A SURVEY OF FACTORS DETERMINING DEVELOPMENT OF
CORPORATE BONDS MARKET IN KENYA

By

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D61/62844/2010

A RESEARCH PROPOSAL SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF
MASTERS OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS,
UNIVERSITY OF NAIROBI

NOVEMBER, 2012
DECLARATION

This research proposal is my original work and has not been presented to any other institution or university.

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This research proposal has been submitted for examination with our approval as the university supervisors.

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ACKNOWLEDGEMENT

I wish to extend my special thanks to my supervisor Dr. Sifunjo Kisaka, for providing unlimited, invaluable and active guidance throughout the study. His support and encouragement enabled me to see through to a successful completion of this study.

My thanks also go all the respondents who agreed to take part in this study and make it a success. Also, my gratitude go to my fellow students who offered a lot of support in various issues in the course of this study and hence made this research and course a success.

Finally, I owe my gratitude to a great various of people who in one way or another contributed towards completion of this project. To all of you, I say a big THANK YOU!
DEDICATION

I dedicate this project to my wife Grace, my son and daughter, Lenny and Juliet respectively who have throughout this period provided me with an unconditional positive support. May the lord richly bless them all.
ABSTRACT

This study examines the factors determining corporate bonds market development in a Kenya. It considers the level of the corporate bonds market development, as well as the political, macroeconomic, supervisory and regulatory, effective market structures and diversified intermediaries factors driving bond market development in Kenya. The study results suggest that political, macroeconomic and regulatory factors account fully in determining corporate bond market development in Kenya.

The study employed a descriptive research design to obtain answers to the questions that helped identify factors determining the corporate bond market development in Kenya. This was done through a structured a questionnaire on a sample of 60 which was all the firms listed in the Nairobi Securities Exchange at the time. Out of the 60 questionnaires issued 42 were received back which is 70% response rate.

The study analyzed data using statistical package for social sciences (SPSS) where descriptive statistics including mean, standard deviations and maximum and minimum were generated. In addition the study employed spearman’s correlation analysis and multiple regressions to establish relationship between independent variables and usefulness of the regression equation in making predictions.

Overall, the results show that a confluence of factors matters for the development of corporate bonds market in Kenya; these include political environment of the country, investor base, regulatory framework, size of the banking sector, the cumbersome nature of issuance process, and various macroeconomic factors.
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ABBREVIATIONS

BIS - Bank for International Settlements
EADB - East Africa Development Bank
IMF – International Monetary Fund
NSE – Nairobi Securities Exchange
REPO – Repurchase Agreement
SPSS - Statistical Package for Social Sciences
SSA - Sub-Saharan Africa
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

1.1.1 Theoretical Background of the Study

When a corporation (or government) wishes to borrow money from the public on a long term basis, it usually does so by issuing or selling debt securities. They are generally called bonds (Ross, 1998). Many corporations in the world especially in developed financial markets in the USA, Japan and Western Europe do issue corporate bonds as a means of financing. Companies such as Time Warner, Viacom, TCI, Delta, UAL, USL, and Digital Equipment use borrowed money from investors by issuing bonds (Mussa and Kihongo, 2011).

A bond is a debt instrument. It is a tradable (i.e. negotiable) financial instrument used for raising long term (that is, maturity of one year or more) capital. The bond market is a financial market where participants buy and sell debt, usually in the form of bonds. According to the Bank for International Settlements (BIS), the amount outstanding on the global bond market in 2008 was $83 trillion. Domestic bonds accounted for 71% of this and international bonds the remainder.

A Corporate Bond is a bond issued by a corporation (i.e. company). A company might issue a bond in order to raise capital for the purposes of building a new plant, purchasing equipment, funding acquisitions or expanding its business. The term “corporate bond” usually refers to longer-term debt instruments, generally with a maturity date of at least one year after the date of issue. Shorter-term instruments are sometimes referred to as “commercial paper”. Sometimes, the term “corporate bonds” is used to include all bonds except those issued by governments in their own currencies (i.e. sovereign bonds).
Long term capital is deemed crucial for economic development as evidenced by the positive relationship between long term capital and economic growth (Demirguc and Levine, 1996). Herring and Chatusripitak (2001) and PECC (2004/5) argue that bond markets are central to the development of an efficient economic system, and there would be additional significant benefits if bond markets are developed; they provide greater investment opportunities for both retail investors and financial institutions, and help deepen financial markets.

From a macroeconomic policy perspective, the lack of bond markets places constraints 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 sterilizing inflows of foreign exchange. Bond markets also help to provide interest rates across the maturity spectrum and a more efficient pricing of risk. And 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 (Kahn, 2005).

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. In many instances, domestic debt has increased because of a need to fill the shortfall caused by the decline in the supply of foreign aid. Rwegasira and Mwega (2003) show that, in general, accumulation of domestic debt has reflected the size of the budget deficit and the extent to which SSA countries have been able to borrow externally.
Although 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 financial and economic events during 1997 – 1998 (Asian financial crisis) have highlighted the vulnerabilities associated with an overdependence on foreign capital (Fabella and Madhur, 2003). The greater the degree of foreign indebtedness, the more vulnerable a country is to cessation of loans or foreign exchange crises. As Christensen (2004) points out, many IMF supported programmes include a cap on non-concessional borrowing, in order to limit external vulnerability.

1.1.2 Contextual Background of the Study

The ongoing global financial and economic crisis has, predictably, impacted Africa. In the more sophisticated African capital markets (such as Nigeria, Kenya, Ghana and South Africa), the crisis has sharply highlighted the importance of diversification across asset classes, as well as the need for deep corporate bond markets. The decline in liquidity has also increased the importance of bond markets as a source of finance for both companies and governments. According to Marqués, (2002) one of the predominant features of a well-developed financial system is the existence of a robust corporate debt securities market working alongside a sound banking system.

The development of a corporate debt securities market is closely linked, and often follows, the development of an equity market. As most of the costs of going public in bond and equity markets in terms of accounting requirements, legal and other fixed costs, are similar, the development of each of these markets encourages the development of the other (Bondt, 2002). Experience shows that development of government bonds market is crucial in paving way for development of the corporate bonds market. In the development process of bonds market, it is expected that at the initial stage a lot of effort is given to strengthen and develop the short end of
the market including transparency in securities operations and instrument design. The focus then moves to upgrading the trading facilities and the settlement process and the market regulations.

Since the mid-1990s corporate bonds markets have become an increasingly important source of financing for the private sector, especially in the emerging market countries. The authorities in these countries are becoming increasingly aware of the importance of establishing deep, liquid corporate debt markets. They have placed such development high on their agenda. However to date, corporate bond markets in many countries remain largely undeveloped, with a limited supply of quality issues and inadequate market infrastructure (Luengnaruemitchai and Lian, 2005; Smith and Todd, 1995).

