

IMPACT OF BONDS ON CAPITAL MARKET GROWTH IN NIGERIA

BY

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**A PROJECT SUMMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES,
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DECLARATION

I hereby declare that this project has been written by me and it is a report of my research work. It has not been presented in any previous application for the Masters of Business Administration (MBA). All quotations are indicated and sources of information specially acknowledged by means of references.

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CERTIFICATION

This project entitled “Impact of Bonds on Capital Market Growth in Nigeria” meets the regulations governing the award of Masters in Business Administration (MBA), of the School of Postgraduate Studies of Nasarawa State University, Keffi for its contribution to knowledge and literary presentation.

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DEDICATION

I would like to dedicate this project to my late parents Mr. and Mrs. GARVAS MAHAKEWE

IKE I will be forever grateful that you brought me into this world; you are forever in my mind.

Also to all the orphans in the whole world who have ever felt different.

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ABSTRACT

The capital market is the segment of the financial system, which facilitates the channeling of longterm funds from surplus to deficit economic units thereby stimulating capital formation and socioeconomic development. The capital market deals with longterm financial products such as loans, shares, bonds and credit that are used for productive activities. It is also the institution and mechanisms through which economic units desirous to invest their surplus fund interact directly or through financial intermediaries with those who wish to procure funds for their businesses. Therefore, the study determined the impact of bonds on capital market growth from 2000 to 2017. The study adopts descriptive research design while capital market growth was measured by market capitalization and bond was measured by federal government bond and corporate bond. It was discovered that federal government bond has significant relationship with market capitalization and it was discovered that corporate bond has significant relationship with market capitalization. The study recommends that the policy makers should encourage investments in Corporate Bonds by creating conducive investment environments, since the findings of this study showed that CB improved capital market growth. This can be done through a reduced treasury bill rates, as currently being witnessed, as investors would rather buy treasury bills at above 10% rather than CB which is less than 8%. In addition, the economic fundamentals of high inflation erodes the long term yield for investing in CB, therefore, regulators should develop policies that will reduce inflation.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The capital market is the segment of the financial system, which facilitates the channeling of long-term funds from surplus to deficit economic units thereby stimulating capital formation and socio-economic development. The capital market deals with long-term financial products such as loans, shares, bonds and credit that are used for productive activities. It is also the institution and mechanisms through which economic units desirous to invest their surplus fund interact directly or through financial intermediaries with those who wish to procure funds for their businesses. The market makes it possible to transfer capital from persons with a savings surplus to persons with a savings shortage. The market allows the individuals to make investment and consumption decisions in relation to expected earnings. Capital markets also provide an avenue for growing companies to raise capital at lower cost as well as the capital requirements of an economy. It is the market that provides the needed long term funding for businesses or corporate institutions and governments at the local, state and federal levels.

A bond is an interest-bearing debt security issued by corporate bodies, governments and agencies for the financing of infrastructure or for expansion of the economy. Bonds issuing are important sources of mobilizing funds for development. A bond is a debt instrument that must be paid back with interest at a future date by the issuer or borrower. When a borrower issues a bond, they must price it with a coupon rate based on the prevailing interest set by the Central Bank of Nigeria (CBN's). In the case of a municipal government, the rating of the municipality also factors in the interest rate pricing of the bond. The longer the tenor of the bond the higher interest the lenders

of money to the borrower expect to be paid and vice versa for the shorter maturities. The borrower pays the lender periodic interest, usually every six months, on the bond until the bond matures and at that time, the final interest and principal are paid back to the lender. In reality, no lender (bond investor) of money to the bond issuer (borrower) wants or expects to hold the bonds they have bought for the entire duration to maturity, regardless of how short the tenor is. It is a debt instrument issued by a government or a corporate entity to raise fund to finance budget or projects. It involves a promise to make periodic investment payment to the subscribers and also the repayment of the initial amount borrowed at maturity of the bond. Individual investors can borrow money to expand their businesses through bond. The investor who invests in bond becomes a creditor and does not have ownership right to the issuer unlike equity.

The government bonds are issued through the Debt Management Office (DMO) with assurance of paying a periodic interest alongside with the principal at maturity. A bond is a certificate of indebtedness issued by a borrower to a lender. Therefore investors in bonds are essentially lending money to the issuer. The bond market is the channel through which government and corporations that need to borrow money are matched with investors who have funds to lend. Bonds form part of the capital markets, which together with money markets constitute the financial market. The capital market consists of institutions and procedures that provide for transactions in long term financial instruments with a maturity of more than one year. The major instruments that are used in raising funds in the capital market include bonds, debentures, preference stocks, and equities (ordinary shares). The bond market is preferred as the ideal mechanism for the exchange of claims among buyers. The fixed income security (bond) market is an important segment of the capital market in market economies. Its importance lies in the fact that it provides long term investment opportunity for the private investors and long term

financing for firms at low cost. Bonds are financial instruments through which the capital market provides long-term debt financing to companies and government. Bonds provide alternative to equity as investment outlet in the capital market. Bonds have interest bearing securities in the capital market and also mutual relationship with itself, thus bonds as an instrument gives the capital market room to exist.

1.2 Statement of the Problem

The Bond market holds a lot of prospect for the economy through its alternative financing role, diversification of risks, stimulation of capital investments, mitigation of bank's financial crises through its alternative financing function and stimulating infrastructural development amongst others. A well-functioning and developed bond market provides a secure and flexible investment outlet for investors as well as stimulates economic activities through provision of appropriate long-term finance for both government and non-governmental borrowers (Soludo, 2005).

Over the years, the huge fiscal deficits incurred by governments for executing developmental projects with long gestation period have majorly been financed through borrowing from banks (money Market) and printing of currency as last resort. These activities have generated huge inflationary consequences for the economy with adverse effects on capital formation and further investment prospect for the domestic economy. Sourcing of fund from banks to finance long term projects is in effect a financial mismatch funding strategy. Commercial banks majorly provide short term finances. The huge financial intermediation burden places on banks have further worsened their financial crisis and made them vulnerable to financial risks. These problems were caused mainly by a lack of well-developed bond market, which is the major channel of raising funds in the capital market by governments in the developed financial markets.

The size of the Nigerian domestic bond market in terms of face value was N7,139.82 billion as at the end of December 2016, compared to N6,515.62 billion as at end of December, 2015, representing an increase of N624.20 billion or 9.58 percent, the total market capitalization as at the end of 2016 was N16,185.7 billion, compared to N17,003.4 billion as at 2015 year end, representing a decrease of N817.7 billion or 4.81% (NSE, 2016). The high interest yield on free and secured governments bonds of 12% to 18% between 2012 and 2017 compared to lower expected earnings from the corporate unsecured bonds of 5% (Trading Economist, 2018) has resulted to disincentives towards investments in Corporate Bonds. The high incentives of government bond is an enabler for crowding out the corporate bonds, thereby influencing the impact of the bond market on the growth of the Nigeria Capital Market, especially for investors desirous in investments in Corporate Bonds as well as Companies who would rather source for funds through the issuing of Bonds. Within the forgoing, the statement of the problem addressed is: the impact of bonds on capital market growth.

1.3 Research Questions

Research questions logically flow from the statement of the problem. Therefore, the following research questions are answered in the course of this research;

- i. What relationship exists between corporate bonds and capital market growth?
- ii. What relationship exists between government bonds and capital market growth?

1.4 Objectives of the Study

The main objective of the study is to examine the impact of bonds on capital market growth. The following are the specific objectives;

- i. To investigate the relationship that exists between corporate bonds and capital market growth.
- ii. To investigate the relationship that exists between government bonds and capital market growth.

1.5 Statement of the Hypotheses

The following are the hypotheses;

- i. Ho: There is no significant relationship between corporate bonds and capital market growth.
- ii. Ho: There is no significant relationship between government bonds and capital market growth.

1.6 Significance of the Study

This research work will be of great significance to the following;

For Government, this study will enable the government to understand when to float bonds and how to set up policies to achieve a stable macro-economic environment aim at fostering the growth of the capital market.

For Investors, this study will enable them seek for better returns on their investment in bonds and be more certain about their investments. It will also provide more insights into the structure of the Nigerian bonds and capital market.

For Students and other researchers, this study will enable them to have a deep understand of capital market and bond. Researchers can also build on this research work for further study by expanding the scope for academic purpose.

1.7 Scope of the Study

This study attempted to investigate the impact of bonds on capital market growth in Nigeria. The types of bonds include; government bonds and corporate bonds. Data is extracted from the entire stock market list in the Nigerian Stock Exchange annual reports and statement of accounts and from Central Bank statistical bulletin and Stock Exchange fact book over a period of time specifically 2000 to 2017.

