ROLE OF CAPITAL MARKET ON ECONOMIC GROWTH IN NIGERIA

BY

EMORDI HELEN NSU/SS/MSC/ECO/044/15/16

A PROJECT SUBMITTED TO THE SCHOOL OF POST GRADUATE STUDIES,
NASARAWA STATE UNIVERSITY, KEFFI IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF MASTERS DEGREE IN
DEVELOPMENT ECONOMICS DEPARTMENT OF ECONOMICS FACULTY OF
SOCIAL SCIENCES NASARAWA STATE UNIVERSITY, KEFFI
NIGERIA.

FEBRUARUY, 2020

DECLARATION

I hereby declare that this project "Role of Capital Market on Economic Growth" has been written by me and it is a report of my research work. It has not been presented in any previous application for a master's degree. All quotations are indicated and sources of information specifically acknowledged by means of references.

Signature

03 02 20

Date

Emordi Helen

NSU/SS/MSC/ECO/044/15/16

CERTIFICATION

is project "Role of Capital Market on Economic Growth in Nigeria" meets the requirements verning the award of M.Sc Economics Degree under the Department of Economics of the School postgraduate studies. And is approved for its contribution to knowledge.

. Salihu H.M.G	Offste
ipervisor	
Bala I.A. ead of Department	9/12/2020 Date
eatt of Department	
	67 (12/20) Date
r. Salihu H.M.G	Date
iternal Examiner	
Belo Clán - r. Bala I.A	9/12/2020 Date
xternal Examiner	, (
126	9/12/20
rof. T.D. Lagi	Date
ean, Faculty of Social Science	
, - · · · · · · · · · · · · · · · ·	

Date

rof. A.M. Ayuba

ean, School of Post Graduate Studies

DEDICATION

his work is dedicated to God Almighty for his grace and mercies that has brought me thus r. And to my late mum for believing in me and teaching me great values.

ACKNOWLEDGEMENT

I acknowledge the faithfulness of God in my life, his provision, grace, favor and mercies all through this academic pursuit. I am eternally grateful to Him.

My sincere appreciation goes to my supervisor Assoc. Prof. H. A. Eggon for his encouragement, constructive and objective criticism all through this research work. Even in his busy schedule, he still created time to ensure the success of this work.

I want to also appreciate Dr. Bala, the HOD and also my lecturers who have in one way or the other impacted my life.

I also want to acknowledge my colleagues, Abdul and others for all there support and always keeping me on my toes to read more. Am so glad I met you guys.

TABLE OF CONTENT

Title	Page	-	-	-	-	-	-	•	i
Decla	aration		, ü			-	-	(*)	ii
Certil	fication		-	-	-	4.		-	iii
Dedic	cation		÷	•		4			iv
Ackn	owledgement	-		7				4	v
Abstr	ract	-	÷			•			
Table	of Content-						-		vi
		CH	APTEI	RONE					
	0	INT	RODU	CTION	1				
1.1	Background to the Study	•		•	-	-		-	11
1.2	Statement of the Problem	-			-	-	-		13
1.3	Objective of the Study -	-	-	•		4			14
1.4	Research Question -	-	-		-	•		•	14
1.5	Hypothesis of the Study	-	Ġ	-	-	-	-	-	14
1.6	Significance of the Study			-		4		-	14
1.7	Scope and delimitation of th	e Stud	dy			-	-		15
1.8	Definition of Terms			-	7	-			15
1.9	Organisation of the Study-	-	+		-		-	-	16
	Reference-			-	-	-	-		17

CHAPTER TWO

LITERATURE REVIEW

2.1	Illifoddetion	-	-	-	-	18
2.2	Theoretical and Conclusion Framework -	1.2.	-			18
2.2.1	The Capital Market in Nigeria	-	-			20
2.2.2	The Nigeria Security and Exchange Commission	on -	-		-	23
2.2.3	The Nigerian Stock Exchange-	-	- 4	-	-	24
2.2.4	Economic Growth	-		•	-	26
2.3	Capital Market and Economics Growth in Nige	ria -	-	-	-	27
2.4	Empirical Review	-	-			28
2.4.1	Empirical Review on other Countries-	-	- 2			28
2.4.2	Empirical Reviews on Nigeria		-	-		30
2.5	Challenges Facing in the Nigeria Capital Marke	et -	-	-	-	31
	CHAPTER THR	EE				
	RESEARCH METHOD	OLOGY	<u>′</u>			
3.0	Introduction	4	-	-	-	36
3.1	Research Design	-	-	-	-	36
3.2	Sources of Data		-			36
3.3	Population and Sampling Techniques -					36
3.4	Techniques for Data Analysis		-	-	37	
3.5	Model Specification	-	•	-	•	38
3.6	Justification of the Model	-	-	-	-	38

