YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF COMMERCE
MASTER OF BANKING AND FINANCE PROGRAMME

FACTORS INFLUENCING THE GOVERNMENT BOND MARKET IN MYANMAR

KHIN THIDA KO
EMBF 5th BATCH

DECEMBER 2019

FACTORS INFLUENCING THE GOVERNMENT

BOND MARKET IN MYANMAR

A thesis submitted as a partial fulfillment towards the requirements for the degree of Master of Banking and Finance (MBF)

Supervised by

Prof. Dr. Daw Soe Thu
Head of Department
Department of Commerce
Yangon University of Economics

Submitted by

Ma Khin Thida Ko
Roll No - 18
MBF 5th Batch

DECEMBER 2019

ABSTRACT

This study focuses to identify Government Bond Issuance in Primary Market in Myanmar and to analyze factors influencing the government bonds markets in Myanmar. To achieve these objectives of the study, primary data is collected from banks: above 90% of Government Bonds holders. Among them, 13 banks are selected by using simple random sampling approach with structural questionnaires. Secondary data is collected from text book, research paper, journal, articles, and internet websites. Descriptive statistic is conducted to describe mean values of variables. According to survey results, it is found that Financial Regulations, Financial stability, Liquidity Risk, Monetary Policy, Regulatory Framework, Repo market, that are strongly highlighted to develop Government Bond Market in Myanmar. Moreover, Public Awareness, Activities of Securities Companies, Performance of Intermediaries should be more improved.

ACKNOLEDEMENTS

Firstly, I would like to express my deepest gratitude to Professor Dr. Tin Win, Rector of Yangon University of Economics for permitting me to study MBF and Dr. Nilar Myint Htoo, Pro-Rector of Yangon University of Economics to prepare this thesis paper.

I am greatly thankful to my supervisor Professor Dr. Soe Thu, Professor and Head of Department of Commerce and Program Director of MBF for her kind support and care, guidance and comments. Moreover, I am greatly thankful to Board of Examiners who gives the useful comments, remarks and engagement through the progress and viva seminar of this master thesis.

I am greatly thankful to Dr. Mya Thett Oo, Associate Professor, Department of Commerce for her valuable guideline and for providing me with the tools that I needed to choose the right direction and successfully complete my thesis.

Furthermore, I would like to give my special thanks to 13 banks for allowing me to collect necessary data for my thesis. I also like to express my appreciation to all respondents from 13 banks for their support to complete my thesis smoothly in time.

Finally, my special gratitude to my parents and my family, for their prayers, support, encouragement and understanding throughout my study period.

CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
ASEAN+3	Association of Southeast Asian Nations plus the People's Republic of China, Japan, and the Republic of
CBM	Central Bank of Myanmar
CMDC	Capital Market Development Committee
FIL	Financial Institutions Law
IMF	International Monetary Fund
JICA	Japanese International Cooperation Agency
MEB	Myanma Economic Bank
MMK	Myanmar kyat (ISO code)
MOFR	Ministry of Finance and Revenue
MOPF	Ministry of Planning and Finance
MSEC	Myanmar Securities Exchange Center
OTC	Over-the-Counter
SECM	Securities and Exchange Commission of Myanmar
SEL	Securities Exchange Law
SER	Securities and Exchange Rules
YSX	Yangon Stock Exchange

CHAPTER I

INTRODUCTION

Financial markets play a vital role in facilitating the smooth operation of capitalist economy by allocating resources and creating liquidity for businesses and entrepreneurs. The markets make it easy for buyers and sellers to trade their financial holdings. Financial markets create securities products that provide a return for those who have excess funds and make these funds available to those who need additional money.

The global financial markets, such as capital markets (stock market and bond market), money markets, foreign exchange markets, derivatives markets, interbank markets support to investors who trade without barriers in short term financing and long term financing with many financial instruments throughout the world. The bond markets is the most important source of financing for companies and governments.

According to Michael J. Fleming (1997), many important uses of U.S. Treasury securities stem from the securities' immense liquidity. Market participants use Treasuries to hedge positions in other fixed income securities and to speculate on the course of interest rates because they can buy and sell Treasuries quickly and with low transaction costs. The high volume of trading and narrow bid/ask spreads also help make Treasury rates reliable reference rates for pricing and analyzing other securities. In addition, the Federal Reserve System, foreign central banks, and depositary institutions hold Treasuries as a reserve asset in part because they can buy and sell them quickly with minimal market impact.

Government bond market support to financial stability and growth of national economy. Moreover, government bond investors' liquidity mismatch can be easily covered in government bond market. Government bond market is essential and most useful market among the financial markets.

1.1 Rationale of the Study

All government use collecting the tax, printing money, issuing the government bond and borrowing the external debts that are covered to their budget deficit, the gap of implementation and upgrading of the infrastructures and public finance expenses are more than national income. Issuing the government bond is the most suitable financial instrument to cover the government budget deficit and it can be reduced inflation in the economy rather than printing money.

The Government of Myanmar transformed a planned economy to a market-oriented system and started the process of financial market modernization and liberalization in the early 1990s, allowing private sector participation in financial activities. To develop a financial system in line with the market envisaged by the government and to promote the efficiency of financial activities, the Central Bank of Myanmar Law was enacted on 2 July 1990.

After 2010, government reformed financial sector mainly banking development with Financial Institution Law, Rules and Regulations to promote financial stability and financial market infrastructure. The Central Bank of Myanmar has issued Government Treasury Bonds and Bills to develop the government bond market since 1993. Primary Bond Market already started but there was no place to sell whenever they were in need of cash.

Myanmar Securities Exchange Company (MSEC) was established in 1996 and started over-the-counter (OTC) market, part of capital market. In 2013, the Central Bank of Myanmar (CBM) gaining its independence by law from the then Ministry of Finance (MOF), and the passage of the Securities Exchange Law (SEL). The SEL laid the foundation for the key legal framework for the securities market, established the Securities and Exchange Commission of Myanmar (SECM) and the Yangon Stock Exchange (YSX), and defined market participants and their activities. In July 2015, SECM issued the Securities and Exchange Rules (SER) and subsequently released notifications and instructions with further regulations for the securities market. By arrangement of MOF and SECM, the YSX was successfully opened on 9 December 2015.

Myanmar is a member of the ASEAN, and cooperating with ASEAN countries. The Asian Bond Markets Initiative (ABMI), known as ASEAN+3 (China, Japan, Korea) established in 2003 to develop local currency (LCY) bond markets such as promoting the issuance (supply) of local-currency-denominated bond, facilitating Demand for local-currency-denominated bond, strengthening the regulatory framework and improving related infrastructure for bond market.

Regarding the development of Bond Market, under the ASEAN Bond Market Initiative (ABMI) program, with the assistance of Japan - ASEAN Fund for the Technical Assistance (JAFTA), the ASEAN Secretariat assigned the Daiwa Institute of Research

(DIR) for the Technical Assistance. Japan, Thailand and Korea are providing the Technical Assistant for Myanmar Capital Market Development according to MOUs.

In 2016, Ministry of Planning and Finance (MOPF) and Central Bank of Myanmar (CBM) implement the financial infrastructures for efficient payment systems and domestic and international dealing for Foreign Exchange Market, Money Market and Bond Market such as Secured Payment System (Society of Worldwide Interbank Fund Transfer - SWIFT) , Electronic Dealing Platform (Refinitiv, previously Thomson Reuters), Central Securities Depository (CBM-Net CSD) (Real Time Gross Settlement) system look like CSD-RTGS in ABMI+3 countries.

