#### **2.2.4 Junk Bonds**

These are high risk bonds with high return because of the associated risk. Such bonds are issued by newer or start-up companies, companies that have had financial problems, companies in a particularly competitive or volatile market and those featuring aggressive financial and business policies. They pay higher interest rates than investment-grade bonds to compensate for the extra risk ([www.investinginbonds.com/learnmore](http://www.investinginbonds.com/learnmore)).

#### **2.2.6 Zero Coupon Bond**

There are, also, bonds called zero-coupon bonds, which do not give any interest payments during the life of the bond, but instead the bond is issued at discount, meaning that the issuer receives less money when the bond is issued. At maturity, the holder of the bond is paid face value and the income becomes the difference between the face value and the discount price paid when the bond was bought (Bodie et al, 2000).



## **2.3 Optionalities under Features of a Bond**

Gan (2007) states that, a bond may contain an embedded option; that is, it grants option like features to the buyer or issuer. According to him bonds with such options may have lower interest rate than bonds of similar maturity without these options. These options may include:

### **2.3.1 Call Provision**

Most corporate bonds have call provision, which gives the issuing corporation the right to call the bonds for redemption. Callable bonds, as Petroff (2008) puts it, have a "double-life", one when the bond is held till maturity and another when the bond is called for redemption before maturity. The call provision generally states that the company must pay the bondholders an amount greater than the par value if they are called (Brigham and Ehrhardt, 2002). The difference between the bond's call price and the par value is the call premium. The call premium is often set equal to one year' and the premium declines at a constant rate year after year (Brigham and Ehrhardt, 2002).

Lambert (nd) further explains that Callable bonds because they carry the risk of being cashed in early - often have a higher coupon rate. Although this may make callable bonds more attractive, call provisions can come as a shock. Even though the issuer might pay you a bonus when the bond is called, you might still end up losing money. Plus, you might not be able to reinvest the cash at a similar rate of return, which can disrupt your portfolio. Here we look at how a call can cause losses, what to look for in a callable bond and how to prepare for the possibility of your bond being called.

Call provisions have two uses. First, if market interest rates decline after a bond issue has been sold, and the interest the firm is paying is higher than the prevailing interest rates, the

firm could issue new bonds and use the proceeds to retire the previous issue by calling the old bonds. Secondly, a call provision may be used to retire bonds as required by a sinking-fund provision (Madura, 2006).

Fabozzi and Mann 2005, also states that the call provision adds additional benefit to companies, which might want to use unexpectedly high levels of cash to retire outstanding bonds or might want to restructure their balance sheet.

Bondholders normally view a call provision as a disadvantage because it can disrupt their investment plans and reduce their investment returns. As a result, firms must pay slightly higher rates of interest on bonds that are callable, other things being equal (Madura, 2006). However, bonds are often not callable until several years (generally 5 to 10 years) after they are issued. This is known as a deferred call, and the bonds are said to call protection (Brigham and Ehrhardt, 2002).

### 2.3.2 Convertible Bonds

A convertible bond gives the right for the holder to convert the par amount of the bond for a stated number of shares of the firm's common shares at a specified price or conversion ratio. Convertible bonds provide their holder the ability to benefit of the increase in stock price but this benefit comes with a price. For example a conversion ratio might give the holder the right to convert GH¢ 100 par amount of convertible bonds of a corporation into its common share at GH¢ 25 per share. This would be said to be "4:1" or four is to one. This conversion feature offers investors the potential for high returns if the price of the firm's common stock rises. Investors are therefore willing to accept a lower rate of interest on these bonds, which allows the firm to obtain financing at a lower cost (Madura 2006).

As HwangDBS' may 2009 publication on bonds puts it the embedded conversion option ("equity call") of a convertible bond provides an investor an opportunity to participate in the upside potential of its underlying equity. In other words it has the potential of high equity-like returns but with low volatility.

Convertibles which Cloutier (nd) describe as delayed equity financing gives several advantages to the company such as delayed dilution of common stock and earnings per share (EPS) and lower coupon rate - less than it would have to pay on a straight bond.

### **2.3.3 Put feature**

According to Ross et al (2004), while the callable bond gives the issuer the option to extend or retire the bond at the call date, the put bond gives this option to the bondholder. If the bond's coupon rate exceeds current market yields, for instance, the bondholder will choose to extend the bond's life. On the other hand if the coupon rate falls below the market rate, the bondholder will redeem the bond and not extend its life.

### **2.3.4 Sinking Fund Provision**

Sinking fund bond is a bond indenture that calls for the issuer to periodically repurchase some proportion of the outstanding bonds prior to maturity (Ross et al 2004). Bonds call for the payment of par value at the end of the bond's life. This payment constitutes a large cash commitment for the issuer. To help ensure the commitment does not create a cash flow



crisis, the firm agrees to establish a sinking fund to spread the payment burden over several years. Sinking fund provision facilitates the orderly retirement of the bond issue.

According to Fabozzi and Mann 2005 this provision provides the issuer the right to retire a proportion of its bonds from time to time. They add that there are three advantages of the sinking fund provision from the investors' perspective. First it ensures the orderly retirement of bonds so that final payment at maturity is not so large. Second, it enhances liquidity of debt especially for small issuers with thin secondary market. Third, the price of bonds with this requirement are presumably stable because the issuer may become an active participant on the buy side when price fall.

Fabozzi and Mann 2005 however points out two risks that investors who invest in bonds with this provision are likely to face when the bonds are retired before maturity. These risk are reinvestment risk of not finding a bond with similar coupon or interest rate to invest in and income risk of losing the income accruing from the coupon payment.

#### **2.4. Valuing Bonds**

Bond valuation is conceptually similar to the valuation of shares, capital budgeting projects or even real estate. The value of a bond is the present value (PV) of all cash flows to be generated by the bond in the form of periodic interest (or coupon) payments and principal payment to be provided at maturity.

The current price of a bond is the present value of its remaining cash flow (Madura, 2006). A bond price according to Fabozzi (1999), will change if the required yield changes (or the term structure of interest rate changes) or the expected cash flow changes.

The present value of a bond is calculated as follows:

$$\text{PV of bond} = c / (1+k)^1 + c / (1+k)^2 + \dots + c + \text{Par} / (1+k)^n$$

Where  $c$  = coupon payment provided in each period

Par = par value

$k$  = required rate of return per period used to discount the bond.

$n$  = number of period to maturity

This present value calculation depends on in turn on market interest rates. The nominal risk-free rate equals the sum of a real risk-free rate of return and a premium above the real rate of return to compensate for expected inflation. In addition, because bonds are not risk free, the discount rate will embody an additional premium that reflects bond-specific characteristics such as default risk, liquidity, tax attributes, call risk and so on (Ross et al, 2004).

## 2.5 Bonds Rating

Although bonds generally promise a fixed flow of income, that income stream is not riskless unless the investor can be sure the issuer will not default on the obligation. While government bonds may be treated as risk free, this is not true of corporate bonds (Ross et al, 2004). The creditworthiness of corporate bonds is tied to the prospects and financial capacity of the issuer. Corporate bonds fall into two broad categories: investment-grade and speculative-grade (also known as high-yield or 'junk') bonds. Speculative-grade bonds are issued by companies perceived to have a lower level of credit quality and higher default



The validity of bond rating as bond ratings are the principal source of investor information about the “quality” and marketability of issued debt has been questioned in recent times. Wakeman 1990 claims that the rating agencies only summarize the same data available to the public without providing any new data elements to the market. This is contrary to what the rating agencies say, they claim that their ratings include all publicly available data as well as some inside information that they are provided in strict confidence from the customer (Goh and Ederington, 1993).

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## **2.6 Determinants of Bond Safety**

Bond ratings are based on both qualitative and quantitative factors. According to Ross et al, the bond rating agencies base their quality ratings largely on an analysis of the level and trend of some of the issuer’s financial ratios. The key ratios used to evaluate safety are:

- Coverage ratio is the ratio of the firm’s earnings to fixed costs. For example, the times-interest-earned ratio is the ratio of earnings before interest payments and taxes to interest obligations. The fixed-charge coverage ratio adds lease payments and sinking fund payments to interest obligations to arrive at the ratio of earnings to all fixed cash obligations. Low or falling coverage ratios signal possible cash flow difficulties.
- Leverage ratio which is the debt to equity ratio. This ratio gives the proportion of the firm’s capital which is financed by debt. A too-high leverage ratio indicates excessive indebtedness, signaling the possibility that the firm may not be able to earn enough to meet its repayment obligation.