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1	Data Presentation	-	-	-	-	-	-	•	-	40
4.2	Data Analysis -	-	-	-		-	-		-	42
4.2.1	Unit Root Test Anal	ysis-	4.		-	-	-	-		42
4.2.2	Co-integration Analysis-					-	1		-	43
4.2.3	Granger Causality Test Analysis-				-	-	•	-	-	45
4.2.4	Correlation Analysis	- -	-		-	•			-	45
4.2.5	OLS estimation-		-		-		-	-		46
4.3	Interpretation of Res	ults-	-		-	7	-	-	-	46
4.4	Discussion of Findin	gs-			٠	-	-		•	47
			СНА	APTEF	R FIVE					
	SUMMARY,	CON	CLUSI	ONS A	ND RE	COM	MENDA	ATION	S	
5.1	Summary	-		÷	-	-				50
5.2	Conclusion -	-	-		-	-	-		-	50
5.3	Recommendations	-	-		-				-	51
	Pafarence-			_	_	_	_		-	52

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

For any country in the world, achieving sustaining development is the overall goal. Economic development is an inclusive concept. It refers to a qualitative improvement in the economy. It implies better infrastructure, higher income, high literacy rate, low unemployment rate etc. However, economic development is not possible without economic growth as Diffen (2015) noted "economic growth is a more relevant metric for progress in developed countries. But it's widely used in all countries because growth is a necessary condition for development". Similarly, Nana Yew (2008) opined that there cannot be economic development without economic growth. Thus, the importance of economic growth to the development of any nation cannot be overemphasized.

In the same light, economic growth which is an increase in the gross domestic product (GDP) per capital of an economy is not possible without capital. Capital is an indispensable tool for economic growth. It is a requisite any form of production to take place. No economic activity is possible without capital. As Yadirichukwu, Y and E. Chigbu (2014). Isenmila and Akinola (2012) posited that the obstacle facing economic growth is the access to long term funds far longer than the period that savers are willing to commit their resources. This they believe to be a major obstacle to economic growth. Capital cannot be acquired without with money, thus the importance of finance in economic growth cannot be underestimated. Arinze (2005) opined that, a healthy economy is vitally dependent on efficient transferof funds from savers to firms and individuals who need capital, thatis, on efficient financial market. Without efficient transfers, the economy simply could not

grow". Thus the need for a market that can perform that function becomes inevitable. That market is the capital market. According to Adams and Sanni (2005) the capital market provides the facilities to both the public and private sectors to secure long-term capital so as to finance development needs and also to execute expansion of existing project or establish new ones. They believe the capital market does it by mobilizing savings from numerous surplus unitsto provide development finance to deficit units. They believe that because the capital market enables the mobilization and utilization of long-term finance it is a catalyst to the development of a state socio-economically. They also view the provision of alternative source of funds to government other than taxation alone as another critical role the capital market plays to boast socio-economic activities. The increasing importance of financial markets across the world has reinforced the general conviction that finance is an important element of economic growth. As such, the emphasis has remained on economic growth and capital market development. Being an important pillar of the financial sector of a country, the capital market has been seen by many tohave played apivotal role in the growth of enterprises which ultimately affects the economy of the country to alarge extent.

Yadirichukwu, Y and E. Chigbu (2014), noted that the operation of the Nigerian capital market started in the mid 1961 with about seven United Kingdom firms quoted, and with eight equities and stock. The market began with 0.3 million shares worth N1.5m in 334 deals. In 1995, the federal government abrogated the lawsthat hindered foreigners from investing in the domestic capital market. These laws granted non Nigerian equal privileges and investment opportunities in the security market of the country. With a market size of

over 200 listed equities, the Nigerian capital market is small by world standard, despite been the largest capital market in the sub-Sahara region.

This study aims to expose the effects the capital market has had on the economic growth of Nigeria, determining if it is bedeviled as well as proffering solutions to its problems so that it can function better and be a key player in the world capital market.

1.2 Statement of the Problem

The capital market in Nigeria just like any other market was established to address a specific problem, which is basically to contribute positively to Nigerian economy. Judging from the extensive body of work on this subject matter, the capital market is expected to add greatly to economic growth by encouraging investment through it mechanism of mobilizing and channeling savings to credits seekers in the form of long term loans, diversification of risk, improved liquidity amongst others. However, despites this expected benefits, empirical finding by several scholars on the role the capital market plays shows conflicting results. This has generated calls for reforms as the market is perceived to be facing problem. Several reform has been carried out to mitigate these challenges in order to enable the capital market perform its expected functions better which as Hakeem(2014) note is to provide means for greater fund mobilization, better efficiency in resource as well as provision of relevant information for appraisal of investments.