In recognition of this, Kenya kicked-off the revitalization of the stock market in the late 1980s and it set out to revitalize the bonds market in 2000 by strengthening the government bonds market. However, despite the initiatives, the stock market that has been in existence for over 50 years is still shallow, narrow and thin. The bonds market is also in its infancy stage attracting more of the government bonds compared with corporate bonds (Ngugi and Njenga, 2005).

Corporate bonds in Kenya were introduced into the market on November 22, 1996 when the East Africa Development Bank (EADB) bond was issued at a price of 99% raising Kshs 600 Million. Further, the EABD launched a Kshs 2 billion medium term note, which was listed on the NSE Fixed Income securities market segment on 2nd May 2001. This was viewed as a break from the long-term debt instruments. Proceeds from the issue were intended for mobilization and lending in local currencies and for the development of a sustainable tool for alleviating the exchange risk associated with long and medium term borrowing in foreign currencies (Ngugi et al, “n.d.”).
The other issue was by The Shelter Afrique which was a medium term note of Kshs 350M issued in three tranches, the first issued on the 8th December 2000, through a private placement to institutional investors. Proceeds from the sale were used for housing development in Kenya. The first locally controlled firm to offer bond was Safaricom whose proceeds were to be used to expand Safaricom and network coverage and capacity aiming to improve both the availability and reliability of their networks (Ngugi et al, “n.d.”).

Kenya’s corporate bonds market has had a lower trading activity compared to the treasury bonds market which has been due to a number factors, among them information asymmetry among potential issuers, a high and unstable interest rate, lack of a yield curve to price long term instruments and the crowding out effect of the government’s domestic debt (Ngugi and Agoti, “n.d.”). Despite such hurdles, Kenya has made notable progress in developing her bond market in recent years. But diversification and growth of corporate bond market is crucial in meeting the funding requirements of the corporate sector, which sometimes cannot be satisfied by the mainstream commercial banks.

For instance, Ocholla, O. (Personal Communication, 2012) noted that the market has tripled in size from Sh7.3 billion in 2003 with only 4 issuers then to approximately Sh20 billion with 12 issuers at the end of 2011. With respect to the debt capital market, a total of Sh570.8 billion worth of government securities was outstanding as at mid April 2012, accounting for 82 per cent of total debt issue while corporate debt outstanding over the same period was a paltry Sh20 billion. This shows that funds raised by companies from the bond market only accounted for a small percentage of the total debt capital market, while the government took a share of
approximately 86.3 per cent, indicating that the government has a high monopoly on funds allocation.

1.2 Problem Statement

Since its inception in 1996, the growth of Kenya’s corporate bonds market has had a lower trading activity compared to the treasury bonds market which has been due to a number factors, among them information asymmetry among potential issuers, a high and unstable interest rate, lack of a yield curve to price long term instruments and the crowding out effect of the government’s domestic debt (Ngugi and Agoti, “n.d.”). Despite such hurdles, Kenya has made notable progress in developing her bond market in recent years. But diversification and growth of corporate bond market is crucial in meeting the funding requirements of the corporate sector, which sometimes cannot be satisfied by the mainstream commercial banks.

To spur further development, it is necessary to identify and analyze all the factors that determine the development of the corporate bond market in Kenya, which will enable policy makers develop the necessary policy recommendations to rectify the situation sooner than later.

Previous studies have touched on various aspects of long term debt market; Muriithi, (2003) carried out a study on comparisons of interest rates between short and long term financial debt securities, Mugenda, (2010), did a survey on factors influencing long term debt decisions by companies quoted at NSE and Kiuna, (2010) surveyed on the impact of automated trading system on the bonds market activities. Orina, (2009) did a survey of factors determining trading of financial derivatives in the NSE, Bii, (2009) looked at the underlying impediments to issuance of corporate bonds through NSE while Were, (2010) carried out an investigation on the factors influencing the development of corporate bonds market; a case of Kenyan financial market.
These studies focused on the overall long term debt market and in some cases the entire bonds market. Bii, (2009) looked at the underlying impediments to issuance of corporate bonds through NSE, but failed to address the whole issue of factors determining development of corporate bonds market. Were, (2010) whose period of study covered the last 5 years from 2010 and studied 55 firms listed in NSE failed to cover political environment and intermediaries factors.

His study considered factors; inadequate disclosure of information, establishment of a REPO market, issuance calendars, underdeveloped stock market, liquidity, crowding out issues, investors, low professional advisory services and poor regulatory environment as the factors influencing the development of corporate bonds market. These factors can be categorized mainly under the subcategories of regulatory environment, macroeconomic environment and market infrastructure.

It is therefore evident that none of the studies adequately addressed development aspects of corporate bonds market and in particular, Were, (2010) who came close of tackling this topic did not cover political environment and intermediaries factors determining development of bonds market in Kenya.

This study will therefore seek to close this gap and attempt to as adequately as possible answer the question; what are the factors determining development of the corporate bonds market in Kenya?

1.3 Objectives of the Study

To identify factors determining development of the corporate bonds in Kenya. This will include the following specific objectives:
i) To determine the influence of a stable political environment on corporate bonds market development

ii) To determine the influence of macro-economic factors on corporate bonds market development

iii) To determine the influence of an effective supervision and regulatory environment on corporate bonds market development

iv) To determine the influence of an effective market infrastructure on corporate bonds market development

v) To determine the influence of diversified intermediaries on corporate bonds market development

1.4 Importance of the Study

The study will help investors to understand the factors playing around the development of the corporate bonds which will enable them make informed decisions for their investments.

The study will add to the existing knowledge on the factors determining the development of the corporate bonds among the companies listed in the NSE which will be useful to academicians and researchers.

The study will help policy makers to design guidelines that can be followed in the development of corporate bonds which will be useful to both the market regulator and investors,
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This section provides a theoretical background by reviewing the literature on corporate debt securities. Section 2.2 describes the theoretical literature on capital structure taking into account the main findings of the corporate finance literature. Section 2.3 focuses on the empirical literature of corporate debt securities by looking what the literature on development corporate bond markets tells us. Section 2.4 enumerates determining development of the corporate bond market. And finally section 2.5 provides a summary of key issues emerging from the discussion in the previous sections.

2.2 Theoretical Literature
2.2.1 Capital Structure Theories
According to the corporate finance literature, firms’ capital structure is only relevant for real investment decisions if debt securities and other sources of corporate finance are imperfect substitutes. In other words, the irrelevance theorem of Modigliani and Miller (1958) is relaxed. Debt securities are one of the many financing sources in the toolbox of corporate finance, which comprises both internal and external finance. Besides debt securities, external financing sources are loans granted by financial intermediaries, trade credit and equity.