Currently in Myanmar, short term financing, such as money market, foreign exchange market, deposit auction, treasury bills auction and Repo market are actively used in interbank market. Long term financing are needed to develop for short term liquidity mismatch for the institutional investors and also individual investors.

The development of primary market relies on an active secondary market. Government bond investors will have confidence to invest more Treasury bonds if there is an active secondary market. Developing securities companies is a key to develop the secondary market. Central Bank of Myanmar is also taking Repurchase Agreement (Repo) into consideration to develop the financial markets and to facilitate management of the liquidity in the market.

The key factors, the activities of securities companies, investor development and the process of securities intermediaries are very important factors for and closely linked to and influence to secondary market development of government bonds in Myanmar.

1.2 Objectives of the Study

The objectives of the study is

(1) To identify the Government Bond Issuance in Primary Market in Myanmar
(2) To analyze the Factors Influencing the Government Bond Market Development in Myanmar.

1.3 Scope and Method of the Study

This study is mainly descriptive using primary data with questionnaires from local banks who hold above 90% of total outstanding of government bonds, in that data some key factors influencing on government bond market development in Myanmar. The required secondary data collect from Central Bank of Myanmar Website and some are related websites.

1.4 Organization of the Study

This study is being organized into five chapters. Chapter (1) is the introduction and in it rationale, the objectives, method and scope of the study are described. Chapter (2) is literature reviews on international practice for government bond market. Chapter (3) is described the overview of primary market of government bond and going implementation for secondary market of government bond in Myanmar. In Chapter (4), analysis on the development of government bond market in Myanmar is presented and Chapter (5) is conclusion, suggestion and recommendation.

CHAPTER II

LITERATURE REVIEWS

A bond is a type of investment where the investors lends money to a borrower (the issuer), e.g. government or statutory authorities or a company which issues the bond for the purpose of raising capital. The issuer pays the investors an agreed interest rate (coupon), is paid semi-annually or quarterly throughout the life of the bond. The bond is for an agreed term (time period) which is always more than one year. At the end of term, the issuer pays the amount borrowed back to the investors.

A government bond is a bond issued by a national government, generally with a promise to pay periodic interest payments called coupon payments and to repay the face value on the maturity date. The aim of a government bond is to support government spending. Government bonds are usually denominated in the country's own currency.

2.1 Government Bond Market Definition and Types of Bond

The government bond market is defined as the market for tradable securities issued by the central government. The primary focus is on the market for bonds, which are tradable securities of longer maturity (usually one year or more). These bonds typically carry coupons (interest payments) for specified (quarterly or semi-annually) periods of the maturity of the bond. The market for treasury bills (securities with a maturity less than a year) and other special securities is considered here in the context of developing a long term bond market.

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

The government bond markets may also be divided into primary markets and secondary markets.

2.1.1 Primary Market

Primary market is the selling of a new issue of a treasury bond to investors by issuers (government). Issuance of government bond tenors are, short term is up to 1 year (treasury bills), medium term is 2 year to 10 year (treasury notes), and long term is above 10 year (treasury bonds). Government uses an auction, the process offering bonds, taking competitive bids and accepting the best (stop-out price). New issues can be distributed directly by the government but government officially appoints the intermediaries (primary dealership) to distribute all new issues.

2.1.2 Secondary Market

Secondary market is the selling of bonds by one investor to another. Secondary market requires intermediaries, such as banks, insurance companies, pension funds, mutual funds. The government bond can be trading in over-the-counter (OTC market). The government appoints official market-makers who are often also primary dealers (intermediaries). Treasury bond price and yield are inversely correlated. Liquidity is a crucial aspect of securities that are traded in secondary markets.

There is an active secondary market for Treasury bonds, making the investments highly liquid. The secondary market also makes the price of Treasury bonds fluctuate considerably on the trading market. As such, current auction and yield rates of Treasury bonds dictate their pricing levels on the secondary market. Treasury bonds on the secondary market see prices go down when auction rates increase, as the value of the bond's future cash flows is discounted at the higher rate. Inversely, when prices increase, auction rate yields decrease.

2.1.3 Stock Exchange

A stock exchange, share market or bourse is a corporation or mutual organization which provides facilities for stock brokers and traders, to trade company stocks and other securities. The securities traded on a stock exchange include: shares issued by companies, unit trusts and other pooled investment products and bonds. To be able to trade a security on a certain stock exchange, it has to be listed there. Usually there is a central location at least for recordkeeping, but trade is less and less linked to such a physical place, as modem markets are electronic networks, which gives them advantages of speed and cost of transactions.

Trade on an exchange is by members only. The initial offering of stocks and bonds to investors is by definition done in the primary market and subsequent trading is done in the secondary market. A stock exchange is often the most important component of a stock market. Increasingly, stock exchanges are part of a global market for securities.

2.1.4 Over-the-Counter (OTC Market)

Over-the-counter (OTC) trading is to trade securities that are not listed and traded on an organized exchange. Over-the-counter (OTC) market is the market in which securities transactions are conducted through a telephone and computer network connecting dealers in stocks and bonds, rather than on the floor of an exchange. Over-the-counter stocks are traditionally those of smaller companies that do not meet the listing requirements of exchange. Most of bond trading are done in the Over-the-counter (OTC) market.

2.1.5 History of Bond Markets

The first general government bonds were issued in the Netherlands in 1517. Because the Netherlands did not exist at that time, the bonds issued by the city of Amsterdam are considered their predecessor which later merged into Netherlands government bonds. The average interest rate at that time fluctuated around 20%.

The first official government bond issued by a national government was issued by the Bank of England in 1694 to raise money to fund a war against France. The form of these bonds was both lottery and annuity. The Bank of England and government bonds were introduced in England by William III of England (also called William of Orange), who financed England's war efforts by copying the approach of issuing bonds and raising government debt from the Seven Dutch Provinces, where he ruled as a Stadtholder.

Later, governments in Europe started following the trend and issuing perpetual bonds (bonds with no maturity date) to fund wars and other government spending. The use of perpetual bonds ceased in the 20th century, and currently governments issue bonds of limited term to maturity.

During the American Revolution, the U.S. government started to issue bonds in order to raise money, these bonds were called loan certificates. The total amount generated by bonds was $27 million and helped finance the war.

According to James Chen (2019), Treasury bond (T-bond) is a government debt security that earns interest until maturity, at which point the investor is also paid a par amount equal to the principal. Treasury bonds are part of the larger category of government bonds, a type of bond issued by a national government with a commitment to pay period interest payments known as coupon payments as well as the principal upon maturity. Treasury bonds make interest payments semiannually or quarterly. Treasury bonds are known in the market as primarily risk-free.

2.2 Types of bond

There are three types of government bond, treasury bonds, municipal bonds and zero coupon treasury bonds.

2.2.1 Treasury bonds

Treasury bonds are U.S. government debt securities with a maturity range between 10 and 30 years and which are marketable and set at a fixed interest rate. T-bonds pay semiannual interest payments until maturity, at which point the face value of the bond is paid to the owner. Along with Treasury bills with a maturity range up to 1 year, Treasury notes with a maturity range between 1 and 10 years, and Treasury Inflation-Protected Securities, Treasury bonds are one of four virtually risk-free government-issued securities.