Despite these reforms, the market is still perceived to be under performing. There is significant evidence showing that businesses in Nigeria are short on long term capital with majority relying on short term financing even for long term projects.

Thus, this study is geared toward ascertaining if any relationships exist between the capital market and the Nigeria economy, as well as evaluating and assessing how this relationship if it exists has affected economic growth in Nigeria.

1.3 Objective of the Study

The goal of this study is essentially to evaluate the role the Nigeria capital market has on Nigeria's economic growth. Other specific objectives of the study are;

- 1. To establish whether there is any relationship between economic growth and the capital market.
- 2. To determine the capital market impact on Nigeria economy.
- 3. To ascertain the problem facing the Nigeria capital market in relation to economic growth.
- 4. To make suggestions on how the capital market can stimulate growth in the economy.

1.4 Research Question

For a proper study, the following questions raised based on the statement of the research study will guide this research;

- a. Is there any relationship between the capital market in Nigeria and economic growth of Nigeria?
- b. Does the capital market have any impact on economic growth of Nigeria?
- c. Does the capital market face any challenges in improving economic growth?
- d. How can the capital market be stimulated economic growth in Nigeria?

1.5 Hypothesis of the Study

The following hypotheses will be tested in line with the objective of the research

H0: The operation of the capital market has no significant impact on economic growth in Nigeria.

H1: The operation of the capital market hassignificant impact on economic growth in Nigeria.

1.6 Significance of the Study

The study will evaluateempirically the impact of the capital market on economic growth of Nigeria. This will surely be of immense importance to government especially its regulatory agencies like the Central Bank of Nigeria(CBN), the Nigeria Stock Exchange(NSE), and the Security and Exchange Commission(SEC) as well as other policy makers with developingsound and effective policies that will position the capital market in such a way that its benefits are maximized.

This study will be of immense importance to private investors and corporations, government cooperation and investment analyst in studying the market and deciding the best option for them when choosing which capital market instrument to use.

The study will also contribute to existing body of literature on the subject matter which may be shared for future studies. It is also hoped that the findings for this study will go a long way in resolving the existing conflicts as regards to whether the capital market has any impact on economic growth.

1.7 Scope and Delimitation of the Study

The study examines the activities of the Nigeria capital market vis-a-vis the Nigerian economy. It covers pertinent issues concerning the capital market with greater emphasis on the stock market which is the central of the capital.

Also, the study will cover a time period from 1985-2014. The choice of this time frame is based on the fact that the market has witnessed great changes as it has experienced major events that have affected it with varying consequences within that time frame.

Time, finance and non availability of information have been other factors that have limited the researcher. However, the researcher was able to efficiently use the limited resources available to him.

1.8 Definition of Terms

To ease understanding of this research, some terms considered important on the subject matter are defined below;

CAPITAL MARKET: This a market that facilitate the obtaining of loans for long term financing of medium and long term capital expenditure by government, by firm and individual in the private sector with payback period ranging between 1-3 years and 3 year and above for medium and long term longs respectively.

STOCK EXCHANGE: This market enables the exchange of securities (bonds, stocks, and shares). It is a market that provides the platform for sellers of securities to meet prospective buyers.

FINANCIAL INSTRUMENT: These are anyinstrument showing contract involving the financial obligation agreed between two or more parties.

MARKET CAPITALISATION: This is the most widely used indicator to determine the size of the capital market in an economy. The percentage market capitalization compared to the economy's Gross Domestic Product helps determine the size of the market.

STOCKBROKER: this is an agent that deals in stock. The stockbroker purchases and sells stock on behalf of clients and receive commission for the services rendered.

STOCKHOLDERS: These are individuals, private enterprises and government that have purchased stocks in a corporation.

1.9 Organization of the Study

This study is organized in such a way it has five chapters from chapter one to chapter five.

Chapter one consist the background of the study, statement of the study problem, objective of the study, research questions and hypothesis, significance of the study scope and

delimitation of the study, definition of terms and organization of the study. This forms the introduction part. Chapters two consist of several literature reviews on the impact of the capital market on Nigeria economic growth. It comprises of conceptual, theoretical and empirical frameworks of the study. Chapter three is the research method which include sources of data, analysis technique, model specification etc. chapter four is the data analysis while chapter five comprises of summary, conclusion and recommendations.

References

- Arinze M.A, (2005) "Investment in Stocks by Workers in Nigeria". Journal of Economics and Allied Fields, Vol 2(2), 78-87, December.
- Adams, J.A & Sanni, I (2005)." Stock Market Development and Nigeria Economic Growth".

 Journal of Economics and Allied Fields, Vol 2(2), 166-132, December.
- senmila P.A, & Akinola. A. O (2012). "The Role of Capital Market in Emerging Economy".