The static trade-off theory of capital structure contends that there is an optimal capital structure reflecting tax distortions and capital market imperfections. Traditionally, an optimal debt-equity mix is modelled, but firms may also target an optimal mix between debt securities and other sources of corporate finance. Models based on the existence of asymmetric information are the
pecking order in corporate finance and the signalling function of debt securities issuance are other areas of interest.

The pecking order theory contends that firms have a preference to internal finance, followed by low-risk debt and by equity in the last resort. Signalling models emphasize that a firm’s choice to issue debt securities instead of demanding a bank loan may signal to outside investors the information of insiders, for instance a negative signal of a firm’s probability of default. Agency models and models based on strategic interactions between firms and their competitors, customers and suppliers show that reputation, and strategic and corporate control considerations may also play a role in the determination of the capital structure.

2.2.2 Corporate Debt Framework Models

There is no single satisfactory comprehensive theory that exists on corporate debt securities issuance (Bondt, 2002). Bondt, (2002) further indicates that several theoretical frameworks to model corporate debt securities issuance have been developed. Such models include; first, a portfolio modelling framework to model simultaneously all corporate financial liabilities, the second framework models the supply of and demands for corporate debt securities simultaneously and the third modelling approach is the specification of a supply function of corporate debt securities. Two main explanatory factors are considered in this framework, namely financing needs and substitution between debt securities and other sources of corporate finance.

General equilibrium models are models with a strong theoretical foundation and are well equipped to simultaneously model all levels of corporate finance. However, their empirical application of this type of models requires high-quality data and may result in implausible
empirical results if some model assumptions are more restrictive than a priori expected (Bondt, 2002). Benninga and Talmor (1988) develop a general equilibrium framework to analyze crowding out and in effects and Hughes and Nagurney (1992) design a network decomposition algorithm with the goal to estimate a data set that matches as close as possible the Federal Reserve Board flow of funds data. Their general equilibrium model captures the accounting identities which must hold and permits the estimation of sector holdings of assets and liabilities as well as the amount outstanding of financial instruments, tangible assets and net worth.

Dynamic portfolio balance models in line with Brainard and Tobin (1968) have obtained a prominent place in the literature on the demand for financial asset holdings (investor perspective), but have less commonly been applied to the supply of corporate financial liabilities (firm perspective). Choice-theoretic or portfolio models typically relate the supply of and/or demand for financial assets to relative prices (yields), among other variables. The own rate of return, i.e. the cost of debt securities, together with the cross rates of return, i.e. the costs of other sources of corporate finance, capture substitution effects. Just as in general equilibrium models, accounting restrictions, such as aggregating to balance sheet total, also play an important role in portfolio models. Notwithstanding the elegant theoretical structure of these models, the empirical results are generally not wholly satisfying. This may be due to statistical, specification and estimation problems such as multicollinearity of rate of returns, omitted explanatory variables, simplifying modelling assumptions, aggregation problems, a poor modelling of the error process and neglect of the simultaneity in the system.

As far as known no study exists which models debt securities from a macroeconomic perspective in a solid two-equation framework. Friedman and Kuttner (1993) examine explicitly the supply of (issuer side) and demand for (investor side) commercial paper, but each equation is estimated
separately. Following an eclectic approach based on the earlier mentioned theories several factors determine the supply of and demand for debt securities. Determinants of debt securities supply, are: the financing cost of debt securities, the cost of other financing sources, the total financing needs, other corporate financing sources (to capture direct substitution effects) and other supply factors.

Explanatory factors of debt securities demand are: the yield on debt securities, the rate of return on other corporate financing sources, the yield on other financial assets, and other demand factors. A difficulty in the joint estimation of a corporate debt securities supply and demand function is the well known identification problem. The solution to the notoriously difficult identification problem is to have an adequate set of explanatory variables or instruments to identify supply and demand, that is supply factors which are completely independent of the demand for debt securities and vice versa (Bondt, 2002).

A reduced form supply function of debt securities is formulated here along the line of commonly applied loan demand studies which ignore supply effects (Calza, Gartner and Sousa, 2001), i.e. assuming a perfectly elastic demand for debt securities at the prevailing own interest rate. A potential difficulty of the reduced form supply function is the interpretation of the estimation results. Ambiguities on the sign of some explanatory factors may arise, because observable data reflect per se both supply and demand

2.3 Factors Determining Development of Corporate Board Market

2.3.1 A Stable Political Environment

Kviback (2000) outlined that to accelerate the rate of economic growth, emerging market governments need to commit to deregulating their economies, introduce more market-oriented
approaches to economic activity and reduce controls over economic affairs. In this regard, governments need to strengthen their efforts to dispel any uncertainty around policy, instill business confidence and build on recent progress by further strengthening governance institutions (Kviback, 2000).

According to Hove (2008), as far back as 1993, the ANC have believed that the most important way to attract international investment is to create a stable and democratic political environment. And Sharma, (2000) noted that where investor rights are weak, savers may prefer investing through banks rather than bonds since politically well-connected banks are better able to enforce their claims.

**2.3.2 The Macroeconomic Situation**

The macroeconomic environment affects the flow of capital into and out of the country and therefore the level of market liquidity, and the incentives for investors and savers to purchase certain instruments. An efficient bond market is unlikely to evolve in a volatile macroeconomic environment characterized by volatile inflation and interest rates. Also conducive taxation framework is ideal to enable the corporate bond market to operate on a more level playing field with the government bond market and the loan segments within the banking sector.

Phelps (1997) highlighted that the macroeconomic environment affects the competitiveness of the financial sector, the options financial institutions can present to the market and the relationships among financial institutions and between these institutions and the central government. They influence inflation rates, the term of financial instruments offered, interest rates and exchange rates.
Fabella and Madhur (2003) conclude that bond markets in general and corporate bond markets in particular have, therefore, developed rapidly in countries where the macroeconomic environments have been more stable and predictable. Meanwhile, in countries where the macroeconomic environment has been relatively volatile, the corporate bond market has had to rely heavily on government support in one form or another.

**2.3.3 Supervision and Regulation**

Measures to deepen and grow the corporate bond markets must be complemented by robust regulatory and supervisory frameworks, and strengthened investor protection efforts. These include enhancing the quality and timeliness of disclosures by issuers, promoting trading and price transparency, strengthening surveillance and supervision, assessing the use of ratings, as well as enhancing bankruptcy and restructuring regulations.

The removal of regulatory obstacles which impede the participation of investors in the corporate bond market and the promotion of retail participation are critical to the widening of the investor base, and contributing to the overall development of the corporate bond market.

Fabella and Madhur (2003) add that rules and their enforcement guarantee that the counterparty’s rights and claims are properly protected through the life of the contract or in case of its dissolution. When these are not provided for, investors prefer to invest in assets with shorter maturities e.g., commercial paper and bank deposits thus discouraging bond financing.

Learning from the experiences of countries with better developed bond markets, many emerging market countries need to improve the regulatory framework for the bond market.