2.2.2 Municipal Bonds

A local government, city or state issues municipal bonds. Their purpose is to generate money for day-to-day operations and specific municipal projects such as infrastructure development. The two main types of municipal bonds are revenue bonds and tax-backed bonds. Revenue bonds include airport revenue bonds, college and university revenue bonds, hospital revenue bonds, public power revenue bonds, single-family mortgage revenue bonds, seaport revenue bonds, student loan revenue bonds, resource recovery revenue bonds and water revenue bonds. Other types of municipal bonds include structured or asset-backed securities, refunded bonds, bank-backed municipal bonds and insured bonds. Tax-backed municipal bonds are issued by towns, cities, special districts, counties and states and are secured by tax revenue.

2.2.3 Zero Coupon Treasury Bonds

A zero coupon bond, also called a zero, is issued and fully backed by the U.S. government. Zero coupon bonds are also called strips, short for separate trading of registered interest and principal of securities. These bonds are bought below face value, and their principal amount, plus interest, payment is accrued at the time of maturity. Zero coupon bonds do not make recurring interest payments, or coupons.

2.3 Necessary for Government Bond Market Development

Government bond market development process is the continued macroeconomic and financial sector stability that are essential to building and efficient market and establishing the creditable of the government as an issuer of debt securities. Fundamental for establishing an efficient government domestic currency bond market include a creditable and stable government; sound fiscal and monetary policies; effective legal, tax and regulatory infrastructure; smooth and secure settlement arrangement; and an liberalized financial system with competing intermediaries. These basics are lacking or very weak, priority should be given to adopting and implementing a stable and creditable macroeconomic policy framework, reforming and liberalizing the financial sectors, and ensuring the proper peace of liberalization in different areas.

There are several essential components to develop a domestic bond market:

(1) The framework of the budgetary process as well as debt management operation must support the continuing supply of bonds through operation such as automatic refinancing or refunds of maturity debt. Moreover, tools such as reopening of benchmark issues and repurchase operations of government bonds are also essential for the efficient functioning of bond market operations.

(2) There should be an adequate infrastructure, both legal and operational, to support the trade and transfer of instruments of funds. Operational infrastructure includes such things as a delivery versus payment system that is safe, repaid and efficient to ensure finality of fund transfer. An efficient bond registration system is also essential to provide legal protection of ownership of bonds. Rules and regulations

to support trading and financing operation such as repurchase agreements, securities lending, short positioning, as well as hedging practice are all essential elements.

(3) There must be a collection of market participants comprising both intermediaries such as dealers or inter-dealer brokers, as well as end-users such as mutual funds, provident fund and pension funds and insurance. The end-users will provide a steady stream of long term demands for bonds, which will complement the dealers' more traditional short term horizon. In addition, the portfolio structure of end-users also act as a counter-cyclical force to the one-way market of financial intermediaries, which is common to an emerging market, and helps preempt a massive panic or withdrawal of funds.

(4) There must be a deed and liquid government bond market to serve as a benchmark against which corporate papers can be prices. To ensure that a government bond market can continue to provide the benchmark yield curve, the system must be predictable and transparent.

(5) In addition to an environment supporting bond market (including macroeconomic and political stability, economic growth and low inflation, a sufficient number of bond issues, interest rate structure, tax policies, a broader legal framework and more), additional factors supporting bond markets (including market yield curve, dealer community, elaborate trading apparatuses, clearing and settlement systems and others) are necessary.

The government bond market may play an important role in the economy through greater diversification of financing, an easier process of risk transformation and a smaller concentration of financial risk.

2.3.1 Benefit of Government Bond Market

The government bond markets can have many economic benefits: the most important of them are below:

(1) It allows a more efficient allocation of savings as it matches the borrowers and savers directly. Hence, it reduce the role of banks in the investment process. In addition, the especially important role banks play in the payment system.

(2) The bond markets allow borrowers to use capital that is tailored to their assets and operations. Banks typically like to lend short because their funding sources are

very short, but projects are not necessarily short term. The maturity mismatches have traditionally been one of the biggest sources of domestic market problems.

(3) The economic benefit of long term bond markets is that they provide retail and institutional investors with several high-quality and liquid domestic saving vehicles. Bonds have many characteristics that allow savers to choose their risk and maturity, and to develop investment funds and pension funds.

(4) The existence of a deed and liquidity bond market allows financial institutions to prepare themselves better for risk management. The authority can require the banks to maintain a higher liquidity ratio, comprising both government and top-rated corporate bonds. The banks can resolve their liquidity problem on their own by selling the bonds. Bond markets allow banks and other financial institutions to transfer their debt to debt tradable in the bond market through securitizations.

(5) Government bonds provide a pricing benchmark for the corporate sectors.

(6) At the macroeconomic policies level, a government bond market provides an avenue for domestic funding of budget deficits other than that provide by the central bank. And also the government bond market development can increase overall financial stability and improve financial intermediation through greater competition and development of related financial infrastructure, products and services.

(7) The government bond market create monetary policy instruments and also strengthen the transmission and implementation of monetary policy, including the achievement of monetary targets or inflation objectives, and can enable the use of market-based indirect monetary policy instruments.

(8) The government bond market can attract foreign investment. Foreign investors can bring in funds to invest in high quality papers denominated domestic currency. Without a bond market, domestic companies have no choice but to borrow abroad and bear the foreign exchange risk.

2.4 Factors of Government Bond Market Development

The factors that influence to the government bond market development. There are four main categories factors, such as macroeconomic factors, financial system factors, factors of laws and institutions and other factors.

2.4.1 Macroeconomic factors

In the macroeconomic stability factors, volatility of inflation rate and foreign exchange rate is important. Low and stable inflation rate stabilizes the value of cash flows, and is indispensable for expanding long-term bond markets. Also, stable foreign exchange rate decreases exchange rate risk and increases investment from abroad. Stable inflation rate and foreign exchange rate promote expansion of bond markets.

2.4.2 Financial system factors

Bank Size, Banking System and Stock Market Size include in this categories. Banks play important roles as issuers, investors and intermediaries. Market institution, issuers and investors support bond market expansion.

2.4.3 Factors of laws and institutions

Establishment of laws and institutions plays an important role in expanding financial systems. Market-related laws and regulations, reforms of taxes that impede bond investment, such as withholding tax for non-residents.

2.4.4 Other factors

Issuers, investors, intermediaries and policy authorities, Market infrastructure and Factors affecting development of secondary markets include in other factors.

(1) Issuers

As components of bond markets, issuers and investors are of the utmost importance. Market participation can be promoted through various developments of issuing environments.

(2) Investors

Institutional investors, individual investors, and foreign investors must be expanded. Institutional investors are expected to bring bond market expansion, improvement of liquidity, progress of financial technology, and improvement of corporate governance. To realize active transactions by institutional investors, easing restrictions on investment targets; such as compulsory ownership of government bonds, lowest credit ratings regulations, promoting adoption of market-price accounting, and assisting improvement of asset management and risk management skills are necessary.

(3) Intermediaries and policy authorities

Local securities companies and banks are expected to play central roles. A high level of expertise is required for intermediaries. There must be authorities that are highly committed to market development. As market development is related to fiscal and monetary policies, etc., conflicts of interest may emerge between other authorities. Therefore, appropriate capabilities of relevant authorities are critical for market development.

(4) Market infrastructure

(a) Government bond and short-term money markets: Government bond markets provide benchmark interest rates and promote growth of intermediaries. Short-term money markets are necessary for constructing short-term interest rate structure, and their development is related to expansion of transactions such as repos and interest rate and currency swaps.

(b) Trading platforms such as securities exchanges.

(c) Information infrastructure of market prices and transaction situations: Transparency of market prices increases reliability of transactions and assists market-price valuation of investment portfolios.

(d) Derivatives and repo markets: Derivatives transactions enable hedging of market and credit risks, and improve transparency and correctness of market prices, which leads to higher market liquidity and lower volatility.