 International journal of Business and Social Research (IJBSR), Vol. 2, No 6, pp61-71, November.
- Nazir S.M,Muhammed M.N, and Usman J.G,(2010) "Relationship between economic growth and stock market development" African journal of business management. Vol. 4 No16, pp 3473 3479, 18 November.
- Yadirichukwu, E & Chigbu, E.E (2014) "The impact of capital market on economic growth:

 the Nigerian perspective".International Journal of Development and
 Sustainability, Vol. 3 No4, pp 838-864

CHAPTER TWO

LITERATUREREVIEW

2.1 Introduction.

The aim of this chapter is to review existing body of knowledge contributed by other scholars both theoretically and empirically. Other issues that will be looked at include The Nigerian security and exchange commission, the Nigerian stock exchange, economic growth as well as challenges facing the Nigeria capital market.

2.2 Theoretical and Conceptual Framework

Wall Street New York City was where it all began. Securities were traded in a variety of forms and in diverse trading places (the New York institute of finance, 1992). According to the institute, prior to the revolution, New York City leading merchants met regularly under a buttonwood tree located at what today is known as the corner of Wall and Broad streets. These primeval merchants traded in commodities such as furs, tobacco and currencies as well as provided services such as insuring ship's cargo.

According to Ndi Okereke (2010), the capital market is fabricated up of markets and institutions which assist the issuance and secondary trading of long term financial instrument. She argued that the capital market unlike the money market (which function basically to wage short term funds), provides funds to industries and government to meet their long term capital requirement such as funding of fixed investment like dams, buildings, machinery etc. it is a medium to raise long term finances. Substantial academic literature and government policies promote the finance led growth hypothesis based on the observation of Joseph Schumpeter almost a century ago.

Joseph Schumpeter (1883- 1950) observed that financial market significantly boost real economic growth and development. Joseph Schumpeter asserted that finance had a positive impact on economic growth and technology change. Similarly, in 1989, the World Bank also endorsed this view that financial market matters for economic growth "by improving the productivity of investment". (Wikipedia, 2011)

Ekezie (2002) notes that the capital is the market for dealing in terms of lending and borrowing in long terms loan able funds. (Alile and Anao, 1990) also noted that the capital market is an integral part of the financial market that provides an efficient delivery mechanism for mobilization and allocation management and distribution of long term funds for investment projects. In the same vein, akingohungbe (1996) defines the capital market as the market where medium or long term finance can be raised.

Emekekwue P. (1996) sees the capital market as that part of financial market that provides facilities for transfer of medium and long term funds to various economic units. Adekanye F.(1986,25) sees it as the financial market from which large companies and private enterprises attract long – term investment funds through a network of financial institutions and stockbrokers licensed to perform capital market functions.

Jhingan (2004) sees the capital market as a market which deals in long term loans. It supplies industries with fixed and working capital as well as finance medium term and long-term borrowings of the central, state and local government.

Thus, the capital market is the market which deals in long-term funds. In other words, it is a network of financial institutions and infrastructure that interact to mobilize and allocate long-term funds within the economy. It allows business firms and government the opportunity to sell stock and bonds and raise long-term funds from the savings of other economic agents. The sourcing of long-term of long-term finances through the capital market is essential for self-sustained economic growth. An active capital market aids the mobilization of savings for economic growth and development (Emenuga, 1998)

The capital market uses some instrument so as to be able to perform is various duties of mobilizing as well as allocating resources. These instruments include the following;

1. Debt instrument- This is used to raise long-term loans by a company or government for which interest is paid and at a fixed rate. It has a nominal value and it is usually redeemable.

- 2. Ordinary Shares- This is issued to owners of a company and has a nominal or face value.
- 3. Preference Shares- This is a major source of long-term financing which the holder are entitled to a fixed percentage dividend before any dividend is paid to ordinary shares holders.

It has been identified as an institution that contributes to the socio-economic growth and development of emerging and developed economies. This is made possible through some vital roles played, such as channeling resources, promoting reforms to modernize the financial sector, financial intermediation capacity to link deficit to surplus sectors of the economy, and a veritable tool in the mobilization and allocation of savings among competitive uses which are critical to the growth and efficiency of the economy. (Pat and James, 2010).

Greenwood and Smith (1997) show that large stock market can lower the cost of mobilizing savings and thereby facilitates investment in the most productive technologies. Similarly, Bencivenga, et al. (1996) advance the view that stock market liquidity which is the ability to trade equity easily is important for growth. Specifically, although many profitable investments require along-run commitment of capital savers do not like to relinquish control of their savings for long periods. Liquid equity market eases this tension by providing assets to savers that they can quickly and inexpensively sell. Simultaneously, firms have permanent access to capital raised by equity issues.