In order to create a strong and active bond market, protection of investor interests is essential in minimizing risks associated with bond investments. According to Plummer (2003), an investor
naturally deals with market risk and some types of credit risk (e.g., sovereign risk) through appropriate asset-management techniques. However, liquidity risk and some types of credit risk can only be minimized through an effective supervisory and regulatory system. This involves the development of appropriate laws and rules governing fixed-income transactions, effective monitoring and auditing systems, transparent accounting practices e.g., full, timely and accurate disclosure, internationally-accepted standards and strong communications channels.

Kviback (2000), however, adds that that an efficient supervisory and regulatory framework also requires the advocacy of strong business practices, internal and external checks and a clear division of labor and objectives of regulatory authorities. The system should also allow for open and transparent rule-making and involve close dialogue with the private sector. And according to Fabella and Madhur (2003) enforcing the formal regulatory framework is as important as developing it. It is important to ensure that courts and enforcement agencies act and decide fairly and expeditiously to resolve commercial disputes. In many emerging market countries, the enforcement of the regulatory framework is lax. In some countries it may even be necessary to set up specialized enforcement entities and courts to ensure that capital market transactions and contracts are enforced effectively and expeditiously.

2.3.4 Effective Market Infrastructure

To complement the growth in the primary market, recommendations to enhance the market infrastructure for corporate bonds include enhancing trading efficiency, developing a market making system, establishing a corporate bond index and creating a specialized third party guarantee institution. Robust and efficient trading, clearing and settlement and depository
systems can lead to lower trading costs and price volatility, reduce market fragmentation, facilitate order flow, improve price discovery and ensure wide dissemination (IOSCO, 2011).

The sub-Saharan bond markets other than BESA have a large number of structural and infrastructure issues that appear to inhibit their development and value to the economy (Banimadhu, 2003). Banimadhu, (2003) adds that the clearance and settlement system for bond trading in most markets is generally inefficient with substantial delays occurring in the process.

2.3.5 Diversified Intermediaries

The main role of intermediaries is to bring issuers and investors together. There are various types of intermediaries, which include: banks, bond insurers, rating agencies, primary dealers, investment funds, and brokers. Leigland, (1997) highlighted the importance of intermediaries in bond market development the comment from the Research Triangle Institute that, “intermediaries, such as investment funds and rating agencies are extremely important in bond markets because they provide professional assistance to investors in making investment decisions, particularly in processing the often complex information that is available on prospective investments.”

2.4 Empirical Literature

2.4.1 Substitutability of Debt Securities and Equity

In testing empirically the relevance of relative yields for the supply of debt securities, Friedman (1979 and 1985) found that there is little ground for drawing any conclusion at all about even the sign of the substitutability of short-term debt and equity. In contrast, his findings indicate that long-term debt and equity are indeed substitutes although the estimates of the associated substitution elasticity are typically very small. Roley (1982) finds for the United States some
degree of substitution between different maturities of government securities, corporate bonds, and equities. Johnson’s (1988) empirical findings are consistent with imperfect substitutability between Canadian and American dollar-denominated corporate bonds.

2.4.2 Substitutability of Debt Securities and Bank Loans

Recent studies estimating quasi-reduced form equations of corporate debt securities are Davis (2001) and Davis and Ioannidis (2002). Davis (2001) explains the change in real corporate debt securities net issuance in the United States, Canada, the United Kingdom and Japan by financial demand and cost variables: real investment, the ratio between borrowing and investment, the investment-GDP ratio, the short-term interest rate, the credit spread, share prices, and the term spread. Only one explanatory factor, that is the financing-investment ratio, appears for all countries with the same sign. The main finding of this study is that corporate debt securities issuance compared with bank loans is more sensitive to cost elements and less sensitive to the business cycle. Consequently, an economy highly dependent on bank financing would show more cyclically volatile funding of firms than will be possible with debt securities markets alongside the banking system.

Davis and Ioannidis (2002) provide a similar empirical analysis based on quarterly flow-of-funds data for the United States over 1979-1999. This study focuses on whether debt securities and bank loans are substitutes (Bolton and Freixas, 2000) or complements (Holmstrom and Tirole, 1997). In contrast to Davis (2001), a positive relation is found between debt security financing and bank financing. Corporate debt securities issuance is significantly explained by bank loans, the difference between the Treasury bill rate and the prime rate (liquidity spread), the spread between the yield on 10-year BAA corporate and government bonds (credit quality spread), the stock market index return, and the cyclical fluctuations of corporate investment. For the latter a
significant negative relationship with debt securities issuance is found, albeit a priori a positive one is expected.

2.4.3 Corporate Bond Yield Spreads

Empirical studies reveal that determinants of corporate bond yield spreads are the business cycle, inflation, short-term interest rate, yield curve, interest rate volatility, equity market risk, the difference between treasury and corporate bond issuance and liquidity considerations, approximated by amounts outstanding (Dialynas and Edington, 1992, Athanassakos and Carayannopoulos, 2001, Elton et al., 2001, and Hattori et al., 2001). The option pricing theory literature is especially useful in showing the non-linear dependence of corporate bond spreads to these variables (Merton, 1974). In contrast, other authors argue that the corporate bond market is a segmented market driven by corporate bond specific supply or demand factors and not by macro-economic and financial variables as predicted by theory (Collin-Dufresne et al., 1999) or that aggregate United States high-yield spreads are driven by firm-specific events (Cooper et al., 2001).

2.5 Summary

The presence of these elements contributes significantly to the development and proper functioning of bond markets, which become characterized by liquidity, price discovery, depth, (existence of a variety of instruments) and transparency. The literature review on domestic bond market development above highlights a number of broad categories critical to the development of the domestic bond market. These includes; a stable political environment, sound macroeconomic policies, a robust legal, tax and regulatory environment and an effective market
infrastructure which includes intermediaries. The literature review also highlighted what needs to be in place to make a successful and efficient bond market.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

The chapter provides a blueprint or outline for conducting the study. Section 3.2 identifies research design and describes researcher’s overall plan for obtaining answers to the research questions guiding the study. Section 3.3 identifies the population and sample of the interest to the researcher and which will be used in the study. Section 3.4 describes data to be used in the study and how that data will be collected. Section 3.5 describes how the data will be analysed and summarised identifying and explaining conceptual and empirical models to be applied.

3.2 Research Design

The research design is the researcher’s overall plan for obtaining answers to the research questions guiding the study. Polit and Hugler (1999:155) describe the research design as a blueprint or outline for conducting the study in such a way that maximum control will be exercised over factors that could interfere with the validity of the research results. Burns and Grove (2001:223) states that designing a study help researchers to plan and implement the study in a way that will help them obtain intended results, thus increasing the chances of obtaining information that could be associated with the situation.