- Liquidity ratio measures the company's ability to meet its short term liabilities. The common liquidity ratios are current ratio and quick ratio.
- Profitability ratio measures the returns on equity. Profitability ratios are indicators of a firm's overall financial health. The return on assets is the popular of these measures. Firms with higher return on assets should be better able to raise money in capital markets because they offer prospects for better returns on the firm's investment.
- Cash flow to debt ratio is the ratio of total cash flow to outstanding debt.

Other factors such sinking fund provision, guarantee provision, product liability, labour unrest, regulations, maturity etc can also affect the bonds safety.

## 2.7 Bond Yield

The yield on a bond is the coupon payment or interest earned on the bonds. Bonds yields can be calculated in different ways. The different yields are:

- Yield to maturity according to Brigham and Ehrhardt, (2002), is the rate you earn for holding the bond to maturity date. Yield to maturity is the same as the market rate of interest. The yield to maturity can also be viewed as the bond's promised rate of return which is the return investors will receive if all the promised payments are made.
- Yield to call on the other hand is earned on callable bonds when they are called by issuing company. If current interest rates are well below an outstanding bond's



coupon rate then a callable bond is likely to be called, and investors will estimate its expected rate of return as the yield to call (YTC) rather than as yield to maturity (Brigham and Ehrhardt, 2002). The yield to call is calculated just like the yield to maturity except that the time until call replaces time until maturity, and the call price replaces the par value (Ross et al, 2004).

- Current Yield is the annual coupon or interest payment divided by the bond's current price.

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## 2.8 Yield Curve

Ross et al (2004) defines the yield curve as a graphical relationship between the yield to maturity and the term to maturity. The yield curve for corporate bond is affected interest rate expectations, liquidity and the specific maturity preferences of corporations issuing bonds (Brigham and Ehrhardt, 2002). The yield curve is upward sloping.

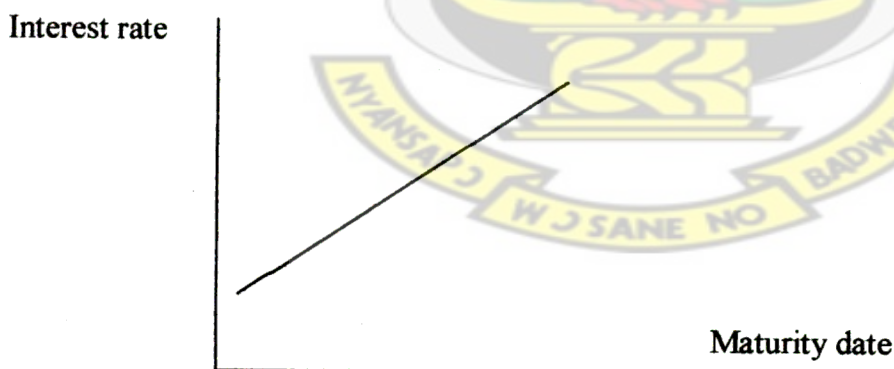


Figure 2.1 the yield curve source: Brigham and Ehrhardt, 2002

The shape of the yield curve can be explained by the theories discussed below:

## 2.9 Bond Market Theories

### 2.9.1 Expectations theory

The expectation theory asserts that the slope of the yield curve is attributable to expectations of changes in short-term interest rates and inflation. Relatively high yields on long-term bonds are attributed to expectations of future increases in rates, while relatively low yields on long-term bonds (a downward-sloping or inverted yield curve) are attributed to expectations of falling short-term rates (Ross et al, 2004).

### 2.9.2 Liquidity Preference Theory

A liquid asset is one that can be converted to cash easily and at a fair market value. An amount received today has a higher value than that one which is to be received in the future because funds received now can be reinvested to earn additional return (Watson 2007). Short term bonds have more liquidity than longer term bonds. Longer term bonds are subject to greater risk than short term bonds. As a result investors in long term bonds require a risk premium to compensate them for tying up their money for a longer period. The demand for higher return on assets perceived to be riskier causes the yield curve to be upward sloping (Ross et al, 2004).

Secondly longer-term corporate bonds are also less liquid than shorter-term debt; hence the liquidity premium rises as maturity lengthens. This is because short-term debt has less default and interest rate risk so a buyer can buy short-term bond without having to do as much credit checking as would be necessary for long-term debt. Thus people can move into and out of short-term corporate debt much rapidly than long-term debt. The end result is

that short-term corporate debt is more liquid, hence has a smaller liquidity premium than the same company's long-term debt (Brigham and Ehrhardt, 2002).

### **2.9.3 Market Segmentation theory**

This theory suggests that investors are not indifferent about investing in short term and long term bonds. According to Ross et al (2004), the market segmentation theory holds that long-term and short-term maturity bonds are traded in essentially distinct or segmented markets, each of which finds its own equilibrium independently. The activities of participants in the segments set the rates in the market. Both borrowers and lenders seem to compare long-term and short-term rates as well as expectations of future rates before deciding on whether to borrow or lend long or short term. Investors are willing to move into particular segment if it seems sufficiently profitable and meets their needs (Ross et al, 2004).

### **2.10 Capital markets and the Bond Market**

Capital market is a financial market where long term securities are traded. Long-term securities are securities whose maturities are more than a year such as bonds and debentures. Capital markets have two main functions. First, they are a place where long-term funds can be raised by companies from those with funds to invest. Secondly they allow investors to sell their securities, or buy new ones to increase their stock (Watson et al, 2007).

The bond market is by far the largest securities market in the world, providing investors with virtually limitless investment options. (Pimco bonds Publication, June 2005) Corporate bonds are traded primarily on the over-the-counter market. Most bonds are owned by and traded among large financial institutions such as pension funds, life insurance companies and mutual funds. It is relatively easy for bond dealers to arrange the transfer of large blocks of bonds among relatively few holders of the bonds compared with trading shares on the stock market.

Bond markets worldwide, according to IMF and World bank handbook 2006, are built on the same basic elements: a number of issuers with long-term financing needs, investors with a need to place savings or other liquid funds in interest-bearing securities, intermediaries that bring together investors and issuers, and an infrastructure that provides a conducive environment for securities transactions, ensures legal title to securities and settlement of transactions, and provides price discovery information. The regulatory regime provides the basic framework for bond markets and, indeed, for capital markets in general. Efficient bond markets are characterized by a competitive market structure, low transaction costs, low levels of fragmentation, a robust and safe market infrastructure, and a high level of heterogeneity among market participants. Investors in developed government securities markets can range from wholesale domestic and foreign institutional investors to small-scale retail investors.

### **2.10.1 The Primary & Secondary Market**

The bond market is made up of primary market where bonds are issued for the first time and the secondary market where bonds are traded among investors.



Secondary markets provide liquidity and facilitate price discovery as well as asset reallocation. The secondary market plays a key role in corporate finance, because by facilitating the buying and selling of securities it increases their liquidity and hence their value. Investors would pay less for a security that would be difficult to sell at a later date. The secondary market also serve as a source of pricing information for primary market and so help to increases the efficiency with which the primary market allocate new funds to their best use (Watson et al, 2007). These functions are important for the operation of the corporate bond market.

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### 2.10.2 The Investors

The dominating holders of bonds are the institutional investors. Examples of those can be insurance companies, pension funds, banks and mutual funds (Ross et al, 2004). The institutional investors normally buy large amounts of the issue and the bonds left become available to the private investors (Ross et al, 2004). In Ghana Social Security and National Insurance Trust (SSNIT) is the major pension fund on the bond market.

When comparing the firm's stockholder with the bondholders there are some differences. First, the bondholder has a priority claim over the firm's assets (Ross et al, 2004). This implies that the issuing firm has to pay interest to its bondholders before any dividends could be distributed among the stockholders, with exception of preferred stock holders, if any. Interest is not the only income the buyer could retrieve, but also a possible gain or loss realized either on maturity of the bond or when the bond is sold before maturity (Ross et al, 2004).



**2.10.3 The Intermediaries**

There are many active intermediaries within the field of finance. They could be divided into two groups, the ones that act as intermediaries on the securities market and the ones that create their own financial products and markets (Watson and Head, 2007).

The first group is often called agents; brokers, dealers and market makers are included in this group. Brokers bring buyers and sellers together while dealers both bring them together and make transactions for their own account. A market maker guarantees the market and sets prices. The two types of intermediaries fill different functions, and the function of agents is to increase the efficiency of the market and decrease information and transaction costs. Banks are very diverse and offer different services, and could be classified as both types of intermediaries (Ross et al 2004).