Finally, Obstfeld (1994) shows that international risk sharing through internationally-integrated stock markets improves resource allocation and can accelerate the rate of economic growth.

2.2.1 The Capital Market in Nigeria

The importance of capital market to any nation cannot be over emphasized. This is because without capital, production in whatever form is not possible without capital which is the requisite for economic growth. Thus, given the role of the capital market in capital formation, it therefore plays a significant role in economic growth.

Even though securities were floated as far back as 1946 with the floating of more than 300000 pound sterling worth of government stocks, the capital market in Nigeria

started as the Lagos stock exchange in 1960 with 19 securities listed for trading. In December 1977, it became known as the Nigeria stock exchange with branches established in some of the major commercial cities of the country (Wikipedia.org)

The Nigerian stock exchange is the centre point of the capital market in Nigeria while the Securities and Exchange Commission (SEC) serves as the apex regulatory body. According to Mike (1998) the capital market serves the following functions

- 1. Provide local borrowing and lending opportunities for long-term purposes
- 2. Enable government mobilize long-term capital for the development of the country
- 3. Provides foreign businesses with the facility to offer their shares and the Nigerian public an opportunity to invest and participate in the shares ownership of foreign business
- 4. Provides facilities for the quotation and ready marketability of shares and stocks, and opportunities and facilities to raise fresh capital in the market
- 5. Provide a healthy and mutually acceptable environment for participation and cooperation of indigenous and expatriate capital in the joint effort to develop the Nigerian economy to the mutual benefit of both parties,
- 6. Introduce a code of conduct, check abuses and regulate the activities of the market operations.

Emekekwue P. (1996:16) summarized this functions into three (3), namely

A. The Polling Function

The capital market through its agencies like banks, insurance companies, pension fund administrators etc pools resources of or from economic surplus unit and channel the resources to economic deficit units.

B. Facilitating Capital Formation

By disbursing the pooled resources to sectors short on resources, it ensures funds are properly allocated and utilized to increase efficiency as well as capital formation.

C. Risk Reduction Function

By risk reduction, the capital market reduces the risk inherent in investment by providing a way for diversifying existing resources to meet with competing needs.

The network of financial institutions as well as other participants in the Nigerian capital market includes:

- 1. The Nigerian stock exchange
- 2. Quoted/listed companies
- 3. The Nigerian securities and exchange commission
- 4. The central bank of Nigeria
- 5. Stock broking firms/brokers
- 6. Banking and non banking financial institutions
- 7. Individuals

Classification of capital market

The capital market is generally classified into two;

- A. Primary market
- B. Secondary m market

Primary market: This is the market where new securities are issued. It is the market where companies, government and corporations generate funds from. The securities issued here are sold for the first time to the general public to subscribe. The market is also called New Issue Market. Similarly, if new stocks are offered in the market, it is referred to as Initial Public Offering.

The primary issue introduced into the market provides the needed funds that companies, government and corporations require to meet their investment needs.

The three (3) ways of offering new issues in the primary capital market are;

- 1. Initial Public Offering
- 2. Preferential Issues
- 3. Right Issues

Secondary market: this market is concerned with trading of already existing securities. It allows for the buying and selling of securities after their issuance in the primary market. Here, investors sell the securities they have purchased in the primary market to another investor at whatever price suits him, thus the secondary market trends gives an idea about the market liquidity of a particular securities.

The secondary market is very important if an efficient and effective capital market is to be established. This is because it suits investors' preference for liquidity as well as also meshes the capital users desire to hold capital for an extended period of time. Thus an investor who suddenly requires his investment for other purposes can easily do that without affecting the capital base of the capital users. It is therefore important t that the secondary be highly liquid and transparent.

Capital Market Instrument

The securities or instrument issued traded in the capital market can be divided into two, namely

- i. Equity
- ii. Bonds

EQUITY- Also referred to as equity stock or ordinary shares. These are instrument issued to the owners of a company. Stock purchase represents investment in a company or corporations. The investor owns part of an institution and shares in its profit as shown by the shares certificate issued.

BONDS- this is a instrument used by government ,companies, corporations to raise long-term debt for which interest is paid which is usually half yearly (which might change depending on the term and condition agreed) and at a fixed rate. Holders of bonds are long-term creditors of the government, company or corporations. Government bonds are usually regarded as developing stocks.

2.2.2 The Nigerian Security and Exchange Commission

The security and exchange commission (SEC) is the institution responsible for regulating and monitoring the Nigerian capital market. The commission was established under the security and exchange decree of 1979. Prior to the SEC, the capital market was monitored by the capital issues committee established in 1962. In 1973, the capital issues committee decree was enacted. By this decree, the capital issue committee (CIC) became the apex regulatory body for the Nigeria Capital Market. The CIC was empowered to determine the price, timing and volume of securities to be issued. Nevertheless, the CIC concerns itself only with public

companies alone and its activities did not cover the stock exchange and government securities.