This study employed a descriptive research design to assist the researcher identify the factors determining development of corporate bonds in Kenya. Descriptive research design is process of collecting data to test the hypothesis or to answer questions concerning the current study (Gay, 1983). According to Mugenda & Mugenda (2003), descriptive research portrays the fact as it really is; if another researcher goes to the field now, he or she will find situation as described. Robison (2002), Chandran (2004), claim that descriptive research design is one of the best
methods for conducting research in human contexts because of portraying accurate current facts through data collection for testing hypothesis or answering to conclude the study.

3.3 Population and Sample

Polit and Hungler (1999:43,232) define a population as the totality of all subjects that conform to set of specifications, comprising the entire group of persons that is of interest to the researcher and to whom the research results can be generalized. LoBondo-Wood and Haber (1998:250) describe a sample as a portion or a subset of the research population selected to participate in a study, representing the research population.

The target population included all 60 companies listed in Nairobi Securities Exchange by July 2012. Due to the small size of population the study used all the 60 firms as the sample. The study covered period between years 2000-2012. Year 2000 is important in that this is when the Government of Kenya set out to revitalize the bonds market by strengthening the government bonds market although the first bond was issued back in 1996.

3.4 Data and Data Collection

Polit and Hungler (1999:267) define data as “information obtained during the course of an investigation or study. The researcher used primary. This was obtained by a way of a questionnaire while secondary data was obtained from journals and publications of Capital Market Authority and Nairobi Securities Exchange.

A structured questionnaire was used to collect data from the targeted respondents. According to Chandran (2003) a questionnaire is a series of written questions on a topic about which respondents’ opinions are sought. Questionnaires are useful in a descriptive study where there is need for quickly and easily get information from people in non-threatening way. They provide a
high degree of data standardisation and adoption of generalised information amongst any population. An online method of administering the questionnaires was used. The questionnaires were sent to selected companies officials through e-mail. Information relating to contemporary issues was obtained from published sources such as journals, reports, and websites.

3.5 Data Analysis

Data analysis involves “working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others” (Bogdan & Biklen, 1982, p. 145).

Data was validated, edited and coded then summarized using descriptive statistics, percentages, and mean scores. Percentage scores and standard deviations were then used to determine the existing hurdles in the industry. The study used factor analysis statistical method to describe variability among observed variables and analyse data using the statistical package for social sciences (SPSS).

In situations where data was qualitative, content analysis was used to determine the presence of key words or concepts within texts. Kaplan, (1964) defines it as “a research technique for making replicable and valid inferences from data to their context.” Weber (1990) characterized it as “a research method that uses a set of procedures to make valid inferences from text. Tables, charts and graphs were used for presentation of results.

3.5.1 Conceptual Model

\[ Md = f(Pe, Me, Sr, Mi, Is) \] (1)
Where Md is bond market development dependent variable and independent variables are: political environment (Pe), macro-economic environment (Me), supervision and regulation (Sr), efficient market infrastructure (Mi) and diversified intermediaries (Is).

3.5.2 Empirical Model

\[ Md = \alpha_0 + \alpha_1 Pe - \alpha_2 Me + \alpha_3 Sr + \alpha_4 Mi + \alpha_5 Is + \epsilon \]  

(2)

Where bond market development (Md), is the dependent variable measured by the bond market capitalization as a share of GDP and independent variables are: political environment (Pe), macro-economic environment (Me), supervision and regulation (Sr), efficient market infrastructure (Mi) and diversified intermediaries (Is), \( \alpha_0 \) is the unobserved country specific fixed effect, and \( \epsilon \) is the error term for each observation.

Key characteristics in the variables like the level of economy de-regularization, security, inflation, interest rates, taxation framework, level of disclosures by issuers, trading and price transparency, corporate bond market index, trading, clearing, settlement and depository systems, banks, bond insurers, rating agencies and brokers will be identified and measured using a 5 point likert scale.

Correlation analysis was used to establish existing relationship between the dependent and independent variables. The Spearman’s Correlation Coefficient (Rsp) was used to establish the strength of relationship between the variables, and the relationships’ linearity. The Spearman’s Correlation Coefficient uses correlation coefficient \( (r) \) which is a measure of degree to which two variables are related and can range from 0 to +1 of positively correlated and 0 to -1 if negatively correlated.
3.6 Data Validity and Reliability

3.6.1 Data Validity

According to Nachmias & Nachmias (1996), validity of an instrument is the degree to which an instrument measures what it is supposed to measure and consequently permits appropriate interpretation of scores. Lacity and Jansen (1994) define validity as making common sense, and being persuasive and seeming right to the reader. Among four basic types of measuring validity, theoretical construct validation is considered functioning as a unified framework for validity (Kane, 2001).

Construct validity defines how well a test or experiment measures up to its claims. It refers to whether the operational definition of a variable actually reflects the true theoretical meaning of a concept (Martyn, 2009). The study applied a construct validity test. According to Hunter and Schmidt (1990), construct validity is a quantitative question rather than a qualitative distinction such as "valid" or "invalid"; it is a matter of degree.

3.6.2 Data Reliability

Reliability is a measure of the degree to which a research instrument yields consistent result or data after repeated trials (Mugenda and Mugenda, 2003). Polit and Hungler (1997:296); Uys and Basson (1991:75) describes reliability as the degree of consistency or accuracy with which an instrument measures the attribute it is designed to measure. If a study and its results are reliable it means that the same results would be obtained if the study were to be replicated by other researchers using the same method.

The study applied an internal consistency test where if the rating of two different statements is high or low among several respondents, the responses are said to be inconsistent and patternless.
For example, one statement is: "I feel very negative about computers in general." Another statement is: "I enjoy using computers." People who strongly agree with the first statement should be strongly disagree with the second statement, and vice versa. However, if the rating of both statements is high or low among several respondents, the responses are said to be inconsistent and patternless. This type of reliability estimate is advantageous as it uses the coefficient of test scores obtained from a single test or survey. Other tests will either use data from two separate occasions, two different forms or two coders, raters or observers to carry out the reliability tests.
CHAPTER 4
DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction
In this chapter, the data collected during the research was analyzed and reported. This study was executed to achieve the stated objectives. A total of 42 responses/Questionnaires were received out of a possible 60 Questionnaires. This a response rate of 70%. According to Mugenda and Mugenda (2003), a response rate of more than 50% is adequate for analysis. Babbie (2004) also asserted that a return rate of 50% is acceptable for analysis and publishing. He also states that a 60% return rate is good and a 70% return rate is very good. The achieved response rate was almost was very good owing to the small population.