Banks' role as an intermediary is both to find investors for an issuing company and to set prices as a market maker. This is illustrated in the figure below. One important piece of their role as an intermediary is to **guarantee the investor to close the position**, which means that they buy the bond back from the investor (Watson et el, 2007)

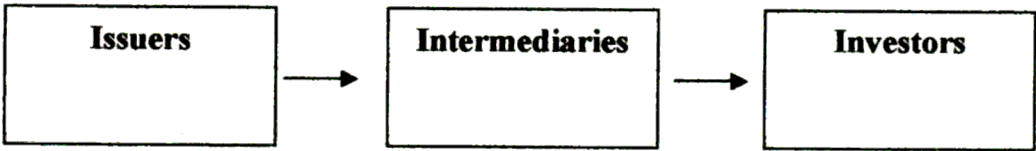


Figure 2.1: Model of the Intermediaries' role. (source: Höglund et al, (2006))

#### **2.10.4 Importance of the Bond Market**

From a macroeconomic policy perspective, the lack of a bond market places constraint on the financing of fiscal deficits, while bond markets provide useful market signals for macroeconomic policy. Domestic debt is also needed for monetary policy purposes, including for sterilising inflows of foreign exchange. Bond markets help to provide countries with means of financing developments from domestic sources and hence reduce their vulnerability to external economic changes.

Even if foreign debt is significantly cheaper than domestic debt, the latter is easier to roll over than foreign debt, and there is no foreign exchange requirement. The greater the degree of foreign indebtedness, the more vulnerable a country is to cessation of loans or foreign exchange crisis.

The existence of a well developed bond market also provides greater investment opportunities for both retail investors and financial institutions, and helps deepen financial markets. This is particularly the case if foreign investors are attracted. This will help issuers especially companies to have access to capital to finance their activities leading to corporate growth and the development of the economy as a whole.

Bond markets also help to provide interest rates across the maturity spectrum and a more efficient pricing of risk. By providing an alternative source of financing, they reduce concentration of intermediation in banks. Because lending can be hedged in the bond market, banks have the ability to lend longer.

The usefulness of domestic debt markets can also be seen in the context of countries that are dependent on aid flows. International aid is often linked to project financing and can therefore not finance capital projects not supported by the donors. Furthermore, the supply of foreign financing is uncertain, and dependent on the aid agencies' budgets and assessment of economic performance in the recipient country.



## **CHAPTER THREE**

### **METHODOLOGY AND ORGANIZATIONAL FRAMEWORK**

#### **3.0 Introduction**

This chapter describes the choice of research method in order to achieve a good result for the thesis and the motivation for the choice of method and present some criticism on the choice. Further on there will be the conceptual framework and the organizational framework of the Ghanaian bond market.

#### **3.1 Research Design**

Research can be defined as something people undertake in order to find out things in a systematic way, thereby increasing knowledge (Saunders et al, 2007). The research design is general plan of how the researcher will go about answering the research question. It deals with the way or techniques that a researcher uses in answering the research questions and meeting the objectives. According to Sekaran, (2000) as quoted by Höglund et al, (2006) the decision of choosing the right research method can be viewed as a choice of the right tool from a toolbox. The proper tool, or research method, is one that has evolved from the problem. After deciding on a topic and purpose for this thesis, the researcher had to determine a proper way of how to address the problem.

In this case, the study was conducted in an area that is in the developing stage and not completely explored. To have a clearer understanding and knowledge of the current situation of the Ghanaian bond market the researcher decided to conduct an exploratory research using qualitative technique. An exploratory research is a valuable means of finding



out what is happening; to seek insight; to ask question and to access a phenomena in a new light' (Robson, 2002:59 as stated in Saunders et al, 2007 ). Exploratory research is particularly useful where the researcher wish to clarify his understanding of a problem, such as, if he is unsure of the precise nature of the problem.

Three principal ways of conducting exploratory research are a search through literature; interviewing experts in the subject and conducting interviews. Its major advantage is that it is flexible and adaptable to change (Saunders et al, 2007).

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### **3.1.1 Qualitative Techniques**

Qualitative research uses non-numeric data or data that have not been quantified. Unlike quantitative data that derive its meaning from numbers, qualitative data derive its meaning from words. They are characterized by their richness and fullness based on your opportunity to explore a subject in as real a manner as is possible. A contrast can be drawn between the “thin” abstraction or description that results from quantitative data collection and the “thick” or “thorough” abstraction or description associated with qualitative data (Saunders et al, 2007).

One of the most common examples of qualitative research methods is an interview. The questionnaire, or any similar instrument used in the research should be tested before taken into use. The value of the data provided from qualitative research depends on researcher and respondent as they can introduce biases into the responses (Höglund et al, 2006).

### **3.1.2 Sampling procedures**

Since the researcher used an exploratory approach to address the purpose, respondents that could answer questions properly were needed and therefore the main sampling procedure

used in the research was purposive or judgmental sampling. In order to get an accurate picture of how the Ghanaian bond market works and how the actors perceive the availability of the market, the researcher had to find suitable interviewees. The researcher wanted different opinions from different segments of the market and therefore started by contacting a major intermediary in the Ghanaian financial market that is the Ghana Stock Exchange (GSE). They in turn introduced the researcher to companies that are major actors in the Ghanaian bond market and those companies were contacted.

### **3.1.3 Data**

As stated in the introductory chapter, both primary and secondary data were used. A primary research was conducted using semi-structured interview to gather primary data for analysis. There was also informal interviews to gather data that participant may be reluctant to provide in the formal interview. This was to enable the researcher to get a clearer view of the conditions in the market.

Secondary data sources that were used include journals, materials from the GSE library, and annual reports of GSE, SEC, and the BOG who are the main regulators of the market. Textbooks, published work on the internet were also consulted.

### **3.1.4 Data collection procedure**

The data collection techniques employed included interviews and documentary evidence. The interview was in the form of semi-structured interview. In semi-structured interviews the researcher will have a list of themes and questions to be covered, although these may vary from interview to interview. This means that you may omit some questions in

particular interviews, given a specific organizational context that is encountered in relation to the research topic (Saunders et al, 2007:313).

### **3.1.5 Data Analysis**

After data had been collected, the next stage was editing and data modification for processing and analysis. Qualitative method was used for analysis to access the activities and trends in the bond market.

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### **3.2 Conceptual Framework**

Since this research is to find out how bond markets can help finance corporate growth, the work would have to identify the different factors that affect the bond market. The researcher decided to face this problem with the market intermediaries and the issuers as the essential base for the research. The model below is an overview of the perspective of this thesis. In order for a market to exist, there has to be a supply, and the task of the researcher was to see what the potential problems there are when issuing bonds.

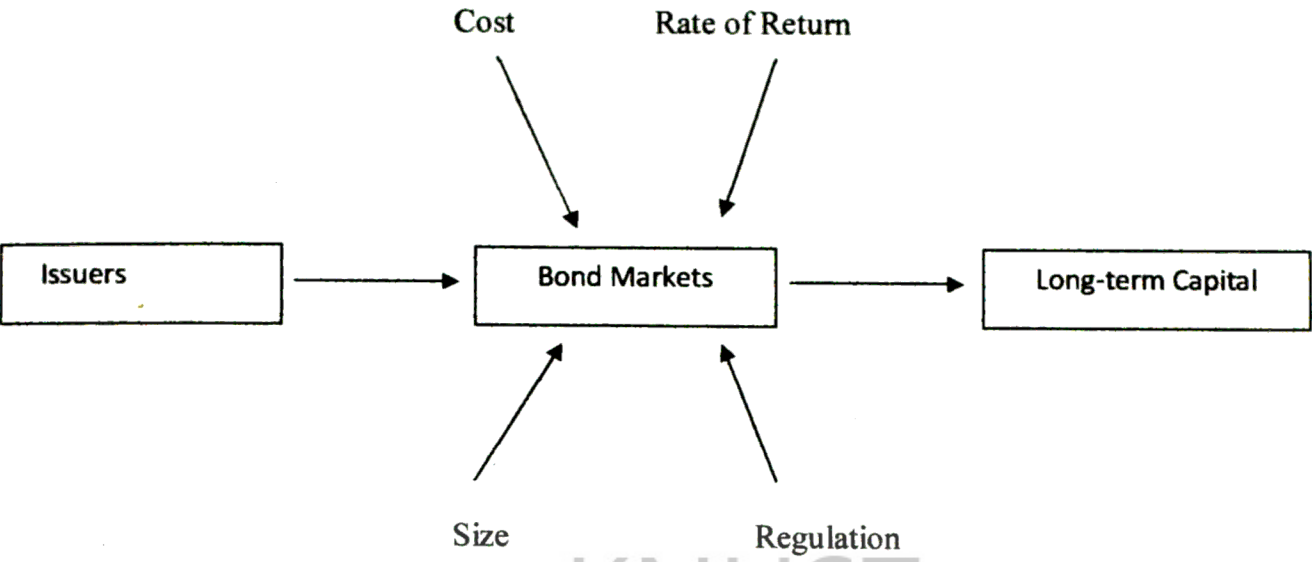


Figure 3.1 Conceptual framework model (adopted and modified from

Höglund et al, (2006)).