(e) Bond transaction and settlement systems.

(f) Foreign exchange market: Foreign exchange trades are very important for cross-border transactions.

(5) Factors affecting development of secondary bond markets.

(a) Greater Diversity of Investor Profile (market participants)

(b) Market Access (laws and institutions)

(c) Foreign Exchange Regulations (laws and institutions)

(d) Transaction Funding (availability of short-term funding by market participants) (market infrastructure)

(e) Tax Treatment (laws and institutions)
(f) Settlement and Custody (market infrastructure)
(g) Hedging Mechanisms (market infrastructure) and
(h) Transparency (market infrastructure).

Greater Diversity of Investor Profile is the most important factor affecting liquidity.

According to Eglė Aleknevičiūtė, Vytautas Magnus University, Lithuania, the most important global factors, such as global risk aversion, global market portfolio, money market uncertainty, commodity market uncertainty and economic policy uncertainty influence to government bond market. Credit risk, liquidity risk and global risk are main risk and effect to government bond risk premium.

CHAPTER III

GOVERNMENT BOND MARKET PRACTICE IN MYANMAR

Developing a government securities market is a complex undertaking that depends on the financial and market system development of each country. For many governments, this involves immense challenges, as the problems that inhibit securities market development run deep in the economy. Absence of a sound market infrastructure may make specific actions to develop a government securities market premature. A paucity of institutional investors, low domestic savings rates, and lack of interest from international investors can result in a small, highly homogeneous investor group, contrary to the heterogeneity needed for an efficient market. Furthermore, economic instability, often fed by high fiscal deficits, rapid growth of the money supply, and a deteriorating exchange rate, can weaken investor confidence and increase the risks associated with development of a market for government securities.

3.1 Government Bonds Issuance in Primary Market

Myanmar's economy shifted from a socialist regime to market oriented system in 1988. Central Bank of Myanmar (CBM) Law (1990), Financial Institution of Myanmar Law (1990) were enacted. In line with the Central Bank of Myanmar Law and Securities Act, on behalf of the government, the Central Bank of Myanmar, has issued 3-year and 5-year Government Treasury Bonds since 1993 and additional issued 2 year tenor in 2010. Aims to finance the budget deficit within the annual borrowing limit of the Government, to give more investment opportunities to the public, to develop capital market in Myanmar, and to introduce an indirect instrument for monetary policy.

Table 3.1 Issuing Types of Bonds Status of Government Bonds before Auction

Year	Types of T-Bond	Denomination (MMK)
1993	3-year T-Bond	10,000 and 100,000
	5-year T-Bond	10,000 and 100,000
1996	3-year T-Bond	1,000,000
1997	5-year T-Bond	1,000,000
2010	3-year T-Bond	10,000,000
2010	5-year T-Bond	10,000,000
	2-year T-Bond	10,000 and 100,000 and 1,000,000 and 10,000,000

Source: Workshop on Bond Market Development in Myanmar, 2017 by CBM

Under the previous Central Bank Law, 1990, government bonds were sold by CBM directly into the market comprising both public and private investors. Since 2010, CBM has designated two financial institutions, Myanma Economic Bank and MSEC, to sell Treasury Bonds to financial and nonfinancial institutions, and to private investors. CBM itself continued to sell Treasury Bonds to financial institutions until the introduction of competitive auctions in September 2016.

There are two types of government securities, treasury bills and treasury bonds.

(1) Treasury Bills (T-Bills)

Myanmar Kyat denominated Bill issued on a discount from par basis. The face value of the T-Bills is paid on maturity date. Discount on T-Bills that receive on purchase date. There are 3 tenors in T-Bills, such as 3 months, 6 months and 12 month. Participants bid with multiple interest rate per bid amount. T-Bills auction is held twice a month. In the last auction date (11th Dec 2019), discount interest rate (weighted average rate) are 7.986% per annum for 3 month, 8.888% per annum for 6 month and 9.45% per annum for 12 month.

(2) Treasury Bonds (T-Bonds)

Myanmar Kyat denominated Bonds issued with a fixed coupon rate which is paid semi-annually. The face value of the T-Bonds and final payment of Coupon Interest are paid on maturity. Before starting auction 2016, 2 years, 3 years and 5 years are issued. Starting the auction, bidding is based on maturity date with coupon rate including accrued interest. Participants bid multiple yield per bid amount in the auction. Treasury Bonds maturity date and coupon date are same in 15 May and 15 November every year at the moment. They are freely tradable and need to be registered at CBM.

Before starting auction 2016, Interest Rate (coupon rate) are 8.75% per annum for 2-year treasury bonds, 9% per annum for 3-year treasury bonds, 9.5% per annum for 5-year treasury bonds. In the last auction date (17th December 2019) Government Treasury Department offered one tenor with coupon rate 9.75% only, maturity date is 15th November 2024, tenor period is 4 year 10 month 27 day (1783 days). Successful weighted average rate was 9.938% per annum.

The buyers of Treasury Bonds are state-owned banks, private banks, Securities companies and retail investors. The main investors are private banks to meet their minimum reserve requirements (MRR) and liquidity position for their daily settlement. Over 90% of the outstanding bonds are held by banks. The outstanding amount of Treasury Bonds are increasing year by year. Starting from 2015, CBM instructed all private commercial banks not to calculate the Treasury Bonds held at CBM in the required reserves.

Table (3.2) Total Sales of Government Treasury Bonds Non-Auction

(MMK million)

Issuance Timeframe	2-Year Government T- Bonds	3-Year Government T- Bonds	5-Year Government T- Bonds	Total Government T- Bonds
April 2013–March 2014	436,487	154,225	594,028	1,184,740
April 2014–March 2015	79,775	68,162	276,626	424,563
April 2015–March 2016	285,815	310,913	212,489	809,217
Total	802,077	533,300	1,083,143	2,418,520

Source: Central Bank of Myanmar (2019)

Table (3.2) shows the situation of government Treasury Bonds issuance with non-auction. It can be seen that The Government of Myanmar's fiscal year runs from 1 April to 31 March.

Table (3.3) Total Sales of Government Treasury Bonds Auction

(MMK million)

Issuance Timeframe	9% Coupon	9.25% Coupon	9.5% Coupon	9.75% Coupon	Total Government T- Bonds
September 2016 to December 2019	320,000	719,670	5,788,040	1,675,140	8,502,850
Total	320,000	719,670	5,788,040	1,675,140	8,502,850

Source: Central Bank of Myanmar (2019)

Table (3.3) shows the situation of government Treasury Bonds issuance with auction. The Government auction date starts third week of Tuesday in every month.

Table (3.4) Government Securities T-bonds Outstanding by banks (Non-Auction)

No.	Banks	Date	MMK (million)	Paper Bond
1	S.O.E banks	11-30-2015	635,000	(2) Banks
2	Private Banks	11-30-2015	1,960,620	(21) Banks
3	CBM	12-31-2015	70,000	Buying from FIs (4) Banks
	Total		2,665,620	

Source: Central Bank of Myanmar (2019)

Table (3.4) shows the situation of government Treasury Bonds outstanding with non- auction. It can be seen that The Government of Myanmar's fiscal year runs from 1 April to 31 March.