4.2 Summary Statistics

4.2.1 Industry Categorization

<table>
<thead>
<tr>
<th>Industry Categorization</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Agriculture</td>
<td>6</td>
<td>14.3</td>
<td>14.3</td>
<td>14.3</td>
</tr>
<tr>
<td>Industrial and Allied</td>
<td>8</td>
<td>19.0</td>
<td>19.0</td>
<td>33.3</td>
</tr>
<tr>
<td>Commercial and Services</td>
<td>8</td>
<td>19.0</td>
<td>19.0</td>
<td>52.4</td>
</tr>
<tr>
<td>Any Other</td>
<td>20</td>
<td>47.6</td>
<td>47.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey data, (2012)

Table 1 illustrates that the highest percentage of respondents came from the “Any other” category which includes Telecommunication and Technology, Automobile and Accessories, and Energy and petroleum, followed by Industrial and Allied and Commercial and Services with 8 (19%) respondents each. The least number of respondents 6 (14.3%) were from the Agriculture category. This is mainly because of the number of companies listed under each category in which Agriculture
has the least number of all of the five categories and “Any other” category the largest number of companies mainly because it is a composition of various other sub categories which includes Telecommunication and Technology, Automobile and Accessories, and Energy and petroleum.

4.2.2 Descriptive Statistics

<table>
<thead>
<tr>
<th>Table 2: Descriptive summary statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Corporate bond development</td>
</tr>
<tr>
<td>Political environment</td>
</tr>
<tr>
<td>Macro-economic environment</td>
</tr>
<tr>
<td>Effective market structures</td>
</tr>
<tr>
<td>Diversification intermediaries</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
</tr>
</tbody>
</table>

*Source: Survey data, (2012)*

Table 2 provides the descriptive statistics of the dependent and the explanatory variables. It reports the overall mean, standard deviations, minimum and maximum values. Corporate bond development records overall mean of 6.00, but there are variations in the corporate bond development across observations as evidenced by the standard deviations (6.218). Corporate bond development records a minimum and maximum value of 0 and 16 respectively. Political environment registers average mean of 30.00 and also show variations across the observations of 34.525. Macro-economic environment records overall mean of 48.00 and standard deviation of 59.341 while effective market structures records overall mean of 42 and a standard deviation of 45.343. Diversification intermediaries records overall mean of 36.00 and standard deviation of 48.401.
4.3 Estimated or Empirical Model

4.3.1 Correlation Coefficient Analysis

Table 3: Spearman’s Correlation Coefficient

<table>
<thead>
<tr>
<th></th>
<th>Corp bond development</th>
<th>Political environment</th>
<th>Macro-economic environment</th>
<th>Market structures</th>
<th>Intermediaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate bond development</td>
<td>Correlation Coefficient</td>
<td>1.000</td>
<td>.855*</td>
<td>.891**</td>
<td>.818*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td>.014</td>
<td>.007</td>
<td>.024</td>
</tr>
<tr>
<td>Political environment</td>
<td>Correlation Coefficient</td>
<td>.855*</td>
<td>1.000</td>
<td>.964**</td>
<td>.891**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td>.014</td>
<td>.007</td>
<td>.007</td>
</tr>
<tr>
<td>Macro-economic environment</td>
<td>Correlation Coefficient</td>
<td>.891**</td>
<td>.964**</td>
<td>1.000</td>
<td>.964**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td>.007</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Effective market structures</td>
<td>Correlation Coefficient</td>
<td>.818*</td>
<td>.891**</td>
<td>.964**</td>
<td>1.000**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td>.024</td>
<td>.007</td>
<td>.000</td>
</tr>
<tr>
<td>Diversification intermediaries</td>
<td>Correlation Coefficient</td>
<td>.818*</td>
<td>.891**</td>
<td>.964**</td>
<td>1.000**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td>.024</td>
<td>.007</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows The Spearman's correlation coefficients generated at a significant level of 0.05 and 0.01 percent (2-tailed). The output indicates a strong positive relationship for all independent variables with the dependent variable. Macro-economic and political environment factors have the highest Rs at r=0.891 and r=0.855 respectively. Effective market structures and diversified intermediaries show an average positive relationship Rs at r=0.818 each. The study finds that the relationship between independent and dependent variables is statistically significant hence a significant influence on the corporate bond market development. Independent variables indicate strong relationship between themselves with that between macro-economic environment and the
rest being statistically significant level of 5%. Effective market structure and diversified intermediaries have strongest relationship of r=1.0 at a statistically significant level of 1%.

4.3.2 Multiple Regression Analysis

Table 4: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.998</td>
<td>.996</td>
<td>.989</td>
<td>.644</td>
<td>.996</td>
<td>139.215</td>
</tr>
</tbody>
</table>

*Source: Survey data, (2012)*

The coefficient of multiple determination (R^2) is 0.998; therefore, about 99.8% of the variation in dependent variable (Corporate bond development) is explained by the independent variables; political environment, macro-economic environment, effective market structures and diversified intermediaries. This means regression equation will be useful in making predictions since the value of R^2 is close to 1.

Table 5: ANOVA Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>231.170</td>
<td>4</td>
<td>57.792</td>
<td>139.215</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.830</td>
<td>2</td>
<td>.415</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>232.000</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Survey data, (2012)*

The probability of the F statistic (139.215) for the overall regression relationship is <0.01, less than or equal to the level of significance of 0.01. At the α = 0.01 level of significance, there exists enough evidence to conclude that at least one of the predictors is useful for predicting independent variable and therefore the model is fit and it is valid with the existing set of independent variables. **ANOVA Model**
Table 5: Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-.349</td>
<td>.383</td>
<td>.383</td>
</tr>
<tr>
<td>Political environment</td>
<td>-.212</td>
<td>.070</td>
<td>-.070</td>
</tr>
<tr>
<td>Macro-economic</td>
<td>.590</td>
<td>.058</td>
<td>.058</td>
</tr>
<tr>
<td>environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective market</td>
<td>.226</td>
<td>.015</td>
<td>.015</td>
</tr>
<tr>
<td>structures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversification</td>
<td>-.697</td>
<td>.040</td>
<td>-.040</td>
</tr>
<tr>
<td>intermediaries</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey data, (2012)

In order to determine the relationship between the corporate bonds market development and the five independent variables, the researcher conducted a multiple regression analysis. In that analysis one independent variable (supervision and regulation) which was perfectly collinear with Diversified intermediaries’ variable was dropped to eliminate the collinearity state. According to Lynch, (2003) there are several ways for dealing with multicollinearity when it is a problem. The first, and most obvious, solution is to eliminate some variables from the model. If two variables are highly collinear, then it means they contain highly redundant information. Thus, we can pick one variable to keep in the model and discard the other one.