The act backing the Securities and Exchange Commission specifies its overriding objectives to be investment protection and development. The functions of the SEC as spelt out by its establishing acts are

- 1) Determining the amount of price and time when securities of companies are to be sold to the public whether through offer for sale or subscription.
- 2) Registering all securities proposed to be offered for sale to or for subscription by the public.
- 3) Maintaining surveillance over the securities market to ensure orderly, fair and equitable dealing in securities.
- 4) Protecting the integrity of the security market against any abuses arising from the practice of insider trading.
- 5) Acting as regulatory apex organization for the Nigerian Capital Market including the Nigerian stock exchange and its branches to which it would be at liberty to delegate power.
- 6) Creating the necessary atmosphere for the orderly growth and development of the capital market.
- 7) Reviewing, approving and regulating merger acquisition and all forms of business combination.
- 8) Registering Stock Exchange or their branches, registers investment advisers, securities dealers and their agents and controlling and supervising their activities with a view to maintaining proper standards of conduct and professionalism in the securities business.
- 9) Undertaking such other activities as are necessary or expedient for giving fall effects to the provision of this decree. (SEC 1999), (Esosa B. O. 2007), (Wikipedia 2011), (SEC 2011, 2012).

2.2.3 The Nigerian Stock Exchange

The Nigerian Stock Exchange (NSE) provides a mechanism for mobilizing private and public savings. It encourages large scale enterprises to gain access to public listing. The NSE operate the main exchange for relatively large enterprises

while the second tier securities market (SSM) are for small and medium scale enterprises where listing requirement are less stringent.

Mbah (2011) see the Nigeria as an auction market where buyers meet sellers by the means of their brokers to undertake transaction in listed securities. It is an association of persons who have either purchased shares from the association or have subscribed originally to the memorandum and article of association. The primary aim of the Nigerian Stock Exchange is to mobilize long term funds for investment. Another objective is to improve the efficiency of capital by providing market measure of return on capital.

The Nigeria Stock Exchange performs the following functions:

- 1. Foster the growth of the domestic financial services sector and the various forms of institutional savings such as life insurance and pension fund.
- 2. To facilitate the transfer of enterprises from the public sector to the private sector
- Provide access to finance for new and smaller companies and encourage institutional development in facilitating the setting up of Nigeria's domestic funds, foreign funds and venture capital funds.
- 4. Provides an additional channel for engaging and mobilizing domestic savings for productive investment and represent an alternative to bank deposits, real estate investment and the financing of consumption loans
- 5. To encourage privatization by increasing the availability and marketability of new issues.

Similarly, the functions of the stock exchange was stated by Al-faki (2007) as follows

- 1. Provides opportunities for raising new capital
- 2. Promoting increase participation by the public in the private sector of the economy
- 3. To provide a central meeting place for members to buy and sell existing stocks and shares and for granting quotations to new ones.
- 4. To reduce the risk of illiquidity by facilitating the purchasing and sales of securities. Securities listed in this market in this market include:
- i. Government bonds and notes
- ii. Corporate bonds
- iii. Principal bonds

- iv. Mortgages
- v. Corporate stocks

2.2.4 Economic Growth

Economic growth is a term used to describe an increase in capacity of an economy. Economic growth is the increase in national income as reflected in the capacity of production of goods and services regardless of whether the increase is on a large or smaller growth rate (Anyanwu, 1996). According to Robert Solow, as cited by Adebiyi (2005) economic growth is a positive change in the level of production of goods and services by a country over a certain period of time.

Economic growth is primarily driven by improvement in productivity which involves producing more goods and services with the same input of labour, capital, energy and materials (Wikipedia). Overall, economic growth is the increase in a country's productive capacity as measured by increase in capital stock, advancement in technology and improvement in the quality and level of literacy. According to Ahuja (2007), economic growth means sustained increase in national income or per capital income over a sufficiently long period of time. Given the availability of natural resources, economic growth of a country depends on the growth of physical capital, human capital and progress in technology. Similarly, Okpara (2006) sees economic growth as an increase in the amount of goods and services produced in an economy which is measured by positive increase in a country's gross domestic product.

The gross domestic product is a measure of the overall output in an economy. It is the monetary value of all output, both goods and services produced within an economy is a specified time period. It represents the summation of all consumption expenses by individual persons, investment expenditures by the private sector as well as the total net export within an economy (Anyanwu, 1996.)