Table (3.5) Government Securities T-bonds Outstanding by banks (Auction)

No.	Banks/Securities Co.,	Date	MMK (million)	Auction (Electronic Bond)
1	S.O.E banks	22-09-16	615,000	(2) Banks
2	Private Banks	22-09-16	1,928,400	(24) Banks
3	S.O.E banks	29-11-19	1,817,680	(3) Banks
4	Private Banks	29-11-19	5,452,150	(40) Banks
5	Securities Companies	29-11-19	217,810	(6) Securities Companies
	Total		10,031,040	

Source: Central Bank of Myanmar (2019)

Table (3.5) shows the situation of government Treasury Bonds outstanding with auction.

3.1.2 Providing Liquidity Support

According to the Central Bank Law, CBM may determine persons who have opened accounts at the Central Bank advances for periods not exceeding 92 days, in order to meet the liquidity requirement for daily settlement. Discount Window Facility started from 1995 with 10% interest rate. After launching CBM-NET System, Overdraft facility is allowed for Financial Institutions (FIs) by the collateral of T-bond/T-bill. All participants can access Intra-day Overdraft on a collateralized base. Overnight facility shall be permitted for up to three consecutive days against the collateral held in the CBM. Interest for intra-day overdraft shall not be charged. Interest for overnight shall be charged at official central bank lending rate.

Table (3.6) Changing Landscape of issuing government bond

	1993-Nov2015	2016 onwards	Remarks
Issuance	Physical Certificate	Scripless (Dematerialization) (Electrically stored in CBM-NET)	CBM issues Treasury bonds on behalf of the government
Issue formula	Daily based on the market demand	Specific dates by auction	Auction was started in September 2016.
Codes (Specific names) ISIN	No codes	Codes	Useful for Treasury bond management and trading for market participants
Price	Fixed	Not fixed (subject to auctions)	May deviate from par value
Coupon	Changed six times	Different each time	Semi-annually: 15 May and 15 Nov
Redemption date	After issue dates of 2/3/5-year bond	At specific dates	Treasury bonds and cash will be settled electronically on CBM-NET
Settlement date	Same date as the issuance date	Auction date (T + 2)	Treasury bonds and cash will be settled electronically on CBM-NET (DVP)
Accrued interest (AI)	Not practice	Practice	As the buyer receives semi-annual coupon in full, the buyer pays accrued interest to the seller (issuer).
Central Securities Depository (CSD)	CBM	CBM-NET	CSD undertakes the settlement of securities via DVP.
Participants: Financial Institutions	- Open Fund A/C with CBM - Buy A/C transfer from A/C with CBM	-Need to apply for CBM-NET members - Open Fund A/C and Securities A/C with CBM	Securities accounts for each participant - The proprietary A/C - The customer A/C - the pledged A/C (used to manage securities that are pledge by a participant to the CBM as collateral for the intraday facility and pledge by the participant to other participants as collateral)
Individual/institutions	Through sales agents	Through direct participants	

Source: Workshop for Bond Market Development in Myanmar, 2017

3.2 Infrastructure of Bond Market

(1) Legal Infrastructure

The Securities Exchange Law was enacted in July 2013.

Chapter 1 " Title and Definition" Article 2 (a): Securities include "treasury bills, treasury bonds, bonds and debentures issued or arranged to issue by the Government or any Government organization".

(2) Financial Infrastructure

CBM is implementing the "Modernizing the Funds, Payment and Securities Settlement Systems" project with the assistance of JICA to develop the payment system. CBM-NET started in January, 2016. It comprises two systems: a real time gross settlement (RTGS) system for funds transfer (The CBM-NET Funds Transfer Service - FTS) and; a system for the central securities depository (CBM-NET CSD). CBM-NET CSD provides securities settlement services. These settlement are processed on a Delivery versus Payment (DVP), through the linkage between the CBM-NET CSD and CBM-NET FTS.

Transfer instructions for both securities and funds are settled with finality on a trade-by-trade basis and neither leg of the transaction can be executed until both counterparties have sufficient funds and securities respectively. Participation in the CBM-NET CSD can be direct or indirect. Direct participants are allowed to initiate securities transactions on their own behalf and on behalf of their customers and indirect participants. Financial institutions are eligible to apply for the CBM-NET CSD participants. CBM-NET CSD participants must have a settlement account with CBM and be a participant in the RTGS or utilize the services of RTGS participant as a settlement agent in respect of all securities transactions.

3.3 International Cooperation with Asia Bond Market Initiative (ABMI+3)

To develop the development of bond market, the Daiwa Institute of Research (DIR) was assigned for the Technical Assistance (TA) for Myanmar under the ASEAN Bond Market Initiative (ABMI) Program, with the assistance of Japan ASEAN fund.

The TA were implemented with four phases as follows:

(1) The first phase (2008-2009)

- Diversify Treasury bonds issued by Central Bank of Myanmar.
- Increase number of public companies and issuance of corporate bonds.
- Constitute a committee of development for capital markets.
- Promote and disseminate knowledge of securities through workshops, seminars, business talks, and media.
- Build capacity of local employees in the financial sector.
- Attend international conferences and seminars in ASEAN and other countries.

(2) TA Phase II (2010-2012)

- Enforce the Securities and Exchange Law.
- Issue municipal bonds.
- Convert state-owned companies to joint-stock corporations.
- Educate institutional investors.
- Establish an industry association for the securities market.

(3) TA Phase III (2013-2015)

- Establish a stock exchange.
- Diversify methods of securities transaction.
- Feasibility study on other types of bonds
- Feasibility study on the Central Bank buy-back program and repo market

(4) TA Phase IV (2018-2019)

- Secondary market enhancement
- Credit rating system and agency establishment (capacity development of personnel and training)
- Introduction of other types of bonds (rules and regulation)
- Investors development

The other international and regional organizations (e.g ADB, JICA) supported trainings, seminars and workshops to develop the bond market in Myanmar.

3.4 Issues on Developing Government Bond Market

Myanmar is trying to develop bond market as well as capital market. To develop the government bond market, the followings are allowed;

(1) Securities companies are allowed as auction members in Primary Market and allowed secondary market trading on OTC which is a buyer and a seller are matched by a securities company.
(2) Insurance companies are also allowed to participate in the auction, as non-competitive bidders via Myanma Economic Bank.

Nevertheless, there are still facing some below major issues associated with the development of bond market in Myanmar;

(1) There is still needed further improvement of auctions.
(2) There is also a need to enhance the liquidity in the secondary market for Government bonds.
(3) As the banks are the large investors, it is needed to enhance the institutional investors.
(4) It is also important to encourage the knowledge of the public, business entrepreneurs and institutions to attract the investment of bonds.
(5) It is needed to introduce corporate bonds to raise money in order to expand its business as Myanmar has only Government Bond Market.

The development of primary market relies on an active secondary market. Auction members will have confidence to invest more T-bonds if there is an active secondary market. Therefore, developing securities companies is a key to develop the secondary market. CBM is also taking Repurchase Agreement (Repo) into consideration to develop the financial markets and to facilitate management of the liquidity in the market. CBM will also be a player in the markets with Repo in the future.

CHAPTER IV

THE DEVELOPMENT OF GOVERNMENT BOND MARKET IN MYANMAR

In this chapter, it analyzes the factors that influencing the Government Bond Market Development in Myanmar. The most of Government Bond investors are State Owned Banks, Private Banks and some local Foreign Banks. Banks hold above 90% of Government Treasury Bond outstanding in Myanmar. Therefore, the analyzing data were collected from 13 banks with questionnaires. The data were analyzed by using SPSS (23) and the results are presented with two parts. The first is presented with research design and banks' perception on Government Bond. The key factors that are influencing on Government Bond Market Development are presented in the second part.