The period covered for this research is from 2000 to 2017 therefore the study captured the activities of bonds on the capital market within this period and this is the scope of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Concept of Bonds

According to Chijioke (2015), Bonds are debt instruments through which finance for infrastructure development can be raised. A bond market is where debt securities are issued and traded. The bond market primarily includes government-issued securities and corporate debt securities, and it facilitates the transfer of capital from savers to the issuers or organizations that require capital for government projects, business expansions and ongoing operations. A bond market is alternatively referred to as a debt, credit or fixed-income market. It is driven by the same risk and return tradeoffs as the stock market. Most trading in the bond market occurs over the counter through organized electronic trading networks and is composed of the primary market through which debt securities are issued and sold by borrowers to lenders and the secondary market through which investors buy and sell previously issued debt securities among themselves (Alfred, 2015).

Also, bond can generally be conceptualized as a financial debt instrument (Ogilo, 2014). By this definition, it means that a borrower issues bond as an issuer, with the financial obligation to pay back to the lender both the amount borrowed plus interest within a defined time frame. In this case, the lender is regarded as the investor.

According to Oluwafemi (2013), the bond market is an environment where debt securities are issued and traded. It comprises both the primary market where new debts are issued to participants, and secondary markets-where participants can buy and sell debt securities. The

bond market mainly covers corporate debt securities and government-issued securities. The operation of the bonds market helps to move funds from savers to investors/fund users for business expansions or investments. It provides a platform for long term funding of public and private expenditures. A bond is an 'IOU' with a preset interest rate, redeemable at the expiration of the specified tenor.

Aringui (2012) also opines that a bond is not only a debt instrument but also a tradable financial instrument that serves the purpose of raising capital which will take the maturity period of more than one year. According to Mishkin and Eakins (2012), bonds are securities that represent a debt owned by the issuer to the investor. A bond contains a face value usually called the par value. The interest rate payable on the maturity date of the bond is also usually contained on the face of the bond. In financial terminology, the interest rate is technically called coupon rate and it is customarily fixed for the gestation of the bond. Bond coupon rate does not fluctuate with the general market interest rate. However, should the situation arise where the bond issuer could not meet up with the repayment obligation, the holder of bond is legally permitted to lay claims on the property of the issuer. The periodic interest payment and the principal payment on the bond brought about the term- fixed income security associated with bonds issue (Onaolapo & Adebayo, 2010).

A bond is viewed as certificate of indebtedness issued by a borrower to a lender (Onaolapo & Oluwafemi, 2010). A bond is a generic name for a tradable loan security issued by governments and companies as a means of raising capital. The bond is an interest bearing security. It guarantees its holder both repayment of capital at a future specified date (Maturity date) and a fixed rate of interest also known as the coupon (SEC, 2010).

Onaolapo and Adebayo (2010), gave the description of a bond as a contract in which the holder has a financial claim on the issuer. The bond market (also known as the credit or fixed income market) is a financial market where participants can issue new debt, known as the primary market, or buy and sell debt securities, known as the secondary market, usually in the form of bonds. The primary goal of the bond market is to provide a mechanism for long term funding of public and private expenditures. A bond is a debt instrument. Simply, it is a loan in which the terms, pay-back date and interest rates are detailed in a legal document. In finance, a bond is a debt security, in which the authorized issuer owes the holders a debt and is obliged to pay interest (coupon) and repay the principal at a later date. It is a formal contract to repay borrowed money with interest at fixed intervals. Bonds are also referred to as fixed income securities (Kengen, 2009).

A bond is a debt instrument issued by a government or a corporate entity to raise fund to finance budget or projects. It is usually issued for a period of time more than a year. Fahm (2006) defines a bond as a long-term debt instrument issued by an entity, company or government as an evidence of a promise to pay. Bonds are generally issued for a fixed term (the maturity) longer than one year (Olashore, 2006). The investor who invests in bond becomes a creditor and does not have ownership right to the issuer unlike equity. Bonds are debt investments where by an investor borrows a certain amount of money for a period of time with certain interest rate to accompany it (Osazee, 2001). Not all bonds are the same and some financial economists argue that the structure of a bond is of itself a strong determinant of the amount of capital investors may be willing to commit. According to Byrns and Stone (1995), a bond simply is an IOU issued by a corporation government agency that pays interest to the lender.

Tax does not favor bond interest compared to dividend income that enjoys favorable taxation rates. This means that bond interest is duly taxable as ordinary income. Although in many countries, government bonds or municipal bonds are exempted from taxes depending on the countries regulations.

Bond can generally be seen as a long term fund used in financing capital projects. It is a debt instrument issued by an entity, company or government as an evidence of a promise to pay. A bond is also a contract in which the holder has a financial claim on the issuer.

Oluwafemi (2013) classify bonds into government bonds and corporate bonds. Management Study guide classify bonds into fixed rate bonds, floating rate bonds, zero interest rate bonds, inflation linked bonds, perpetual bonds, bearer bonds, serial bonds, subordinated bonds and climate bonds.

Government Bonds

A government bond is issued by the national government denominated in the country's own currency. According to Osaze (2001), Government bonds serve as fixed income securities traded in the capital market. Fixed income security is instrument that earns investors a fixed and almost certain return throughout the period which they invest. Fixed income securities can either be short, medium, long term.

Government bonds are issued by the government with assurance of paying a periodic interest alongside with the principal at maturity (CBN, 2013). They are issued periodically on medium and long term basis to raise funds to finance government development projects; they are safe and secure instrument because government does not default in the repayment obligations.

The Federal Government Bonds are issued either in the Primary Market or Secondary Market. The primary market is also known as new issues market for new securities. In the primary market, the transaction is conducted between the issuer and the buyer. The secondary market is a market where the securities issued in the primary market are bought and sold through the stock exchange and the Broker acting as an intermediary (SEC, 2014).

Government bonds are debt securities of the federal government of Nigeria issued by the Debt Management Office (DMO) for and on behalf of the federal government with assurance of paying a periodic interest alongside with the principal at maturity. The federal government has an obligation to pay the bondholder the principal and agreed interest as at and when due. These bonds are considered to be the safest of all investments in domestic debt market because it is backed by the full faith and credit of the federal government. Government bonds can be issued by the federal government, state government or the local government.

The Debt Management Office (DMO) was set up in October 2000, and the Act establishing the Office was enacted in June 2003, for the purpose of providing a one-stop shop for clearing all Nigerian government debts at all levels. Prior to its establishment, Nigeria had a grossly underdeveloped domestic debt market as debt management responsibilities were split among several agencies and departments of both the CBN and the Federal Ministry of Finance. The DMO is in charge of coordinating and centralizing the debt activities and profile of the country, which include debt service forecasts and debt payment. It also has the responsibility of advising the government on debt negotiation and new borrowings. The DMO issues prospectus in respect of bond issues and agrees with the CBN to draw up issue programs on quarterly or half yearly basis, depending on government requirements. The DMO facilitates the listing of newly issued

Federal Government of Nigeria Bonds by paying listing fees to the Nigerian Stock Exchange annually.

Corporate Bonds

Companies sell debt through public securities markets just as they sell stock. A company has a lot of flexibility as to how much debt it can issue and what interest rate it will pay, although it must make the bond attractive enough to interest investors or no one will buy them. Corporate bonds normally carry higher interest rates than government bonds because there is a risk that the company could go bankrupt and default on the bond. Some corporate bonds are called convertible bonds because they can be converted into stock if certain provisions are met.

According to Rinku (2012), a corporate bond is a bond issued by a corporation (i.e. Company). The term corporate bond usually refers to long- term debt instruments, generally with a maturity date of at least one year after the date of issue, and short-term instruments are sometimes referred to as commercial papers and sometimes, the term- corporate bonds are used to include all bonds except those issued of government in their own currencies. Corporate bonds are bonds issued by private or public firms. Investors who purchase these bonds essentially lend money to the company that issues the bond, which in turn confers on the issuer a legal commitment to pay interest on the principal and return the principal to investors when the bond matures. An important advantage of corporate bonds is that they make it possible to raise capital without diluting ownership of the firm unlike stock issues which confer equity ownership; investors in bonds do not own any part of the company that issues the paper. Even in the event that a firm has financial problems, it still has a legal obligation to pay interest on its bonds and to return the principal to investors, an obligation shareholders do not enjoy.

According to Oluwafemi (2013), the characteristics of bonds are risk, yield and liquidity. He further divided Risk into inflation risk, interest rate risk, exchange risk, default risk and credit risk.