There are many factors that influence and affect the availability of the bond market. Factors that affect the issuer in this process can be regulations set by authorities (the government and Securities Exchange Commission), costs dependent on what volumes the company would like to issue. The rate of return on the corporate bond is also of importance to the investors. The availability is also dependent on the size of the company. In order to examine and analyse how the Ghanaian bond market can facilitate companies' growth, the report would have to sort these factors out. Since this subject is very wide and there are many different angles and aspects the researcher decided to do some delimitation. The researcher therefore chose the factors in the conceptual framework.



### **3.4 The Ghanaian bond market**

Capital markets are developing quickly in Ghana and are centered on the Ghana Stock Exchange (GSE) which started operations in 1990. As of March 2007, the GSE had some 32 listed companies, with a market capitalization of approximately GHC 112 trillion (USD 12 bn). The GSE sets the rules and regulations for companies and other entities seeking to be publicly listed on the GSE. The GSE is governed by a Council (Board of Directors) with representation from licensed dealing members, listed companies, banks, insurance companies and other eminent and competent persons of the Ghanaian finance and public service sectors.

#### **3.4.1 Regulations in the Process of Issuing Bonds**

The legal framework of the capital markets is defined by the Securities Industry Law, PNDC Law 333 of 1993 (amended in 2000 as Securities Industry Amendment Act, Act 590) and the Securities and Exchange Commission (SEC) Regulations (2003) L.I 1728. Other major laws that directly affect the activities of participants at GSE are the companies' code, 1963 (Act 179), the Banking Law, 1989(P.N.D.C.L 225), the financial institutions (Non-Banking) law, 1993 (P.N.D.C.L 328) and Exchange Control Act, 1961 (Act 61).Two major institutions oversee the regulation of the market:

- The Bank of Ghana
- The Securities and Exchange Commission

The SEC acts as the primary regulator of capital market activities in Ghana. The GSE has its own separate regulations that govern admissions to listing securities on the stock exchange.

### 3.4.2 Participants

The Securities and Exchange Commission (SEC) is the main regulator of the securities market. SEC provides the regulatory framework for the market in order to protect the interest of participants and make it attractive to new entrants.

There are about 16 licensed dealing members (LDM) who serve as intermediary to the market. The LDMs play the role of sponsors, brokers and underwriters. The investors in the market include institutional investors like SSNIT, insurance companies, commercial banks and individual investors.

### 3.4.3 Size of the Market

The government is the main issuer of debt securities. Bonds listed on the local exchange comprise of longer-dated government securities (maturities of two years and above) and a few corporate bonds which were issued by the Home Finance Company Limited in series. Most of the issues are primary issues. Standard Chartered Bank Ghana (SCB) 2007 joined the market by issuing a medium term notes (MTN) which was also listed on the GSE.

Trading in the secondary market is limited because of the “buy and hold” attitude of most of the investors in the market. The low activity in the secondary market caused the government to introduce the Government of Ghana Index Linked Bond (GGILB) in 2001. This issue was used as a means of restructuring the country’s domestic debt. Ghana issued the first sovereign bond in 2007 (Addison, 2008). In addition to the introduction of more bonds, various policies directed towards economic development have been adopted to improve the economy so as to boost activities in bond market. By the end of 2007, the outstanding value of Government of Ghana Bonds listed on the GSE amounted to

GH¢1.333.07 million whilst the only corporate bond by HFC bank stood at US\$ 6.40 million ([www.secghana.org](http://www.secghana.org))

The table below shows the value of Ghana Stock Exchange (GSE) listed bonds as at December, 2007.

Table 1: Value of Ghana Stock Exchange (GSE) Listed Bonds

Year	Government Bonds (GH¢ million)	Corporate Bonds (US \$ million)	SCB Medium- Term Notes (GH¢ million)
1991	0.50	-	-
1992	0.50	-	-
1993	0.50	-	-
1994	0.50	-	-
1995	-	-	-
1996	-	2.55	-
1997	-	4.8	-
1998	-	6.8	-
1999	-	9.5	-
2000	-	11.01	-
2001	100.37	10.2	-
2002	132.69	10.98	-
2003	144.24	8.98	-
2004	51.63	6.28	-
2005	22.50	8.78	-
2006	326.15	2.5	-
2007	1.333.07	6.4	35.00

(source: Addison, 2008)



#### 3.4.4 Listing Regulation and Procedure for the Ghana Stock Exchange

The rule of the Ghana Stock Exchange sets out the regulations for listing and the conduct of members of the exchange. The primary requirement of companies requiring listing on the exchange is to register as a public limited liability company with the registrar of companies in accordance with the companies code, 1963 (Act 179). Companies are also required to have a minimum stated capital of at least ten billion (GH¢10 million) in the case of first listing and five billion (GH¢5 million) for subsequent listings.

In addition to the general or basic requirements, companies seeking admission of loan securities to the loan security list may be considered for admission if each class of debt security has a total issued nominal value of not less than 10 billion (GH¢100 million) or if there are at least 50 holders of the security. Also loan securities other than government securities for which listing are sought shall be created and issued in pursuant to the Trust Deed duly approved by the Securities and Exchange Commission (SEC).

First, the shareholders of the company must meet and pass a resolution on the decision to list on the exchange. The applicant company has to appoint a Licensed Dealing Member (LDM) of the exchange as a sponsor. The sponsor will investigate the company to ascertain whether it meets the requirement of the exchange. The sponsor will also investigate if the company has a competent board of directors who will ensure that the activities of the company are conducted properly.

When the sponsor has satisfied itself that the company is in good standing and that all the necessary information needed to take a decision on the listing are ready, it shall submit the application on behalf of the applicant company. Supporting documents such a trust deed



structured by the sponsoring LDM such as the one in appendix 1 and approved by SEC and one copy of the mortgage indenture where applicable, or equivalent instrument certified by the trustee is filed together with the application.

Approval of an application is usually within 20 business days and is a matter solely at the discretion of the council. Once approval has been obtained, dates for the launch of public offer, allotment and trading on the floor of the GSE are set.

Pricing is usually through negotiation with prospective investors. The bond manager will have to identify the lead investor who will negotiate and bring others on board.



## **CHAPTER FOUR**

### **DATA ANALYSIS, FINDINGS AND DISCUSSIONS**

#### **4.0 Introduction**

This section will combine the theoretical framework and the empirical data in order to analyze the subject according to the purpose of this research. The researcher started by describing the market to give the reader a review and then worked downwards by describing the issuers, bonds available on the Ghanaian market, the attractiveness of the market and then finally the focus of this thesis, the availability to the market for the companies.

In order to find out how participants perceive the availability of the bond market the researcher used semi-standard interviews. The interviews conducted with the intermediaries and the major issuers which will be the foundation of the analysis will be summarized in the initial paragraphs. The questions asked are found in the appendices.

#### **4.1 Summary of interviews**

##### **4.1.1 Issuer Interview- HFC Bank Ghana Limited**

Information in this section was from an interview with respondent at HFC Bank, conducted on April 3, 2009

HFC Bank Ghana limited, as a Universal Banking institution, was licensed in November 2003 to provide banking services to its valued customers. It evolved from a mortgage finance institution with mortgage financing as its core business. This remains one of the bank's core business activities in addition to Commercial and Investment Banking services.

In this regard, HFC Bank was playing several pioneering roles in the development of Ghana's financial market. Through its banking and investment management operations, a wide range of financial and investment services were offered to individuals and corporate entities. Funds management, Brokerage, Property management, Current and Deposit accounts and all forms of credit facilities are available.

The Bank previously Home Finance Company, got a GSE listing in March 1995. It has both shares and bonds listed on the GSE. The bank was the first to issue corporate bonds and still remains the only company with a bond listed on the GSE.

The largest shareholders as at December 31st 2003 were: Social Security and National Insurance Trust (SSNIT), Union Bank of Nigeria Plc, Ghana Union Assurance Company Limited, State Insurance Company of Ghana, Financial Investment Trust, MIHL/Union Homes Savings & Loans Limited (Nigeria), MIHL/Union Homes Pension Fund (Nigeria), Ghana Reinsurance Company and HFC Unit Trust (HFC Bank Website).