4.1 Research Design

This study analyzes the research data that collected from selected 13 banks by convenient sampling method with 10 questionnaires. The first 1st to 9th questionnaires are the perception of banking investors and second 10th questionnaire is the key factors that influencing the development of Government Bond Market. In the questionnaires, the key important factors include Financial Regulations, Financial stability, Foreign exchange regulation, Foreign Exchange variability, Global risk, Greater diversity of investors profile, Hedging mechanisms, Inflation risk, Interest rate variability, Investor's rights, Legal framework, Liquidity Risk, Market access, Monetary Policy, Regulatory Framework, Repo market, Settlement system and Technical Assistance. Descriptive method was used. The primary data collection, information was based on the survey questionnaire. The survey results obtained from these respondents are as shown below.

4.2 Banks' perception on Government Bond

The first analysis in the study is focused on the banks' perception on Government Bond.

4.2.1 Holdings Government Bonds

Thirteen banks in Yangon are selected to know whether they hold Government Bonds or not.

Table (4.1) Holdings Government Bonds

Item	Frequency	Percent
Yes	11	84.6
No	2	15.4
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.1), the most of 11 banks presenting 84.6% hold Government Bond and 2 banks (15.4%) do not hold Government Bonds at the moment because these 2 banks are not enough to invest in government bonds.

4.2.2 Investing in Short Term or Long Term of Government Bonds

Short term investment is less than 1 year and long term investment is above 1 year. Thirteen banks in Yangon are selected to know whether they would like to invest short term or long term.

Table (4.2) Investing in Short Term or Long Term of Government Bonds

Investing Period	Frequency	Percent
Short Term	8	61.5
Long Term	5	38.5
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.2), the most of 8 banks (61.5%) want to invest short term and 5 banks (38.5%) want to invest long term. Some of the banks would like to invest both short term and long term.

4.2.3 Tenor for Government Bonds

Before auction, government issued 2 year, 3 year and 5 year. After auction, the tenor is not fully year. Thirteen banks in Yangon are selected to know whether they would like to prefer tenor (2 year, 3 year, 4 year, 5 year) or not.

Table (4.3) Tenor for Government Bonds

Tenor	Frequency	Percent
2 year	4	30.8
3 year	5	38.5
5 year	4	30.8
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.3), the most of 5 banks (38.5%) would like to prefer 3 year tenor, 4 banks (30.8%) would like to prefer 3 year tenor and 4 banks (30.8%) would like to prefer 5 year tenor. 4 year is no response.

4.2.4 Maturity Date of Government Bonds

Government Bonds are already set by maturity date. To the bank preferable maturity of Government Bonds, 13 banks are asked by four types of maturity date. (15 February, 15 May, 15 August, 15 November) of Government Bonds.

Table (4.4) Maturity date of Government Bonds

Maturity Date	Frequency	Percent
15 Feb	1	7.7
15 May	3	23.1
15 Aug	5	38.5
15 Nov	4	30.8
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.4), 5 banks (38.5%) are answered to prefer on 15 August. 4 banks (30.8%) preferred 15 November, 3 banks (23.1%) preferred 15 May and only one bank preferred 15 February maturity date. Currently, 15 May and 15 November maturity date are used. Others will be used in near future.

4.2.5 Coupon Rate of Government Bonds

Coupon Rate is the interest rate of investing in Government Bonds. Investors will receive semi-annually up to maturity. Thirteen banks are asked by two types of coupon rate.

Table (4.5) Coupon Rate of Government Bonds

Coupon Rate	Frequency	Percent
9.50%	11	84.6
9.75%	2	15.4
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.5), the most of 11 banks (84.6%) prefer to 9.50% and 2 banks (15.4%) prefer 9.75%. Some of the banks who hold Government Bonds suggest, they would like to get more than 9.75% above, more over 10%.

4.2.6 Reason of investing in Government Bonds

To know the respondent perceptions of investing Government Bonds, 5 types of questionnaire are asked (Surplus liquidity, Risk free assets, Steady interest income and all of above).

Table (4.6) Reason of investing in Government Bonds

Reasons of investing	Frequency	Percent
Surplus Liquidity	2	15.4
Risk Free Asset	3	23.1
Yield to maturity	-	-
Steady Interest Income	2	15.4
All of above	6	46.2
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.6), the most of 6 banks (46.2%) would like to invest for all of above. 3 banks (23.1%) would like to invest for risk free assets. 15.4% of 2 banks would like to invest for surplus liquidity and steady interest income. They don't answer or make any comment yield to maturity.

4.2.7 Risk Factors Investing on Government Bonds

The risk associated with investing in bonds. Major examples of bond risk include interest rate risk, which is the possibility one may not be able to reinvest at the same interest rate upon maturity; credit risk, which is the risk of default by the issuer; and inflation risk, which is the possibility that the inflation rate may outpace the return on the investment. To know the respondent perceptions of investing Government Bonds, 4 types of questionnaire (Interest rate risk, Exchange rate risk, Liquidity risk, Inflation risk) are selected.

Table (4.7) Risk Factors Investing on Government Bonds

Types of risk	Frequency	Percent
Interest rate risk	3	23.1
Exchange rate risk	1	7.7
Liquidity risk	7	53.8
Inflation risk	2	15.4
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.7), the most of 7 banks (53.8%) answered liquidity risk because secondary market is not appear at the moment. 3 banks (23.1%) selected interest rate risk and 2 banks (15.4%) selected inflation. Only 1 bank selected exchange rate risk.

4.2.8 Liquidity of Government Bonds

Thirteen banks in Yangon are selected to know whether they would like to get liquidity of Government Bonds or not.

Table (4.8) Liquidity of Government Bonds

Items	Frequency	Percent
Yes	10	76.9
No	3	23.1
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.8), the most of 10 banks presenting 76.9% and 3 banks (23.1%) do not get liquidity of Government Bonds because 2 banks do not hold Government Bonds and 1 banks want to hold yield to maturity.

4.2.9 Market for Government Bonds before Maturity date

To liquidate Government Bonds, there needs to have market for Government Bonds. Therefore, 5 types of questionnaire (Primary Market, Secondary Market, OTC Market, Repo Market, Above 2 to 4) are asked.

Table (4.9) Market for Government Bonds before maturity date

Types of Government Bonds Market	Frequency	Percent
Primary Market	2	15.4
Secondary Market	3	23.1
OTC Market	2	15.4
Repo Market	2	15.4
Above 2 to 4	4	30.8
Total	13	100.0

Source: (Survey Data - 2019)

According to table (4.9), the most of banks (30.8%) answered above two to four. 3 banks answered secondary market. Other 2 banks (15.4%) answered OTC market, Repo market and Primary market.

4.3 Factors influencing on Government Bond Market in Myanmar

To stabilize economy in Myanmar, Bond Market need to develop. That's why need to know the factors influencing on Government Bond Market. Eighteen variables are considered as the factors affecting on Government Bond Market Developments in this study. To know this situation, mean value are calculated.