Risk

Government bonds are considered risk-free, but in the actual sense, bond instruments have some measure of risk associated with them. Some of the risks identified are as follows:

a. Inflation Risk: Bonds are not meant to provide extraordinarily high returns as they are considered relatively safe. Due to this and the fact that the coupon payments are fixed, it makes them to be vulnerable when inflation rises. Bonds prices tend to fall as inflation rises because the purchasing power must have been eroded.

b. Interest Rate Risk: This is a major risk to all bondholders. Interest rate affects bonds directly as bond prices are inversely related to movements in interest rates. An increase in interest rate will lead to the fall in the price of bonds and vice versa. The logic is that when interest rates move up, the opportunity cost of holding a bond decreases since investors are able to realize greater yields by switching to other investments that reflect the higher interest rate.

c. Exchange Rate or Currency Risk: This type of risk is relevant to internationally issued bonds and affects both investors and issuers in varying degrees. It is the risk that is associated with a bond that is designated in another currency other than that of the home country. Investors of such bonds are exposed to exchange risk. In this situation, investors purchase the bond in foreign currency and the payment of interest and principal will also be in foreign currency. At maturity, the investors will have to go into the foreign currency markets and sell it to purchase their home currency. The risk is that if foreign currency is devalued relative to the currency of

the home countries, there will be lower receipt than expected. In the case of the local corporate, currency risk arises when a devaluation of the Naira results in higher coupon payments by the issuer. Foreign investors would face a currency risk when the local currency appreciates in value.

d. Default Risk: This is the situation where individual or companies are unable to meet the required payments on their debt obligation. Both investors and Lenders are open to default risk in nearly all forms of credit extensions. Most times, lenders often charge rates of return that match the debtor's level of default risk to lessen the effect of this risk on them. The higher the risk, the higher the required return, and vice versa. Largely, FGN has maintained a zero default rate, implying that this type of risk is generally low within the Nigerian bond market.

e. Credit Risk: This is the type of risk that varies with issuers of bond. The FGN sovereign bonds are considered to have practically no risk of default. Credit risks available to borrower are calculated based on the ability to repay. The investor charges more interest rate on the capital, if the borrower has high credit risk profile. The calculation of the interest is based on the borrower revenue generation ability and collateral asset.

Yield

A bond yield is inversely related to its price. Yields tend to fall as bond prices increase. It is the amount of return an investor will receive on its investment. Nominal yield is the most common, and is calculated by dividing the amount of interest paid by the face value.

Liquidity

Liquidity refers to the ease and speed with which bonds can be sold at fair market value, in a timely fashion and without affecting the bond's price. A part of liquidity relates to the cost of engaging in transactions, particularly the bid-ask spread. Another part is the price impact; the

adverse movement in price that can be encountered when attempting to execute a large trade. Yet another component is immediacy; the ability to sell the asset quickly without reverting to fire-sales price. In other words, liquidity is characterized by a high level of trading activity and ability to convert assets to cash quickly. This increases the incentives for investors to hold these assets. As a result, it is related to the monetary policy and the financial stability of a country. Deficiencies in market liquidity can lead to extreme price volatility. When the bond market liquidity is insufficient, the open market operations of the CBN may encounter difficulties. Thus, bond market liquidity enhances the tools of financial mediation, which are essential for efficient market pricing, effective borrowing and investment practices.

2.1.2 Concept of Capital Market

The role of the capital market in the economy include provision of government financing for developmental project, promotes corporate governance and social responsibility, support the raising of capital for business growth, facilitate financial literacy to empower people, enhance Private Public Partnership (PPP), platform for mobilizing savings and investments and serves as a vehicle for wealth generation and distribution (Onyema, 2016). Dunmade (2012) defined that capital market as the market for medium and long-term funds. The capital market is the long-term end of the financial market. It is made up of institutions, which facilitate the issuance and secondary trading of long-term financial instruments. Unlike the money market, which function basically to provide short-term funds, the capital market provides funds to industries and government to meet their long-term capital requirements, such as financing of fixed investments buildings, plants, bridges and so on (CBN, 2010).

The capital market does not only serve as a source of finance for the government and industries, but provide a wide range of socio-economic benefits to any country. By mobilizing funds for

channeling into productive investments, the market brings together those who have and those who need funds at usually competitive prices and conditions acceptable to both parties, thereby ensuring efficient resource allocation while promoting economic growth (Okereke, 2008). The primary purpose of a well developed capital market is to provide cheaper, longer term finance to fund capital investments. Due to its positive influence on the development of an economic and financial system, and numerous advantages that a bond market provides, the development of a bond market remains critical to a country's financial system and economy (Sprcic and Wilson, 2007).

According to Al-faki (2006), the capital market is a network of specialized financial institutions, series of mechanism, process and infrastructure, that, in various ways facilitates the bringing together of suppliers and users of medium to long-term capital for investment in economic development projects. The capital market is the market for long term funds and securities whose tenor exceeds one year. These include long-term loans, mortgage bonds, preference stocks, ordinary shares, Federal government bonds and industrial loans and debentures. The capital market can be defined as the section of the financial system that is responsible for channeling efficiently funds from the surplus to the deficit economic units on a long-term basis (Onoh, 2002). Ekezie (2002) sees the capital market as the the market for dealings i.e. lending and borrowing in longer-term loanable funds. Mbat (2001) described it as a forum through which long-term funds are made available by the surplus to the deficit economic units. Okereke (2000) opined the capital market as constituting of market and institutions that facilitates the issuance and secondary trading of long-term financial instruments.

According to Levine and Zervos (1998) the capital market is expected to encourage savings by providing individuals with an additional financial instrument that may better meet their risk

preferences and liquidity needs. The development of Capital market and apparently the stock market provides opportunities, for greater fund mobilization, improves efficiency in resource allocation and provision of relevant information for appraisal (Inanga & Chiedozi1997). Capital market is defined as the market where medium and long terms finance can be raised (Akingbohunge, 1996). Capital markets also provide an avenue for growing companies to raise capital at lower cost.

The capital market is the source from which companies and industries obtain capital for expansion and modernization and also from which government borrows on a long-term basis for development purposes. The stock market has helped government and corporate entities to raise long-term capital for financing new projects, and expanding & modernizing industrial/commercial concerns (Nwankwo, 1991). Capital market is an integral part of the financial system that provides an efficient delivery mechanism for mobilization and allocation, management and distribution of long term funds for investment project (Alile & Anao, 1990). The capital market is a market for financial investments that are direct or indirect claims to capital (Gart, 1988). The capital Market also encompasses the process by which securities already outstanding are transferred (Dougall & Jace, 1986). Overall, stock markets provide market liquidity that enables implementation of long term projects with long term payoffs thereby promoting a country's economic growth endeavor. Moreover, efficient capital markets not only avail resources to investors, they also facilitate inflow of foreign financial resources into the domestic economy. Capital market development is determined by stock market liquidity and Institutional quality.

Capital market constitutes a network of institutions and individuals made up of regulators and operators who together bring suppliers and users of capital and facilitate the smooth operation of

the market. These institutions that form the capital market network include investment banks, stockbrokers, issuing houses, underwriters, venture capital companies, professional consultants, fund managers, development finance companies, collective investments firms, and insurance companies. The statutory regulator is the Securities and Exchange Commission (SEC) while the self-regulatory agency is the Stock Exchange.

The SEC is the main regulatory institution of the Nigerian capital market and is under the supervision of the Federal Ministry of Finance. The SEC has the mandate to supervise the Nigerian Stock Exchange in order to ensure orderly and equitable dealings in securities, and preventing the market against unwanted trading activities. The Commission has the responsibility to regulate the capital market and the activities of all operators to ensure that investors are protected.

A stock exchange is a place where securities like bonds, stocks and derivatives are traded and where one can raise long-term capital in large amounts (Onoh, 2002). It seeks the efficient allocation of available capital funds to the diverse uses in the economy and through its extreme sensitive pricing mechanism ensures the available capital resources are allocated to firms with competitive returns. Federal Government bonds are listed and traded on the Floors of the Nigerian Stock Exchange. The activities of the Nigerian Stock Exchange are regulated by the Securities and Exchange Commission. The SEC has the mandate of Surveillance over the activities of the NSE to prevent breaches of market rules and detect and correct any unfair manipulations and trading practices. Since 1999, the NSE introduced an Automated Trading System (ATS) for the dealer to be able to trade through the network of computers connected to a server. The ATS has some important features that facilitate remote trading and surveillance. The federal government has introduced several policies to encourage the flow of foreign capital as

investment into the economy. This gives room for foreign brokers to enlist as dealers on the Nigerian Stock Exchange.

The Central Securities Clearing System (CSCS) was incorporated on as a subsidiary of The Nigerian Stock Exchange in July 29, 1992. The CSCS has the sole responsibility of settlement and clearing of securities transaction of the NSE as well as bond transaction on the OTC market. In 1997, the CSCS was commissioned and commenced operations same year. The CSCS enables easy delivery and settlement of securities transactions on the floor of the NSE by facilitating stock processing in electronic form, thereby reducing transaction time considerably.

According to Osaze (2007), the origin of the Nigerian capital market date back to the colonial times when the British government that was ruling Nigeria at the time sought funds for running the local administration. Most of these funds were derived from agriculture, produce marketing and solid mineral mining. Discovering that these sources were inadequate to meet its growing financial obligations, the colonial administration decided to expand its revenue base by reforming the system of revenue mobilization, taxation and other payments. It also saw the need to raise funds from public sector to cover temporary shortfalls in funds availability. Hence, it found it necessary to establish a financial system by setting up the basic infrastructure for its take off pending the development of an organized private sector.