The researcher subjected the revised variables to a multiple regression analysis (Table 6) using SPSSv19 and generated various coefficients which were fitted to the model Md=α0 + α1Pe – α2Me + α3Sr + α4Mi + α5Is + e as defined in chapter 3 to become:

Md = -0.349 + -0.212Pe + 0.590Me + 0.226Mi + -0.697Is
4.4 Discussion

4.4.1 Discussion on Empirical Studies

The literature review on domestic bond market development highlights a number of broad categories critical to the development of the domestic bond market. These includes; a stable political environment, sound macroeconomic policies, a robust legal, tax and regulatory environment and an effective market infrastructure which includes intermediaries. The literature review also highlights what needs to be in place to make a successful and efficient bond market.

As per the regression equation established above, if all independent factors were taken to be constant at zero, corporate bond market development (Md) will be -0.349. This means that corporate bond market will experience negative development. Political environment has a negative coefficient of –0.212 which means unstable political environment will cause negative development of the corporate bond market same case diversification of intermediaries which has a negative coefficient of 0.697 meaning that a narrow spectrum of financial intermediaries will cause a negative development of corporate bond market. Macro-economic environment and effective market structures have positive coefficients of 0.59 and 0.226 which means improvement by a single unit will lead to development of corporate bond market of 59% and 22.6% respectively.

For example macro-economic environment include factors such as tax regime, competition from alternative financing, interest rate, inflation and exchange rate. Citing a case of competition from alternative financing, besides government bonds, the development of corporate bond markets in Kenya face competition from alternative financing, particularly bank financing. In a study focussing on whether debt securities and bank loans are substitutes (Bolton and Freixas, 2000) or complements (Holmstrom and Tirole, 1997), the study found that a positive relationship is found
between debt security financing and bank financing. The study concluded that corporate debt securities issuance is significantly explained by bank loans among other factors.

4.5 Summary

The chapter provides the descriptive statistics on the explanatory variables. It reports the overall mean, standard deviations, minimum and maximum values as well as the number of observations. The analysis was done at four independent and independent variables. Independent variables included; political environment, macro-economic environment, effective market structures and diversified intermediaries.

The Spearman’s Correlation Coefficient (Rsp) was used to establish the strength of relationship between the variables, and the relationships’ linearity. The output indicated a strong positive relationship for all independent variables with the dependent variable testing at a significant level of 0.05 and 0.001 percent (2-tailed)

Coefficient of multiple determination (R²) used to test the usefulness of regression equation in making predictions. Coefficient of multiple determination (R²) = 0.998 was generated which means regression equation was useful in making predictions since the value of R² was close to 1.

Analysis of variance (ANOVA) model was used test if there was enough evidence to conclude that at least one of the predictors is useful for predicting independent variable. This model generated a probability of the F statistic (139.215) for the overall regression relationship of <0.01, less than or equal to the level of significance of 0.01 and therefore the model is fit and it is valid with the existing set of independent variables.
Multiple Regression analysis was used to determine the relationship between the corporate bonds market development and the five independent variables. The regression also generated various coefficients which were fitted to the model \( Md = -0.349 + 0.212P_e + 0.590Me + 0.226Mi + 0.097I_s \)
CHAPTER FIVE
SUMMARY AND CONCLUSION

5.1 Introduction
This chapter captures the summary, conclusion, limitations of the study and recommendations for further research.

5.2 Summary of the Study
The objective of the study was to identify determinants of corporate bond market development in Kenya. The researcher employed a descriptive research design and used questionnaire to collect primary data from 60 companies listed in the Nairobi Securities Exchange. The study based its findings on the data from 42 responses which is 70% of the total 60 responses expected.

The study considered the level of corporate bond market development in Kenya as dependent variable and political environment, macro-economic environment, supervision and regulatory, market infrastructure and intermediaries as its independent variables.

The study found that corporate bond market development is influenced by macro-economic environment as measured by various variables including tax regime, inflation, exchange and interest rates, government bond issuance and alternative financing sources. The other important determinant is effective market infrastructure measured by benchmark yield curve, information dissemination, automated and centralized clearing system. Political environment and intermediaries generated negative coefficient indicating a negative influence on the development of corporate bond market.
5.3 Conclusion

This study empirically analyzes the determinants of corporate bond market development in Kenya. The study considers the level of development of the corporate market, and also the political, macroeconomic, market structures and intermediaries determinants of corporate bond market development in Kenya.

The study finds that political environment and intermediaries have negative coefficients of 0.212 and 0.697 respectively. And macro-economic environment and market structures have positive coefficients of 0.59 and 0.226 which means improvement by a single unit will lead to development of corporate bond market of 59% and 22.6% respectively.

The findings of this study provide views that are crucial in guiding the authority in its efforts to deepen and broaden the corporate bonds market development. The researcher makes the following recommendations arise from the findings:

Authorities to sensitize medium sized companies on the need to raise long term capital through bonds market as opposed to relying on banks to finance projects and develop a regulatory framework that accommodates small and medium companies which are the majority of companies.

Create additional financial instruments and expand the mobilization base through rigorous pursuit of regional integration of capital markets to effectively mobilize adequate long term capital. Structural factors, such as the size of the economy, its openness, and the origin of its legal system may be difficult to change. However, other factors such as the small size may be overcome through a regional approach to domestic bond market development.
Competition should be encouraged. Kenya authorities can also accelerate the development of corporate bond market by encouraging competition in financial intermediation and a reduction in their bureaucratic practices.

Governments should implement appropriate macroeconomic policies. The level and volatility of interest rates, the volatility of changes in the exchange rate, and capital controls are important in domestic bond market development.

5.4 Limitations of the Study
The study relied on primary data collected from firms listed in the Nairobi Securities Exchange and risk informed and accurate responses. Therefore, the integrity of the findings is affected by the accuracy and reliability of the responses.

5.5 Recommendations for Further Research
The researcher suggests a similar study be conducted through a survey of the firms which have issued corporate bond and not listed Nairobi Securities Exchange. This will allow for a comparison of the findings to come up with recommendations that be applicable to all the players in the corporate world in Kenya
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St. Martin’s Press Inc.