The mean values of variables measured with five point Likert scales according to Best (1977). The scores on interpreted as follow:

The score among 1.00 – 1.80 means strongly disagree

The score among 1.81 – 2.60 means disagree

The score among 2.61 – 3.40 means neither agree nor disagree

The score among 3.41 – 4.20 means agree

The score among 4.21 – 5.00 means strongly agree

Table (4.10) Factors influencing on Government Bond Market in Myanmar

Factors	Mean
Financial Regulations	4.15
Financial stability	4.31
Foreign exchange regulation	2.92
Foreign Exchange variability	2.62
Global risk	2.46
Greater diversity of investors profile	3.31
Hedging mechanisms	2.92
Inflation risk	3.46
Interest rate variability	3.77
Investor's rights	3.54
Legal framework	3.77
Liquidity Risk	4.38
Market access	3.92
Monetary Policy	4.08
Regulatory Framework	4.08
Repo market	4.62
Settlement system	3.92
Technical Assistance	3.69

Source: (Survey Data - 2019)

According to the result table (4.10), foreign exchange regulation, foreign exchange variability, global risk and hedging mechanism are not agreed level. All other variables are above agree level. Among them, the three variables (Financial stability, Liquidity risk, Repo Market) are the most important factors influencing on Government Bond Market Development in Myanmar. It can be clearly seen that these agreed variables are mostly highlighted on current situation of Government bond market in Myanmar.

CHAPTER V

CONCLUSION

This chapter is conclusion of the study based on finding from analysis of the factors influencing on Government Bond Market Development in Myanmar.

Depending on the availability of alternative financing channels for the public and the private sectors, the size of the economy, and the maturity of the financial sector, better options might include private placements of securities, development of retail markets, or even regional solutions are basic necessary for Successful Development of Government Bond Market.

Government Bond Market Participants, Institutional Investors and Individual Investors can buy and sell in OTC market and only banks can lend or borrow against the collateral with Government Bonds in Repo Market at the moment in current position.

5.1 Findings

The objective of this study is to analyze the influencing factors on the Government Bond market. This study also explore the situation of Government in Myanmar and perception of government bondholders especially banks.

According to the survey results, it is found that the most of banks like to hold Government Bonds to get and adjust their liquidity because they want to share their interest rate burden. They also want to interest in short term bond because they want to mitigate the risk. It is also found they like to invest 3 year tenor to adjust liquidity mismatch and prefer maturity date 15 August to cover liquidity position.

It is also found that the most of banks like to prefer coupon rate 9.5% to cover their cost of fund and invest government bonds for surplus liquidity, risk free asset, steady interest income to get benefits. Banks know to face with liquidity risk but no choice for surplus liquidity and like to liquid of Government Bonds for day-to-day liquidity requirement and like to cover the liquidity in OTC market, Repo market and secondary market.

It is found that, 13 banks are strongly agreed in three variables factors, financial stabilities, liquidity risk and Repo market. At the moment, Repo market is the most effective instrument to cover the liquidity.

5.2 Suggestion and Recommendation

This study analyzes the Government Bond Market in Myanmar. According to survey result all investors would like to get more liquidity of their investments. It can be suggested that Government should develop to bond market and hire and educate about the bond market. Primary Bond Market is actively done in Myanmar.

It is suggested that for primary market, public awareness is the key factor, very difficult to draw the yield curve for long horizon and interest rate forecasts, starting with the issuance of long term bonds up to 30 years is the first key to develop the market, interest rate for deposit is higher than the regional markets, start with the stepwise plan to implement it in a trial & error basis, coupon rate should be higher than Fixed Deposit interest rate, coupon rate should be above 10%, interest payment should be a quarterly payment of a year, investors development, performance of intermediaries, activities of securities companies are key players,

It is recommended that for secondary market, attracting the foreign investors in the secondary market is the appropriate tool to develop the market, window for foreign investors in domestic currency denominated bonds within certain limits but foreigners should be restricted for only secondary market trading whereas Primary Market dealers are only local entities, online trading platform and allowing corporates to issue bonds also creates a charm in the bond market development, developing efficient fixed income markets is vital for developing countries to make efficient use of scarce capital for productive investments and thus promote jobs and prosperity, lack of secondary market is restricting the growth in government bond market development, interest rate risk, liquidity risk, inflation risk can be covered by using secondary market.

5.3 Needs for Further Studies

This study only focus on banks, government Treasury Bonds investor. In order to develop a more comprehensive idea, besides banks other stakeholders such as securities companies, insurance companies, individual investors, foreign companies, public companies, private companies, social warfare and religious associations should be added. There should consider other variables mediating and moderating variables that effect the developments of government bond markets in Myanmar.

There are also some suggestions for further research based on survey results, financial stability is mainly required to control by government because Foreign Exchange rate and inflation are directly affected to financial stability. In order to develop, Secondary Market needs to develop nearly stage according to the regulator discussion, the main requirements are increase of investor base, activities of securities companies and performance of intermediaries and public awareness.

REFERENCE

An Ad-hoc Group established by the Committee on the Global Financial System, CGFS Papers No 45, Global liquidity – concept, measurement and policy implications, November 2011

Asian Development Bank, "ASEAN + 3 Market Guide" Myanmar (2018), Manila, Philippines.

Asian Development Bank, "Good Practices for Developing a Local Currency Bond Market", Lessons from the ASEAN+3 Asian Bond Markets Initiate (May 2019), Manila, Philippines.

Asian Development Bank, "The Asian Bond Markets Initiative Policy Maker Achievements and Challenges" (2017), Manila, Philippines.

Best, J. (1977). The Introductory Sociology Survey: Teaching Sociology

Central Bank of Myanmar, Quarterly Financial Statistics Bulletin (2019 Volume I), Naypyitaw, Myanmar.

Daw New Ni Tun, Workshop for Bond Market Development in Myanmar, 2017

Dr Emad Mohammad Ali Abdullatif, Development of Government Bond Market in Iraq, (Application of Japan's Experiences to Iraq), VRF Series No.447, March 2009

Eglė Aleknevičiūtė, "Global factors influencing Government Bond Market comovements" Vytautas Magnus University, Lithuania.

Michael J. Fleming, research officer at the Federal Reserve Bank of New York. FRBNY Economic Policy Review / September 2003

Raul Fabella and Srinivasa Madhur (January 2003), ERD Working Paper Series No. 35, "Economics and Research Department, Bond Market Development in East Asia: Issues and Challenges", Asian Development Bank, Manila, Philippines.

Satoshi Shimizu (September 2018), "Development of Asian Bond Markets and Challenges: Keys to Market Expansion", Policy Research Institute, Ministry of Finance, Japan, Public Policy Review, Vol.14, No.5.

U Htin Kyaw Thein (2018) "Bond Market Development in Myanmar" This paper for Master of Banking and Finance Programme, Yangon University of Economics.

APPENDIX A

QUESTIONNAIRE ON FACTORS INFLUENCING THE GOVERNMENT BOND MARKET DEVELOPMENT IN MYANMAR

Objectives

This project is conducted as part of the Master of Banking and Finance Programme in Yangon University of Economics (YUE). The primary objective of this project is to analyze the important factors influencing the Government Bond Market Development in Myanmar. The below questionnaire depends on behalf of all institutional investors and all individual investors.