The capital market effectively started operations in Nigeria on 5th June, 1961 with 19 securities enrolled for trading under the provision of the Lagos Stock Exchange Act 1961, which transformed into the Nigerian Stock Exchange in December 1977 as a result of the review of the Nigerian financial system (CBN, 2007). The Securities and Exchange Commission (SEC) was established in 1979 through the SEC Act 1979, to regulate the capital market, but it commenced

actual operation in 1980. It took over regulatory functions from Capital Issues Commission, which was established in 1973. Since then, various forms of financial instruments have been issued in the capital market by new and existing business to finance product development, new projects or general business expansion. Currently, The Nigerian Stock Exchange (NSE) consists of six branches and the head office is in Lagos, but has an office in Abuja. The Trading System of the NSE is fully automated.

Market capitalization is the aggregate valuation of the company based on its current share price and the total number of outstanding stocks. It is calculated by multiplying the current market price of the company's share with the total outstanding shares of the company. Capitalization can refer to the book value of capital, which is the sum of a company's long-term debt, stock and retained earnings. The opposite of book value is market value. The market value of capital depends on the price of the company's stock. It is calculated by multiplying the price of the company's shares by the number of shares outstanding in the market. Companies with a high market capitalization are referred to as large caps. Companies with medium market capitalization are referred to as mid-caps, and companies with small capitalization are referred to as small caps. It is possible to be overcapitalized or undercapitalized. Overcapitalization occurs when earnings are not enough to cover the cost of capital such as interest, or payments to shareholders, such as dividends. Undercapitalization occurs when there's no need for outside capital because profits are high and earnings were underestimated.

All share index is a quick measure to judge the overall direction of the market and the scope of its movements. A market index is a statistical parameter to reflect the composite value of market characteristics. It is an average of share prices of all companies on the stock exchange market, often used as a guide to compare the performance of different companies and industries. Or it is a

series of numbers which shows the changing average value of the share prices of all companies on a stock exchange and which is used as a measure of how well a market is performing.

Volume of transaction is the number of shares or contracts traded in a security or an entire market during a given period of time. For every buyer, there is a seller, and each transaction contributes to the count of total volume. That is, when buyers and sellers agree to make a transaction at a certain price, it is considered one transaction. Volume is an important indicator in technical analysis as it is used to measure the relative worth of a market move. If the markets make a strong price movement, then the strength of that movement depends on the volume for that period.

2.2 Empirical Review

2.2.1 Bonds to Capital Market

Friday, Lenard and Louis (2016) studied the macroeconomic determinants of corporate bond market development with respect to the Nigerian bond market. Corporate bond market capitalization was used as the endogenous variable while macroeconomic variables form the exogenous variables of the study. The time series data generated over a period of 33 years(1980-2013) were analyzed using descriptive statistics, while the ordinary least square regression techniques involving multiple regression was applied to test the level of significance of the variables. Overall, the result reveals that fundamental macroeconomic factors such exchange rate, savings, inflation rate, banking sector development, interest rate, fiscal balance, bond yield and foreign direct investment are main drivers of corporate bond market development in Nigeria. The results further revealed that the macroeconomic factors have no common stimulating pattern in driving the corporate bond market for development. Savings and exchange tends to be more

significant than other macroeconomic factors within the period under review. They concluded that macroeconomic factors matter a lot in the development of corporate bond in Nigeria.

Ogboi, Njojo and Nwankwo (2016) studied bond market development and economic growth in Nigeria. Annual time series data were sourced from Central Bank of Nigeria Statistical Bulletin various issue and World Development Indicators (WDI) (2014) edition of the World Bank for the period 1982-2014. They employed both Generalized Method of Moment (GMM-IV) Instrumental variables estimator and Granger Causality Test to examine relationship between bond market development and economic growth in Nigeria. Result from the study revealed that bond market bond market have positive but statistically insignificant effect on economic growth in Nigeria ($\beta = 0.0148$; $t = 0.4106$). It was also discovered that there is no causal relationship between bond market and economic growth in Nigeria. It is therefore recommended, amongst others, that Nigerian bond market be deepened by instituting incentives that can attract corporate patronage and intuitional investors.

Akinsokeji, Abidemi and Edafe (2016) examined the impact of bonds market on aggregate investment and the Nigerian economy by applying a disaggregated approach. This approach effectively demonstrated the separate effects of government and industrial bonds on investment and economic performance. Using data covering the period 1980 to 2013, a dynamic framework was devised for the study in order to identify both the short term and long term effects of bonds market on economic performance. The Vector Error Correction Method (VECM) was adopted in the empirical analysis. Moreover, the empirical strategy in the study employed Granger Causality test to indicate the direction of causality between investment in financial instruments (bonds) and economic growth in Nigeria. The results show that though bonds do not essentially have direct impact on macroeconomic variables and economic growth in particular, the indirect impact

cannot be denied. In particular, it is found that savings tends to promote widening of the bonds market while fiscal financing increases the depth of the market. Moreover, there were indications that savings rate stimulates the subscription to government bonds and it also responds to the level of bonds issue. Also, the channel through which the bonds market affects growth goes from bonds to savings, then from savings to investment, and then from investment to real GDP growth.

Kiragu (2015) examined the impact of Treasury bond market development on economic growth in Kenya. The finance growth nexus forms the basis of the research with the bond market assumed to have a supply leading effect on economic growth. According to this study, most prior studies on effect of capital markets on economic growth have ignored the bond markets focusing only on stock market. Specifically studies focusing on the Kenya bond market are limited yet it is now very vibrant and a key source of funding for government projects. Using descriptive design the research focused on 14 year quarterly periods between 2001 and 2014. Correlation analysis and regression results were used to determine the impact of bond market development variables, bond market size and bond market turnover on economic growth variable, real GDP in Kenya. Control variables, government expenditure, lending interest rates and USD to Ksh exchange rates were also introduced to the model. The findings indicate that bond market development has a significant positive effect on GDP in Kenya, lending support to the finance growth nexus. However, when control variables are introduced, the two bond market variables become statistically insignificant, an indicator of the extent to which the bond market is still under developed and yet to significantly contribute to GDP compared to other determinants of economic growth. The study recommends that the government should take policy initiatives to

foster growth of the Treasury bond market which is important in providing finance for capital intensive infrastructure projects in order to achieve the Vision 2030 objectives.

Alfred (2015) examined the effect of government bonds on capital market growth in Kenya. According to Alfred, interest in the relationship between the real and the financial sector has usually been on the banking sector and the stock markets, thus mostly leaving the Bond Markets out as a third essential source of external finance. The capital markets play important roles in the economic growth of a country. The role of public debt in promoting economic growth in Kenya has been the subject of much debate among economists, development specialists and researchers. In spite of this, there are only few empirical studies that investigate the contributions of public debt and in this case, the issuance of Treasury/ Government bonds to capital market growth in Kenya. This gap is filled by providing empirical evidence to establish the relationship between the capital market growth (represented by market capitalization) and issuance of Government Bonds in Kenya. This study explored the relationship between issuance and performance of Treasury/ Government bonds and capital market growth in Kenya using data that spans from the year 2004 to the year 2014 and establishing through causal study if changes in one variable cause changes in the other. The time series data is on market capitalization, market capitalization of bonds, value of bonds traded and total new issues of bonds. Regression analysis is used to analyze the data used in this study. The results showed that the issuance of Government bonds has a positive effect on the level of capital market growth in Kenya. The findings imply that Kenya could enhance its capital market growth by effectively and strategically strengthening the Bonds market and the uptake of Government Bonds. The conclusion of the study is that the supply-leading hypothesis of capital market growth prevailed in Kenya during the period under study from 2004 to 2014. It is recommended therefore that the

regulatory authority should initiate policies that would encourage more companies to access the market and also be more proactive in their surveillance role in order to check sharp practices which undermine market integrity and erode investors' confidence.

Suberu, Aremu and Afonja (2015) assessed capital market operations and its impacts on local investments in Nigeria. The purpose of the study was to examine the Nigerian capital market operations, and its impact on local investments in Nigeria as with the main theoretical model, growth results from innovations that allow local sectors to catch up with frontier technology. In developing countries, catching up requires the cooperation of a foreign investor who is familiar with the frontier technology and a domestic entrepreneur who is familiar with local conditions, In such a country, domestic capital market matters for innovation, and therefore growth, because it enables the local entrepreneur to put equity into this cooperative venture.

Adeoye (2015) examined the impact of the Nigerian capital market on the economy looking at a 20 years period from 1992 to 2011. Using the multiple regression analysis, he found that capital market has an insignificant impact on the economy within the period under review. The study therefore advised that policies and measures that would boost investors' confidence should be enshrined in the running of Nigerian capital market so that it could contribute significantly to the growth of Nigerian economy noting that all elements of the market are essential ingredients to the development of a nation.

Luka (2014) in his work examined the influence of bond market determinants on the development of the bond market in Nigeria and utilized secondary data sourced from Central Bank of Nigeria (CBN) Statistical Bulletin, World Bank, and Securities and Exchange Commission (SEC) covering 1980 to 2011. The Vector Error Correction Model (VECM) was

employed as technique of data analysis. The Augmented Dickey-Fuller (ADF) stationarity test, the Johansen Co-integration test and other tests were carried out to ensure the robustness of the results. The findings of the study reveal that bank size, external debt, money supply and size of the economy are significant determinants of corporate bond market development in Nigeria.