(School of Economics, University of Nairobi and KIPPRA), published as a KIPPRA
Discussion Paper # 71, Prepared for African Economic Conference; Globalization, institutions and Economic development in Africa


## APPENDIX 1

### Listed Companies

<table>
<thead>
<tr>
<th>AGRICULTURAL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eaagads Ltd Ord 1.25</td>
<td></td>
</tr>
<tr>
<td>Kapchorua Tea Co. Ltd Ord 5.00</td>
<td></td>
</tr>
<tr>
<td>Kakuzi Ord.5.00</td>
<td></td>
</tr>
<tr>
<td>Limuru Tea Co. Ltd Ord 20.00</td>
<td></td>
</tr>
<tr>
<td>Rea Vipingo Plantations Ltd Ord 5.00</td>
<td></td>
</tr>
<tr>
<td>Sasini Ltd Ord 1.00</td>
<td></td>
</tr>
<tr>
<td>Williamson Tea Kenya Ltd Ord 5.00</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMMERCIAL AND SERVICES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Express Ltd Ord 5.00</td>
<td></td>
</tr>
<tr>
<td>Kenya Airways Ltd Ord 5.00</td>
<td></td>
</tr>
<tr>
<td>Nation Media Group Ord. 2.50</td>
<td></td>
</tr>
<tr>
<td>Standard Group Ltd Ord 5.00</td>
<td></td>
</tr>
<tr>
<td>TPS Eastern Africa (Serena) Ltd Ord 1.00</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td>Share Price</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Scangroup Ltd Ord</td>
<td>1.00</td>
</tr>
<tr>
<td>Uchumi Supermarket Ltd Ord</td>
<td>5.00</td>
</tr>
<tr>
<td>Hutchings Biemer Ltd Ord</td>
<td>5.00</td>
</tr>
<tr>
<td>Longhorn Kenya Ltd</td>
<td></td>
</tr>
<tr>
<td><strong>TELECOMMUNICATION AND TECHNOLOGY</strong></td>
<td></td>
</tr>
<tr>
<td>AccessKenya Group Ltd Ord. 1.00</td>
<td></td>
</tr>
<tr>
<td>Safaricom Ltd Ord 0.05</td>
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<td>The Co-operative Bank of Kenya Ltd Ord 1.00</td>
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<td>Pan Africa Insurance Holdings Ltd Ord 5.00</td>
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<td>CIC Insurance Group Ltd Ord 1.00</td>
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<td>City Trust Ltd Ord 5.00</td>
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<td>Trans-Century Ltd</td>
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**MANUFACTURING AND ALLIED**

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<td>Mumias Sugar Co. Ltd</td>
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<td>Unga Group Ltd</td>
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<td>Eveready East Africa Ltd</td>
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<td>Kenya Orchards Ltd</td>
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<td>A.Baumann CO Ltd</td>
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**CONSTRUCTION AND ALLIED**

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<td>Crown Berger Ltd</td>
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<td>E.A.Cables Ltd</td>
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<td>KenGen Ltd</td>
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<tr>
<td>Kenya Power &amp; Lighting Co Ltd</td>
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</table>

**Source:** 2012 Nairobi Securities Exchange (NSE)
APPENDIX 2

Corporate Permission

University of Nairobi,
P. O. Box 30197 – GPO,
Nairobi.

To: The Finance Manager, Sept 06, 2012

Dear Sir/Madam,

RE: REQUEST FOR PARTICIPATION IN DATA COLLECTION

The researcher is a student at University of Nairobi pursuing Masters of Business Administration (Finance). The purpose of this research is to collect data that will enable the researcher to establish the factors determining development of corporate bond market in Kenya.

Please be as objective as possible when responding to the questionnaire and give the answers to best of your knowledge. The information gathered shall be treated with confidence and shall be used only for the purpose of this study.

Let me thank you in advance for your participation in this study.

My contact details are: Joseph Ringui, Tel: +254 789 797 707, Email: jk_ringui@yahoo.com

Yours faithfully,

Joseph Ringui
University of Nairobi
Enc. Questionnaire
APPENDIX 3

Research Questionnaire

The focus on factors determining development of corporate bond market in Kenya

Questionnaire

1. General Information

i) Name of the company

ii) What is the company’s primary industrial activity, as specified in the NSE classification?

(mark with an ‘X’ or tick where appropriate)

[ ] Agricultural
[ ] Industrial and allied
[ ] Commercial and Services
[ ] Alternative investment segment
[ ] Any other, (Please specify)

2. Factors determining development of corporate bond market in Kenya

i) A stable political environment

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<tbody>
<tr>
<td>Political stability has played an important role in attracting investment in the corporate bond market</td>
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<tr>
<td>Weak investor rights has led savers to prefer investing through banks rather than bonds</td>
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<td>Certainty a sound government policy has instilled business confidence leading to investing in the bond market</td>
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<td>Strengthening of institutions has broadened the appeal and confidence in bond market investment</td>
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<td>Promulgation of new constitution has greatly improved environment for bond market development</td>
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</table>
### ii) The macro-economic environment

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<tr>
<td><strong>Strongly Agree</strong></td>
<td><strong>Agree</strong></td>
<td><strong>Neutral</strong></td>
<td><strong>Disagree</strong></td>
<td><strong>Strongly Disagree</strong></td>
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</tbody>
</table>

- The current tax regime is designed to maximize government revenue
- Disproportionate or excessive taxes imposed on the corporate bond market vis-à-vis other funding avenues
- Excessive government bond issuances have a crowding out effect and hinders the growth of the corporate bond market
- Development of corporate bond markets faces competition from alternative financing
- Interest rates, exchange rates and inflation has had a key influence in the development corporate bond market
- High-level and long-term strategic direction in the bond market development agenda is in place
- Foreign investor participation has been low due to a wide range of factors, including the macro-economic environment
- Controls on capital flows has had negative impact on the development of corporate bond market

### iii) Supervision and regulation

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<td><strong>Disagree</strong></td>
<td><strong>Strongly Disagree</strong></td>
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</tbody>
</table>

- The market regulator lack requisite experience, skills and expertise to effectively regulate the corporate bond market
- Market regulator focus attention on the regulation and supervision of
the equity market

- Information flow from the bond market is considerably less than that of an equity market
- Authorities lack expertise, laid down procedures and practical knowledge for handling bankruptcy and restructuring
- Disclosure requirements in terms of the range of information required, the quality, adequacy and timeliness of these disclosures are not sufficient
- Self-regulatory function has not been entrenched for an effective regulation of bond markets
- Major players in the corporate bond market are monitored by their relevant supervisors only in relation to the prudential regulations
- Lack of an effective coordinating mechanisms among the various regulatory authorities

### iv) Effective market infrastructure

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<tr>
<td>An efficient government benchmark yield curve to price corporate bond issues does not exist.</td>
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<td>There is no effective information dissemination systems</td>
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<td>Expeditious and efficient offering methods are in place</td>
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<td>There is no formal automated and centralized system for clearing corporate bond transactions</td>
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<td>An effective market-making system is in place</td>
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<td>Credible and effective Credit Rating Agencies do not exist</td>
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<td>Issuance of corporate bonds is a challenging, onerous and time-</td>
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v) **Diversified intermediaries**

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- Lack of appreciation and understanding of the role of the corporate bond market in the overall development of the economy
- Competition in financial intermediation and a reduction in their bureaucratic practices are in existence
- Regulatory framework has not sufficiently recognized the importance of the role played by intermediaries
- Institutional investors are subject to various restrictions for investing in corporate bonds
- There is narrow investor base for corporate bond market development
- Securitization has been relatively underdeveloped

vi) **Level of corporate bond market development**

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Outstanding corporate bonds issued would achieve 50% of GDP if 75% of the above issues are fully addressed

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**THANK YOU**