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College of Business and Economics
School of Commerce
Department of Accounting and Finance

Assessment of Factors Influencing Bond Market Development in Developing Countries: The Case of Ethiopia

By

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A Thesis Submitted to Addis Ababa University, Department of Accounting and Finance

In Partial Fulfillment of the Requirement for the Award of Masters of Science in Corporate Finance: Specialty in Investment Management

Advisor: Dr Dakito Alemu (PhD)

June, 2024

**ASSESSMENT OF FACTORS INFLUENCING BOND MARKET
DEVELOPMENT IN DEVELOPING COUNTRIES: THE CASE OF ETHIOPIA**

By

AWGICHEW ABIYE ZELEKE

**A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY, DEPARTMENT OF
ACCOUNTING AND FINANCE IN PARTIAL FULFILMENT OF THE REQUIREMENT
FOR MASTERS OF SCIENCE IN CORPORATE FINANCE: SPECIALITY IN
INVESTMENT MANAGEMENT**

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JUNE, 2024

DECLARATION

I, Awgichew Abiye Zelee, the undersigned person declare that this thesis entitled, Assessment of Factors Influencing Bond Market Development in Developing Countries: The Case of Ethiopian is my genuine and original work; prepared under the guidance of Dr. Daito Alemu (PhD). All sources of materials used for this thesis have been duly acknowledged. I further confirm that it has not been submitted either in part or in full to any other higher learning institution for any academic purposes.

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APPROVAL AND ENDORSEMENT

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APPROVED BY EXAMINERS

This is to certify that the thesis prepared by Awgichew Abiye entitled “Assessment of Factors Influencing Bond Market Development in Developing Countries: The Case of Ethiopia” and submitted in partial fulfillment of the requirements for Masters of Science in Corporate Finance: Specialty in Investment Management, accepted and approved, after examination during the final defense and complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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Abstract

The development of a robust bond market is crucial for the advancement of the financial sector and the overall economic growth of a country. The aim of this research was to explore the key factors influencing the development of bond market in Ethiopia. The study employed a quantitative research approach to examine and describe the political, economical, regulatory, infrastructure and intermediaries and investors' base dimensions based on the data collected through survey method. The study was conducted over 130 respondents from government organizations, national and international financial institutions and bond market consultants. The data was collected using 5-point Likert scale questionnaire and purposive sampling technique. The findings highlight that political instability, macroeconomic volatility, and inadequate infrastructure are unfavorable for the development of the bond market in Ethiopia. The study also reveals positive aspects, such as the presence of regulatory frameworks promoting market integrity and transparency, but emphasizes the need for further reforms and investments. Specific recommendations include implementing political and economic reforms, enhancing regulatory independence, investing in modern market infrastructure, and promoting a diverse investor base. By addressing these challenges and leveraging identified opportunities, Ethiopia can create a vibrant bond market that contributes to economic stability and growth. This paper provides policymakers, regulators, and market participants with actionable insights and strategies for fostering a resilient bond market in Ethiopia.

Key Words: Bond market, Bond market development, Bond market in Ethiopia, Factors influencing bond market development

Chapter One

Introduction

1.1 Background of the Study

The bond market is a global marketplace that plays a vital role in the global economy by facilitating investment opportunities and capital formation for investors and borrowers. It is an integral and dynamic component of many countries' financial systems, mobilizing long-term funds for governments, corporations, and other entities to avoid excessive dependence on banks and foreign loans.

The history of the bond market dated back to the ancient civilizations of Mesopotamia and Rome, where debt instruments were used to finance public projects and trade (Homer, 1975 and Lamb, 2009). The modern bond market began to take shape in the late 17th century with the establishment of government bond markets in Europe to finance wars and infrastructure projects (Reinhart & Sbrancia, 2011). The bond market further expanded in the late 19th century with the development of railroads and industrialization, with major trading centers emerging at the London Stock Exchange and New York Stock Exchange (Garber, 1996). In the 20th century, the bond market experienced significant growth and innovation, including the development of bond rating agencies to assess the creditworthiness of issuers (Gertler, 2019). In contrast, the bond market in many developing countries has not reached its full potential and continues to lag behind more developed bond markets worldwide. The bond market in Ethiopia has also a relatively short history and in its early stages. The issuance of government bonds in Ethiopia started in the early 2000s following economic reforms to liberalize the financial sector and attract private investment. Since then, the Ethiopian government has continued to issue corporate bonds to mobilize funds and finance various development projects, including road construction, power generation, and industrial park development. In late 2014, Ethiopia issued its first sovereign bond (Ethiopian Eurobond) to European and American investors, marking its entry into the global capital market. These activities showed a promising sign of the bond market's potential as a viable source of financing for government and corporations. The study by Tessema (2003) also stated Ethiopia as one of the largest bond market potential markets in

Africa with unexploited natural resources, abundant labor markets, and potential institutional investors.

However, in recent years, multiple challenges and obstacles cast a shadow on the Ethiopian economy. In one hand, following the outbreak of Corona virus disease (COVID-19), the civil war, and drought in some parts of the country, Ethiopia has faced high inflation, foreign exchange shortage, poor export performance, high debt burden, and low domestic resource mobilization. On the other hand, the country carried out multiple infrastructure and mega projects for a better standard of living. These development projects required huge capital investments leading the country heavily depends on external grants and loans. All of these factors lead the country to financial crises. As most literature remarked in their study, the financial crises all over the globe underscore the need for economies to have vibrant bond markets. A well-functioning bond market reduces vulnerability to financial crises allocating resources to the most productive uses and provides resilience to sustain unexpected economic shocks.

However, several factors were identified as potential barriers that influenced the development of bond markets. As the study by Noor Nahar Begum and Md Aktar Kama (2018) and Joseph Kihara Ringui (2010) stated, the development of bond market in emerging economies influenced by factors that include political instability, instability of the macro economy, regulatory constraints, undeveloped market infrastructure and limited investor participation. The aim of this research, therefore, was to assess these factors that influence the development of bond markets in emerging economies, with a focus on the specific case of Ethiopia. Understanding these factors and their influence on the bond market development was essential for policymakers, regulators, and market participants to collaborate and design effective strategies for robust bond market development. The result of study shaded light on the unique challenges and opportunities for the development of the bond market in Ethiopia. The study also provided valuable insights for policy decisions that contribute and strengthen the ongoing efforts to development of the bond market in Ethiopia. It aligned with the broader goal of building a more resilient and efficient financial system in Ethiopia and other emerging economies.

1.2 Problem Statement of the Research

Ethiopia has the opportunities for the development of the bond market due to its growing economy and infrastructure development needs. The government had taken the initiative and started the journey to the growth and prosperity by laying the foundation to establish a vibrant capital market. As one of the critical components of the capital market, a vibrant bond market facilitates a sustained economic growth in the development roadmap. The study by Fabella and Madhur (2003) put a remark on the importance of the bond market based on the lesson learned from the Asian and Latin American financial crises and their success factors in resolving the crises. The research by John D. Burger et.al (2015) and Kodongo et al. (2023) also showed that many Sub-Saharan African countries started to develop domestic bond markets to channel more funds into domestic investments after the global financial crisis between the mid-2007 and early 2009.

However, there was a lack of comprehensive research on the factors influencing bond market development in Ethiopia. Several previous studies like Tessema (2003), Teklehaimanot (2013), Chewaka (2015), Zena (2021), Biazin and Waktola, (2022) mainly focused on the stock market in Ethiopia or focused only on the financial sectors. Still other studies focused on the bond market development in other developing countries like Asian countries Latin America, the Middle East, and sub-Saharan African countries. Those previous studies did not adequately explore the factors influencing the development of primary and secondary bond market in Ethiopia. The gaps in those previous studies and the economic challenges facing the country, such as high inflation, foreign exchange shortage, and high debt burden, triggers an urgent need to understand how the various factors such as political environment, economic conditions, regulatory framework, market infrastructure, and market participants contribute to the development of a robust bond market in Ethiopia. This study highlighted important insight for policymakers, investors, market participants, and academicians to foster the growth and stability of the Ethiopian economy through efficient capital mobilization via developing robust bond market.

1.3 Research Questions

The research questions intended to investigate the key factors influencing the development of bond market in developing countries, with a special focus on the Ethiopia bond market.

1. How favorable does the political environment of Ethiopia for the development of the bond market??
2. How favorable does the macroeconomic environment for the development and growth of the bond market?
3. How conducive do the regulatory and supervisory environment for the development and growth of the bond market?
4. How adequate is the current bond market infrastructure in supporting the development and growth of the bond market?
5. What roles do intermediaries and investors' base play in driving the development of the bond market in Ethiopia??

1.4 Objectives of the Study

General objective

The general objective of the research was to comprehensively assess the various factors influencing the growth and development of the bond market and enlighten policymakers, investors, and other stakeholders on the way to enhance the development

The specific objectives of the study were:

1. To analyze the favorability of the political environment on the development of the bond market.
2. To evaluate the impact of the macroeconomic environment on the growth and development of the bond market.
3. To analyze the favorability of the regulatory and supervisory environment for the development and growth of the bond market.

4. To analyze the adequacy of the bond market infrastructure for the development and growth of the bond market.
5. To investigate the roles of intermediaries and investor base in driving the development of the bond market.

1.5 Significance of the Study

The development of the capital market helps any country to boost the growth and development of its economy. Capital markets are financial markets where individuals and organizations come together to buy and sell stocks, bonds, currencies, and other types of financial assets. As part of the capital market, a well-developed bond market can serve as a stepping-stone toward a broader and more sophisticated capital market. The bond market facilitates the growth of equities security and other derivatives instruments that make the overall financial system more resilient and efficient. It allows the government and publicly traded companies to widen their financing options reducing their dependency on bank loans and external debt financing. Investors use the bond market to diversify their investments beyond the stock market. It enabled the country to protect the economy from external shocks and boost fiscal sustainability.

The significance of the study lies in its potential to provide valuable insights into the factors influencing the development of robust bond market in Ethiopia. The findings of study have the potential to inform policymakers, investors, market participants, and academicians on the necessary steps to be taken to develop a vibrant bond market in Ethiopia. By reducing reliance on external debts and bank loans, and facilitating access to affordable long-term financing, a well-functioning bond market can help mitigate vulnerability and sustain financial crises in the country. Ultimately, the study aimed to contribute to the growth and stability of the Ethiopian economy by facilitating efficient mobilization of capital through the bond market. By providing recommendations to policymakers, investors, and financial institutions, the study can play a crucial role in promoting growth and stability within the bond market, thus driving economic development and enhancing the overall financial ecosystem in Ethiopia. Moreover, the study can add new insight into the existing knowledge base and broaden the literature on emerging bond markets. In doing so, it promotes knowledge transfer, best practices, and innovative approaches among developing countries with similar challenges and opportunities.

1.6 Scope of the Study

The scope of the study was to focus on the assessment of the factors influencing the development of the bond market in developing countries, with a specific emphasis on Ethiopia. It mainly focused on the analysis of the current landscape of political stability, macroeconomic conditions, regulatory frameworks, market infrastructure, and the composition of intermediaries and investors in Ethiopia that shape the development of the bond market. The study used primary data sources collected through questionnaires with the key stakeholders of the bond market. The statistical tools were employed to analyze the data collected from respondents.

1.7 Delimitation of the Study

The study mainly focused on the bond market in Ethiopia to provide a comprehensive understanding of the current state of the bond market. The broader context of the political environment, macroeconomic conditions, the regulatory framework, the market infrastructure and the intermediaries and investors base were considered in the study. The study identified the key factors influencing the development of the bond market suggesting impactful recommendations and insights for strengthening the market development

1.8 Organization of the paper

The study is structured into five main chapters. Chapter one is an introductory part of the study that includes background of the study, background of the bond market, statement of the problems, research questions, study objectives, significance of the study, and scope of the study. Chapter two contains a review of relevant literature and theoretical framework. Chapter three explains the research methodology. The fourth chapter focuses on data presentation, analysis and discussion. Finally, chapter five includes conclusions, recommendations, limitations of the study, and suggestions for future research.

Chapter Two

Review of Related Literature

The bond market is a crucial component of the overall financial market where participants can buy and sell various debt instruments issued by a variety of entities. A well-developed bond market provides a platform for governments, municipalities, and corporations to raise capital by issuing bonds to investors. Some developing countries in Latin America, the Middle East, Asia, and Africa opened their financial sector to the bond market. In these countries, new bonds are issued on the primary market, and later on, investors, brokers, and other third parties trade with it on the secondary market. Various theoretical and empirical literatures signify that the development of the bond market influenced by a range of factors, including a stable political environment, sound macroeconomic conditions, effective supervision and regulation, robust market infrastructure, and a diverse range of intermediaries and investors' base.

2.1 Theoretical Review

The theoretical literature of the bond market covers a wide range of academic research and studies that explore various aspects of bonds. The essence, pricing, and valuation of bonds; the essentials of the bond market, basic players in the bond market, and the role of bonds in capital structure decisions are the main focus areas in the theoretical literature.

1.1.1 Theories on factors influencing bond market development

There are several theories proposed regarding the factors influencing the bond market development. Some of these key factors include capacity of financial institutions, economic conditions, regulatory environment, investors' behavior, and the market structure.

Financial Institutions: According to Bongini, P., & Ferrando, A. (2010), the development of the bond market is influenced by the presence of strong and efficient financial institutions such as banks, insurance companies, and pension funds. These institutions play a key role in providing liquidity and stability to the bond market by facilitating the buying and selling of bonds.

Economic Growth: Barro, R. J. (1996), hypothesize that the level of economic growth and stability (the economic conditions) in a country is the key factor influencing the development of the bond market. Strong economic fundamentals such as low inflation, stable fiscal and monetary policies, and high stable economic growth are believed to attract investors to the bond market.

Legal and Regulatory Environment: According to Levine, R. (1997), the legal and regulatory environment in a country also believed to play a significant role in the development of the bond market. Strong legal frameworks that protect bondholders' rights, enforce contracts, and ensure transparency and accountability are seen as essential for a well-functioning bond market.

Investor Behavior: According to La Porta, R. et.al (1998), the behavior and preferences of investors also influence the development of the bond market. Factors such as risk appetite, investment horizon, and income requirements can impact the demand for different types of bonds and the overall liquidity of the market.

The Market Structure Theory: The market structure theory focuses on the structure of the bond market itself, including the types of bonds available, the number and diversity of market participants, and the efficiency of trading platforms. Shiller, R. J. (2012) stated that a well-developed market structure that offers a wide range of bond products, promotes competition, and facilitates price discovery is considered essential for the growth of the bond market.

All of these theories highlight the complex interplay of various factors that can shape the development of the bond market, from institutional and economic factors to legal and regulatory frameworks, investor behavior, and market structure. By understanding and addressing these factors, policymakers and market participants can work towards promoting a more vibrant and resilient bond market.

1.1.2 Theories of bond Pricing and Valuation

Bond pricing and valuation are crucial concepts in finance, providing investors and financial managers with the tools to make informed decisions about buying or selling bonds in the secondary market, as well as for issuers who want to determine the appropriate coupon rate and

offer price when issuing new bonds. Several theories and models have been developed to explain the pricing of bonds, factors influencing bond yields, and the behavior of bond market.

The term structure models and arbitrage-free pricing models are the well-known theoretical bond pricing models used by investors and market participants in valuing bonds and investment decisions (Mishkin and Eakins, 2011). These models consider factors such as interest rates, credit risk, time to maturity, and market conditions. The discounted cash flow (DCF) model is the most commonly used model which calculates the present value of future cash flows from the bonds. The Arbitrage-free pricing models, such as the Black-Scholes model, are used to value bonds by considering the risk-neutral probabilities of future cash flows. The model typically considers factors such as the bond's cash flows, time to maturity, interest rates, and credit risk. The model helps market participants to make informed investment decisions and contributes to the overall stability and integrity of the bond market. The bond valuation model by Malkiel (1962) demonstrates the relationships between yield rate changes and bond price behavior. The model showed that bond price volatility is inversely related to its yield rates and coupon rate but directly related to its term to maturity. The mathematical proof also shows that the bond price movements are not symmetrical to interest rate movements (Reilly and Brown, 2012). On the other hand, behavioral finance theories explore psychological factors, such as emotional biases, social influences, perception of risk, and personality traits. The theories argue that people are influenced by psychological factors and make irrational decisions that influence the bond price.