Mathematically, gross domestic product is represented as

$$GDP = C+I+G+(X-M)$$

Where;

C = Private Consumption

I = Investment Spending

G= Government Expenditure

X = Total Export

M = Total Import

X-M = Net Export

2.3 Capital Market and Economic Growth in Nigeria

The importance of financial resources to the growth of any economy in the world is obvious and the Nigerian economy is most definitely not an exception. According to Nwankwo (1999), a capital market offers a variety of financial instruments that enables economic agents pools price and exchange risk. Through assets with attractive yields, liquidity and risk characteristics, it encourages savings in financial forms. This is very essential for government and other institutions in the need of long-term funds.

Similarly, soludo (2006) pointed the bank recapitalization exercise that requied banks to raise their capital to 25 billion show the importance of the capital market. The 25 banks out of 89 that survived the exercise raised the needed capital through the capital market.

Several other attempts have been made by various writers to link growth of capital market and the economy. Levine(1991) as cited by Kolapo and Adaramola (2012) argued that developed stock markets reduces both liquidity shock and productivity shock of businessmen to invest as well as enhancing the productive capacity of the economy, thereby leading to higher economic growth.

Izervos and Levine (1993) agreed that financial development fosters economic growth. Agarwal (2001) argued that financial sector development facilitates capital market development and in turn raises real growth of the economy. Pedro and Erwan (2004) asserted that financial market development raises output by increasing the capital used in production and by ensuring the capital is put into best uses.

Generally, the capital market has contributed to economic growth in Nigeria through the following means:

- 1. It reduces the over reliance of business firms and government on short term financing for long term projects enabling government to provides essential infrastructure.
- 2. It encourages the inflow of foreign capital when foreign companies and/or investors invest in domestic securities.
- 3. The market provides a means of allocating national real as well as financial securities. From 1961, the Nigerian capital market has grown tremendously, particularly during the periods of the indigenization decree of 1972 to 1977. The securities increased from 8 in 1961 to about 301in 2010. Over the years, the Nigerian capital market has witnessed relative stability and also recorded impressive growth. This has positioned it to positively impact the economy (Abdullahi, 2005).

2.4 Empirical Review

Various empirical analysis regarding capital market and economic growth have been carried out by different scholars all over the world. Empirical analysis on other countries will be reviewed separately before those on the Nigerian capital market and economic growth is reviewed.

2.4.1 Empirical Review on Other Countries

Acquah-Sam and Salami (2014) conducted a study using multiple linear regression based on quarterly time series data spanning from 1991:1 to 2011:4. Exploratory data analysis was used to ensure that the basic assumptions of regression analysis were verified and resolved. Structural Equation Modeling (SEM) through Path Analysis (i.e. Layered Regression Technique) was used to identify the possible causal relationship between GDP growth and capital market development, as well as other causal effects in the model. The study found that economic growth (in terms of GDP) and capital market has a positive bi-directional relationship but the capital market has a stronger effect on economic growth.

Ben and Ghazouani (2007) reported that financial system development could have adverse effect on economic growth in a sample of 11 countries they studied. Similarly, the World Bank (1994) found that stock market development does not merely follow economic development but provides the means to predict future rates of

growth in capital productivity and per capital GDP. The World Bank concluded that increase in banking and stock market development leads to increased real per capital growth.

Oke and Aduosi (2012) conducted a study that examined the impact of capital market reforms on the Nigerian economic growth between 1981 and 2010. Using the ordinary least square method of regression and the Johansen co-integration analysis, analysis were made on secondary data sourced from the Central Bank of Nigeria statistical bulletin, the Nigeria Stock Exchange Fact book and the Nigeria Security and Exchange Commission Reports. The results show that capital reforms positively impact the economic growth. The study recommendations include that government should enact laws and reforms that will enhance economic growth.

Bolbo et al (2005) indicated that capital market development has contributed to economic growth in Egypt.

Hamid and Sumit (1998) as cited by Kolapo and Adaramola (2012) examined the relationship between stock market development and economic growth for 21 emerging markets over21 years using a dynamic panel method. Their result indicated a positive relationship between several indicators of stock market performance and economic growth both directly and indirectly through boosting of private investment behavior.

Nieuwerburgh et al (2005) investigated the long term relationship between economic growth and financial market development in Belgium. They used a new set of stock market development indicators to argue that financial market development substantially affects economic growth. Their result showed that the stock market development led to economic growth in Belgium especially between 1973 and 1993.

Positive impact on economic growth of Taiwan, Korea and Japan by stock market development was reported by Liu and Hsu (2006). Similarly Chee et al (2003) indicated that stock market development has a significant positive impact on economic growth in Malaysia.

Barro and Romer (1989) as cited by Ifionu and Omojefe (2013) indicated a very significant relationship between per capital output growth rate and financial market.