I. Did you hold Government Bond? ***(Tick where appropriate)***

(i) Yes ……………
(ii) No ……………

II. Would you like to invest short term or long term? ***(Tick where appropriate)***

(i) Short Term ……………
(ii) Long Term ……………

III. Which tenor is preferable for you? ***(Tick where appropriate)***

(i) 2 year ……………
(ii) 3 year ……………
(iii) 4 year ……………
(iv) 5 year ……………

IV. Which maturity date is preferable for you? ***(Tick where appropriate)***

(i) 15 February DDMMYY ……………
(ii) 15 May DDMMYY ……………
(iii) 15 August DDMMYY ……………
(iv) 15 November DDMMYY ……………

V. Which coupon rate is preferable for you? ***(Tick or fill where appropriate)***

9.5% …………… 9.75% ……………

VI. Why do you invest in Government Bond? ***(Tick where appropriate)***

(i) Surplus liquidity ……………
(ii) Risk free asset ……………
(iii) Yield to maturity ……………
(iv) Steady interest income ……………
(v) All of above ……………

VII. Which risk factors affect your investment of Government Bond? ***(Tick where appropriate)***

(i) Interest rate risk ……………
(ii) Exchange rate risk ……………

(iii) Liquidity risk ……………
(iv) Inflation risk ……………

VIII. Do you want to liquid your Government Bond? *(Tick where appropriate)*

(i) Yes ……………
(ii) No ……………

IX. Are there market for Government Bond before the maturity date? *(Tick where appropriate)*

(i) Primary market ……………
(ii) Secondary market ……………
(iii) OTC market ……………
(iv) Repo market ……………
(v) Item ii, iii & iv ……………

X. Which factors are more or less important for Government Bond Market? Please mark your responses on a scale of 1 to 5

(1: Strongly Disagree; 5: Strongly Agree) ***(Tick where appropriate)***

No.	Description	1	2	3	4	5
1	Financial Regulations					
2	Financial stability					
3	Foreign exchange regulation					
4	Foreign Exchange variability					
5	Global risk					
6	Greater diversity of investors profile					
7	Hedging mechanisms					
8	Inflation risk					
9	Interest rate variability					
10	Investor's rights					
11	Legal framework					
12	Liquidity Risk					
13	Market access					
14	Monetary Policy					
15	Regulatory Framework					
16	Repo market					
17	Settlement system					
18	Technical Assistance					

XI. Please suggest your own opinion upon Government Bond Market Development.

……………………………………………………………………………………….

……………………………………………………………………………………….

……………………………………………………………………………………….

……………………………………………………………………………………….

APPENDIX B

Frequency Table

Q1 - Holding Government Bond

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	84.6	84.6	84.6
	No	2	15.4	15.4	100.0
	Total	13	100.0	100.0	

Q2 - Short/Long Term

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ST	8	61.5	61.5	61.5
	LT	5	38.5	38.5	100.0
	Total	13	100.0	100.0	

Q3 - Preferred Tenor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 year	4	30.8	30.8	30.8
	3 year	5	38.5	38.5	69.2
	5 year	4	30.8	30.8	100.0
	Total	13	100.0	100.0	

Q4 - Preferred Maturity Date

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15 Feb	1	7.7	7.7	7.7
	15 May	3	23.1	23.1	30.8
	15 Aug	5	38.5	38.5	69.2
	15 Nov	4	30.8	30.8	100.0
	Total	13	100.0	100.0	

Q5 - Preferred Coupon Rate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9.50%	11	84.6	84.6	84.6
	9.75%	2	15.4	15.4	100.0
	Total	13	100.0	100.0	

Q6 - Why invest in Government Bond

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Surplus Liquidity	2	15.4	15.4	15.4
	Risk Free Asset	3	23.1	23.1	38.5
	Steady Interest Income	2	15.4	15.4	53.8
	All of above	6	46.2	46.2	100.0
	Total	13	100.0	100.0	

Q7- Factors that affect Government Bond

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Interest rate risk	3	23.1	23.1	23.1
	Exchange rate risk	1	7.7	7.7	30.8
	Liquidity risk	7	53.8	53.8	84.6
	Inflation risk	2	15.4	15.4	100.0
	Total	13	100.0	100.0	

Q8 - Want to liquid Government Bond

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	76.9	76.9	76.9
	No	3	23.1	23.1	100.0
	Total	13	100.0	100.0	

Q9 - Liquid holding before maturity date

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary Market	2	15.4	15.4	15.4
	Secondary Market	3	23.1	23.1	38.5
	OTC Market	2	15.4	15.4	53.8
	Repo Market	2	15.4	15.4	69.2
	Above 2 to 4	4	30.8	30.8	100.0
	Total	13	100.0	100.0	

Q10 - Factors that influence Government Bond Market Development

	N	Minimum	Maximum	Mean	Std. Deviation
Financial Regulations	13	3	5	4.15	.899
Financial stability	13	3	5	4.31	.751
Foreign exchange regulation	13	1	4	2.92	1.038
Foreign Exchange variability	13	1	4	2.62	1.044
Global risk	13	1	4	2.46	1.050
Greater diversity of investors profile	13	2	5	3.31	.947
Hedging mechanisms	13	1	4	2.92	.641
Inflation risk	13	1	5	3.46	1.266
Interest rate variability	13	1	5	3.77	1.092
Investor’s rights	13	2	5	3.54	.877
Legal framework	13	2	5	3.77	.927
Liquidity Risk	13	2	5	4.38	.870
Market access	13	2	5	3.92	.862
Monetary Policy	13	2	5	4.08	.954
Regulatory Framework	13	2	5	4.08	.862
Repo market	13	4	5	4.62	.506
Settlement system	13	2	5	3.92	1.038
Technical Assistance	13	2	5	3.69	.855
Valid N (listwise)	13				

APPENDIX C

Government of the Union of Myanmar Treasury Bond Auction

Auction and Terms Announcement Summary

Tender number	GB0040
Total face value of offer (millions of Kyat)	200,000
Auction announcement date	13/12/2019
Auction date	17/12/2019
Results announced	17/12/2019
Settlement date	19/12/2019

	TERM
Maturity date	15/11/2024
Coupon rate (per cent per annum)	9.75
Accrued coupon at settlement date per 100,000 Kyat face value:	910.71
Term	4 years 10 months 27 day
Security name	Government of Myanmar 15 November 2024 9.75% Treasury Bond
Security identifier	GVTB24115

Indicative volume (millions of Kyat)	
Competitive	200,000
Non-competitive	
Total	**200,000**

APPENDIX D

Government of the Union of Myanmar Treasury Bond Auction
Results Summary

Ministry of Planning, Finance and Industry — Treasury Department — Date

Tender number	GB0040		
Face value of offer (millions Kyat)	200,000		
Auction announcement date	13/12/2019		
Auction date	17/12/2019		
Results announced	17/12/2019		
Settlement date	19/12/2019		
	TERM (1)	**TERM (2)**	**TERM (3)**
Maturity date	15/11/2024		
Coupon rate (per cent per annum, paid semi-annually)	9.75		
Term	4 years 10 months 27 days		
Security name	Government of Myanmar 15 November 2024 9.75% Treasury Bond		
Security identifier	GVTB24115		
Competitive bids			
Market weighted average accepted yield/price			
Yield (% per annum)	9.938		
Price (per 100,000 Kyat face value)	99,265.80		
Accrued coupon (per 100,000 Kyat face value)	910.71		
Settlement price (per 100,000 Kyat face value)	100,176.51		
Successful range			
Minimum yield to maturity (% per annum)	9.750		
Maximum yield to maturity (% per annum)	10.000		
Volume (millions Kyat face value)	199,990		
Value (millions Kyat)	198,519		
Number	17		
Unsuccessful range			
Minimum yield to maturity (% per annum)	10.000		
Maximum yield to maturity (% per annum)	10.250		
Volume (millions Kyat face value)	31,350		
Value (millions Kyat)	30,911		
Number	8		
Non-competitive bids			
Yield to maturity (% per annum)			
Price (per 100,000 Kyat face value)			
Allocated volume (millions Kyat face value)	-		
Allocated value (millions Kyat)	-		
Unallocated volume (millions Kyat face value)	-		
Number	-		
Total			
Volume issued (millions Kyat face value)	199,990		
Value issued (Kyat)	198,519,309,086		
Accrued coupon (Kyat)	1,821,328,929		
Total settlement value (Kyat)	200,340,638,015		