The term structure models, such as the Nelson-Siegel model or the Vasicek model, provide frameworks for pricing bonds based on the yield curve and the relationship between yields of different maturities. Three theories attempt to explain the shape of the yield curve, such as the expectations theory, the liquidity preference theory, and the market segmentation theory (Madura, 2010). These theories attempt to explain how yields on bonds with different maturities are determined.

1. The Expectations Theory: This theory suggests that the current bond price is determined by investors' expectations of future interest rates (Reilly and Brown, 2012). If investors expect interest rates to rise in the future, they will demand higher yields on bonds, which lower the

current bond price. According to this theory, investors are rational and forward-looking, and they make investment decisions based on their expectations of future interest rates. However, it is important to note that market participants may have differing expectations and perspectives on future interest rates. Future interest rates, on the other hand, are affected by factors like inflation, economic conditions, and market liquidity that can influence long-term interest rates.

2. **The Liquidity Preference Theory:** It is one of several theories that attempt to explain the behavior of bond markets explaining the relationship between liquidity, interest rates, and economic stability. According to this theory, investors require a higher yield rate or lower prices for bonds with longer-term maturities compared to shorter-term bonds. This concept is based on the idea that investors prefer the liquidity and flexibility provided by short-term bonds to avoid the uncertainty and price volatility of long-maturity bonds. This hypothesis has important implications for policymakers and financial institutions to anticipate and mitigate the adverse effects of financial crises. Likewise, investors and market participants use the principles to assess the attractiveness and riskiness of different bond investments. During periods of financial crises and high liquidity preference, such as recessions and market changes, investors increase their allocations to safe and liquid assets to avoid fire sales of assets (Madura, 2010 and Malkiel, 1962).
3. **The Market Segmentation Theory:** This theory argues that the bond market is divided into independently operating segments based on characteristics such as issuer type, bond type, maturity dates, and credit ratings. The theory advocates that the prices and yields of bonds in one segment are determined solely by the bond supply and demand forces specific to that segment rather than the overall market conditions. This implies that changes in interest rates or market conditions may not have uniform impacts across different segments of the bond market. However, proponents of this hypothesis argue that it is more valid for shorter-term bonds and overlooks the arbitrage opportunities in the truly segmented bond market. The proponents also argue that investors cannot be restricted to a specific segment, but they can switch to other segments to keep their advantages (Drake and Fabozzi, 2010).

The three primary theories mentioned earlier effectively explain the variations in the yield curve's shape, offering valuable information about market expectations for interest rates. The

curve tells about future interest rates and economic circumstances helping investors and policymakers to make informed decisions regarding their investment and monetary policy strategies. According to the yield curve theory (Mishkin and Eakins, 2011), the usual yield curve (upward sloping) indicates that bond prices will decrease due to the anticipated future increase in interest rates. This observation is based on predictions of upcoming economic growth and inflation. On the other hand, an inverted yield curve (downward sloping) indicates market expectations of future interest rate declines and higher bond prices. This can indicate market expectations of future economic weakness or a potential recession. A flat yield curve occurs when short-term and long-term interest rates are relatively close. This can signal uncertainty about future economic conditions or interest rate movements.

The other theories include the fisher effect (Fisher, I., 1930) and the credit risk premium theory (Altman, E. I., 1984) explains the factors influencing the behavior of bond market. The Fisher Effect, proposed by economist Irving Fisher, hypothesize that nominal interest rates (the stated interest rate on bonds) consist of two components: the real interest rate and the expected inflation rate. The theory states that nominal interest rates adjust in response to changes in expected inflation rates to maintain a constant real interest rate. On the other hand, the credit risk premium theory focuses on the additional yield (credit spread) demanded by investors to compensate for the credit risk associated with bonds issued by corporations or governments with varying credit qualities. Credit ratings provided by agencies such as Moody's or S&P are critical in assessing the credit risk premium.

In conclusion, these theories are critical concept in finance, providing valuable information about market expectations, investor behavior, and economic conditions. By understanding and applying the different theories, investors, policymakers, and financial analysts can make more informed decisions regarding interest rate risk, investment strategies, and economic forecasts.

1.1.3 Bonds in the Capital Structure Theories

Bonds are debt securities which is one of the two main ways a company can raise money in the capital markets. When making capital structure decisions, bonds play a critical role in financing a company's operations. Companies issue debt (corporate bonds) to finance their operations and

investments through an optimal combination of debt and equity. The bond issue is an attractive way of raising large amounts of debt finance, at a low rate of interest compared to bank loans and equity financing. By incorporating debt into the capital structure (mix of debt and equity), companies can maximize values and minimize the average cost of capital (WACC) of the company. There are several competing capital structure theories, each of which explores the relationship between capital structure and firm value (Reilly and Brown, 2012). The review of these theories shows that there is a direct relationship between the capital structure and the company's financial performance, risk, and value.

Various capital structure theories analyze the factors that influence the decisions in determining the debt-to-equity ratio in the optimal capital structure (Reilly and Brown, 2012). The Modigliani-Miller (M&M) theory states that the value of a firm is unrelated to its capital structure in perfect capital markets. According to this theory, the overall value of a firm is not affected by the way of financing (debt or equity). However, in reality, the value of a firm can be affected by various factors like taxes, bankruptcy costs, and asymmetric information. These factors are overlooked by M&M in their theorem (Reilly and Brown, 2012 and Drake and Fabozzi, 2010).

The trade-off theory suggests that companies aim to strike a balance between the benefits and costs associated with debt financing. According to this theory, companies will increase their debt levels up to a point where the benefits of debt (interest tax shields and lower cost of capital) are outweighed by the potential costs (risk of bankruptcy and agency costs) when determining their optimal capital structure. Another important aspect explored in the literature is the pecking order theory which focuses on asymmetrical information costs between managers and investors. This approach assumes that companies prefer internal financing (retained earnings) over external financing (debt or equity) to fund their investments (Reilly and Brown, 2012).

The Agency theory provides insights into how conflicts of interest between various stakeholders (shareholders, management, and debt holders) influence a company's capital structure decisions. The presence of debt in the capital structure creates obligations to pay the interest and principal, thereby forcing management to act in the best interest of shareholders

and creditors. Using debt in the capital structure forces managers to act more responsibly in meeting debt obligations and reduces agency problems. The market timing theory suggests that firms consider the timing of external financing based on the perceived market conditions. During favorable market conditions, firms raise external funds by issuing debt securities to take advantage of the market conditions (Reilly and Brown, 2012). This theory implies that market conditions play a significant role in firms' financing decisions.

It is important to note that these theories provide different perspectives on how firms determine the mix of debt and equity in their financing decisions. Bonds have a lower cost of capital compared to equity financing in the capital structure decision. Bonds represent an additional liability on the balance sheet and increase a company's financial leverage. Higher leverage can amplify the company's returns during profitable times (Reilly and Brown, 2012). Overall, bonds serve as an important tool for companies to raise debt financing, reduce borrowing costs, provide cash flow predictability, and form optimal levels of financial leverage in their capital structure decisions.

1.1.4 The Essence of Bond

Bonds are financial instruments or debt certificates sold to investors to raise capital. It is a fixed-income security that pays its holder a fixed interest on top of repayment of the principal upon maturity. It plays a significant role in the financial system by serving as a key instrument for borrowing and lending long-term funds. As it is stated by Fabella and Madhur (2003), bond market links issuers with long-term financing needs and investors with the desire to willing to earn fixed income and diversify their portfolios. Initially, the bond is issued by governments, corporations, and municipalities to raise funds and finance infrastructure projects, expanding operations, or meeting financial obligations. Investors purchase these bonds to diversify their investment portfolios which can help them reduce the overall investment risks. It also serves investors as an investment instrument that generates fixed income and additional returns from active bond trading.

There are different types of bonds varying in terms of maturity, interest rates, credit quality, and other characteristics. The most common bond types include government bonds, corporate

bonds, municipal bonds, and international bonds. These bonds are either issued and rolled out new debt on the primary market or traded existing debt on the secondary market. According to the term structure theories, these bonds are associated with various risks including credit risk, interest rate risk, and market risk, liquidity risk.

Government Bonds: The government issues debt securities (treasury bonds, treasury bills, and treasury notes) to raise capital to finance budget deficits, infrastructure projects, or other funding requirements that benefit the community. Bonds issued by government are considered low-risk investments due to the backing of the government. Investors often considered government bonds as a haven and the safest investments available for a stable income stream and preservation of capital. Government bonds allow investors to enter or exit easily as it is a highly liquid asset that can be easily traded in the secondary bond market (African Development Bank Group, 2010).

Corporate Bonds: Corporations issue debt securities to raise capital for diverse purposes, such as business expansion, acquisitions, or refinancing existing debt. Investors considered corporate bonds as a higher yield but risky investment option compared to government bonds based on creditworthiness and goodwill for timely interest payments and principal repayment. Based on the level of credit rating, corporate bonds are considered investment-grade bonds or high-yield (junk) bonds (African Development Bank Group, 2010). Companies with high credit ratings issued an investment-grade bond which is considered by investors as a relatively safer investment with a lower risk of default compared with the junk bonds issued by companies with lower credit ratings.

Municipal Bonds: State and local governments issue these bonds to fund public projects such as schools, transportation infrastructure, and water systems. There are two primary kinds of municipal bonds: general obligation bonds and revenue bonds. General obligation bonds are viewed as having lower risk and lower returns. Revenue bonds, on the other hand, are supported by specific revenue streams that depend on the income generated by the designated project. Most countries exempt federal taxes on the interest earned from municipal bonds. Investors have the option to select from a range of maturities for municipal bonds, including

short-term bonds that typically last from one to three years or long-term bonds that can extend up to 30 years.

International Bonds: International bonds refer to foreign bonds that are issued in currencies that are used internationally to attract global capital markets and investors. These bonds are offered by foreign corporations and governments and are exposed to risks related to currency fluctuations and political factors. Some examples of these risks include changes in exchange rates, governmental policies, financial instability, and geopolitical tensions (African Development Bank Group, 2010).

In addition to this, bonds can be classified into different categories such as mortgage-backed securities, secured bonds, and unsecured bonds. Mortgage-backed securities and secured bonds provide a certain level of security to investors as they are backed by specific assets like real estate, equipment, or inventory. On the other hand, unsecured bonds, also known as debentures or plain bonds do not have any specific collateral. These bonds carry a higher level of risk compared to secured bonds and typically offer higher interest rates to compensate investors for the increased risk they are taking.

1.1.5 The Essentials of the Bond Market

The bond market refers to a financial market where long-term debt securities (bonds or notes), are bought and sold. It includes both the primary market, where these debt instruments are initially issued and sold to investors, and traded these instruments in the secondary market. Companies, governments, and other institutions raise capital by issuing bonds in the primary market and investors trade these bonds in the secondary market. However, in the absence of a secondary market, like Ethiopia, investors are forced to hold the bonds until maturity due to the absence of a secondary bond market. Various theoretical literatures explore the importance of bonds and bond markets in portfolio management asset allocation, and risk management. The market is larger than the stock market and offers a range of investment opportunities to investors with free entry and exit positions. This contributes to the overall liquidity of financial markets. The existence of liquid bond markets facilitates efficient capital allocation and

enhances market stability. More importantly, bond markets provide valuable signals for policymakers, economists, and market participants to assess the overall health of the economy.

The bond market can be divided into two categories: primary and secondary. The primary bond market serves as the platform where bonds are first issued by issuers and sold directly to investors, either through public offerings or private placements. After being issued, these bonds become accessible for trading on different platforms within the secondary market, where investors can buy and sell them amongst themselves. According to Harwood (2000), the structure, abilities, and attitudes of market participants influence the development of the primary market significantly and the chances of building an active secondary market. The study by Li and Yu (2021) states that a robust bond market requires an active primary and secondary market with diversified issuers and investor base to ensure high liquidity and stable demand in the market. The research by Claycamp, H. J., & Massy, W. F. (1968) and the segmented markets theory of the term structure states that the market for bonds is 'segmented' based on the bonds' term structure that operates independently.

The bond market is influenced by various factors, including interest rates, inflation, credit ratings, economic conditions, and investor sentiment. Fabella and Madhur (2003) and Pradhan et.al. (2015) concluded in their study that well-functioning bond markets can contribute to financial stability, capital allocation, and economic development. It enhances access to finance and stimulates investment and economic activity. The study by Muharam et al. (2018) shows that the bond market provides much greater growth opportunities in emerging market economies but with greater risk than in developed bond markets. Fabella and Madhur (2003) conclude in their study that in emerging economies, investors face debt-related risks due to the inability of the issuer to meet payment obligations. These risks can be heightened by political and economic volatility, exchange rate fluctuations, and currency devaluations in developing nations. On the other hand, the research by Ogboi, C. et al. (2016) shows that the bond market is dynamic but more conservative and less volatile than the stock market. They conclude that the bond market is sensitive to changes in economic conditions (interest rate, inflation, and the foreign exchange rate), credit ratings, and investor sentiment.

The bond market is regulated and supervised by various government regulators to ensure investor protection and maintain market integrity. The theoretical literature on the role of bonds in financial markets and the dynamics of the bond market provides an important insight for researchers, regulators, and market participants to make informed investment decisions, and manage risks effectively.

1.1.6 Basic Players in the Bonds Market

Different parties participate in the bond market with diverse objectives. The main parties involved in the bond market include issuers, investors, market intermediaries, regulatory authorities and policymakers, academia, and other interested parties. Bond 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, settlement of transactions and the regulatory provides the basic framework for bond markets. Rating agencies are also an integral part of the bond market. Most individual and institutional bond investors rely on information from agency ratings. The rating reflects the ability of the issuer to service its outstanding debt and have an impact on the marketability of its bonds.

The results of Mu et al. (2013) and Smaoui et al. (2017) state that all bond markets are built on the same basic elements of issuers, underwriters, and purchasers. In developing economies, the market is mainly dominated by institutional investors like mutual funds, insurance companies, commercial banks, and private and government pension funds. Arvai & Heenan (2008) and İslamoğlu, et. al (2015) state that most bond issuers are government entities, banks, or corporate entities. Underwriters (investment banks and other firms) help issuers sell bonds to purchasers in the bond market by creating a prospectus and other legal documents. According to Harwood (2000), developing the bond market is so difficult and time-consuming that needs to consider and weigh the impact of various factors. These factors influence the market's attractiveness from the point of view of market participants. With these wide ranges of participants and influencing factors, the bond market plays a crucial role in shaping the overall financial landscape and investment strategies.

2.2 Empirical Literature

1.1.7 Overview of Bond Markets in Emerging Economies

The importance of the bond market for the development of financial markets and economic growth is well recognized throughout the financial literature. Many scholars attest in their research that both stock market development and bond market development have links to economic growth in a variety of ways. It is also noted that the development of the stock market paves the way for the development of the bond market and vice versa. This dynamism offers an important chance for emerging economies to develop both markets simultaneously.

Various researches have proven that the development of primary and secondary bond markets is an important roadmap for growing economies especially for developing countries to channel more funds into domestic investment and to finance their development needs. Several scholars attest in their study that developing countries typically have less developed and less liquid bond markets compared to other developed countries (Smaoui et al., 2017 and Fabella and Madhur, 2003). In developing countries like Ethiopia, various mega projects and infrastructure development programs are required to be financed with long-term debts. Arvai and Heenan (2008) argue that the need for growth and prosperity is crunched by global financial crises, high inflation, entrenched debt distress, civil war, and lack of peace. The alarm indicates heavy financing needs that have not been secured with local bank loans but by issuing long-term debt security.

The bond market can become one of the largest sources of financing with a tendency to grow rapidly from which the bond issuer can capitalize substantial funding. Different scholars indicate that there is a relationship between bond market development and economic growth with bidirectional causality (Muharram et.al., 2018, and Pradhan et.al., 2015). The research result by Pradhan et.al. (2018). indicates that the development of the bond market and stock market has a positive impact on the development of the economy.

According to the study by Seiwoon (2016) bond market is important for the government and private sectors to obtain stable and long-term funds. In the absence of an active bond market, government and private firms of developing countries heavily depend on banks' loans to meet

their funding requirement. This is one of the impeding factors that undermine the steady growth of the economy. Banks often cannot provide the size or structure of financing needs. They are increasingly constrained from financing longer-term, large-scale projects because of either legal lending limits or the need to improve the quality of their operations. In such cases, there are two main types of financing options - debt financing and equity financing. Debt financing involves issuing debt security to raise funds that must be repaid, usually with interest. Equity financing involves issuing shares to raise funds in exchange for partial ownership and future profit sharing. Since issuing new equity is costly and dilutes the company's ownership, it is not an option compared with other sources of financing. Developing a bond market is the best way to diversify the financing tools beyond just bank loans and equity financings.