### **Interview Summary**

HFC started to issue bonds to finance their Cedi and Dollar mortgages. Because of the nature of their major activity, that was mortgage financing, the bank needed a long term facility. The company saw the opportunity with bonds and thought it was a good alternative to available sources capital. HFC Bank made its first shelf registration of bonds on the GSE on 17 September 1996. The bank also has other bonds not listed on the GSE. These are Social Security and National Insurance Trust Bonds and Ghana Government Bonds, which

was lent to the bank out of the proceeds from the loan granted by International Development Association (IDA).

Even so, HFC do see some drawbacks with bonds. The company recognized that there was a limited set of documentation about the bond available, but on the positive side they have the possibility to choose the amount to issue, just to fulfill that certain need. Presently, a total of 80 % of HFC's mortgage financing activity was financed through bonds.

Although HFC already has a well functional way of financing its mortgages through bonds they still see difficulties with the regulations set by the Bank of Ghana, Supervisory Authorities (SEC and GSE), and the administration concerning the issuing procedure. Since issuing of bonds and shares are closely related, it has a financing department that takes care of both procedures.

When deciding on which bond to issue the intermediaries' advice was good to be taken into consideration. The intermediary also mediates the requests from the investors' side concerning time of the bond, interest level and volumes desired, which was highly important in the issuing procedure. HFC mostly uses FRN bonds, which was a bond with a floating interest but it also use bonds with a fixed interest. At a couple of occasions HFC also used the callable bond. The regular bond was mixed with an option and it had the possibility to buy the bond back within a certain time or when it reached a certain level. HFC finds it quite expensive with the costs associated with the issuing procedure, but still worth the money. The primary costs related to the issuing procedure are:

- Preparing a prospectus for the bond issue.
- Fees to Securities and Exchange Commission



- Fees to intermediaries.
- Fees to Ghana Stock Exchange for listing the bond
- Administration

HFC uses different intermediaries when they issue their bonds, they practically use all the large middlemen on the market, Databank Ghana Ltd, HFC Brokerage services, Merchant Bank Ltd, Renaissance Capital and the GSE. This gives them the possibility to use all the contacts established by each intermediary.

When asked about the effect of the low secondary market activity on their bonds, HFC said it really does affect them because it makes it difficult for them to price their bonds. To overcome this problem the intermediaries have to first identify a lead investor who will negotiate the price for the bonds issue and bring others on board. HFC thinks the liquidity on the secondary market was good for issuers and investors alike but generally there are few bonds that make it to the secondary market. Most investors tend to hold the bond to maturity.

Investors in the HFC bonds include institutional investors - Pension funds, Insurance companies- Financial institutions –Banks, Brokerage House and individual investors.

### **Problems with Bond Issuing**

HFC identified costs, regulation, finding investors and pricing as problems with issuing bonds. They however hinted that the intermediaries help them overcome most of the problems. For instance the lead managers help them to prepare the prospectus to meet the requirement of the regulators.

They also identified flexibility with repayment of principal, long term funds and maintained ownership as advantages with the use of bonds as a source of finance.

#### **4.1.2 Intermediary Interviews- Ghana Stock Exchange**

The Ghana Stock Exchange was established in July 1989 as a private company limited by guarantee under the companies' code, 1963. It was given recognition as an authorized stock exchange under the Stock Exchange Act of 1971 (Act 384) in October 1990 to provide the facilities and framework to the public for the purchase and sale of securities in the country and also to regulate the dealings of members with their clients and other members.

Trading on the GSE commenced in 1990. It currently has 39 listed companies whose shares and bonds are traded on the floor of the exchange. These listed companies commit to disclosure standards and compliance with regulations.

#### **Interview summary**

GSE did not give any typical description of companies that use corporate bonds. Instead, they claim the vast majority to be considerably large firms. The industry, GSE explains, can be any kind, but currently the mortgage sector dominates the Ghanaian bond market.

The most important advantages of using bonds are that it is simple to construct, provides long term funds and a flexible source of financial resources at a rather low cost compared to other alternatives.

Further, GSE describes another advantage for the issuing firm as whereas bonds and stocks provide long-term capital, the bonds do not come with the same obligations as stocks do. Examples of those obligations are dividends and increasing financial performance. The

bondholder only cares for that the coupon is retrieved and that the initial amount is repaid at maturity. The possible drawback of bonds was that it increases the company's debt and hence it's gearing.

GSE mentioned banks and brokerage houses as the intermediaries in the market. These intermediaries provide the potential issuer with all information needed. They also provide advice as to when and how to use bonds to improve its clients financing. GSE also believes that the actively issuing companies in general have sufficient knowledge about bonds. Moreover, GSE ensures that the companies benefit greatly by issuing bonds in good times to be prepared for the future, and possible worse times. In this sense, GSE claims bonds to be a great way of getting a rather flexible low-cost financing.

### **The Market**

According to GSE, the market of bonds has grown steadily since 1995 when HFC issued the first corporate bond with Standard chartered Bank joining in 2007 with a medium term note (MTN). Further, GSE argues that the corporate issues have not been as expected. For example HFC bonds still remains the only corporate bond on the market. One reason for this, GSE claims, was the absence of bench mark rates due to low government issues. This GSE said makes it difficult for companies to know the rates to use for their bonds.

Another factor was the banks' situation. When the banks have a surplus of money they need to lend it and GSE argues that companies that could issue bonds are the ones borrowing this excess. These loans are granted on favourable terms to theses companies Concerning the future of corporate bonds, GSE believes that the market will continue to grow as Ghanaians are more comfortable with using loans which does not affect the ownership pattern of their

businesses but one must bear in mind that this development fluctuates with several factors, especially the interest rate level and the cash reserves of the issuers.

The greater majority of the investors buying the bonds are institutional investors, such as pension funds and insurance companies with the majority of the bonds being listed. Though, some of the Private Placements, with smaller amounts of capital issued through bonds, are not listed.

### **Problems with bond issuing**

GSE explains that being a regulator and an intermediary was a work built upon trustworthiness and good business ethics. If GSE would let a company with a pessimistic financial future issue bonds, its trustworthiness would be harmed if the issuing company defaults.

Therefore, the one reason for not letting a potential company issue and list bonds was that the GSE want to reduce default, build investor confidence and protect the market.

## **4.2 Analysis**

### **4.2.1 The Market**

The bond market in Ghana seems to be a bit underdeveloped when it comes to access to present information about the bonds such as prices, amount of outstanding bonds and interest rates. This could possibly be a result of the fact that the Ghanaian bond market has been dominated by a few actors, for instance HFC remains the only corporate bond issuer with Standard Chartered Bank (SCB) being the latest to join with a Medium Term Note



(MTN) (SEC Annual report, 2007). Another proof that the secondary market was relatively small and inefficient, and hence the need for up-to-date information, is that most of the bonds are purchased by institutional investors and most often held to maturity, according to GSE.

Issued bonds are almost always sold directly to investors through the intermediary, which acts as the market maker, ensuring that investors can close their position if they want to. However, the liquidity was harmed when the bank acts as a market maker as the spread increases the total cost of the issue.

According to GSE and SEC, the market on the issuer side apart from Government, was all about HFC which comprise almost 100% of the Ghanaian corporate bond market. Large companies, listed on the stock exchange, who could issue bonds, turn to their bank for a bilateral or convertible loan or to their shareholders to issue new shares when they want external financing. This was because such companies due to their reputation are able to negotiate attractive and relatively lower interest rates with their banks. This makes them reluctant to issue bonds.

Another problem in the Ghanaian market was absence of credit rating agencies and other supporting services.

#### **4.2.1.1 Capital Market Segmentation in the Ghanaian Bond Market**

A possible explanation for why the bond market appears underdeveloped could be the theory of Capital Market Segmentation (CMS); i.e. the Ghanaian market was segmented from, for example, the European and the US market. Data gathered shows that the volume issued in Ghana was highly dependent on the general economic trend in Ghana and, obviously, the interest rate. Many of the market imperfections that could be correlated with

CMS are evident on the Ghanaian bond market. Examples are; the lack of transparency and the high transaction costs. Note that this research could not prove if the Ghanaian bond market was segmented or not since it would require statistical tests on a large sample of data.

CMS would help to explain certain actors' behavior, especially if there was asymmetric information between domestic and foreign actors. Foreign companies constituted do not have bonds on the Ghanaian bond market. Even foreign companies with subsidiaries in Ghana prefer to source funds from parent and other subsidiaries. This suggests that the companies do not see the Ghanaian bond market as capable of providing the funds they need.