Emeh and Chigbu (2014) investigate the impact of capital market on economic growth in Nigeria. The study adopted a time-series research design relying extensively on secondary data covering 1985 -2012. The study utilized regression analysis method incorporating multivariate co-integration and error correction to examine characteristics of time series data adopting disaggregate the capital market indices approach. The findings suggested that two exhibit positive while two exhibit inverse and statistically significant relationship with economic growth. This could stimulate dialogue on the implication for policy simulation. The study recommended that relevant regulatory agencies should focus on enhancing efficiency and transparency of market to improve investor's confidence, need for effective and favorable macroeconomic environment to facilitate economic growth and ensure that channels of capital market induced growth are built around effective systems; and also, policy institutions should be active in making systemic checks and appropriate policy innovations to ensure capital market led economic growth.

Echekoba et al (2013) examined the impact of capital market on the growth of the Nigerian economy under a democratic rule. The study used time series data and multivariate regression method was used to analyze the data. They discovered that while total market capitalization and all share indexes exert positive influence on the GDP growth rate, the total value of stock has a negative effect on the GDP growth rate, and none is significant. The study recommended that

government should depict concerted effort and sincerity of purpose in the capital market development.

Nwiado and Deekor (2013) analyzed the Domestic Bond Market and its contribution to the Nigerian Capital Market and asserted that the domestic bond market is a source of huge liquidity in the financial market which eventually expands the size of the capital market. Auto Vector Regressive model was used to analyze the relationship between the variables applied. The series were tested for Unit Root to ensure that the time series data are stationary. Capital market size was regressed on foreign participation to determine the relationship between the size of domestic bond market and foreign participation and capital market size was regressed on market liquidity.

Atoyebi et al (2013) determined the impact of capital market on economic growth in Nigeria using annual data from 1981 to 2010. An ordinary least square test was used to verify the statistical significance of the variables used and vector auto regression technique to determine the long run relationship within the variables. Their empirical investigations revealed that two variables are statistically significant at 10% and these variables are market index and market capitalization. Also the co-efficient value of these two variables suggest that a percentage increase in market index and market capitalization will bring about on the average 33.7 and 44.8 percentage increase in real GDP. Their finding based on Johanson (1995) co-integration technique and vector auto regression suggest three co-integrating equation at 5% level of significant while the vector auto regression suggest the existence of long run relationship between stock market and real GDP and the stability in the system was also determined through the vector autoregressive technique. They recommended that there is also need to restore confidence to the market by regulatory authorities through ensuring transparency and fair trading transaction and dealing in the stock exchange, address the reported case of abuse and sharp

practices by some companies in the market, boost the value of transactions in the Nigerian capital market, make available more investment instruments such as derivatives, convertibles, future, and swaps options in the market and all the tiers of government should be encourage to fund their realistic developmental programme through the capital market.

Kareem et al, (2013) examined the Impact of Capital Market on the Nigerian Economy. The study was to determine the trend of capital market over the years, examine the relationship between capital market and economic growth, and to proffer recommendations based on the research findings. The secondary data source was used for this study regression analysis and correlation analyses were used to present the data and to find the significance and relationships between the different variables chosen. The result showed that there has been a steady rise in the macro economic variables considered i.e. gross domestic product, market capitalization, total shares traded, public capital expenditure, gross capital formation, openness (export plus import divided by GDP) and foreign direct investment. Also the R-squared value of 96% implies the total variation in Real GDP is being explained by the explanatory variables (i.e. MKT CAP, TST, PCE, GCF, OP and FDI). However, only openness and GCF are the significant factors contributing to Real GDP. Also correlation analysis showed a positive and significant relationship between Real GDP, market capitalization and total shares traded and are also significant at 1% level of probability. The policy implication of this is that gross capital formation and openness are veritable variables that will have impact on the Nigerian economy growth and development (GDP being used as a proxy for economic growth).

Samson and John (2012) examined the Nigeria capital market and economic development. Time series data from 1971-2010 was used and they applied the Engle-Granger and Johansen method of co-integration in a VECM setting estimation technique. The results revealed that in the long

run, the Nigerian capital market positively and significantly influence economic development. It was therefore recommend that government should put more effort in developing an active new issues market by encouraging more floatation of new issues and create stable environment for business.

Afeez and Kazeem (2010) critically and empirically examined the causal linkage between stock market and economic growth in Nigeria between 1970 and 2004. The indicator of the stock market development used are market capitalization ratio, total value traded ratio and turnover ratio while the growth rate of gross domestic product is used as proxy for economic growth, using the Granger causality (GC) test, the empirical evidence obtained from the estimation process suggests a bidirectional causality between turnover ratio and economic growth, a unidirectional relationship from market capitalization to economic growth and no causal linkage between total value traded. The result of the causality test is sensitive to the choice of variable used as proxy for stock (capital) market. Overall the result of the G.C test suggested that capital market drive economic growth.

Philippe et al (2009) empirically analyzed the impact of the capital market operations on local investment. In analyzing the impact, the time series of data cover the period of 1972 to 2011. Gross domestic Product is regressed on the Capital market variables (Market capitalization, Number of Dealings and All share indexes) to check the long run effect of capital market activities on the growth of the economy neoclassical growth model is use to explain the source of growth in the economy. The relevance of the capital market in the encouragement of local investment and economic development were highlighted. The paper concludes with recommendation to stem up investors' confidence and activities in the capital market so that it could contribute significantly to the growth of local investment in Nigeria.

Ewah et al; (2009) appraise the impact of the capital market efficiency on economic growth of Nigeria using time series data from 1963 to 2004. They found that the capital market in Nigeria has the potential of growth inducing but it has not contributed meaningfully to the economic growth of Nigeria because of low market capitalization, low absorptive capitalization, illiquidity, misappropriation of funds among others.

Ezeoha et al, (2009) investigated the nature of the relationship that exists between stock market development and the level of investment (domestic private investment and foreign private investment) flows in Nigeria. They discovered that stock market development promotes domestic private investment flows, thus suggesting the enhancement of the economy's production capacity as well as promotion of the growth of national output. However, the results show that stock development has not been able to encourage the flow of foreign private investment in Nigeria.

Patara & and Yoonbai (2007) investigated the role of the bond market in economic growth. For the years 1989-2003, they employed the bond market data for 38 countries and the procedure that can better handle the econometric problems such as simultaneity, omitted variables or unobserved country-specific effects. They also considered simultaneously the three major financial instruments and markets: bank credits, bonds, and stocks. Their estimation results indicated that the development in the financial sector in general has a positive impact on economic growth. Both banking development and stock market development help promote economic growth.

Taiwo et al (2006) evaluated the contribution of capital market to the growth of Nigeria's economy. An error correction model was estimated for economic growth in Nigeria, using Vector Error Correction techniques on an annual time series data spanning from 1981 to 2014. The data were subjected to Phillip Perron Unit Root Test at level and first difference. The study

revealed that, at one percent significance level, all the variables were stationary at first differencing. The result of the normalized co integrated series further revealed that market capitalization rate, total value of listed securities, labor force participation rate, accumulated savings and capital formation are significant macroeconomic determinants factors of economic growth in Nigeria. It was recommended that, for the capital market to realizes its full potentials, its environment must be enabled to promote and encourage investment opportunities for both local and international investors, since the stock market operates in a macroeconomic environment and also, there should be an improvement in the Nigerian trading system with the aim of increasing the ease with which investors can purchase and sell shares, could guarantee the stock market liquidity.

Eriki and Okafor, (2006) examined government bonds and capital market development: the Nigeria experience. They opined that, the perennial debt overhang of most developing countries have brought to the fore the need to develop domestic capital markets. However, in most developing countries, domestic capital markets have so far fallen short of expectations in spite of the great potential for financing development. The objective of this paper is therefore to empirically evaluate the impact of government bonds on the growth and development of the Nigerian capital market. The ordinary least square regression (OLS) was used to measure the impact of government bonds on the capital market from 1970 to 2003. The study found out that the level of current prospects and benefits of the Nigerian capital market can be improved upon to attain yet greater height within the framework of this study.

Harris (1997) did not find hard evidence that stock market activity affects the level of economic growth. And also Osinubi and Amaghionyeodiwe (2003) examine the relationship between the

Nigerian stock market and economic growth during the period 1980- 2000. There are findings did not support the claim that stock market development promotes economic growth.

Levine and Zervos (1996) examined stock market development and long-run economic growth. Pooled cross-country time-series regression of forty-one countries from 1976 to 1993 was used. The growth rate of Gross Domestic Product (GDP) per capita was regressed on a variety of variables designed to control for initial conditions, political stability, investment in human capital, and macroeconomic conditions; and then include the conglomerated index of stock market development. They found out that a strong correlation between overall stock market development and long-run economic growth exist. This means that the result is consistent with the theories that imply a positive relationship between stock market development and economic growth.