According to traditional portfolio theory, an efficient investment strategy diversifies and balances the risk and returns between stocks and bonds. Stocks tend to be riskier with higher potential returns, while bonds are safer than stocks but with lower returns. Depending on the investor's investment style, bonds are recommended for conservative investors to diversify their investment with a mix of bonds and stocks. The research by Fabella and Madhur (2003) confirms that the development of domestic corporate bond markets in East Asian countries after the global financial crisis of 2008 helped them to mitigate and reduce their vulnerabilities to financial crises. John D. Burger et.al (2015) also indicate in their research finding that the development of the domestic bond market has positive externalities concerning economic growth and financial stability. The domestic bond market has a positive link to economic growth and poverty reduction, reduction in reliance on foreign currency borrowing, and improvements in financial stability. Similarly, Joseph Kihara Ringui (2012) surveyed factors determining the development of the corporate bonds market in Kenya; Alhassan Musah et.al (2019) examined the subject matter of the factors that influence bond markets development in Ghana; Ogboi, C et al (2016) conducted a similar study on bond market development and economic growth in Nigeria. The findings of all of those researchers show that a vibrant bond market plays an important role in the development of the overall financial sector, especially for developing countries. Among other benefits, it enables emerging economies to support rapid and sustained infrastructural development, which in turn will lead to swift economic growth.

1.1.8 The Rationale for Developing Bond Market

Developing the bond market has numerous benefits, especially for developing the overall economy of countries. Some of the benefits include: serving as an alternative source of debt finance, broadening capital markets, and promoting financial stability. Previous studies showed that a well-functioning bond market helps to channel and organize the resources from widespread and diverse savings of millions of small investors into long-term wealth creation.

The study by Rose & Spiegel (2015) and Pradhan et.al. (2018) show that at the macroeconomic level, the bond market provides an avenue for funding budget deficits and other fund requirements with a lower cost of capital reducing dependency on bank loans and foreign currency-denominated debt. Arvai and Heenan, (2008) also states that a vibrant bond market helps the government to strengthen the transmission and implementation of monetary policy. It also helps the government to reduce exposure to inflation, interest rates, currency, and other financial risks. This is because the bond market is a great predictor of inflation and direction of the economy which help sustain economic stability. The study by Ahwireng-Obeng and Ahwireng-Obeng (2019) showed that at the microeconomic level, the development of the bond market entails the creation of extensive informational, legal, and institutional infrastructure that benefits the entire financial system. It enables the introduction of new financial products, including money market instruments and derivatives that help to improve risk management strategies and promote the overall financial market stability.

A review of different literature (Harwood, 2000; Li & Yu, 2021; Arvai and Heenan, 2008; and Islamoglu, et.al, 2015) indicates that developing a well-functioning bond market provides several benefits, especially for emerging economies. The previous researches show that many countries in Sub-Saharan Africa have relied heavily on foreign grants and concessional loans to fund their capital spending and cover government deficits. Without access to other financial options, such as bond markets, several African nations may encounter challenges in financing essential requirements. The federal budget of Ethiopia is financed from both domestic and external sources and allocated between capital and recurrent expenditure. The Ministry of Finance (MoF) 2016/17, 2017/2018 and 2018/2019 report show that the government allocated more than half of the federal budget to development projects (education, health, road

construction, water and energy, and agriculture). Due to absence of robust bond market in the country, the government over rely on bank advances, T-bills and foreign loans to finance the projects. In spite of this, the country was showing robust economic growth until it has been reversed by the impact of the global economic crisis in 2019 and the recent ongoing war in the country that result in humanitarian crisis, and the destruction of basic infrastructures. Currently, Ethiopia is facing high inflation, high foreign debt burden and low level of foreign reserves. This has led the World Bank and the International Monetary Fund (IMF) to rate the country at high risk of external debt distress. Due to the material decline in external liquidity, Ethiopia is rated 'CC' rating in 2023 by the global rating agencies of Standard & Poor's (S&P) and Fitch.

Several previous studies explore the rationales for developing and strengthening the bond market in developing countries. Fabella and Madhur (2003) and Smaoui et al. (2017) stated that developing bond markets provides an alternative source of funding, reducing dependency on bank loans and foreign capital inflows. Kibua et al. (2005) agreed that diversifying funding sources strengthens the financial system, reduces vulnerabilities to external shocks, and lowers borrowing costs for government and corporates. The study by John D. et.al. (2015), Kibua et al. (2005), Peiris (2010) and the World Bank (2005) report explore the rational for developing and promoting bond markets in developing countries. The various studies identify the following benefits of developing bond markets in developing countries.

1. Mobilizing domestic savings: Bond markets provide the opportunity for domestic investors, such as individuals, institutions, and pension funds, to invest their savings. Developing countries usually struggle with a lack of adequate financial intermediation, and a well-functioning bond market can serve as a channel to mobilize domestic savings and direct them towards productive investments within the country.
2. Funding infrastructure projects: Developing countries often face significant infrastructure gaps. Bond markets can help raise long-term capital to finance large-scale projects, such as building roads, ports, power plants, and telecommunications networks. These investments not only contribute to economic growth but also attract foreign direct investment and enhance the overall competitiveness of the country.
3. Diversifying funding sources: Developing countries heavily rely on bank loans and limited foreign direct investment for their financing needs. Developing bond markets

provides an alternative source of funding, reducing the dependency on traditional bank loans and foreign capital inflows. Diversifying funding sources strengthens the financial system, reduces vulnerabilities to external shocks, and lowers borrowing costs for the government and corporates.

4. **Fostering economic growth and development:** Bond markets play a crucial role in supporting economic growth by facilitating access to capital for both the public and private sectors. They provide a means for governments to finance their budget deficits, implement infrastructure projects, and fund social welfare programs. Moreover, bond markets enable corporations to raise capital, invest in expansion, and create job opportunities, contributing to overall economic development.
5. **Enhancing financial stability and risk management:** Well-developed bond markets provide opportunities for investors to diversify their portfolios and manage risks. They offer a wide range of bond instruments with varying maturities and risk profiles, allowing investors to allocate their investments based on their risk appetite and return objectives. The presence of liquid and efficient bond markets improves the pricing and valuation of financial assets, enhances risk management practices, and contributes to overall financial stability.
6. **Attracting foreign investment:** Developing vibrant and robust bond markets often attracts foreign investors seeking portfolio diversification and higher yields. The presence of foreign investors can bring additional liquidity, deepen markets, and increase overall market efficiency. Additionally, foreign investors' participation helps integrate domestic markets with global financial markets, facilitating the development of a more open and internationally connected financial system.

Overall, developing bond markets in developing countries is crucial for sustainable economic development. It contributes to the smooth functioning of the overall financial system by diversifying funding sources, fostering financial stability and promoting economic growth.

1.1.9 Factors Influencing Bond Market Development

Bond market development is a dynamic process in which the macroeconomic and microeconomic environment, especially the financial sector, needs to be continually stable.

There are different factors to be considered in establishing and developing a bond market, especially in developing countries.

It's noted that researchers identified the key factors that influence the development of robust bond markets. According to Mu et al. (2013) and Smaoui et al. (2017), the prerequisites for establishing an efficient bond market include stable and credible macroeconomic policy framework; sound fiscal and monetary policies; effective legal, tax, and regulatory infrastructure; smooth and secure settlement arrangements; and a liberalized financial system with competing intermediaries. Bond market development depends on four key factors - suitable and appropriate market participants, committed government, macroeconomy stability, and taxation system (Harwood, 2000).

According to Alsadoun (2022) the development of a robust bond market requires focusing as a specific building block primarily on adopting and implementing a stable and credible macroeconomic policy framework, reforming and liberalizing the financial sector with competing intermediaries, and implementation of effective legal and regulatory infrastructure. Arvai and Heenan (2008) claimed that the development of the bond market requires a stable macroeconomic environment, a sound public debt management strategy, a wider investor base, market infrastructure development, and effective monetary policy. They conclude in their study that these factors are the specific building blocks for the bond market development.

The research findings of Muharam, et.al (2018) completing banking sector restructuring; improving corporate governance; strengthening the regulatory framework, and rationalizing tax treatment of bonds as the critical factors for establishing an efficient bond market. On the other hand, Hwang and Seiwoon (2016); Burger, et.al (2015), and Rose, et.al (2015) claimed that the development of a robust bond market requires additional key factors of less volatile exchange rates and more competitive banking sectors.

Even though there is no one-size-fits-all for all countries, several studies have documented some common key determinants for establishing a broad, deep, resilient bond market. At a somewhat broader level, Noor Nahar Begum and Md Aktar Kama (2018) and Joseph Kihara Ringui (2010) identified five key factors as building blocks for developing a robust bond

market. These factors include a stable political environment, sound macroeconomic environment, robust supervision and regulation, effective bond market infrastructure, and diversified intermediaries and investor base. As it is noted in most literature, these key requirements are uniformly applicable and compelling for all countries in developing robust bond markets.

i. Political Environment

Political stability is a crucial factor that significantly impacts the bond market by shaping the economic landscape of a country and the overall well-being of citizens with a more secure future. A stable political environment creates a favorable environment that attracts both domestic and foreign investors to participate in the bond market development. As one of the key factors, a stable political environment provides confidence to investors, reducing uncertainty and increasing their participation in the bond market development. According to Essers et al. (2015); Musah et al. (2019) and Mohanad A. (2022). A stable political environment provides investors with a sense of security and reduces the level of uncertainty which builds their confidence to invest in the bond market (Tessema,2003). Investors prioritize political stability in their investment decisions as it reduces the risk associated with their investments encouraging long-term investments.

A stable political system enables governments to implement economic policies effectively and make decisions with long-term consequences that can positively impact the bond market. The study by Harwood (2000) and Gaasbeck and Marchelle (2020) found that higher degrees of political stability correlated to lower yields and lower default risks. This shows that a stable political environment allows governments to implement sound long-term economic policies, maintain social order, and foster economic growth and development. The IMF report also shows that the development of a robust bond market requires a conducive political environment (IMF 2008). In a conducive political environment, all market participants contribute their efforts which brings potential synergies for the development of an efficient bond market at the national level. The study by Rose and Spiegel (2015) identifies effective governance, rule of law, transparency, and accountability as the factors that contribute to political stability. Conversely, corruption, political unrest, weak institutions, and policy uncertainty can

undermine political stability and often face economic challenges, including volatile bond markets.

Government stability and consistency in applying financial and economic policies tend to increase investors' confidence to invest in security markets. According to Gaasbeck and Marchelle (2020), political volatility and government instability resulted in economic shock, which in turn affects investment decisions as both domestic and foreign investors fear default risk in government and corporate bonds. Historically, this has been more of a problem in developing countries. The main challenges of developing the bond market in developing countries are lack of peace and security, instability of the macroeconomic environment, corruption, weak regulatory framework, and poor financial infrastructure (Arvai and Heenan, 2008). Those challenges are worsened in countries with unstable political environments.

The study by Dennis et.al (2015) on the drivers of government local currency bond market development in Sub-Saharan Africa shows that the local currency bond markets are marked by illiquidity, few corporate securities, and narrow bank-dominated investor bases. They claimed in their study that local currency bond markets are negatively correlated with governments' fiscal balance and inflation, and positively correlated with institutional quality and democracy. The level of government commitment to develop the bond market by bringing together key market players in the process determines how fast the market grows (Harwood, 2000).

ii. Macroeconomic Environment

One of the most important requirements for the development of an efficient bond market depends on the government's commitment to have sustainable fiscal policies, stable monetary conditions, and a credible exchange rate. The stability and growth of the macroeconomic environment exert enormous influence on the development of the bond market. In a more stable and sounder macroeconomic environment, a robust bond market can be developed rapidly (Rose & Spiegel, 2015). High foreign investor participation, a proportional taxation system, capital flows, low inflation, stable interest, and exchange rates are the key ingredients of such an environment.

The research study by Ahwireng-Obeng and Ahwireng-Obeng (2019) states that macroeconomic and financial sector stability are essential to building an issuer's credibility and efficient bonds market. An unstable macroeconomic environment and inconsistent government policies are the most fundamental impediments that hamper the development of the bond market. The study of Harwood (2000), Kibua et al. (2005), and Peiris (2010) shows that due to the unstable macroeconomic environment, investors lack confidence in debt repayment. It is also noted by Rose and Spiegel (2015) that macroeconomic policy determines the economic viability affecting investment decisions and bond market development. Due to government policies, financial institutions hold bond securities until maturity to meet the liquid asset ratio instead of trading them actively in the secondary market.

The commitment of the government to maintain macroeconomic stability is critical for bond market development. Significant political and macroeconomic instability deters the development of a robust bond market (Harwood, 2000). In such countries, issuers and investors will not be interested in locking in fixed rates or floating rates fearing the reverse movement of the interest rates. As the study by Pradhan et.al. (2018) states it, maintaining macroeconomic stability is one of the challenges in developing the bond market in developing countries. A stable macroeconomic environment, including sustainable levels of private and public debt levels, gives investors and savers confidence that the real value of their assets will be preserved. In reverse, high inflation volatility and interest rate fluctuation pose a high level of uncertainty about the future financial scenarios affecting the bond market (John D. et.al., 2015). Both inflation and potential inflationary forces present a serious obstacle to the bond market development (Arvai and Heenan, 2008). Similarly, interest rate has an inverse relationship with bond price and its volatility becomes an obstacle for bond market development.

Foreign investors' participation has a positive impact on the bond market development through their contribution of capital and expertise flows, liquidity, and diversity. Foreign investors' participation can be encouraged by an enabling environment. Harwood (2000) explains an enabling environment as consisting of a range of interactive factors around the market, across other parts of the financial system, and inside the market. The study by Smaoui et al. (2017) and Fabella and Madhur (2003) also explain an enabling environment as an economy with macro and political stability that consists of a broader legal framework, a sufficient number of

issuers, inflation, and interest rate structures that are not too high or volatile, and tax policies that do not disadvantage use of bonds. Volatile monetary conditions and inflationary expectations negatively affect investors' sentiments and bond market development. Kibua et al. (2005) and Peiris (2010) conclude in their study that both domestic and foreign investors will be reluctant to participate in the bond market when there are expectations of high inflation, large devaluations, or high risks of default.

The tax system plays a crucial role in shaping the bond market by affecting the decision-making of issuers, investors, and the overall demand for the bonds (Rahman et al., 2020). The way that capital gains and income from bonds taxed has an impact on people's consumption, savings, and investment choices, which in turn affects the overall level of savings and investment decisions. Hori et al. (2022) argue that inappropriate tax system in a growing economy encourages tax evasion and hinders the development of financial sector.

Many countries use various tax incentives to encourage national savings. The availability of tax incentive encourages investments which can stimulate the need to actively participate in the bond market (Usher, 1977; Menghistu, 1995 and Van Parys, 2012). Higher taxes on interest payments may discourage issuers from issuing bonds, as it increases their cost of borrowing. On the investor side, taxes can affect the attractiveness of bonds as an investment option. Furthermore, the tax system can also influence the demand for bonds. Hori et al. (2022) and Menghistu, (1995) also explained that government policies like excessive transaction taxes and tax withholding can have significant negative implications for market development by reducing savings and distorting the financial system as a whole.

iii. Supervision and Regulation

The regulation of the bond market is essential to ensure its stability, transparency, and integrity. It plays an important role in the implementation of policies that enable the broader environment in bond market development. The regulation and supervision often have to perform a dual role of market development and risk mitigation/consumer protection (Harwood, 2000). It is usually seen as having the objective of assuring fair, efficient and transparent market; minimizing of systemic risk; and protecting investors and consumers in the financial service.