#### **4.2.1.2 Effects of the Economic Trend**

After interviewing the intermediaries, the researcher found the bond market to be closely connected to the economic trend. In periods of economic stability, the market performance increases. For example between 2001-2007 when there were favourable macro economic indicators such as steep fall in inflation rate, stable exchange rate, interest rates decline, and significant build up in the Gross International Reserves the market recorded significant improvements. Government 5-year bonds that were issued in 2007 for instance were oversubscribed. In the same period also the Government of Ghana had a successful international bond issue (Addison, 2008).

#### **4.2.1.3 Liquidity of the Market**

Liquidity of bond market was determined by the size of issue, the strength of investor demand, willingness of existing investors to sell and the commitment of dealers of each

particular issue (Coyle, 2008). The Ghanaian bond market being still in the developing stage was illiquid. The majority of the respondents interviewed have expressed very much interest of liquidity in the secondary market.

Activity on the issue slows down after the allotment and closing of the bond issue. Investors' mainly institutional investors prefer acquiring the bonds as long term investments and for the benefit of receiving regular income in the form of interest payments. The buy and hold attitude of institutional investors in the market affects its liquidity.

There was also limited demand for long term bonds investment instruments such as bonds. This was partly because life products which required long term investment were for a long time not present in the country and SSNIT the largest investor was not commercially oriented and as such it did not consider changes in yields on the bonds as an incentive to sell.

The major benefit, stated by GSE, was that a good liquidity makes the buy-back of bonds easier and improves the bond's yield which was presently a problem. The general opinion was that the liquidity was presently a problem point of view of all respondents. GSE stated that secondary trading was very low for example; no trading was recorded for corporate bonds in the first quarter of 2008. The low secondary trading affects pricing of bonds and makes it unattractive to present and prospective investors.

## **4.2.2 Market Participants**

### **4.2.2.1 The Issuers**

The main issuers in the Ghanaian bond market are the Bank of Ghana which issues on behalf of the Ghana of Government and two Banks HFC Bank Ghana Limited and Standard



Chartered Bank Ghana Limited. Thus apart from the Government, banks are the only issuers excluding other sectors.

#### **4.2.2.2 Investor base**

The investors are mainly institutional investors and individual investors with the former having a greater percentage. One of the reasons for the low secondary market activity was that these institutional investors hold on to the bonds till maturity. The institutional investors also prefer the OTC market to the exchange market because it offers them contracts that serve their needs.

Secondly, the market has high proportion of the investors being resident in Ghana. This has been attributed to the unstable exchange rate experienced in the country over the years. This makes it difficult for the foreigners to estimate the value bonds at maturity.

The absence of large foreign investors affects the efficiency of operations on the market. Through the positive pressure they place on the quality and services of intermediaries and their emphasis on sound, safe, and robust market infrastructure, they have contributed to the development of national capital markets in many countries.

#### **4.2.3 Types of Bonds**

After interviewing the respondents, the researcher understood that the most common bonds used are fixed rate and floating rate bonds. When the respondents are deciding on which bond to issue, they listen to the intermediaries' advice and look for the need from the investors. According to the respondent at HFC, they already tried to use other structures than fixed and floating rate bonds. The alternatives which they are presently using are callable or convertible bonds where holders are permitted to apply their bonds as a down



payment for an approved HFC mortgage in the final year of the term of the bonds. Also based on the advice of their lead manager and sponsor, HFC decided to issue its bonds in series and use proceeds to finance refunding operations in order to meet investors need for medium term investments. For example from appendix I, the HFC's Housbond series F was issued to refund a previous issue – series E.

Bank of Ghana bond and Standard Chartered Bank's MTN have not used other types than the ones mentioned earlier that was fixed and floating rate bonds.

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#### 4.2.4 WACC & Debt Flexibility

To maximize the value and profitability of the company, one way is to minimize the Weighted Average Cost of Capital (WACC). A step to achieve this is to ensure that the Cost of Debt was kept at a minimum by an efficient management of the company's debt portfolio. Chorafas (2005) argues that a flexible and diversified debt portfolio was a prerequisite for cost minimization. This was affirmed by the empirical data as a majority of the respondents claimed that a major reason for issuing bonds was that "It is not a bank loan", as HFC put it.

Another notion from empirical data gathered, is that, most of the companies issue bonds with various maturities and sometimes different structures for different situations.

This would strongly support the perception that bonds are used not only to decrease the WACC, but also as a diversifying instrument to easily handle and, if necessary, change leverage and debt composition.

Finally, bonds are priced by the market, which was a good complement to bank loans.

An advantage of this was the case when the market and the bank could evaluate the expected default risk differently which results in different prices. Such a situation could easily occur for companies who want to issue bonds since there are rating agencies; hence, each bank taking a lending has to evaluate the risk which may increase the cost of borrowing for the companies. Also, respondents, see added value in having more stakeholders beside banks. The reason for this was perhaps less pressure from the lenders if the debt was shared by many investors instead of one large bank or a syndication of banks.

#### **4.2.5 Availability**

Concerning the availability of bonds in Ghana, there can be many explanations to the prevailing market. The dominating issuer interviewed expressed a number of obstacles when issuing bonds. The major barriers of entry to the bond market found, without mutual order, are:

- Regulations and Documentation Requirements
- Volume & Costs
- Rejection of Issuers
- Knowledge
- Absence of Credit Rating Agencies and other supporting services

##### **4.2.5.1 Regulations and Documentation Requirements**

As briefly described in chapter 3.4, the process of issuing bonds involves some regulations and documentation requirements. The fact that the issuing company is required to construct a comprehensive prospectus makes the bond market a bit less accessible for companies with a small need of capital. The researcher believe these regulations to be somewhat

hindering the Ghanaian bond market. The requirement for issuing companies to have minimum stated capital of at least ten billion (GH¢10 million) and a total issued nominal value of not less than 10 billion (GH¢100 million) or if there are at least 50 holders of the security also made bonds less attractive for the smaller firms with smaller financial needs.

Also the Securities and Exchange Commission law requires issuers to prepare and submit their annual reports containing audited annual financial reports presented in accordance with the Ghana National Accounting Standards issued by the Institute of Chartered Accountants (Ghana) to SEC

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#### **4.2.5.2 Volume & Costs**

After interviewing several intermediaries and the major issuers, the volume and cost relationship seems to be a major reason for companies not to enter the bond market. The fee for examination and approval of prospectus or offer document specified in section 54 of LI 1728 was ¢1 million for any offer where the value was less than or equal to ¢1 billion; and 0.05% of the offer where the value of the offer was greater than ¢1 billion. Issuers also need to pay commission to sponsors.

The initial costs have to be financed by the issuer and cause a drain on company resources. Due to this, a regular bank loan was often more competitive and cost efficient, when not issuing larger amounts. The respondent at GSE mentioned a critical mass, in order for bonds to be profitable a company needs to reach a certain volume. Once you have reached those volumes, bonds have quite a lot of benefits. Companies that want to list their bonds on the GSE also have to over collateralize their bond issue which most companies cannot do. In the case of HFC for instance as disclosed by the respondent at GSE, they had to



obtain a comfort letter from the Bank of Ghana as a shareholder in order to meet this requirement.

One major reason mentioned by HFC was that each time the company chooses to issue, they can decide on what amount to issue, to suit their capital need for the moment.

Since the volume was a major matter, one must have a high financing need, when thinking of bonds. If the company does not need a substantial amount then it will have to resort to other sources which may be comparatively cheaper.

#### **4.2.5.3 Rejection of Issuers**

The regulators agreed that they seldom or never reject a potential issuer. GSE explained that an important aspect for rejecting a potential issuer was the company's reputation. The respondent at GSE stated that, they do not accept an issue they do not believe in, hence a company they would not want as a customer. The reason for this was, if the issuing company later on defaults, GSE would have difficulty in attracting the disappointed investors and other prospective ones for subsequent issues on the exchange.

The intermediaries help potential issuers to structure the bond prospectus and advice them on meeting the requirements of the regulators. This might have contributed to the low rejection of potential issuers.

#### **4.2.5.4 Rate of Return (Yield)**

According to the GSE the Ghanaian bond market for a long time had an inverted yield curve. The liquidity preference theory which according to Madura et al, makes the yield curve to be upward sloping because investors demand higher return on long term investments did not apply in the Ghanaian bond market. This was largely because short



term investment instruments such as treasury bills though more liquid had attractive interest rates and therefore attracted most of the investor population leaving the bond market almost dormant, causing the yield curve to be inverted.