However, this study investigated the bonds market and its impact on the capital market for the period between 2000 to 2017 since most of the data used in the work of previous scholars did not cover this dates. Also, the multiple regression technique on E-views 9 statistical tool is used to analyze the data to be collected. This is more suitable and accurate compare to the tools used in the above studies.

2.3 Theoretical Framework

2.3.1 Modern Portfolio Theory

Modern portfolio theory is a theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward. According to the theory, it's possible to construct an efficient frontier of optimal portfolios offering the maximum possible expected return for a given

level of risk. This theory was pioneered by Harry Markowitz in his paper Portfolio Selection, published in 1952 by the Journal of Finance.

Modern Portfolio Theory makes the assumption that investors are risk-averse, meaning they prefer a less risky portfolio to a riskier one for a given level of return. This implies that an investor will take on more risk only if he or she is expecting more reward. The expected return of the portfolio is calculated as a weighted sum of the individual assets' returns. Most investors are more concerned with government bonds because it is said to be risk free and encourages more risk averse investors to buy such securities.

Modern Portfolio Theory also called portfolio theory or portfolio management theory is a sophisticated investment approach/strategy and is the philosophical opposite of traditional stock picking (Shefrin, 2001). It is the creation of economists who try to understand the market as a whole, rather than business analysts who look for what makes each investment opportunity unique. Investments are described statistically in terms of their expected long-term return rate and their expected short-term volatility.

The goal is to identify the acceptable level of risk tolerance and then to find a portfolio with the maximum expected return for that level of risk. The key tenet of Modern portfolio theory therefore is that if one wishes to increase the performance and reduce the risk in an overall investment portfolio, he or she should combine investments that are non-correlated with one another (Thaler & Shefrin, 1981). Simply put a diversified portfolio of non-correlated investments can provide the highest returns with the least amount of volatility given that the risk of loss in futures trading can be substantial and an investor could potentially lose more than the initial investment.

2.3.2 Efficient Market Hypothesis (EMH)

The efficient market hypothesis states that the prices of financial assets reflect all relevant information that is available about the intrinsic value of the asset. According to Reilly and Brown (2006) an efficient capital market is one in which security prices adjust rapidly to the arrival of new information and, therefore the current prices of securities reflect all information about the security. This is referred to as an informational efficient market meaning that one cannot consistently achieve returns in excess of average market returns on a risk adjusted basis, given the information publicly available at the time the investment is made. In relating the EMH to the economy and economic growth, deviations from efficiency may offer profit opportunities to better informed traders at the expense of less-informed traders. However, deviations from informational efficiency would also result in a large cost that will be borne by all citizens, namely, inefficient resource allocation. In a capitalist economy, investments in real assets such as plant, equipment, and know how are guided in large part by the prices of financial assets. In this manner, capital market prices guide allocation of real resources. If markets were inefficient and securities commonly mispriced, then resources would be systematically misallocated. Corporations with overpriced securities will be able to obtain capital too cheaply and corporations with undervalued securities might forgo investment opportunities because the cost of raising capital will be too high.

There are three versions of the efficient market hypothesis: the weak, semi-strong, and strong forms of the hypothesis. The weak-form hypothesis asserts that stock prices already reflect all information that can be derived by examining market trading data such as the history of past prices, trading volume, or short interest. It is considered weak because all its information are public and can easily be assessed by anyone, as the holder of the information does not have any

material gain that will enable them outperform the market. The Semi strong form of the efficient market hypothesis states that prices does not only contain all the past prices and volumes of transaction but also all public information like financial statements, company's announcements that impact on the company's business dealings, economic factors like monetary policy decisions and other factors. Finally, the strong-form version of the efficient market hypothesis states that stock prices reflect all information relevant to the firm, even including information available only to company insiders.

2.3.3 Capital Asset Pricing Model

Capital asset pricing model (CAPM) is used to determine a theoretically appropriate required rate of return of an asset, if those assets are to be added to an already well-diversified portfolio.

The model takes into account the asset's sensitivity to non-diversifiable risk also known as systematic risk or market risk, often represented by the quantity beta (β) in the financial industry, as well as the expected return of the market and the expected return of a theoretical risk-free asset. It assumes that the risk-return profile of a portfolio can be optimized. An optimal portfolio displays the lowest possible level of risk for its level of return.

Additionally, since each additional asset introduced into a portfolio further diversifies the portfolio, the optimal portfolio must comprise every asset, assuming no trading costs with each asset value-weighted to achieve the above assuming that any asset is infinitely divisible. All such optimal portfolios, i.e., one for each level of return, comprise the efficient frontier.

An investor might choose to invest a proportion of his or her wealth in a portfolio of risky assets with the remainder in cash - earning interest at the risk free rate (or indeed may borrow money to fund his or her purchase of risky assets in which case there is negative cash weighting). Here, the

ratio of risky assets to risk free asset does not determine overall return - this relationship is clearly linear. It is thus possible to achieve a particular return in one of two ways, by investing all of one's wealth in a risky portfolio, or by investing a proportion in a risky portfolio and the remainder in cash. For a given level of return, however, only one of these portfolios will be optimal (in the sense of lowest risk). Since the risk free asset is, by definition, uncorrelated with any other asset, option to invest a proportion in a risky portfolio and the remainder in cash will generally have the lower variance and hence be the more efficient of the two. This relationship also holds for portfolios along the efficient frontier: a higher return portfolio plus cash is more efficient than a lower return portfolio alone for that lower level of return. For a given risk free rate, there is only one optimal portfolio which can be combined with cash to achieve the lowest level of risk for any possible return.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This research adopted Descriptive research design to specify the nature of relationships between the variables. According to Best and Kahn (1989), descriptive research is the type of enquiring that deals with the collection and analysis of data for the purposes of describing and interpreting existing conditions and also to make discovery and explanation of past events. Descriptive research is utilized because it enables exploring relationships between two or more variables. Also, it is appropriate for testing the hypotheses of the study and help to answer the research questions concerning bonds and capital.

3.2 Population, Sample and Sampling Techniques

According to Agbonifoh and Yomere (2002), the population of a study is the totality of the objects or elements being studied and to which the conclusion or generalization of our results will apply. The population of this study consists of government and corporate bonds issued in the Nigeria stock exchange from 2000 to 2017.

3.3 Methods of Data Collection

This research used secondary source of data collection. These data was sourced from the Debt Management Office (DMO), Central Bank of Nigeria (CBN) bulletin, Nigerian Stock Exchange (NSE) bulletin and Security and Exchange Commission (SEC) bulletin.

3.4 Technique for Data Analysis and Model Specification

Time series data of 18years were obtained and used for the analysis. Multiple regression technique on E-views 8 was adopted as the tool of data analysis.

A multiple regression equation is set up to investigate the hypothesized relationships between the dependent variables and the independent variables in this study. The econometrics form of the equation is given as:

$$MC = \beta_0 + \beta_1 (FGN) + \beta_2 (CB) + e$$

Where:

MC = Market Capitalization (Dependent Variable)

FGN = Federal Government Bonds (Independent Variable)

CB = Corporate Bonds (Independent Variable)

e = Error Term

Measurement of Variables

Market Capitalization (Dependent Variable)

Market capitalization is the aggregate valuation of the company based on its current share price and the total number of outstanding stocks. It is calculated by multiplying the current market price of the company's share with the total outstanding shares of the company. It is measured using the total market capitalization for the year.

Federal Government Bonds (Independent Variable)

Federal government bonds are debt securities of the federal government of Nigeria issued by the Debt Management Office (DMO) for and on behalf of the federal government. They are measured using the total federal government bonds issued in a year.

Corporate Bonds (Independent Variable)

A corporate bond is a debt security issued by a corporation and sold to investors. It is measured using the total corporate bond issued in a year.

3.5 Justification of Methods

A multiple regression tool was used because it assisted in ascertaining the relationship between bonds and capital market. Corporate bonds and government bonds were used as indices of bonds and Market capitalization was used as indices of capital market growth. Also, the technique is appropriate for achieving the set objectives of this study.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

This chapter presents the result of data analysis and tests of hypotheses formulated earlier in chapter one. First, descriptive statistics, followed by the correlation matrix table and then the summary of Regression Results are presented and analyzed, and then discussion of findings. The data used for this study are presented in appendix A, these data are market capitalization (MC), Federal government bonds (FGN) and corporate bonds (CB).