In a robust bond market, the supervisory and regulatory authorities should be independent of political interference in the daily execution of supervisory and regulation tasks. Islamoglu, et al (2015) stated in the study that the regulatory authority needs to have adequate powers, sufficient resources, and skills with clearly defined objectives and accountability to conduct accurate, timely, and comprehensive off-site and on-site examinations and corrective actions. The study by Tessema (2003) also indicated that an adequate legal and regulatory framework is a key playground for bond market participants within which the issuance and trading of bonds are effectively regulated. On the other hand, Fabella and Madhur (2003) mentioned that the regulatory and supervisory entities which are typically government bodies facilitate and regulate the activities of security market participants. The authority regulates market participants, market conduct, transparency requirements, and clearing and settlement procedures (Mbewa, M. et.al., 2007). The regulator has to provide timely and relevant information to market participants. An adequate legal and regulatory framework reduces information asymmetries and attracts international investors.

The Authority also needs to implement up-to-date systems to monitor and enhance the regulatory framework to adapt to changing market conditions and emerging risks. Smaoui et al. (2017) stated that system helps the regulatory authority to create, maintain, and regulate the bond market participants in an orderly, fair, and efficient manner. According to the study by Fabella and Madhur (2003) and Harwood (2000), a well-functioning regulatory system which is free from political interference is the key for bond market development. Moreover, the bond market requires adequate skills and capacity for both market participants and regulators.

The regulatory framework governing the bond market has to define the roles and obligations of market participants. Harwood (2000) states in his study that regulators should keep regulations simple to make them easier for the regulated entity to understand and comply accordingly Fabella and Madhur (2003) also conclude that regulatory framework with prudential regulation and transparent rules inspired confidence in the heart of market participants. As it is indicated by Tessema (2003) in his study, it is not only the regulator, but also the government plays a major role in reducing information asymmetry and increasing investors' confidence.

iv. Bond Market Infrastructure

One of the prerequisites for bond market development in any economy is the existence of efficient and safe bond market infrastructure which makes it easy for investors to buy or sell bonds. Mbewa, M. et.al., (2007) and Joseph Kihara Ringui (2012) explained in their research that an efficient market infrastructure with an effective government benchmark yield curve, information dissemination system, formal automated centralized system for clearing bond transactions, market-making system, and credible credit rating agencies expedites the development of the bond market. On the other hand, poor market infrastructure is a fundamental impediment to the development of the bond market by inhibiting trading. It raises excessive settlement and operational risk, increases transaction costs, and slows order execution, restricts the range of participants in the market.

The study by Smaoui et al. (2017) shows that 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. Kodongo et al. (2023) examined the relationship between bond markets development and the infrastructure gap in Sub-Saharan Africa. The study indicates that African countries have substantial infrastructure gaps, regarded as a binding constraint on their economic growth prospects. According to the study by Harwood (2000), building market infrastructure is a foundation for any market. However, it is not like opening the door and turning the systems to spring the business to life, but it needs the market participant (issuers, investors and intermediaries) ability and willingness to transact with an economic benefit. The study by Tessema (2003) stated that developing security market requires educating the business community and the public about the benefits and costs of investing in securities markets by organizing forums and promoting by public media.

Effectively functioning market infrastructure is critical for the development of an efficient bond market. A fully developed bond market requires a range of active participants and market infrastructure with an active trading of primary and secondary markets. The market infrastructure includes settlement and payment systems with active participants. The trading, clearing, and settlement systems that exist for equities might be modified to support the bonds

market (Harwood, 2000). Developing bond markets can prove to be more intricate compared to the development of equity markets. Technologically advanced and up-to-date securities trading platforms and systems support the development of primary and secondary bond markets. In particular, the market-making and bond transaction-clearing functions require an automated and centralized system.

Credit rating agencies are the other players in the security market for efficient functioning of the markets. The agencies provide investors independent source of information on the credit standing of debt securities issuers. The availability of reliable market data and information helps to attract international investors (Tessema,2003). The known credit rating agencies in the world are Moody's, Standard & Poor's, and Fitch. Investors rely on information from these rating agencies with the expectation that the agencies offer unbiased information using reliable analytical methods and precise statistical measurements. According to the study by Arvai & Heenan (2008), Peiris, S. (2010) and İslamoğlu, et.al (2015), rating agencies sometimes provide inaccurate positive ratings in exchange for profits, leading investors to bad investments. On the other hand, the study by Harwood (2000) states that the absence of credit rating agencies has an adverse effect on the development of the bond market. Institutional investors depend on sovereign ratings to assess the overall investment climate of a specific country. In a sovereign credit rating, the agency evaluates the economic state of a country including the political stability and ability to maintain economic stability.

v. Diversified Intermediaries and Investors Base

Many financial intermediaries (investment firms, dealers, brokers, etc) play an important role in the bond markets. As discussed by various literatures, diversified intermediaries and investor bases expedite the flow of funds from economic sectors with surpluses to sectors with deficits. The research by Mbewa, M., et.al., (2007) and Pradhan et al. (2019) indicated that intermediaries help to create efficient markets by pooling small savings, diversifying risks, lowering transaction costs, and increasing economies of scale in monitoring information and evaluating investment risks.

The intermediaries need to have the capability and clear understanding of the bond market to work effectively and provide valuable market insights to bond market participants.

Intermediaries in some developing economies lack the skills and the tools to attract issuers and investors and hedge market-making positions. As explained by Tessema (2003), securities markets work most efficiently when there are professional intermediaries with enough training and resources to perform their functions. At the initial stage of bond market development, many emerging market countries introduce institutional dealers and market makers that can take positions and manage risks with their capital. According to the study by Harwood (2000), many emerging market countries-including Malaysia, Korea, Hong Kong, Thailand, India, Sri Lanka, and Egypt introduce such primary dealers in their securities markets.

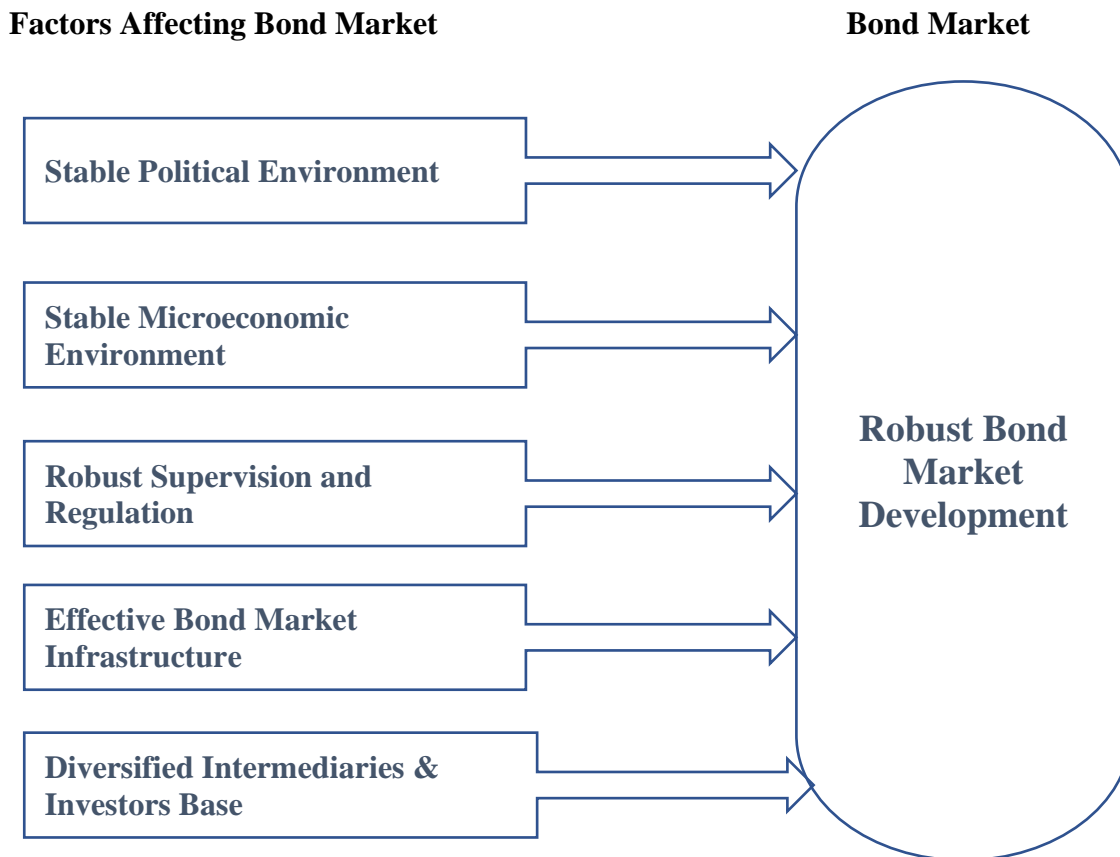
The research study by Joseph Kihara Ringui (2012), Islamoğlu, et al (2015), and Noor Nahar Begum and Md Aktar Kama (2018) explained that a bond market cannot function without having an effective investors base. The investor base comprises institutional investors such as pension funds and insurance companies, foreign investors, and retail investors. Building an investor base is a long-term process that depends on the liberalization of the financial sector and the implementation of a well-functioning regulatory system. Tessema (2003) argues that increasing the investor base requires lifting all legal restrictions and promoting institutional investors (pension funds, public and private insurance companies, and credit unions) to fully participate in the securities markets. On the other hand, the study by Harwood (2000) states that an investor base with only inexperienced and conservative state-owned financial institutions impedes bond market development.

Foreign investors' participation plays an important role in the development of the bond market, especially in developing countries. The participation of foreign investors in the bond market not only broadens the investor base but also contributes to the introduction of financial technology and innovation for higher market efficiency. As explained by Fabella and Madhur (2003), a diverse investor base that includes both domestic and foreign investors promote market stability and efficiency. However, the entry of foreign investors has to be carefully considered due to the risk that they have access to alternative investments and more volatile demand. As it is explained by Joseph Kihara Ringui (2012), the lack of diversified investors' base contributes to the shallowness and liquidity problems in the bond markets. The study by Peiris, S. (2010) finds that barriers to entry of foreign investors, especially in the absence of a strong and diversified domestic investor base, negatively affect the depth and liquidity of the bond market.

The study by Li and Yu (2021) also finds that corruption discourages investments and narrows the investor base. It adversely influences economic development and leads to a less efficient financial system. The study by Arvai and Heenan (2008) finds that government commitment to abolish corruption and bribery increases investors' confidence and encourages them to invest in the bond market. The study by Islamoglu, et,al (2015) explains that a high level of corruption that undermines law enforcement is negatively related to bond market development.

2.3 Conceptual Framework for Bond Market Development

The conceptual framework provides a structured approach to understanding the various key factors and their influence on the establishment and growth of the bond markets. The development of bond market is affected by factors from around the market, across other parts of the financial system, and inside the market (Harwood, 2000). These factors consist of the political environment, macroeconomic environment, supervision and regulation of the financial sector, market infrastructure, and the existence of diversified intermediaries. These factors are independent variables to the development of the dependent variable of the bond market. The following theoretical framework shows the various factors influencing the development of the bond market.



Source: Joseph Kihara Ringui (2012) and Noor Nahar Begum and Md Aktar Kama (2018)

This framework organizes the factors showing how each element contributes to the overall development of bond market. Each factor individually influences and collectively creates a comprehensive environment conducive to bond market development. In addition to the above factors, developing countries need to share the experience of developed countries with a robust bond market to have a comprehensive view of developing bond markets (Harwood, 2000). Moreover, research-based evidence, techniques, and procedures are required to develop a robust bond market in any country. However, these factors did not adequately explored in previous studies from the Ethiopian context. This gap in the literature highlights the need for a more focused and in-depth analysis of the factors influencing the development of the bond market in Ethiopia, particularly in the context of the country's economic challenges and the need for efficient capital mobilization.

Chapter Three

Research Methodology

3.1 Research Design

The bond market in Ethiopia is at the early stage with the absence of secondary bond market and limited existing research on the factors influencing its development specific to the Ethiopian context. In this regard, an exploratory research design was employed to collect the data from variety of sources and perspectives to have a holistic view on the multifaceted factors influencing bond market development. The exploratory research is suitable to uncover qualitative insights on the factors which include political, economic, regulatory, and market infrastructure aspects.

3.2 Research Approach

The study adopted a quantitative research approach philosophy to collect, analyze, and interpret statistical data collected from the respondents. The rationale for using this method was that it provides numerical summary for the large survey data collected from larger sample size and generalize the findings about the key factors influencing bond market development.

The quantitative research approach offers a systematic and structured method for collecting and analyzing respondents' opinions with statistical measures to assess the outcomes objectively. This research allows for precise measurements and comparisons, making it an effective tool to have a comprehensive and holistic understanding of the factors influencing the bond market development in Ethiopia.

3.3 Population and Sampling Technique

The target populations for the study of bond market development in Ethiopia were governmental institutions (regulators and policymakers), national and international financial institutions, academicians and researchers. All of those entities have relation and intervention in the bond market development by shaping and regulating the bond market landscape; participating in bond trading; facilitating bond transactions and providing valuable insights.

Typically, the target populations of the study were government entities, international financial institutions, national financial institution and bond market experts and consultants.

1. Governmental institutions: Ministry of Finance and Economic Cooperation in Ethiopia, National Bank of Ethiopia (NBE), Ethiopian Capital Market Authority (CMA), Ethiopian Investment Holdings (EIH), Justice and Legal Systems Research Institute (JLSRI), Ethiopian Institute of Financial Studies (EIFS), Financial Sector Deepening Ethiopia (FSD Ethiopia), Ethiopian Commodity Exchange Authority (ECX), and Ethiopian Economics Association (EEA) and Academics and researchers.
2. National financial institutions: Commercial banks (32) and Insurances companies (18) working in Ethiopia
3. International financial institutions: The World Bank Group (WBG), and International Finance Corporation in Ethiopia, Economic Commission for Africa (ECA), and International Monetary Fund (IMF) - Ethiopia office
4. Others participants: which includes capital market consultants and experts working in Ethiopia.

From the target population, senior executives and capital market experts with a total of 130 participants were selected as sample respondents using a non-probabilistic purposive sampling technique. The reason for using a non-probabilistic sampling technique is that the target respondents were in a position that has in-depth knowledge and experience in the emerging bond market of Ethiopia.

3.4 Types and Source of Data

The research shall use qualitative data from both primary and secondary sources to explore about factors that influence bond market development in developing country, specifically in Ethiopia. The data from both sources can provide a comprehensive understanding of bond market development. The primary data sources for the study were capital market experts and senior executives selected from government entities, international and national financial institutions all of which have direct and indirect impact on the bond market development. The

opinion and perceptions of these respondents were used as a primary data to analyze the influence of the various factors on the development of the bond market in Ethiopia.

3.5 Methods of Data Collection

The data for the study were collected using a primary data collection method. The primary data from the sample respondents were collected using a non-probabilistic purposive sampling technique. A structured questionnaire using a 5-point Likert scales ranging from strongly disagree to strongly agree was used to gather the qualitative data (opinions, thoughts, and feelings) from individuals who have direct experience with the bond market. It was designed to explore the perspectives of the participants on various factors such as government policies, market infrastructure, intermediary and investor base, and macroeconomic conditions that influence the development of the bond market. The structured questionnaire survey instruments were adopted from Joseph Kihara Ringui (2012), Islamoğlu, et al (2015), and Noor Nahar Begum and Md Aktar Kama (2018).

3.6 Method of Data Analysis

The data collected from the respondents was analyzed using thematic analysis, which involves identifying recurring themes and patterns in the participants' responses. Based on this, the key and influential factors for the development of the bond market were identified. Since the data used for the study were qualitative in nature, the researcher organized and analyzed it with statistical tools using Excel and SPSS.

Firstly, the data analysis was started by organizing and coding the Likert scale data set (the responses) in their respective categories of the factors. To analyze the data, the Likert scale was coded into numerical values. Converting qualitative data into numerical codes made easy the data analysis using statistical analysis techniques (Tashakkori & Teddlie, 1998). Accordingly, the Likert scale were coded as 1 = strongly disagree, 2 = disagree, 3 = Neutral, 4 = agree and 5 = strongly agree. Following this, the Likert scale data were measured by statistical tools of mean, standard deviation, frequencies, sum, rank, tabulation, and comparison among the factors.

The mean values were used to determine the degree of overall inclination of respondents toward the effect of particular factors on the development of the bond market. According to Johnson & Christensen (2016), the mean is the most precise and the best measure of central tendency for data analysis which considers the magnitude of all scores. Based on this, the mean score of each parameter was calculated using a measure of central tendency and categorized as follows.

- Mean score > 3 , the factor is favorable for bond market development
- Mean score < 3 , the factor is not favorable for bond market development
- Mean score $= 3$, the factor is neutral to the bond market development. It was used as a threshold for the analysis of the factors favorability.