Secondly government did not encourage long term investment. The concentration of the government on short term instruments- T-Bill in its attempt to mop up excess liquidity by setting favourable interest rates for these instruments without considering the bond market left no bench mark for companies in setting the rates for the bond issues. Thus the interest rate regime did not favour bond market activities.

#### **4.2.5.4 Absence of Credit Rating Agencies and Other Supporting Services**

The empirical study shows that a credit rating was important especially in the Ghanaian bond market which was still in its developing stage. Credit rating according to Hull 2006 is a measure of the creditworthiness of a bond issue. This is usually based on a company's borrowing and repayment history, as well as available assets. The major credit rating agencies used in most markets are Standard & Poor's and Moody's, simply because they both are the dominating ones.

Credit rating helps investors and issuers to determine the default risk of a particular bond issue. These agencies are however absent in Ghana making it difficult to rate the bonds on the market. Regulators resort to collateralization to give investors a degree of confidence in the issue. The provision of collateral for bond issue prevents most companies from using bonds since they cannot provide it. In some cases first time issuers are required to over collateralize their issue. This was a major problem for issuer as was pointed out by HFC when it had to obtain a comfort letter from Bank of Ghana a shareholder at the time when it wanted to list its bonds for the first time on the GSE.

#### **4.2.6.5 Knowledge**

GSE and HFC all believe that, in general, participants in the bond market have sufficient knowledge of the process of issuing. One can say that the overall knowledge among the intermediaries and issuers was good. The issuers have almost similar knowledge as the intermediaries; hence they have much and long experience within the security markets.

This differs considerably when compared to the non-issuing companies and the investor population especially individuals. They do not possess sufficient knowledge about the market or bonds in general. I believe this was mainly due to their lack of interest in the market in combination with their insufficient need of cost efficient volumes.

#### **4.2.6.6 Pricing**

A bond price is either the amount at which investors are invited to subscribe to an issue for a primary issue, or the amount that investors are willing to buy or sell the bond for in subsequent secondary-market trading. Coyle 2008 gives the factors that affect bond prices as the expected return (the yield to investors), the perceived risk of the issue and liquidity of the secondary market.

Pricing bond issue was a problem for companies who wished to issue bonds on the market. According to the GSE because of the low liquidity of the Ghanaian bond market, it makes it difficult for the potential issuers and investors alike to determine the yield of similar bonds in the market. This makes it difficult for companies to determine the price at which they could issue bonds.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 Introduction**

This section will review the most important findings of the analysis and try to conclude the thesis with a brief discussion about the availability of the Ghanaian bond market. The chapter will end with some suggestions for further research.

#### **5.1 Summary of Findings**

Bonds available especially government bonds are mainly straight bonds with no special features attached. Thus offering no option and hence no opportunity for investors to hedge in the rather unstable Ghanaian economic environment. However these bonds are denominated in foreign currency to cushion them against depreciation of the cedi and also to attract foreign investors and investors who want foreign currency investments.

Secondly, there were no credit rating agencies and supporting services making the issuance of debt securities like bonds difficult. The rating has a direct measurable influence on the bond's interest rate and hence the firm's cost of capital.

Reliance by governments on captive sources of funding whereby financial institutions are required to purchase and hold government securities had also contributed to small investor base in the bond market.

Some companies in Ghana also do not have sufficient capital and record to qualify as issuers. The minimum capital, legal and documentary requirement prevent most private companies in Ghana to enter the bond market.



Government micro-economic policies have direct effect on the activities in the bond market. The bond market was closely connected to the business cycle, when there was a boom the liquidity is good, while in recession the liquidity was worse. Between 2003 and 2008 when there was stable economic environment, the market recorded significant activity, according to GSE.

When focusing on the availability of capital through the bond market for companies, the researcher got the impression from the empirical observations that it was hard to compare companies of different sizes. Large companies which had a history of using bonds considered it to be an efficient source of financing. In the medium-sized companies, however, it was a completely different lay of the land. Although the selection of respondent was small and non-issuing companies were not interviewed, the notion the researcher had from literature and previous researchers was further strengthened by the interviews with the intermediaries. The intermediaries made it abundantly clear that it was all about the big mammoths in the market, since they provide volume.

As a matter of fact, it seems like volume was the most important reason why smaller companies have limited availability to the market. With a recommended minimum issue of 10 millions Ghana cedis, many companies are excluded because they simply do not have that large borrowing need. Also, start-up costs such as getting a credit rating and the required documentation might seem expensive and/or time consuming to a smaller company. Credit rating was often a good feature to possess, but it was not always necessary to access the bond market.

Moreover, one can say that the general knowledge about bonds, among issuers was good.



## 5.2 Conclusions

One can draw the conclusion that the Ghanaian bond market in general was still in the formative stage and thus underdeveloped, due to the lack of public information regarding the bonds, such as prices, outstanding bonds and interest rates. The market was dominated by a few large actors, who issue bonds and the investors usually hold the bonds until maturity.

Most issuers are concerned about the liquidity in the market and this seems to affect the decision of whether to issue bonds or not.

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At the moment the market was not attractive enough to catch the attention of foreign investors who currently, constitutes a small portion of the market. To summarize, the market situation was experiencing growth and the participants believe this trend to remain. Participant see prospect for the market as according to GSE, Ghanaians are familiar with debt.

## 5.3 Recommendations

Efficient bond markets require an environment where there is a healthy interplay between demand and supply elements. This facilitates the price discovery process and results in adequate market depth and liquidity. The following recommendations are to be considered in solving the problems identified in the bond market. These recommendations are group into categories namely: Government policy, regulations, micro economic environment and education.

### **5.3.1 Government Policy**

Government has a major role to play in development of the bond market. It has a duty to provide a more supportive economic legal and regulatory policy environment. It must also see to the upgrading of market infrastructure, authorizing the use of new debt instruments and improving education services for debt market participants.

Increase in government issues could position the market to attract corporate was issuers by setting interest rates with the bond market in mind. Thus by setting the correct benchmarks for the market, more issuers and investors will be attracted.

Considering the importance of financial markets in the development of the national economy, it will be important to adopt tax policies that are compatible with financial market development while not seriously compromising to principles of good taxation. This may provide a level playing field for both institutional and retail investors on the market (Addison, 2008).

### **5.3.2 Demand**

Introduction of bonds with innovative and attractive features, for example, convertibility, floating rate, call and put provisions instead of straight bonds. To meet investor needs, such as providing medium term investment products, issuers could use bond refunding and issue short term bonds which could be redeemed with subsequent issues and still meet their long term capital needs.

Taxation of financial instruments has significant implications for financial market development. Taxes on capital gains and income from securities affect saving and investment decisions, and hence the demand for financial assets like bonds.

Also attempt should be made to increase and diversify the investor base. A diversified investor base for fixed-income securities is important for ensuring high liquidity and stable demand in the market.

### **5.3.3 Supply**

As part of increasing activity and size of the market, asset securitization by financial institution could be encouraged. Financial institutions could package loans and other financial assets and issue long term securities which will be backed by these debt portfolio and assets. Securitization will ensure free cash flow for the banks and also support long term market.

Credit rating agencies and other supporting services need to be established for further development of the market. Regulators must ensure that there are skilled market participants operating within an effective set of trading protocols.

### **5.3.4 Regulations**

There needs to be a strong regulatory framework to drive operations on the secondary bond market and increase transparency in bond trading to develop a benchmark yield curve.

There should be a review of the laws governing the bond market to reduce or modify the requirements for issuing bonds so as to attract more issuers. Also the minimum capital requirement should be reviewed so that medium and small companies who do not have such stated capital could issue bonds even if theirs' will be in a different segment of the market. Operators should also improve and centralise reporting of all bond transactions in order to improve transparency and improve on liquidity of bond markets.

### **5.3.5 Micro-economic factors**

Macroeconomic reforms focusing on stability which fosters long term capital market activity. There should be policy direction towards establishing market-driven interest rates, stabilizing exchange rate, reducing inflation and improving the general economic conditions in the country. This will provide investors credible signals in managing their bond portfolios

### **5.3.6 Education**

There should be education of current and potential participant of the market on market activities such as requirements, issuing procedures, types of instrument and trading. Companies should be made aware of using bonds as alternatives source for long term financing. These would include improved corporate governance, disclosure and accounting standards.

### **5.4 Further Research**

With the limited time, the research could not analyze the bond market from all perspectives. The researcher believes, with this in mind, it would be interesting to scrutinize the investors' opinion of the availability further.

It could also be interesting to analyze and compare the US and UK market to the Ghanaian market in terms of size, structure, regulations and the impact of historical aspects



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## Appendix 1: Sample of Bond Prospectus

HOME FINANCE COMPANY LIMITED PROSPECTUS SUPPLEMENT € 1,200.000  
6% PER ANNUM HFC HOUSING BONDS (SERIES F POUND STERLING  
HOUSBONDS).