Table 4.1 Descriptive Statistics

	MC	CB	FGB
Mean	9381.958	34.31071	2664.150
Median	9740.590	14.45500	2438.263
Maximum	19077.42	108.0400	7564.937
Minimum	472.3000	0.650000	0.000000
Std. Dev.	6614.138	35.63660	2425.279
Skewness	0.006509	0.824664	0.481616
Kurtosis	1.577865	2.233113	2.165592
Jarque-Bera	1.179872	1.929901	0.947363
Probability	0.554363	0.381002	0.622705
Sum	131347.4	480.3500	37298.10
Sum Sq. Dev.	5.69E+08	16509.57	76465701
Observations	17	17	17

Source: Eview 9 output

The descriptive statistics table above includes the variables covered in the study, mean, median, standard deviation, skewness and kurtosis with 17 observations of the data used in the study. The mean of market capitalization (MC) indicates the series around 9381.958 which shows the

average mean of the market capitalization within the period of the study with median of 9740.590. The MC shows a deviation from the mean (standard deviation) of 6614.138 which showed wide disparity away from the mean. This signifies that the data were not normally distributed because the probability of Jarque-Bera is 0.554363 which is greater than 5%. The maximum value of market capitalization as well as its minimum value within the period of study is 19077.42 and 472.3000. This signifies that the maximum and minimum MC in Nigeria within the period of the study ranges between 19077.42 and 472.3000. The skewness and Kurtosis of MC indicate a value of 0.006509 and 1.577872.

In addition, federal government bond indicates the mean of 2664.150 with its standard deviation of 2425.279. This means that the data are normally distributed since the probability of Jarque-Bera is more than 5%. The median is 2438.263 with kurtosis of 2.165592. The maximum value of FGN is 7564.937 while the minimum value is 0.000000. The reason of the minimum value of zeros means that federal government bonds are not issued every year which shows that some of the years have zero.

Furthermore, corporate bond has a mean of 34.31071 while its median is 14.45500. The standard deviation, which indicates deviation from the mean is 35.636600 which means that corporate bonds are normally distributed because the probability of Jarque-Bera is greater than 5%. The maximum and minimum value 108.0400 and 0.650000 with an observation of 17.

4.2 Data Analysis and Results

Table 4.2 Correlation Matrix

	MC	CB	FGB
MC	1.000000	0.601771	0.911485
CB	0.601771	1.000000	0.832131
FGB	0.911485	0.832131	1.000000

Source: Eview 9 output

The table above shows the correlation values between the variables of the study. The correlation matrix is used to determine the correlation between independent variables of the study. It is observed that federal government bond (FGN) has a positive high correlation with market capitalization to the extent of 0.911485 (91%). This indicates that increase in federal government bond will increase the market capitalization of capital market growth. Furthermore, corporate bond has a positive relationship with market capitalization to the extent of 0.601771 (60%). This simply indicates that increase in corporate bond has positive impact on market capitalization of capital market and it will lead to increase in capital market growth.

Table 4.3 Variance Inflation Factor

Variance Inflation Factors

Date: 09/13/18 Time: 08:02

Sample: 1 17

Included observations: 14

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
CB	909.7886	6.497249	3.251423
FGB	0.196431	7.476671	3.251423
C	761509.7	2.307814	NA

Source: Eview 9 output

Variance inflation factors (VIF) determine how much the variance of the estimated regression coefficients are inflated as compared to when the predictor variables are not linearly related. VIF of bonds in Nigeria is between 1 and 10 which shows that the data are moderately correlated.

From the VIF result, there is no multicollinearity problem.

Table 4.4 Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.883698	Prob. F(2,11)	0.0984
Obs*R-squared	4.815509	Prob. Chi-Square(2)	0.0900
Scaled explained SS	2.279544	Prob. Chi-Square(2)	0.3199

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 09/13/18 Time: 08:03

Sample: 1 17

Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1320270.	1667586.	0.791725	0.4453
CB	97146.10	57639.57	1.685406	0.1200
FGB	-384.2687	846.9452	-0.453711	0.6589
R-squared	0.343965	Mean dependent var		3629672.
Adjusted R-squared	0.224686	S.D. dependent var		4664585.
S.E. of regression	4107257.	Akaike info criterion		33.48182
Sum squared resid	1.86E+14	Schwarz criterion		33.61876
Log likelihood	-231.3727	Hannan-Quinn criter.		33.46914
F-statistic	2.883698	Durbin-Watson stat		2.635773
Prob(F-statistic)	0.098424			

Source: Eview 9 output

Considering the Chi2 value of 0.0900 and f-statistics of 0.0984 of the Heteroskedasticity test, the study accepts the null hypothesis which shows the absence of heteroskedasticity because both the chi-square and f-statistics is more than 5%.

Table 4.5 Stationarity Unit Root Test Summary

Augmented dickey fuller	MC 2ND Difference		FGN 1ST Difference		CB 2nd Difference	
	t-statistics	Prob	t-statistics	Prob	t-statistics	Prob
	-4.569567	0.0042	-4.305126	0.0004	-6.241886	0.0008
1% Level	-4.057910		-4.004425		-5.119808	
5% Level	-3.119910		-3.098896		-3.519595	
10% Level	-2.701103		-2.690439		-2.898418	

Source: Eview 9 output

From the unit root table, market capitalization (MC) was stationary not stationarity at level and first difference but however become stationary at second difference with ADF statistic value of -4.569567 and the associated one-sided p-value of 0.0042 while the critical values at the 1%, 5% and 10% levels are greater than the statistic value which indicates the presence of stationarity at second difference.

In same manner, Corporate bonds (CB) was stationary not stationarity at level but however become stationary at first difference with ADF statistic value of -6.241886 and the associated one-sided p-value of 0.0008. In addition, the critical values at the 1%, 5% and 10% levels are greater than the statistic value which indicates the presence of stationarity at first difference.

Furthermore, FGN was not stationary at level and first difference but however become stationary at second difference with ADF statistic value of -4.305126 and the associated one-sided p-value of 0.0004. Hence, the critical values at the 1%, 5% and 10% levels are greater than the statistic

value which indicates the presence of stationarity at first difference. Therefore, the analysis were done based on the level at which the variables were stationary.

Table 4.6 Regression Analysis

Dependent Variable: D(MC,2)
Method: Least Squares
Date: 09/13/18 Time: 07:45
Sample: 1 17
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CB)	-94.56523	30.16270	-3.135171	0.0095
D(FGB,2)	3.642038	0.443205	8.217498	0.0000
C	2923.624	872.6453	3.350300	0.0065
R-squared	0.910648	Mean dependent var		9381.958
Adjusted R-squared	0.894402	S.D. dependent var		6614.138
S.E. of regression	2149.322	Akaike info criterion		18.37110
Sum squared resid	50815415	Schwarz criterion		18.50804
Log likelihood	-125.5977	Hannan-Quinn criter.		18.35843
F-statistic	56.05412	Durbin-Watson stat		1.779079
Prob(F-statistic)	0.000002			

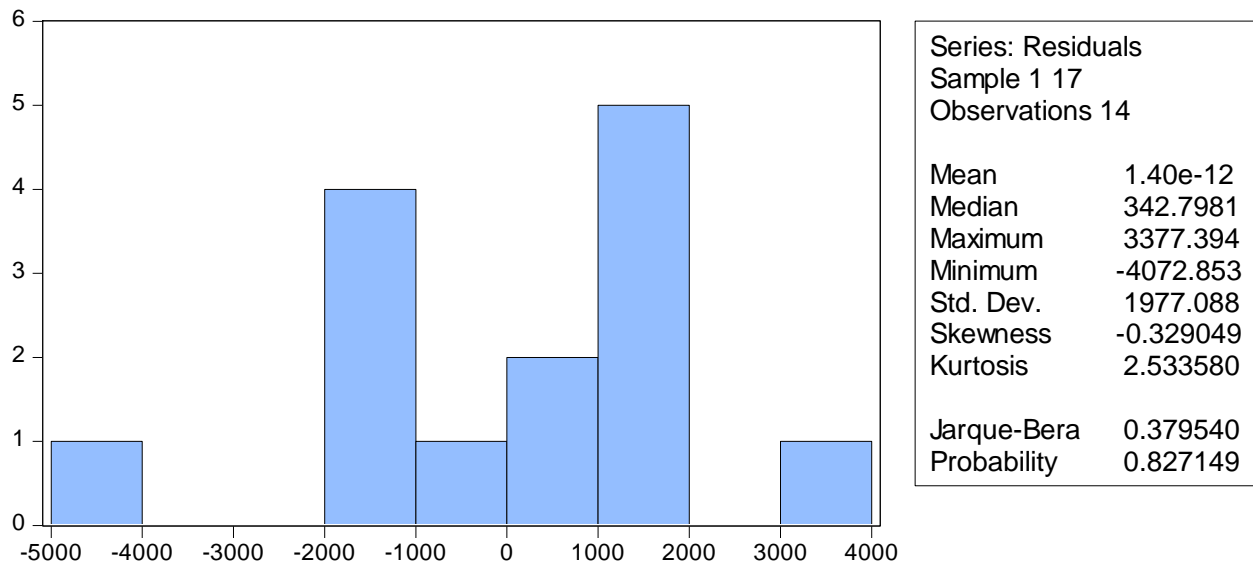
Source: Eview 9 output

From the P-values in the regression results above, it is observed that the individual impact of corporate bond (CB) and federal government bond (FGB) on market capitalization (MC) are statistically significant @ 5% (0.05) level of significance with P-values of 0.0095 and 0.0000 respectively. This is because their respective P-values are less than 0.05 which is the benchmark. The coefficient of determination R^2 is 0.910648 which shows that the independent variables (federal government bond and corporate bond) explained approximately 91% variation on the dependent variable which is market capitalization while the remaining variation is explained by other variables not capture in the model. This also means that the estimated model has a good fit.