Finally, the factors ranked according to the highest weighted mean which indicating more positive answers from respondents. Factors with mean score greater than 3.0 considered as favorable to the bond market development. Conversely, the weighted mean less than 3.0 considered as the factor is not favorable for the development of the bond market.

A comparison among the factors were carried out by ranking the total sum of the mean value of each factor in which the largest total indicates more positive answers from respondents. This is because the factors in the Likert scale with a higher number of respondents were more in agreement than those with a lower number of respondents. Similarly, the standard deviation was used to pinpoint the variation rate between the responses concerning the variables and the overall deviation from the mean values of the responses.

Furthermore, the data output was analyzed, interpreted, and triangulated to address the research questions and highlight the influence of each factor on the bond market development. Finally, the researcher forwarded remarkable recommendations on the way forward for policymakers and market participants for the development of a well-functioning bond market in the country.

3.7 Data Validity and Reliability

3.7.1 Data validity

The validity of the measure in terms of its contents and criterion validity evaluated and estimated by comparing the results to other research findings and bond market development theories. For this reason, the contents and criteria developed and used by Joseph Kihara Ringui (2012), Islamoğlu, et al (2015), and Noor Nahar Begum and Md Aktar Kama (2018) were adopted with minor modification to Ethiopian market context on the wording of the contents to cover all aspects of the concept being measured and relate it with other valid measures of the same concept.

1.1.2. Data reliability

The items in the Likert scale were designed to measure and reflect the same underlying concept; so that different respondents were consistent in their judgments and rating of the items. The reliability and degree of internal consistency were checked by Cronbach's Alpha coefficient. Cronbach's alpha was found to be a convenient test used to estimate the reliability, or internal consistency (Johnson and Christensen, 2008). Based on Cronbach's alpha test, the minimum acceptable level is 0.7 and above this threshold considered to have good internal consistency and reliability.

S/N	Factors Category	No. of Items	Sum of Variance	Sum of Covariance	Cronbach's Alpha
1	Political Environment	6	7.13	4.06	0.89
2	Macroeconomic Environment	6	7.31	4.30	0.90
3	Regulatory & Supervisory	7	9.26	7.24	0.96
4	Market Infrastructure	7	9.31	7.37	0.96
5	Intermediaries & Investor Base	7	8.60	6.30	0.95
Total Valid Factors		33			

The result showed that all of the questionnaire's categories have very high value of Cronbach alpha exceeding the minimum index of 0.7. Thus, according to the results, the measurement scales was very good in its internal consistency and reliability.

Chapter Four

Data Analysis, Presentation & Discussion

This chapter presents the key findings of the study with a comprehensive examination of the survey data concerning the development of the bond market in Ethiopian bond market. The analysis of the data aided by descriptive statistical tools to effectively convey the findings shedding light on the current state and potential opportunities within the Ethiopian bond market.

4.1 Response Rate

A total of 130 questionnaires (55 Google forms and 75 paper forms) were distributed to selected respondents working in governmental institutions, international financial institutions, banks and insurances in Ethiopia and others bond market experts. Out of the 130 questionnaires distributed, a total of 110 valid responses were collected, resulting in an overall response rate of approximately 84.6%. The response rates were higher than what Richardson (2005) stated 50% is regarded as an acceptable response rate in social science research surveys.

Table 1: Statistical summary of survey data

Participant Institutions	No. Respondents	Online Survey	Printed forms survey
Governmental Institutions	18	6	12
International financial Institutions	8	3	5
Banks and Insurances in Ethiopia	100	42	58
Other participants	4	4	0
Total questionnaires distributed	130	55	75
Missing	20	16	4
Collected (valid response)	110	39	71

Source: Survey data

As it is shown in the Table 1, the higher number of respondents came from banks and insurance companies compared to government institutions, international financial institutions, and other participants. This is mainly because the banks and insurances in Ethiopia constitute a

significant portion of the financial sector in terms of both size and influence. The banks and insurances play prominent role in the economy, and hence the development of the bond market.

4.2 Statistical summary of survey data

The survey data has been tabulated summarized and analyzed using descriptive statistical tools to provide a comprehensive presentation and analysis of the study conducted on the factors affecting the bond market development in Ethiopia. The responses collected using the Likert scale had been weighted and converted into weighted response using the weight ranging from 1 for strongly disagrees to 5 for strongly agree.

Table 2: Summary of survey result

Factors	No. Questions	Total Weighted Response	Average Response
Stability of Political Environment	6	1,506	251
Stability of Macro-economic Environment	6	1,446	241
Robustness of Regulatory & Supervisory Environment	7	2,527	361
Effectiveness of Bond Market Infrastructure	7	2,086	298
Diversification of Intermediaries & Investors Base	7	2,240	320

The statistical measures such as mean, standard deviation, and frequency distributions were used to analyzer, summarize and describe the characteristics of the dataset. Frequency distributions provide concise summary of the overall distribution of respondents' opinions and attitudes towards each variable under each factor. The mean and standard deviation were used to analyze, interpret and compare across the factors. For ease of analysis, the neural value (3) had been considered as the threshold in which mean values above the threshold meant that majority of the respondents agreed on the factor as favorable to the bond market development. Based on this, each factor was evaluated with a set of variables and their average mean value to determine their impact.

4.3 Descriptive Analysis of the Data

The dynamics and influences of the various factors examined and described based on the data collected from the respondents. Comprehensive analyses of the factors that influence and shape the bond market development were carried out to gain valuable insights into the current state and future potential of the bond market. The respondents rating grouped in to the five key factors that include political stability, macroeconomic environment, and regulatory environment, the market infrastructure, and intermediary diversification and investors' base

4.3.1 The Political Environment

A stable political environment is one of the five factors that create conducive conditions for the development of bond markets. Under this factor, the study concerned about the government's economic policy, financial sector regulation and reforms; combating corruption and the overall stability of the political environment. The survey data provided valuable insights into the level of stability of the political environment in Ethiopia for the development of the bond market.

The frequency distribution of respondents' perception for each variables that determines the stability of political environment, summarized and presented as follow.

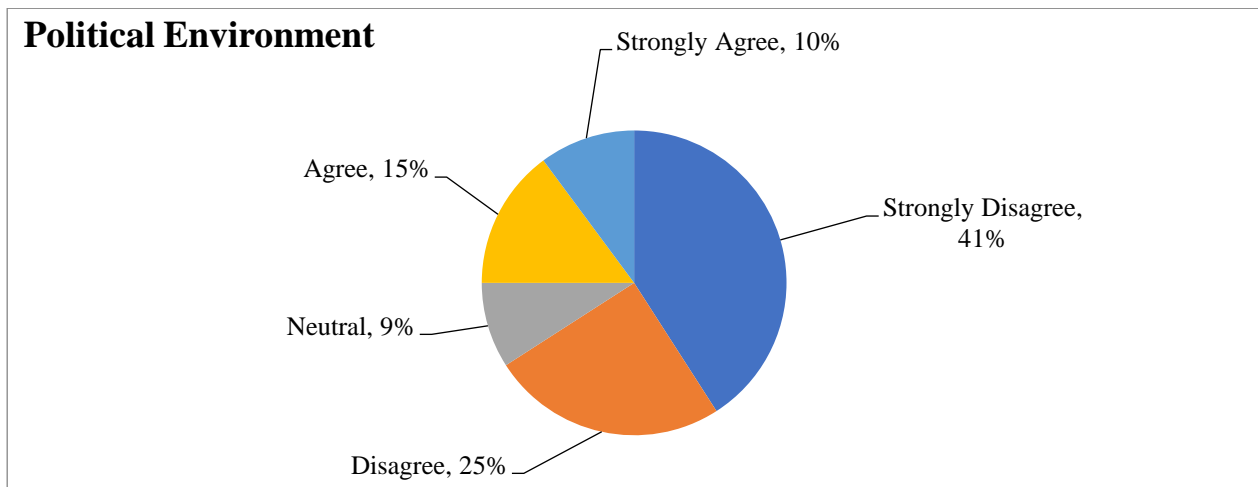


Figure 1: Respondents' level of agreement for stable political environment

The survey data provides insight into the level of favorability of the political environment on the development of bond market in Ethiopia. The result in figure 1 showed that significant

portion of the respondents viewed the current political environment of Ethiopia as unfavorable for the development of the bond market. Specifically, 66% of the respondents (41% strongly disagree and 25% disagree) expressed their disagreement with the favorability of the bond market. On the other hand, 40% of the respondents (10% strongly agreed and 15% agreed) expressed a favorable view of political stability for bond market development. This suggests that there was still a sizeable portion of the respondents who believed in the stability of the political environment. Additionally, 9% of the respondents were neutral on the favorability of the bond market. This neutrality could suggest a lack of strong opinion or knowledge on the subject among this group.

The overall research result for this factor highlights a diversity of perspectives on the favorability of the bond market among the respondents, with a significant portion expressing negative views, while others are more positive or neutral. However, the mean and standard deviation (variability) of each variable under this factor showed an important implication about the stability of the political environment.

Table 3: Descriptive analysis of Political Environment

S/N	Factors	Valid Number (N)	Weighted Total Score	Mean	Standard Deviation
1	Stability of the political environment	110	162	1.47	0.79
2	Current government policy and regulations	110	311	2.83	1.37
3	Stability of financial and economic policies	110	235	2.14	1.08
4	Reforms made on financial sectors	110	425	3.86	1.22
5	Commitment and approach to abolish corruption	110	146	1.33	0.57
6	The overall political environment	110	228	2.07	1.28
	Overall Score	110	251	2.28	1.05

Source: Survey data

As shown in Table 3, the reforms made on financial sectors, with a mean score well above the threshold and considerable variability in respondents' perceptions, have been seen as favorable for bond market development. The result suggested that the reforms made by the Ethiopian government on the financial sector ignite green light on the overall economy that helps to widen and deepening the development of the bond market.

However, the current government policy and regulations showed a mean score slightly below the threshold but with considerable variations in perception of respondents. The result suggested that government policies and regulations is likely unfavorable for the development of the bond market. That is because government policies and regulations directly impact the financial sector and hence the development of the bond market.

The other factors (stability of the political environment, financial and economic policies, combating corruption and the overall political environment) exhibit mean scores well below the threshold (3) with some variances in respondents' perception. The findings indicate existence of unstable political environment, as well as volatile financial and economic policies that significantly impact the market stability and investor confidence. Additionally, the result highlights existence of weak government's commitment to combating corruption that erodes investors' confidence and institutional strength. Consequently, these factors bear adverse consequences for fostering the development of healthy and robust bond market.

In summary, the survey result on the stability of political environment showed an overall mean score of 2.28 with moderate variability (1.05) in respondents' perception. The result is well below the threshold (3) indicating the general sentiment among respondents that the political environment in Ethiopia lacks stability in certain aspects and unable to foster the development of healthy bond market. Unstable political environment is not conducive for both domestic and foreign investors to participate in the development of the bond market. Uncertainty or frequent changes in political environment disrupt the bond market, leading to reduced investor confidence or even withdraw from the market altogether. That is because investors perceived risks and uncertainty associated with investing in the bond market under unstable political climate.

4.3.2 The Macro-economic Environment

Macroeconomic Environment stability comprises the overall economic conditions and the dynamic facets of the country that shapes the economic landscape and the development of the bond market. A stable macro-economic environment is a backdrop for inflation control, stable exchange rates, and sustainable fiscal policies. Under this factor, the study concerned about the key aspects of the exchange rate, interest rate, inflation, tax regime, fiscal and monetary policies, as well as the overall stability of the macroeconomic environment. Respondents rated these factors and the frequency distribution of the response was summarized and presented as follow.

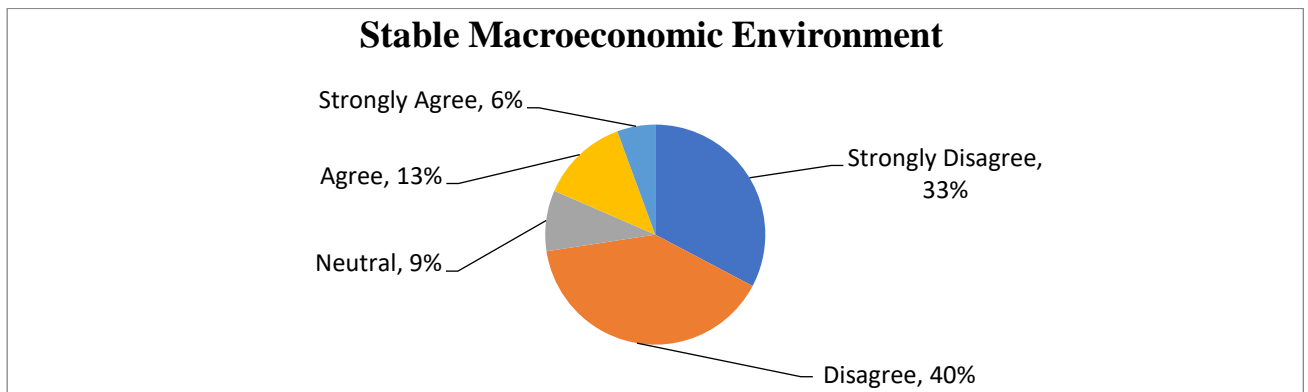


Figure 2: Respondents' level of agreement for macroeconomic environment

The survey data showed that majority of respondents (73%) expressed their disagreement with the factors in relation to the stability of the overall macroeconomic environment. Only 19% of respondents either agreed or strongly agreed with the stability of the macroeconomic environment. This indicate that majority of the respondents rated the stability of the political environment as unfavorable condition for bond market development. The result showed concerns among respondents about the risks and uncertainties associated with the macroeconomic conditions in Ethiopia, which could impact the development of the bond market.

The survey data were further condensed into a single statistical representation (mean and standard deviation) to have a deep and comprehensive understanding of each factor under the broader factor of macroeconomic Environment.

Table 4: Descriptive analysis of macroeconomic factors

S/N	Macroeconomic Factors	Valid Number (N)	Weighted Total Score	Mean	Standard Deviation
1	Favorability of macroeconomic environment	110	218	1.98	0.93
2	Control of exchange rate, interest rate, and inflation rate	110	169	1.54	0.78
3	Current tax regime (tax policies and tax incentives)	110	300	2.73	1.44
4	Current fiscal and monetary policies	110	296	2.69	1.29
5	Stability of macroeconomic environment & economic growth	110	210	1.91	1.00
6	Overall microeconomic environment	110	251	2.28	1.05
Overall Score		110	241	2.19	1.08

Source: Survey data

The research study showed that the macro-economic conditions are unfavorable, with fiscal and monetary policies, control over exchange rates, interest rates, and inflation rates scoring below the desired thresholds. The mean score of the current tax regime (2.73) and the fiscal and monetary policy (2.69) of Ethiopia are slightly below the threshold (3), with considerable variability in respondents' perception. The result suggested that both of these factors are likely favorable for the development of the bond market. The development of the bond market needs a transparent and fair taxation system and policy that encourage investment. However, the study result showed that the existing taxation system and policies have some negative effects on the attractiveness of bonds and the need of investors to actively participate in the bond market. Likewise, the result showed that the fiscal and monetary policy of the country is not

favorable for the bond market development. Both policies affect the bond market development in shaping investor sentiment, market liquidity, and overall bond market development. Fiscal policy affects the bond market dynamics through its impact on economic growth, inflation rates. Meanwhile, monetary policy influences bond markets by regulating interest rates, which in turn affects bond yields and investor demand.

The survey result also revealed that the other factors of the macroeconomic environment have mean score much lower than the threshold (3) with minimal variances in respondents' response. Favorability of the macroeconomic environment scores a mean of 1.98, indicating that it doesn't provide favorable background for bond market development. Control of exchange rate, interest rate, and inflation rate also scored a mean of 1.54 indicate unfavorable economic environment that hampered the overall development of the bond market. Similarly, the stability of macroeconomic environment and consistency of economic growth showed a mean score of 1.91, which implied that the factor is not favorable to attract foreign and domestic investors. As majority of the respondents perceive, the overall macroeconomic environment (2.28) is not favorable for the bond market development.