The following is qualified in its entirety by reference to detailed information appearing elsewhere in the main prospectus and in this prospectus summary with respect to the housbonds offered thereby and to the terms and provisions of the Trust Deed made between the issuer and trustee.

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**Title of Bonds:** Home Finance Company housbonds series F 2001 (Series F Pound Sterling housbonds). The bonds are registered bonds. Series A was issued in September 1996, series B August 1997, series C November 1998, series D August 1999 and series E November 2000. All were subsequently listed on the Ghana stock exchange in November 1996, October 1997, December 1998, September 1998 and November 2000 respectively.

**Issuer:** Home Finance Company HFC

**Lead Manager:** Data Bank brokerage limited

**Sponsoring broker:** Data Bank brokerage limited

**Type:** fixed rate pound sterling denominated bonds of one million two hundred thousand Great Britain pounds (Gbp £ 1,200,000)



**Interest rates:** 6% per annum

**Purpose:** To refinance HFC's existence pounds sterling denominated mortgage portfolio

**Maturity:** Five years mature on august 13 2006

**Interest payment dates:** Interest at rate of 6% per annum will be paid twice each year on February 13 and august 13 through to 2006.

**Form and denomination:** In denominations of Gbp £ 100 or its Cedi equivalent.

**Listing:** The bonds will be listed on Ghana stock exchange

**Call and put options:** The bonds have both call and put options which may be respectively exercise by the issuer and the potential investors. The potential investors may exercise the put option at the discounted value of Gbp£ 98.80 while the issuer can call the bond at a premium of Gbp £ 101.20. These options can be exercised on the second anniversary of the issue date. With two months (60 days) notice prior to exercising. All bonds outstanding on august 132006, the date due will be redeemed by the company in full at their nominal pound sterling value on the maturity date.

**Conversion:** bonds may be applied as a down payment for an approve HFC mortgage in the final year of the term of the bonds.

- Security:** The bonds will be secured by an existing portfolio of fully performing forex denominated mortgages and further forex denominated mortgages to be refinanced from the proceeds of this issue.
- Reserve fund:** Home finance company will place 10% of the amount raised in a reserve account which will be used to supplement the payment of interest and for purposes of supplementing calls to redeem bonds.
- Right to accept or reject oversubscription:** The Company reserves the right to accept or reject oversubscriptions. Applications must be for a minimum amount of Gbp £ 500 or its equivalent in cedis.
- Offer period:** The list of application will open at 9: 00 gmt on 16 July 2001 and close on 15: 00 gmt 10 august 2001.
- Application forms available:** Applications should be made on the prescribed forms attached hereto and obtainable at the offices of home finance company, databank brokerage limited and merchant bank.
- Method of payment:** Payment must be made by cheque, banker's draft or other remittance marked "commission to drawers account".
- Method of payment:** Payment must be made by cheque, banker's draft or other remittance marked "commission to drawers account".
- Estimated expenses:** All the expenses of this offer are estimated not to exceed 4% of the amount to be raised and will be paid by the company.

The mortgage pool: The HFC housbond series f shall be backed by a pool of conventional forex denominated, adjustable rate, full amortizing monthly payment first lien mortgage loans (the mortgage loans “or the mortgages” or the loans) with an aggregate outstanding principal balance as of April, 2001 of US\$12,683,132.12 and an average aggregate of us\$26,814. The mortgage loans are secured by first legal charges on freehold and leasehold one-family residential real estate having principal balances at origination of at least\$25,000 but not more than \$120,000 with an average principal balance at origination of approximately \$40,000. The mortgage loans have terms to maturity from the date of origination of not more than 10 years and a weighted average remaining term to maturity of approx.7 years as of April 2001. The mortgage loans will bear interest rate at 10% per annum but not more than 13.5% per annum. The current mortgage rate is 12.5% per annum. The mortgage loan will have the characteristics described herein. For further description of the mortgage loans, see part III- description of mortgage pool herein. All the mortgage loans were originated and are serviced in accordance with HFC participation agreements, underwriting and servicing manuals and guidelines more particularly described herein.

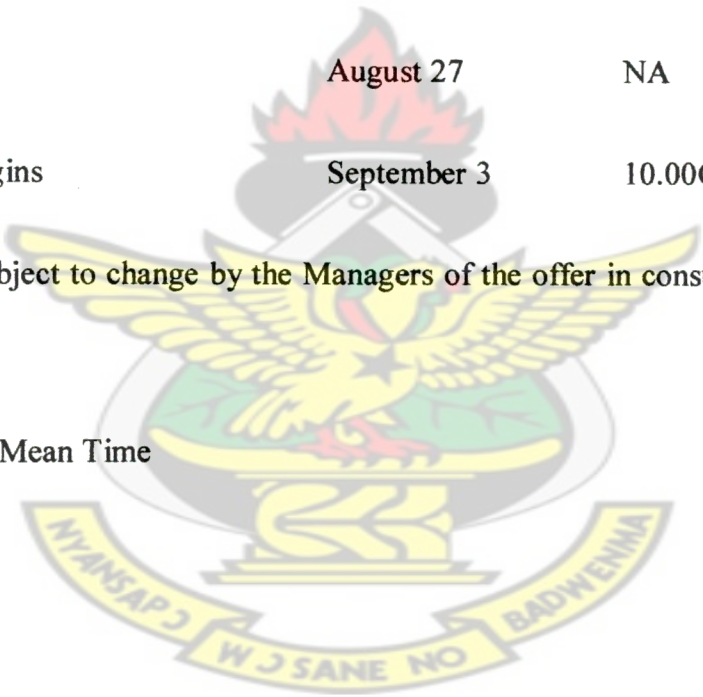
OFFER TIME TABLE

2001

	DATE	TIME
Commencement of the offer	July 16	0.900GMT
Offer ends (4 weeks)	August 16	15.00GMT
Allotment begin	August 20	NA
End of allotment and issuance		
Of certificates	August 27	NA
Trading on GSE begins	September 3	10.00GMT

\*These dates are subject to change by the Managers of the offer in consultation with HFC and GSE.

\*\*GMT Greenwich Mean Time





## Appendix 2 Sample of interview questions

### KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY SCHOOL OF BUSINESS

#### Question for SEC and GSE interview

This is designed to collect information purely for academics and any information provided will be confidentially kept.

1. What type of companies use bonds in Ghana.
2. What is the total annual bond issue?
3. What is an average annual bond issue?
4. How many bonds are in Ghanaian bond market?
5. Name them
6. How many of the bonds are listed?
7. What are the advantages of bonds over other debt instruments?
8. What are the disadvantages of bonds using bond compared to other instruments?
9. What accounts for the low patronage of the bond market in Ghana?
10. What problems do you as a regulator envisage regarding the sourcing of long term funds through bonds?
11. What in your professional opinion are the prospects of the bond market in Ghana?
12. Give your recommendations and policy initiatives which will support the development of the bond market in Ghana.

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SCHOOL OF BUSINESS

Questions for Brokers and other intermediaries

This is designed to collect information purely for academics and any information provided will be confidential kept.

1. What types of bonds are available on the bond market?
2. Indicate the number of bonds your firm has managed, underwritten or sponsored on the GSE.
3. Are there other securities that your firm may be involved in? Name them
4. Who are the major investors in the bonds you have been involved in both local and foreign? (You need not mention names, the category would be adequate e.g. Pension funds, insurance companies etc).
  - a. Please indicate the percentage patronage.
5. What are the advantages of bonds over other debt instruments?
6. Are the GSE, SEC and other regulators performing their role as facilitators in the market?
7. What are the major barriers to the bond market in Ghana?
8. What are your recommendations for the bond market
9. What in your professional opinion are the prospects of the bond market in Ghana?

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SCHOOL OF BUSINESS

Questionnaire for issuers

This is designed to collect information purely for academics and any information provided will be confidentially kept.

1. What is your company's major activity?
2. When was the company listed on the GSE?
3. What securities have the company listed on the exchange?  
Shares ☐  
Bonds ☐
4. Why did you consider bond?
5. What types of bonds are you involved in?
6. What are the costs associated with issuing securities and how does it affect your choice of security.
7. Which intermediaries do you use?  
Brokerage firm ☐  
Bank ☐  
Other (please specify)
8. How is the absence of an active secondary market affecting the performance of your bonds?
9. What are some of the problems you face with using bonds as a source financing
10. what advantages have the company derived from the use of bonds