The adjusted R^2 value of 0.89 shows that after penalizing for loss of degrees of freedom, about 89% of the changes in the dependent variable (MC) are explained by changes in the independent variables (CB and FGB). This also means that the estimated regression model has a good fit.

The F-statistic value 56.05 suggests that the parameters of the model are significant.

Table 4.7 Histogram Normality Test



Source: Eview 9 output

The residual normality test revealed that the variables were normally distributed because the probability value of Jarque-Bera is more than 5%.

4.3 Discussion of findings

The correlation result which shows the relationship between bond and capital market growth indicates that federal government bond (FGN) has a positive correlation with market capitalization and also, corporate bond has a positive relationship with market capitalization which signify that an increase in corporate bond will lead to an increase in market capitalization thereby leading to capital market growth.

The Regression result shows that both corporate bond and federal government bond has a significant effect on capital market growth as measured by market capitalization. This indicates that federal government bond will increase market capitalization in Nigeria. The increase in federal government bond in Nigeria will increase the market capitalization of capital market thereby increasing the performance of the market.

The findings of the study is consistent with the findings of Adeoye (2015), Nwiado and Deekor (2013), Akinsokeji, Abidemi and Edafe (2016), Obamiro (2005), Emeh and Chigbu (2014), Samson and John, (2012) that bonds has impact on market growth but inconsistent with the findings of Ogboi, Njojo and Nwankwo (2016), Osinubi and Amaghionyeodiwe (2003) that bond has insignificant relationship with market growth.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The capital market is the segment of the financial system, which facilitates the channeling of long-term funds from surplus to deficit economic units thereby stimulating capital formation and socio-economic development. The capital market deals with long-term financial products such as loans, shares, bonds and credit that are used for productive activities. It is also the institution and mechanisms through which economic units desirous to invest their surplus fund interact directly or through financial intermediaries with those who wish to procure funds for their businesses. The market makes it possible to transfer capital from persons with a savings surplus to persons with a savings shortage. The market allows the individuals to make investment and consumption decisions in relation to expected earnings.

Therefore, the study determined the impact of bonds on capital market growth from 2000 to 2017 with two specific objective, question and hypotheses which were tested in the study. The study conceptual bonds as well as capital market. The review was done based on the objective of the study. Modern Portfolio Theory, Efficient Market Hypothesis and Capital Asset Pricing Model were reviewed as the underpinning theory of the study.

The study adopts descriptive research design to determine the nature of relationships between the variables while the data were sourced from the Debt Management Office (DMO), Central Bank of Nigeria (CBN) bulletin, Nigerian Stock Exchange (NSE) bulletin and Security and Exchange Commission (SEC) bulletin. Market economic growth was measure by market capitalization and gross domestic product while bond was measure by Treasury bill, federal government bond, development stock and corporate bond. It was discover that corporate bond has negative

relationship with market capitalization while federal government bond has positive relationship with market capitalization.

5.2 Conclusion

The bond market is preferred as the ideal mechanism for the exchange of claims among buyers. The fixed income security (bond) market is an important segment of the capital market in market economies. Its importance lies in the fact that it provides long term investment opportunity for the private investors and long term financing for firms at low cost. Bonds are financial instruments through which the capital market provides long-term debt financing to companies and government. Bonds provide alternative to equity as investment outlet in the capital market. Hence, the study examined the impact of bonds on capital market growth from 2000 to 2017.

From the findings, the study concludes that corporate bond has negative impact on market capitalization within the period of study. Therefore, the study concludes that corporate has significant impact on market capitalization in Nigeria.

Furthermore, federal government bond has positive relationship with market capitalization and also positive impact on market capitalization with p-value of the result less than 5%.

5.3 Recommendations

From the conclusion, the study recommends that:

1. The policy makers should encourage investments in Corporate Bonds by creating conducive investment environments as the findings of this study showed that CB improved capital market growth. This can be done by promoting a lower rate for treasury bill, as investors prefer to buy treasury bills with rates above 10% compared to rates of CB which is less than 8%.

2. Regulatory incentives to participants in the Bond market should be encouraged. These incentives should be created for both the Companies and Investors, so as to encourage participation in the market compared to equity which is more vibrant and active. The Bond market can be well deepened especially, the CB if the cost of floating a bond is further reduced, and additional exemptions like tax rebates on Bond Yield or exceptions for new participants as a way of incentivizing new investors, this will assist in promoting participation in the Bond market thereby expanding the size of contribution to the growth of the capital market.
3. Also, Regulatory authority should initiate policies that would encourage more companies to access the market and also be more proactive in their surveillance role in order to check sharp practices, which undermine market integrity and erode investors' confidence.

5.4 Limitations of the study

The study is limited to the impact of bonds on capital market growth from 2000 to 2017. In this study, bond is measured by the federal government bonds and corporate bonds while capital market growth is measured by market capitalization. Therefore, interpretation of the result should be done based on the aforementioned limitation of the study.

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The NSE Yearly Review: 2017 Market Recap and 2018 Outlook.

Appendix I

DATA

	#'billion	#'billion	#'billion
	FGB	CB	MC
2000	-	7.05	472.3
2001	-		662.5
2002	-	5.50	764.9
2003	72.56	0.65	1,359.3
2004	72.56		2,112.5
2005	250.83	6.90	2,900.1
2006	643.94	13.500	5,120.9
2007	1,186.16		13,181.7
2008	1,445.60	5.17	9,563.0
2009	1,974.93	15.41	7,030.8
2010	2,901.60	73.50	9,918.2
2011	3,541.20	72.42	10,275.3
2012	4,080.05	32.04	14,800.9
2013	4,222.04	10.58	19,077.4
2014	4,792.28	48.04	16,875.1
2015	5,808.14	81.550	17,003.4
2016	7,564.94	108.04	16,185.7
2017	8,715.81	23.15	21,128.9

Appendix II

Unit Root Test

MC

LEVEL

Null Hypothesis: MC has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.936783	0.7486
Test critical values:		
1% level	-3.920350	
5% level	-3.065585	
10% level	-2.673459	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 16

1ST DIFFERENCE

Null Hypothesis: D(MC) has a unit root

Exogenous: Constant

Lag Length: 3 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.920379	0.0139
Test critical values:		
1% level	-4.121990	
5% level	-3.144920	
10% level	-2.713751	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 12

2ND DIFFERENCE

Null Hypothesis: D(MC,2) has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.569567	0.0042
Test critical values:		
1% level	-4.057910	
5% level	-3.119910	
10% level	-2.701103	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 13

CB

LEVEL

Null Hypothesis: CB has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=2)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.032671	0.0787
Test critical values:		
1% level	-4.803492	
5% level	-3.403313	
10% level	-2.841819	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 7

1ST DIFFERENCE

Null Hypothesis: D(CB) has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=2)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.241886	0.0008
Test critical values:		
1% level	-5.119808	
5% level	-3.519595	
10% level	-2.898418	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 6

FGB

LEVEL

Null Hypothesis: FGB has a unit root

Exogenous: Constant

Lag Length: 3 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	2.642503	0.9999
Test critical values:		
1% level	-4.057910	
5% level	-3.119910	
10% level	-2.701103	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 13

1ST DIFFERENCE

Null Hypothesis: D(FGB) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	0.152872	0.9588
Test critical values:		
1% level	-3.959148	
5% level	-3.081002	
10% level	-2.681330	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 15

2ND DIFFERENCE

Null Hypothesis: D(FGB,2) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.305125	0.0004
Test critical values:		
1% level	-4.004425	
5% level	-3.098896	
10% level	-2.690439	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 14

Appendix III

Total Annual Market Capitalization on the Nigerian Stock Exchange (N' Billion)

Year	GS	Bonds	ETF	Equities	Total
2000	2.1	4.1		466.1	472.3
2001	8.3	5.8		648.4	662.5
2002	12.7	3.5		748.7	764.9
2003	25.2	8.4		1,325.7	1,359.3
2004	178.1	7.9		1,926.5	2,112.5
2005	365.5	9.8		2,523.5	2,900.1
2006	903.0	3.5		4,227.1	5,120.9
2007	2,976.6	17.0		10,180.3	13,181.7
2008	2,559.0	16.4		6,957.5	9,563.0
2009	2,030.8	10.1		4,989.4	7,030.8
2010	1,939.3	56.4		7,913.8	9,918.2
2011	2,400.5	1,341.3	1.0	6,532.6	10,275.3
2012	4,425.0	1,400.4	1.0	8,974.4	14,800.9
2013	4,456.9	1,394.0	0.3	13,226.0	19,077.4
2014	5,248.0	145.0	4.5	11,477.7	16,875.1
2015	6,942.9	205.9	4.0	9,850.6	17,003.4
2016	6,652.0	282.0	4.8	9,246.9	16,185.7
2017	7,236.2	276.5	6.7	13,609.5	21,128.9