The overall survey result of the macroeconomic environment proves existence of unstable macroeconomic environment in the country that can impede the development of the bond markets. Instability in the macroeconomic environment creates economic uncertainty, slow down economic growth and higher default risks. These conditions depreciate investors' confidence by increasing their risk perceptions and hampered the overall development of the bond market. The bond market is highly sensitive to changes in inflation rates, interest rates, currency volatility. Interest rates and inflation are closely linked and have a direct impact on consumer spending, borrowing costs, and investment decisions. The tax regime is another important factor that influences business decisions, investment flows, and overall economic growth. Sound fiscal and monetary policies are government' tools used to stabilize the economy during times of crisis and promote sustainable growth in the long run. All of these factors and other macroeconomic challenges are common economic malwares that decrease the attractiveness of the bond market and erode investors' confidence to participate in the bond market. However, most of the challenges and weaknesses can be addressed by implementing policies and taking strategic measures to promote overall macroeconomic stability conducive to

foster the development of a healthy bond market. This requires significant restructuring on the overall economic policies.

4.3.3 Regulatory and Supervisory Environment

Adequate regulatory and Supervisory Environment foster the development of bond market by preventing market disruption and ensuring smooth functioning of the bond mark. The study concerned about the basic factors that determine the role of regulatory and supervisory environment for the development of the bond market. These basic factors include mix of expertise in the regulatory system, clarity of the regulatory framework, requirements to participate in the bond market, timely and relevant information provision, system implemented for regulatory and supervision work, independence of the Authority from political interference.

These variables were examined by the frequency distribution of responses' opinions for each item to understand their influence on the development of the bond market.

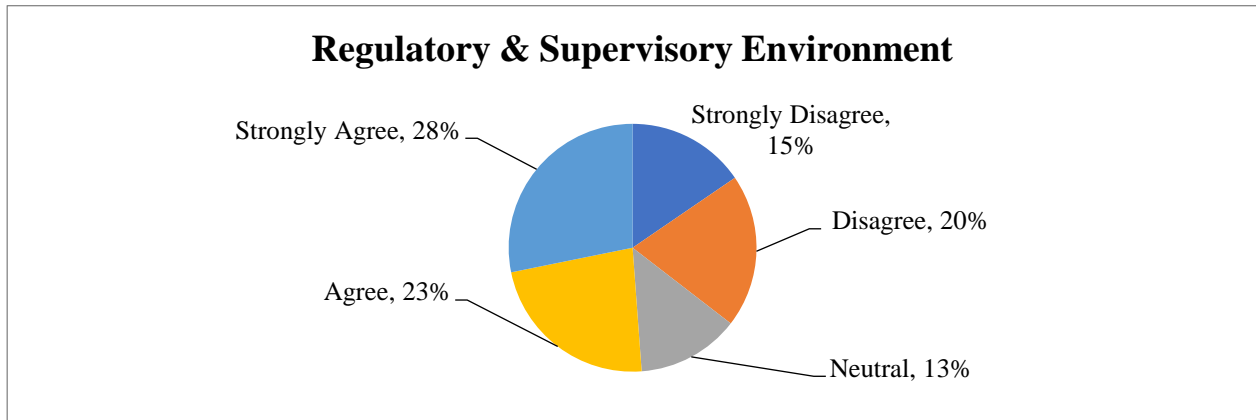


Figure 3 Respondents' level of agreement for regulatory and supervisory environment

Figure 3 provides more concise insights into how respondents perceive the robustness of the regulatory and supervisory environment. The figure indicates that majority of the respondents (51%) either strongly agreed or agreed with a positive perception on the overall statements indicated under the regulatory and supervisory environment. The result showed that there is a favorable regulatory and supervisory environment in Ethiopia, which is somewhat conducive for the development of the bond market. However, almost half of respondents still have either a

neutral (13%) or negative view (35%) on the favorability of the factor. The overall result indicated existence of some rooms for improvement in the regulatory and supervisory environment

The survey data collected from respondents were further condensed into a single statistical representation of mean score and standard deviation (variability). The objective of consolidating the survey data into these statistical parameters was to provide a consolidated overview of the various factors facilitating for a deeper understanding of the broader regulatory and supervisory landscape.

Table 5: Descriptive Analysis of Regulatory & Supervisory Environment

Regulatory & Supervisory Factors	Valid Number (N)	Total Weighted Score	Mean	Standard Deviation
Mix of expertise in the regulatory system	110	431	3.92	1.05
Clarity of the regulatory framework	110	438	3.98	1.12
The requirements to participate in the bond market	110	429	3.90	1.09
Timely provision of relevant information	110	246	2.24	1.07
The system implemented by the Authority	110	424	3.85	1.35
Independency of regulatory from political interference	110	181	1.65	0.89
Overall supervisory and regulatory environment	110	380	3.45	1.40
Average Score	110	361	3.28	1.14

Source: Survey data

The result from the survey data showed that timely provision of relevant information and independencies of regulatory authority from political interference have mean scores of 2.24 and 1.65 respectively. This implies that majority of the respondents agreed that these factors are not favorable for bond market development. Lack of timely and relevant information provision makes investors and other market participants to lose confidence, leading to decreased

participation and potentially hampering the bond market development. Similarly, Political interference in the execution of daily tasks can undermine market stability and investor confidence. When regulatory authorities are free from political influence, they can enact and enforce policies impartially, ensuring fair market practices and investor protection. This independence is vital for maintaining credibility and attracting both domestic and international investors to the bond market.

The fascinating result of the study is that the other factors determining the regulatory and supervisory environment showed remarkable mean scores well above the threshold (3) with some variations in perception of respondents. The survey results indicated that mix of expertise in the regulatory authority (3.92), clarity of market participants' role and obligation (3.98), transparency and fairness of the requirement to participate in the bond market (3.90) and system implemented to regulate bond market participants (3.85). The result of all of these factors generally showed that the regulatory and supervisory environment in Ethiopia is conducive to fostering a healthy bond market development. This implies that the regulatory authority overseeing the bond market have the right mix of expertise and professionals capable of conducting thorough off-site and on-site examinations and taking corrective actions as needed. Furthermore, the survey result showed that the regulatory framework for the bond market is clear and well-defined, outlining the roles and obligations of market participants. Additionally, the requirements for participation in the bond market are deemed fair, clear, and transparent. The authority has also established systems to create, maintain, and regulate bond market participants in an orderly, fair, and efficient manner. In fact there is considerable variation in respondents' opinions about the system implemented to regulate bond market. But there is a general consensus for existence of support system that helps the regulator to avoid improper trading practices and market offense for the development of robust bond market.

Overall, there is a general consensus among respondents regarding the favorable nature of the regulatory and supervisory environment for the development of the bond market. Favorable regulatory and supervisory environment promote transparency, fairness, and investor protection, which are essential for building investor confidence and attracting investment to the bond market. To this end, the survey result showed that Ethiopia has made significant progress in establishing a regulatory and supervisory framework that supports bond market

development. This can contribute to the market's resilience, efficiency, and attractiveness to investors that accelerate the development and growth of the bond market. In fact, for the robustness of the regulatory and supervisory environment, it is necessary to take measures on the gap identified in the study regarding timely provision of relevant information and independencies of regulatory authority from political interference.

4.3.4 The Bond Market Infrastructure

The bond market infrastructure including trading platform (physical or electronic) and trading system used by the financial market underpin the development of the bond market. The infrastructure underpinning the bond market is a key determinant of its development and efficiency. The study explored on the basic variables that shape the bond market infrastructure and their impact on the market's growth and functionality. The core elements under examination include the efficiency of trading platforms and systems, the comprehensive infrastructure supporting the bond market, the availability of reliable market data and information, marketing and promotional efforts, systems for market-making and clearing bond transactions, and the absence of Credit Rating Agencies (CRAs) in Ethiopia. Respondents rated these factors and their level of agreement or disagreement for the overall bond market infrastructure shown as follow.

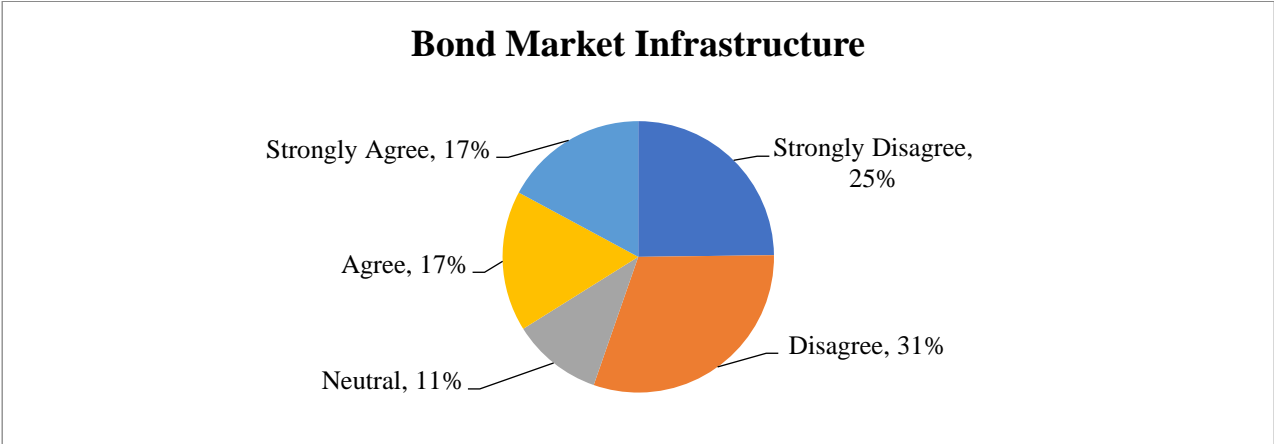


Figure 4 Respondents' level of agreement for bond market infrastructure

As shown from the study result, majority of the respondents (56%) expressed their disagreement with the statements regarding the bond market infrastructure in Ethiopia. This showed that the bond market infrastructure in Ethiopia is not favorable for the development of the bond market. However, there was a considerable variation in respondents' perception that 11% of the respondents were neutral and 34% of the respondents express their agreement as favorable bond market infrastructure.

The survey data was consolidated further into a single value of statistical tools (mean and standard deviation) to have a deep and comprehensive view and deeper understanding of each statement under the bond market infrastructure.

Table 6: Descriptive Analysis of Bond Market Infrastructure

S/N	Factors	Valid Number (N)	Weighted Total Score	Mean	Standard Deviation
1	Trading platforms and systems for primary and secondary bond market	110	235	2.14	0.91
2	Advancement of bond market infrastructure	110	223	2.03	1.02
3	Availability of reliable market data and information	110	247	2.25	1.26
4	Marketing and promotional efforts to attract new investors	110	442	4.02	1.16
5	Existence of centralized automated system for market-making	110	227	2.06	1.15
6	Effects of absence of Credit Rating Agencies	110	450	4.09	1.20
7	Overall satisfaction with the marketing infrastructure	110	262	2.38	1.30
Average Score		110	298	2.71	1.14

Source: Survey data

The survey result showed that most factors related to the bond market infrastructure in Ethiopia are viewed unfavorable by the respondents, except for marketing and promotional efforts to attract new investors and the perceived effects of the absence of Credit Rating Agencies, which are viewed as major issues needing attention.

The marketing and promotional efforts to attract investors have mean scores of 4.02 (above the threshold), in which the effort is entirely favorable in creating conducive environment for the bond market development. Likewise the mean score of 4.09 for effects of absence of credit rating agencies is well above the threshold, indicating that the absence of credit rating agencies negatively affected the bond market development. Conversely, existence of credit rating agencies in Ethiopia can lay a strong foundation in supporting the development of a vibrant bond market. The agencies can significantly enhance market confidence, efficiency, and growth providing transparent, reliable, and independent credit assessments.

The survey results for the other statements under the bond market infrastructure showed mean scores far below the threshold, indicating that these factors are not favorable for the bond market development. Trading platforms and systems for primary and secondary bond market (Mean: 2.14) showed a mean score below the threshold of 3 with low variation in respondents' rating. The result suggested that the existing trading platforms and systems are not generally satisfactory to support the bond market development. Similarly, advancement of bond market infrastructure (Mean: 2.03) with moderate variability in the respondents' ratings, indicate limitations or gaps in the bond market infrastructure that need to be addressed to enhance the development of the bond market. The mean score for availability of reliable market data and information (Mean: 2.25) slightly below the threshold of 3, prove the need for better data management and dissemination practices to support the bond market development. The mean score of existence of centralized automated system for market-making (Mean: 2.06) also point out the need for more sophisticated and efficient systems to support market-making activities in the bond market. The overall level of the bond marketing infrastructure (Mean: 2.38) with considerable variability in the respondents' opinions (1.3) indicate that the overall bond market infrastructure requires improvement to support the development of the bond market.

In conclusion, the study identified that the bond market infrastructure in Ethiopia is not entirely favorable or conducive to the bond market development. The main shortcomings and challenges which may hinder the growth and functioning of the bond market includes, but not limited to inadequate market infrastructure, limited access to trading platforms, and inefficiencies in settlement systems, absence of credit rating agencies, poor data management and dissemination practices etc. The infrastructure with such gaps undermines investor confidence and impedes the bond market development. However, there is positive feedback on the marketing and promotional efforts to attract investors, which can be leveraged to improve other areas. It also indicates the need to address infrastructure gaps and invest in modernizing the infrastructure to stimulate market activity, increase participation, and promote the development of the bond market.

4.3.5 Diversified Intermediaries and Investors Base

Diversified Intermediaries (dealers and brokers) are one of the most important elements required for the development of the bond market making it more attractive for investors. Diversified investors base also play a determining role in the development of the bond market. The basic variables explored in the study includes: (1) the intermediaries in relation to required skill, transparency and integrity and (2) the investors base in relation to openness of the market, diversity of investors and demand for the bonds market. The development of bond market in any developing country can be influenced by these variables.

The frequency distribution of respondents response for these variables had been tabulated, summarized and depicted hereunder

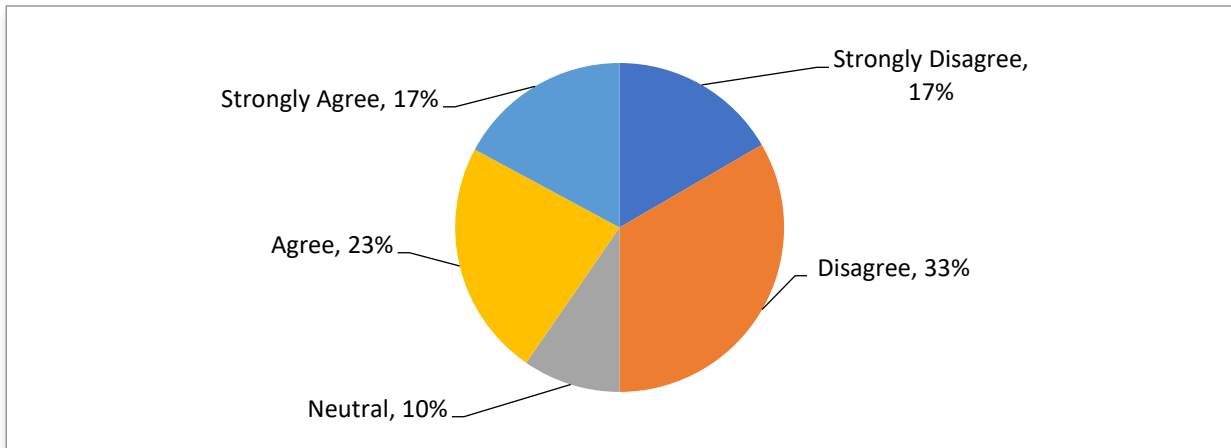


Figure 5 Respondents' level of agreement for diversified intermediaries and investors base

The result of research indicate that there was mixed sentiments in respondents' perception regarding favorability of intermediaries and investors base. In one end, about 40% of the respondents expressed their opinion in agreement about favorably of intermediaries and investors base. In the other end, slightly larger than 50% of the respondents expressed their opinion in disagreement about favorably of the intermediaries and investors base. In between, 10% of the respondents remained neutral on the same issues raised in the survey. Even though there were differing opinions among respondents, the average perception leaned towards unfavorably of intermediaries and investors base for the bond market development. These differing opinions need the concern of policymakers and market participants to consider and work towards creating a more favorable environment that promote the development of the bond market.

The survey data collected from respondents were further condensed into a single statistical representation of mean score and standard deviation (variability). The objective of consolidating the survey data into these statistical parameters was to provide a consolidated overview of the various factors facilitating for a deeper understanding of intermediaries and investors base.

Table 7: Descriptive Analysis of Intermediaries and Investors Base

S/N	Factors	Valid Number (N)	Weighted total Score	Mean	Standard Deviation
1	Existence of professional intermediaries with the required resources	110	215	1.95	0.99
2	Transparency and integrity to provide market insights	110	222	2.02	1.01
3	Ability to utilize digital platforms and trading systems	110	246	2.24	1.07
4	Openness of the capital market to qualified new entrants	110	434	3.95	1.09
5	Existence of diverse range of institutional investors	110	424	3.85	1.07
6	Existence of dependable investors' demand for the bond market	110	404	3.67	1.17
7	Overall satisfaction with the level of intermediaries and investors base	110	295	2.68	1.33
Average Score		110	320	2.91	1.10

Source: Survey data

The survey results indicated an overall mean of 2.91 that falls slightly below the threshold (3), suggesting that most of the respondents considered it to some extent unfavorable for the development of the bond market. However, it is attention-grabbing that the statements regarding diversification of the intermediaries rated with mean scores less than the threshold, whereas the statements regarding diversification of the investors' base rated with mean scores more than the threshold.

The statements regarding intermediaries (existence of professional intermediaries, ability to utilize digital platforms and trading systems and transparency and integrity to provide market insights) were rated with mean scores ranging from 1.95 to 2.24, indicating that respondents

did not believe these factors are favorable for the development of the bond market. The result indicated that the presence of professional intermediaries, the ability to utilize digital platforms and trading systems, and the transparency and integrity in providing market insights are all perceived to be lacking in the development of the bond market.

On the other hand, the statements regarding investors' base (openness of the market to new entrants; existence of diverse institutional investors and existence of dependable demand for the bonds market) were rated with mean scores ranging from 3.67 to 3.95 with moderate variability in respondents' opinion. The higher mean score above the threshold with a moderate variability indicates that the respondents believed these factors are important for the development and growth of the bond market. The result indicated that the factors such as the openness of the market to new entrants, presence of diverse institutional investors, and existence of dependable demand for the bond market are the key drivers for the development of the bond market. In Ethiopia, the involvement of different banks, insurance companies, and pension funds can help for enhancing the depth and liquidity of the bond market. However, if professional intermediaries are lacking, the market may be controlled by a small number of large institutions.

In general, the survey result showed that the intermediaries and investors base in Ethiopia is not entirely favorable or conducive for the bond market development. Lacks of diversified intermediaries in the bond market ecosystem were the main perceived limitations and the significant barriers to the bond market development. The lack of professional intermediaries in the bond market development can hinder efficient and effective transactions. Professional intermediaries play a crucial role in connecting buyers and sellers, providing market analysis, and ensuring smooth settlement processes. Without competent intermediaries, investors may face challenges in accessing the market, pricing their bonds, and understanding the risks involved. Moreover, lack of knowledge on digital platforms and trading systems can limit the reach and accessibility of the bond market. In today's digital age, technology plays a significant role in facilitating trading activities, providing real-time market information, and enabling quick execution of transactions. Without adequate knowledge of digital platforms and trading systems, market participants may miss out on opportunities for growth and innovation. Additionally, the lack of transparency and integrity in providing market insights can erode

investor confidence and trust in the bond market. Market insights are crucial for making informed investment decisions, assessing risks, and understanding market trends. Without transparency and integrity in providing these insights, investors may be misled or misinformed, leading to potential losses and market instability.

Moreover, limitations in the variety and depth of market participants, including lack of foreign investors, and specialized intermediaries, hinder the market liquidity, efficiency, and growth. In spite of these, there are wide opportunities to broaden and deepen the intermediaries and investors base if measures are taken to attract institutional investors, encourage foreign participation, develop specialized intermediaries, and enhance investor education and awareness. Addressing these issues and improving the quality of intermediaries, technology, and market information could help foster a robust and attractive bond market.

4.4 Factors Comparative Analysis

The study highlighted the importance of the factors in fostering bond market development in the country. Accordingly, the factors were ranked according to their mean values of respondents' ratings, with lower mean values indicating less favorability and higher mean values indicating greater favorability for the development of the bond market. Based on the comparative analysis, policymakers and stakeholders can prioritize their efforts and focus on enhancing the factors for a better development of the bond market. The following table shows the comparison among the factors that affect the development of the bond market in Ethiopia.

Table 8: Comparisons among the factors

Factors	No. Variables	Sum of Mean	Aggregate mean	Rank
A Stable Political Environment	6	13.70	2.28	4
Stable Macro-economic Environment	6	13.13	2.19	5
Regulatory & Supervisory Environment	7	22.99	3.28	1
Effective Bond Market Infrastructure	7	18.96	2.71	3
Diversified Intermediaries & Investors Base	7	20.36	2.91	2

In the comparative analysis of the factors influencing the bond market development, the regulatory and supervisory environment was rated as the most favorable factor with a mean score of 3.28, reflecting the current regulations and supervision mechanisms as conducive for the bond market development. Ranked second with a mean of 2.91, the diversified intermediaries and investors base was viewed positively but still has areas needing improvement, as respondents perceived it slightly unfavorable overall. The bond market infrastructure, rated third with a mean value of 2.71, perceived as moderately unfavorable, indicating significant gaps in trading platforms, settlement systems, and information dissemination that require enhancement for better market functioning. The stable political environment ranked fourth with a mean score of 2.28, where political stability was recognized as critical, yet the current conditions are seen as not particularly favorable for bond market growth. Lastly, the stable macro-economic environment ranked as the least favorable with a mean of 2.19 among the factors, highlighting serious challenges in maintaining economic stability, which is essential for controlling inflation, stabilizing exchange rates, and ensuring sustainable fiscal policies, thereby presenting the most considerable hurdle to bond market development.

In general, the result showed that the political stability and macro-economic stability as the least favorable factors compared to the other factors. Political and economic stabilities are critical factors in the development of the bond market. A special focus and prioritizing efforts in these areas are required to promote good governance and reduce political risks.

4.5 Discussion of the Result

The research findings indicated that there are several challenges facing the development of the bond market in Ethiopia. The study highlighted the importance of stable political and macroeconomic environments, robust regulatory and supervisory frameworks, efficient bond market infrastructure, and diversified intermediaries and investors base in fostering the development of the bond market. However, the survey results showed that there are significant gaps and limitations in these areas that are hindering the development of a healthy and vibrant bond market in Ethiopia.

The study revealed that the political environment in Ethiopia is perceived as unstable, with volatile financial and economic policies that impact market stability and investor confidence. Similarly, the macroeconomic conditions are unfavorable, with fiscal and monetary policies, control over exchange rates, interest rates, and inflation rates scoring below the desired thresholds. These factors pose serious challenges to the development of the bond market as they increase investor risk perceptions and diminish confidence in the bond market. On the other hand, the regulatory and supervisory environment in Ethiopia was viewed as relatively favorable, with the right mix of expertise, clear regulatory frameworks, and systems to regulate and supervise the bond market participants. However, there are still areas for improvement, such as the timely provision of relevant information and independence of the regulatory authority from political interference. The study also highlighted the limitations in the bond market infrastructure in Ethiopia, with deficiencies in trading platforms, reliable market data, and automated systems for market-making. These gaps could hinder market efficiency and investor participation, thus impeding the growth and development of the bond market. Additionally, the study identified the need for diversified intermediaries and investors base in the bond market ecosystem. Lack of professional intermediaries, transparency and integrity, and ability to utilize digital platforms were identified as the key challenges that need to be addressed to enhance market liquidity and efficiency. However, it is important to note that these challenges and obstacles for the development of the bond market in Ethiopia are not unique to the country. As it is discussed in the literature part of this study, many developing countries around the world faced similar obstacles in establishing and nurturing their bond markets. The experience of Kenya (Joseph Kihara Ringui, 2012); the bond market development in Bangladesh (Noor Nahar Begum & Md Aktar Kamal, 2018); the lesson from Asian Countries (Fabella and Madhur, 2003); the study on Sub-Saharan Africa (Warfield and Wilder, 2020) signified the importance of robust regulatory and supervisory frameworks, efficient market infrastructure, and diversified intermediaries and investors base for fostering a thriving bond market development.

Overall, the findings of this study underscored the importance of addressing the gaps and limitations in Ethiopia's bond market ecosystem to unlock its full potential. The result highlighted that the bond market development in Ethiopia required a strategic measures to

promote stable political and macroeconomic environments, improve regulatory and supervisory frameworks, enhance bond market infrastructure, and attract diversified intermediaries and investors' base. Addressing all these factors required a holistic and coordinated approach from policymakers, regulators, market participants, and other stakeholders. With the right strategies and collective efforts, Ethiopia can create conducive environment and pave the way for a vibrant and competitive bond market development that benefits the economy and society as a whole.

Chapter Five

Conclusion and Recommendations

5.1 Conclusion

The development of bond market is a crucial component in advancing the financial sector and the overall economic growth. Ethiopia's bond market has the potential to play a key role in the country's economic growth, financial stability and business expansion. The bond market is one of the key elements considered in the journey to develop vibrant capital market in Ethiopia. The development and capitalization of the bond market potential requires a coordinated effort across political, economic, regulatory and infrastructural factors. The research study focused on these key factors and revealed mixed perspective on various aspects impacting the bond market development in the country.

The broader political environment in Ethiopia was deemed unstable and unfavorable for the development of a healthy bond market. Unstable political conditions, volatile economic policies, and weak anti-corruption measures significantly undermine investor confidence and market stability, impeding the bond market growth. Various factors contribute for the political instability in Ethiopia, but the challenges of political unrest and conflict in recent years were identified as a significant barriers and risks to existing and potential investors. With the ongoing war in the country, there is mounting human life loss, humanitarian crisis, and the destruction of basic infrastructures that reverse some of the gains that were achieved in the previous years. Addressing these issues could potentially lead to more favorable political conditions for bond market development. Ongoing efforts also deemed necessary to maintain political stability in the country to boost investors' confidence and long-term market development.

The macroeconomic environment also showed a red signals on its instability under a deflationary situation. The major challenges identified in the study are high inflation, foreign exchange rate crisis and taxation burden. Inflation and low foreign reserve are the main challenges the country facing currently. High inflation and foreign exchange crunches are some of the major macroeconomic challenges the country is facing. Inflation remains one of the most serious macroeconomic issues that are challenging the economy. Similarly, the large gap

between the official and parallel market create foreign currency shortage that adversely affecting domestic industry and foreign investment. Both of these factors may continue to be a pressure for economic instability unless a radical measure taken on the monetary and fiscal policy arrangement to control the drivers of inflation. The current monetary and fiscal policy unable to control the exchange rates, interest rates, and inflation, which poses significant barriers on the overall macroeconomic stability making it unfavorable for the development of the bond market in the country. The current tax regime also perceived as marginally unfavorable; indicate that it cans create uncertainty for investors and issuers in the bond market. These economic uncertainties elevate risk perceptions among investors, reducing confidence and hindering market development by affecting the attractiveness of the bond market. Understanding and monitoring these key factors play crucial roles in speeding up the development of the bond market. In this regard, the national bank Ethiopia and the government jointly responsible to intervene and control these factors to ensure stability and economic growth.

The regulatory and supervisory environment was viewed positively, with measures in place to promote transparency, market integrity and investor protection. It is solid foundation for the development and proper functioning of the bond market. However, the independence of regulatory authorities from political interference and timely provision of relevant information to market participants remain areas needing improvement to keep pace with global standards. Addressing these gaps and strengthening the positive aspects can significantly enhance market credibility and investor protection. System helps the regulator to prohibit against insider trading, market manipulation, and fraudulent transactions.

The study also identified a positive effort in marketing and promoting the bond market. However, the infrastructure expected to support the bond market is currently inadequate, with notable gaps in trading platforms, settlement systems, data management, and the absence of credit rating agencies. All of these undermine the bond market efficiency and investor confidence. Addressing the infrastructural gaps by investing in modern systems is critical step for creating conducive environment for bond market growth.

Additionally, there is a noticeable lack of professional intermediaries; effective utilization of digital platforms, and transparency in market insights; which hinders market efficiency and liquidity. Conversely, the openness to new market entrants and the presence of diverse institutional investors are seen as strengths. Enhancing the quality and diversity of intermediaries and expanding the investor base, including attracting foreign investors, can significantly boost bond market vibrancy and growth.

Overall, the development of the bond market in Ethiopian is at a nascent stage, with substantial challenges and obstacles that need to be addressed to have favorable environment for smooth development of the bond market. The research highlighted the need for targeted interventions to address the challenges facing the bond market in Ethiopia, including stabilizing the political and macro-economic environments, enhancing regulatory and supervisory frameworks, modernizing market infrastructure, and diversifying the bond market participants. Strategic reforms and targeted investments in these areas can foster a resilient and vibrant bond market, ultimately contributing to the broader economic development. Implementing these recommendations requires collaboration among government agencies, regulators, market participants, and other stakeholders.

5.2 Recommendation

The research study identified various challenges and obstacles on the way to develop the bond market in the country. Most of these challenges and obstacles related to political and macro-economic instability, inadequacy of regulatory framework, infrastructure gaps and narrow intermediaries and investor base. A comprehensive and integrated approach is required to resolving these challenges and obstacles for a better and conducive environment. In this regard, the researcher recommends the following multifaceted approach and strategies to unlock the full potential of the bond market in Ethiopia.

1. Ensure political stability: The research study identified instability of the political environment that deters the development of the bond market. The political instability entails poor governance and corruption as the main factors. To alleviate the challenges and maintain political stability, the government has to:

- Implement political reforms and conflict resolution measures to address social and political grievances and promote inclusive growth.
 - Promote dialogue between the government and stakeholders to address concerns and create conducive environment for investment.
 - Focus on maintain consistent and predictable policy frameworks to attract investments and reduce political risks. This can help to create a stable political environment and transparent governance.
 - Implement rigorous anti-corruption measures to build investor confidence and institutional integrity. Strengthening the anti-corruption agencies and enhancing the enforcement of anti-corruption laws can contribute to a favorable business environment. Investors are more willing to participate in the bond market when they perceive lower corruption risks and trust in the legal system to uphold their rights.
2. Stabilize the macroeconomic environment: The macro-economic environment in Ethiopia was seen as the least favorable factor for the bond market development. Persistent issues such as inflation, foreign exchange volatility, and fiscal imbalances undermine economic stability and investor confidence. These challenges make it difficult to maintain a predictable investment climate for the bond market. The following efforts should be made to stabilize the macro-economic environment:
- Implement and pursue sound economic policies and fiscal discipline measures to control and stabilize the inflation rate, interest rates, and foreign exchange rate volatility. This may include regulating the money supply in the economy and influencing borrowing and spending by adjusting interest rates. Sound economic policies and fiscal discipline can significantly enhance economic resilience and attractiveness of the bond market.
 - Implement a reform on the taxation system and strengthen the fiscal policy measures to make it more transparent, fair, and conducive for investment. Incentives for bond market investments can attract more participants.

3. Reform the regulatory and supervisory authority: The country has established effective regulations and oversight mechanisms which ensure transparency, investors' protections, and promote market integrity. The National Bank of Ethiopia (NBE) and Ethiopian Capital Market Authority (ECMA) are responsible to develop robust regulatory environment and aligned with international standards. In this regard, they are expected to:

- Ensure and strengthen the independence of the regulatory authorities from political interference to enhance their effectiveness and credibility. This could involve legal and institutional reforms to guarantee autonomy.
- Develop robust data management and dissemination systems to ensure information transparency and build trust for market participants..
- Invest in capacity building training for the regulatory staff to have the expertise and resources needed to effectively oversee the bond market. The regulatory authority staff must be trained and adapt to evolving market conditions to keep pace with global best practices

4. Address the current infrastructural gaps: Effective marketing infrastructure is fundamental to the efficient functioning of the bond market. Continued investment for developing the bond market infrastructure enhances the smooth and secure bond market operations accommodating higher transaction volumes and more complex products. To address technological and infrastructural gaps, it is necessary to:

- Invest in advanced technologies and digital platforms to have the state-of-the-art bond market infrastructure to enhance cyber security measures and support bond market operations with improved market accessibility, efficiency, and transparency.
- Invest in the development of centralized and automated data management systems for market-making and other trading activities. This includes advanced trading platforms and efficient settlement systems for both primary and secondary bond markets.
- Encourage and facilitate the establishment of credit rating agencies to provide independent and reliable credit assessments. This can enhance market, attract more investors and boost their confidence.

5. Promote and encourage the diversity of intermediaries and investors base: Diversified financial intermediaries and investors are essential to increase the bond market depth and liquidity. In Ethiopia, the presence of various banks, insurance companies, and pension funds can contribute to market depth and liquidity. However, the market will be dominated by these few large institutions with the absence of professional intermediaries. The following measures and efforts have to be taken to broaden the narrowed intermediaries and investor base.

- Promote and facilitate the development of professional intermediaries by providing training, resources, and incentives. These intermediaries play a crucial role in leveraging the digital platforms, enhancing market efficiency and liquidity.
- Implement encouraging policies to attract diverse institutional investors, including foreign participants. This could involve offering investment incentives, reducing and simplifying entry requirements and ensuring fair and transparent market.

These recommendations aimed to address the challenges and obstacles identified in Ethiopia's bond market development. By addressing the challenges and obstacles, Ethiopia can have conducive environment for the development of robust and attractive bond market.

5.3 Limitations of the study

As research conducted on emerging bond market, this study has some limitations that should be taken into account when interpreting the results. The study mainly focused on the key factors influencing the development of the bond market in Ethiopia, but external factors and potential future factors that could impact the bond market developments did not considered. Moreover, the study may have limitations in terms of timeliness as the research relied on respondents' opinion, information and existing data available at the time of research. There may be new developments or changes in the market that were not captured in the study.

In spite of these limitations, the findings and conclusions of the study specific to the context of Ethiopia reflects the other countries or regions with similar market dynamics and regulatory environments.

5.4 Direction for Further Research

Ethiopia has a relatively underdeveloped bond market compared to others developed and emerging economies. However, the country has the potential and ample opportunities to develop robust security market. In this area, it is important to declare that the results of this study may not be conclusive, as there are several potential areas and avenues for future research.

Therefore, it is suggested for future research and scholars to further examine the bond market potential in the emerging economies and contribute to the development of the market.

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Annexes

Annex 1: Research Questionnaires



College of Business and Economics
School of Commerce
Department of Accounting and
Finance

Dear Sir/Madam,

I am a graduate student in Addis Ababa University School of Commerce. I am studying the “Factors Affecting Bond Market Development in Developing Countries – In the Case of Ethiopia”. I am conducting this study to partially fulfill the Requirement for the Award of Degree of Master (MSC) In Corporate Finance: specialization In Investment Management.

I hereby invite you to participate in the research study and respectfully ask you to complete the attached survey questionnaires. It contains 33 questions organized into 5 groups to be rated on a Likert Scale. The survey will take approximately 20 minutes of your time to complete

I assure you that the survey output shall be used for academic purposes only. The data collected and the information obtained will be kept confidential. All survey participants will be kept anonymous in the thesis or any report or publication based on this research. A copy of the summary report will be made available if required.

If you have any questions about the survey, please contact me via phone +251911 25 08 10 or email awgichew@gmail.com.

Thanks in advance for your co-operation.

Yours sincerely,
Awgichew Abiye (MSC candidate)
E-mail: awgichew@gmail.com
Mob: +251 911 25 08 10
Addis Ababa University, School of Commerce

Questionnaires on factors affecting the development of the bond market in Ethiopia

1. General Information

i) Name of the company.....

ii) Classification of your organization (*mark with an 'X' or tick where appropriate*)

Government office

Financial institution

Non-government organization

Any other, (Please *specify*) _____

2. Factors affecting the development of the bond market in Ethiopia

INSTRUCTIONS: Please indicate how strongly you agree or disagree with each of the following statements by marking an “X” or tick in the spaces of your choice. If you are neutral (don’t agree or disagree) with a statement, put your checkmark in the middle space. Please try to complete every item under each category (i to v).

i. Political Environment

S/N	Indicating Variables	1	2	3	4	5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The stability of the political environment in Ethiopia encourages both domestic and foreign investors to participate in the bond market					
2	The current government policy and regulations favor investors' protection and encourage investment in the bond market					
3	The financial and economic policies in Ethiopia are stable and consistent promoting long-term investment and economic development.					
4	The reforms made by the government on financial sectors to improve the business climate and the introduction of capital markets encourage the development of the bond market.					

5	The approach and commitment of the government to abolish corruption and strengthen legal enforcement creates a favorable business environment.					
6	The overall political environment of Ethiopia is favorable for the development of the bond market					

ii. Macro-economic Environment

S/N	Indicating Variables	1	2	3	4	5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The macroeconomic environment of Ethiopia provides a favorable background for bond market development					
2	The exchange rate, interest rate, and inflation rate are under control & favorable for bond market development					
3	The current tax regime of Ethiopia (tax policies and tax incentives) favors the development of a bond market in the country					
4	The current fiscal and monetary policies create a favorable business environment for the development of a robust bond market in Ethiopia.					
5	There is a stable macroeconomic environment with consistent economic growth that attracts foreign and domestic investors					
6	The overall economic environment of Ethiopia contributes to the development of the bond market					

iii. Supervision and Regulation

S/N	Indicating Variables	1	2	3	4	5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The regulator has the required mix of expertise with practical knowledge to conduct comprehensive off-site and on-site examinations and corrective actions					
2	The regulatory framework governing the bond market is clear and well-define the roles and obligations of market participants					
3	The regulatory requirements to participate in the bond market are fair, clear and transparent					
4	The regulator is providing timely and relevant information to market participants regarding regulatory changes					
5	The Authority had implemented systems to create, maintain, and regulate the bond market participants in an orderly, fair, and efficient manner					
6	In my opinion, the supervisory and regulatory authorities are independent of political interference in the execution of daily tasks					
7	Overall, I am satisfied with the supervisory and regulatory environment for the bond market in Ethiopia					

iv. Bond Market Infrastructure

S/N	Indicating Variables	1	2	3	4	5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	There are efficient trading platforms and systems in Ethiopia that support the development of primary and secondary bond market					
2	The bond market infrastructure in Ethiopia is technologically advanced and up-to-date					

3	The availability of reliable market data and information enhances the development and functioning of the bond market					
4	There is an active marketing and promotional efforts in Ethiopia to attract new investors to the bond market.					
5	There is a formal automated and centralized system in Ethiopia for market-making and clearing bond transactions					
6	The absence of Credit Rating Agencies in Ethiopia deters the development of bond market					
7	Overall, I am satisfied with the marketing infrastructure available for the bond market development in Ethiopia					

v. Diversify Intermediaries & investors base

S/N	Indicating Variables	1	2	3	4	5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	There are professional intermediaries (investment firms, brokers, dealers, etc.) in Ethiopia with the required skills, resources, and tools to bridge the gaps between bond issuers and investors.					
2	There is a level of transparency and integrity of the intermediaries to provide valuable market insights to issuers and investors in making informed decisions					
3	The intermediaries have the ability to utilize digital platforms and trading systems to offer market information through electronic means.					
4	In Ethiopia, the capital market is open to qualified new entrants (no restriction), including those from abroad (foreign investors)					

5	There is a diverse range of institutional investors including pension funds, insurance companies, and mutual funds.					
6	There is a dependable level of investor demand for bonds in the emerging primary and secondary markets.					
7	Overall, I am satisfied with the level of bond market intermediaries and investors base for the development of the bond market in Ethiopia					

Annex 2: List of Institutions participated in the Survey

A	List of Government Institutions	# Respondents
1	Ministry of Finance and Economic Cooperation in Ethiopia	2
2	National Bank of Ethiopia (NBE)	2
3	Ethiopian Capital Market Authority (CMA)	2
4	Ethiopian Investment Holdings (EIH)	2
5	Justice and Legal Systems Research Institute (JLSRI).	2
6	Ethiopian Institute of Financial Studies (EIFS)	2
7	Financial Sector Deepening Ethiopia (FSD Ethiopia)	2
8	Ethiopian Commodity Exchange Authority (ECX)	2
9	Ethiopian Economics Association (EEA)	2
B	List of International Financial Institutions	
1	World Bank Group (WBG)	2
2	International Finance Corporation (Ethiopia)	2
3	International Monetary Fund (IMF) - Ethiopia office	2
4	Economic Commission for Africa (ECA)	2
C	List of Commercial Banks	
1	Awash International Bank	2
2	Bank of Abyssinia	2
3	Commercial Bank of Ethiopia	2
4	Dashen Bank	2
5	Dejub Global Bank	2
6	National Bank of Ethiopia	2

7	Tsehay Bank	2
8	Hibret Bank	2
9	Wegagen Bank	2
10	Zemen Bank	2
11	ZamZam Bank	2
12	Amhara Bank	2
13	Nib International Bank	2
14	Abay Bank	2
15	Tsedey Bank	2
16	Gadaa Bank SC	2
17	Sidama Bank S.C	2
18	Omo Bank Share Company	2
19	Berhan International Bank	2
20	Cooperative Bank of Oromia	2
21	Oromia International Bank	2
22	Goh Betch Bank SC	2
23	Hijra Bank	2
24	Shabelle Bank	2
25	Ahadu Bank	2
26	Rammis Bank S.C	2
27	Bunna International Bank	2
28	Addis International Bank	2
29	Development Bank of Ethiopia	2
30	Siinqee Bank	2
31	Enat Bank	2

32	Lion International Bank	2
D	List of Insurance Companies	
1	National Insurance Company of Ethiopia (NICE)	2
2	Berhan Insurance S.C. BISC	2
3	The United Insurance Company UNIC	2
4	Lucy Insurance S.C. (LISC)	2
5	Ethio Life and General Insurance (ELiG)	2
6	Nile Insurance Company Share Company (NICSC)	2
7	Awash Insurance Company (AIC)	2
8	Ethiopian Insurance Corporation (EIC)	2
9	Nib Insurance Company (NIC)	2
10	Zemen Insurance	2
11	Bunna Insurance S.C. (BISC)	2
12	Oromia Insurance Company (OIC)	2
13	Africa Insurance Company (AICSC)	2
14	Lion Insurance Company (LIC)	2
15	Abay Insurance S.C. (AISC)	2
16	Tsehay Insurance S.C. (TISC)	2
17	Global Insurance Company (GIC)	2
18	Nyala Insurance Share Company (NISCO)	2
E	Others	
1	Academics and researchers	2
2	Capital market consultants and experts in Ethiopia	2
Total Respondents		130

Annex 3: Statistical Summary of Survey Data

S/N	Factors	Valid Numbers	Weighted ratings	Mean	Variance	Standard Deviation
1	Stability of the political environment	110	162	1.47	0.63	0.79
2	Current government policy and regulations	110	311	2.83	1.89	1.37
3	Financial and economic policies	110	235	2.14	1.17	1.08
4	Reforms made by the government on financial sectors	110	425	3.86	1.48	1.22
5	Approach and commitment of government to abolish corruption	110	146	1.33	0.33	0.57
6	The overall political environment of Ethiopia	110	228	2.07	1.63	1.28
7	Macroeconomic Environment	110	218	1.98	0.87	0.93
8	Exchange Rate, Interest rate & Inflation	110	169	1.54	0.61	0.78
9	Tax Regime	110	300	2.73	2.07	1.44
10	Fiscal & Monetary Policies	110	296	2.69	1.67	1.29
11	Stable Macroeconomic Environment	110	210	1.91	0.99	1.00
12	Overall Economic Environment	110	251	2.28	1.09	1.05
13	Mix of expertise in the regulatory system	110	431	3.92	1.09	1.05
14	Clarity of the regulatory framework	110	438	3.98	1.25	1.12
15	The requirements to participate in the bond market	110	429	3.90	1.20	1.09
16	Timely and relevant information provision	110	246	2.24	1.14	1.07

17	The system implemented by the Authority	110	424	3.85	1.82	1.35
18	Independency of regulatory ities from political interference	110	181	1.65	0.79	0.89
19	Overall supervisory and regulatory environment	110	380	3.45	1.96	1.40
20	Efficiency of trading platforms and systems	110	235	2.14	0.83	0.91
21	Bond market infrastructure	110	223	2.03	1.04	1.02
22	Availability of reliable market data and information	110	247	2.25	1.59	1.26
23	Marketing and promotional efforts	110	442	4.02	1.35	1.16
24	Systems for market-making and clearing bond transactions	110	227	2.06	1.33	1.15
25	Absence of Credit Rating Agencies in Ethiopia	110	450	4.09	1.45	1.20
26	Overall marketing infrastructure	110	262	2.38	1.73	1.30
27	Capabilities and skills of intermediaries	110	215	1.95	0.99	0.99
28	Transparency and integrity of the intermediaries	110	222	2.02	1.02	1.01
29	Intermediaries ability to utilize digital platforms and trading systems	110	246	2.24	1.14	1.07
30	Ease of entrance in the capital market	110	434	3.95	1.18	1.09
31	Diversity investor base and intermediaries	110	424	3.85	1.14	1.07
32	Demand for primary and secondary bond market	110	404	3.67	1.37	1.17
33	Overall level of bond market intermediaries and investors base	110	295	2.68	1.76	1.33

Annex 4: Covariance of factors

Factor 1			Q1	Q2	Q3	Q4	Q5	Q6
Political Environment	Stability of the political environment	Q1	0.63					
	Current government policy and regulations	Q2	0.24	1.89				
	Financial and economic policies	Q3	0.15	0.44	1.17			
	Reforms made by the government on financial sectors	Q4	0.19	0.56	0.35	1.48		
	Approach and commitment of government to abolish corruption	Q5	0.04	0.12	0.08	0.10	0.33	
	The overall political environment of Ethiopia	Q6	0.21	0.62	0.38	0.48	0.11	1.63

Factor 2			Q1	Q2	Q3	Q4	Q5	Q6
Macroeconomic Environment	Macroeconomic Environment	Q1	0.87					
	Exchange Rate, Interest rate & Inflation	Q2	0.11	0.61				
	Tax Regime	Q3	0.36	0.25	2.07			
	Fiscal & Monetary Policies	Q4	0.29	0.20	0.69	1.67		
	Stable Macroeconomic Environment	Q5	0.17	0.12	0.41	0.33	0.99	
	Overall Economic Environment	Q6	0.19	0.13	0.45	0.36	0.22	1.09

Factor 3			Q1	Q2	Q3	Q4	Q5	Q6	Q7
Regulatory & Supervisory Environment	Mix of expertise in the regulatory system	Q1	1.09						
	Clarity of the regulatory framework	Q2	0.27	1.25					
	The requirements to participate in the bond market	Q3	0.26	0.30	1.20				
	Timely and relevant information provision	Q4	0.25	0.29	0.27	1.14			
	The system implemented by the Authority	Q5	0.40	0.46	0.44	0.42	1.82		
	Independency of regulatory ities from political interference	Q6	0.17	0.20	0.19	0.18	0.29	0.79	
	Overall supervisory and regulatory environment	Q7	0.43	0.49	0.47	0.45	0.71	0.31	1.96

Factor 4			Q1	Q2	Q3	Q4	Q5	Q6	Q7
Market Intermediaries	Efficiency of trading platforms and systems	Q1	0.83						
	Bond market infrastructure	Q2	0.17	1.04					
	Availability of reliable market data and information	Q3	0.26	0.33	1.59				
	Marketing and promotional efforts	Q4	0.22	0.28	0.43	1.35			
	Systems for market-making and clearing bond transactions	Q5	0.22	0.28	0.42	0.36	1.33		
	Absence of Credit Rating Agencies in Ethiopia	Q6	0.24	0.30	0.46	0.39	0.39	1.45	
	Overall marketing infrastructure	Q7	0.29	0.36	0.55	0.46	0.46	0.50	1.73

Factor 5			Q1	Q2	Q3	Q4	Q5	Q6	Q7
Intermediaries & Investors base	Capabilities and skills of intermediaries	Q1	0.99						
	Transparency and integrity of the intermediaries	Q2	0.20	1.02					
	Intermediaries ability to utilize digital platforms and trading systems	Q3	0.23	0.23	1.14				
	Ease of entrance in the capital market	Q4	0.23	0.24	0.27	1.18			
	Diversity investor base and intermediaries	Q5	0.23	0.23	0.26	0.27	1.14		
	Demand for primary and secondary bond market	Q6	0.27	0.28	0.31	0.32	0.31	1.37	
	Overall level of bond market intermediaries and investors base	Q7	0.35	0.36	0.40	0.42	0.40	0.48	1.76