Pardy (2001) also observed that stock market plays important role in financial liberalization and deepening. Similarly, Atje and Jovanovic (1993) as cited by Ifionu and Omojefe found significant correlations between economic growth and the value of stock market trading divided by GDP for 40 countries over the period 1980 to 1999.

.4.2 Empirical Reviews on Nigeria

Several studies have been carried out by various notable scholars on the subject matter on Nigeria using various kinds of techniques of method of analysis. Their finding showed different resulting in contradictory conclusions and policy advice. Some of such studies are reviewed below,

Alajekwe and Achugbu (2012) conducted an investigation on the stock market and its role on economic growth in Nigeria using Ordinary Least Square method of analysis on a 15 years' time series data from 1994-2008. The study found that stock market liquidity has the capabilities to promote economic growth in Nigeria.

Ezeoha et al (2009) investigated the nature of the relationship that exists between stock market development and the level of investment flow in Nigeria. He discovered that stock market development promotes domestic private investment flow but has not been able to encourage the flow of foreign private investment in Nigeria.

Nyong (1997) as cited by Kolapo and Adaramola (2012) made effort to develop an aggregate index of capital market development and used it to determine its relationship with long-run economic growth in Nigeria. The study used a time series data from 1970 to 1994. The result of the study was that capital market development is negatively and significantly correlated with long-run economic growth of Nigeria.

Adam and Sanni (2005) examined the role of the stock market in Nigeria's economic growth using the Grangers- causality test. They found a one- way causality between GDP growth and market capitalization and a two-way causality between GDP growth and market turn-over, they concluded that a positive and significant relationship exist between GDP growth and capital market.

Ewah et al (2009) appraised the impact of capital market efficiency on economic growth in Nigeria using time series data spanning from 1961 to 2004 using multiple

regression and ordinary least square (OLS) estimation techniques. The result of the study indicated that the capital market in Nigeria has the potentials to induce growth, but has not contributed meaningfully to economic in Nigeria because of low market capitalization .low absorptive capacity, illiquidity, misappropriation of funds among others.

Osinubi and Amaghionyeodiwe (2003) examined the relationship between the Nigerian stock market and economic growth during the period 1980 to 2000. Their findings opposed the claims that stock market development promotes economic growth.

Adeoye (2015) carried out an empirical examination of the impact of the Nigerian Capital Market on the Nigerian economy observing a 20 years' time period from 1992 to 2011. The Nigerian Capital Market was proxy as Market Capitalization against some economic variables of the economy which include Gross Domestic Product (GDP), Foreign Direct Investment (FDI), Rate of Inflation, Total New Issues, Value of Transaction and Total Listing. Using the multiple regression analysis, He find out that, the Capital Market has an insignificant impact on the Economy within the period under review.

Using the error correction approach, Abu (2009) explored whether stock market development raises economic growth in Nigeria. The econometric result indicated that stock market development increases economic growth.

Olowooke (2008) in his study of the Nigerian capital market revealed that the relationship between economic growth and the capital market though positive was very weak as at the time.

Akinsola (2004) also in his study of the capital market indicated that the effect of gross fixed capital formation on economic growth in Nigeria was insignificant and the nation's capital market was illiquid.

2.5 Challenges Facing the Nigerian Capital Market

The Nigerian stock exchange which is the centre point of the capital market may seem large when compared to other stock market in sub-Sahara Africa but is relatively small when compared to other emerging markets in Europe, Asia and Latin America.

Olisaemeka (2009) noted that the 2008 financial meltdown impacted adversely on the capital market. The crash was unprecedented in the historic evolution of the market from 1960 to date. The market capitalization fell from an all time high of 13.5trillion naira in march 2008 to less than 9.918 trillion naira by January 2010, the all share index also plummeted from 57,990.22 points to approximately 24,770.52 points respectively (SEC.gov.ng). Up until date. The market is still recovering. This crash has further scattered the already low investor's confidence and raised serious fears concerning the stability of the market.

The capital market in Nigeria is faced with many challenges. As noted by Ifionu and Omejefe (2013), the level of capital market awareness in the country is low and many Nigerians are still very much uninformed about this arm of the financial market. Also, the lack of assistance by government, especially in the areas of fiscal policies and in provision of investment incentive hinders investor's patronage of the market.

Even though a UNDP (2003) report on the performance of the stock market in Africa affirms that, over the last 3 years period up to 2003, the cumulative stock market returns (in US currency) in Sub-Sahara Africa is highest in Nigeria with a rate of 100.5 per cent, followed by Botswana with 89per cent, The Nigerian capital market is faced with illiquidity problems as well as lack of depth. It has few financial instruments when compared to other developed economies. Isenmila and Akinola (2012) summarized and list the problems facing the Nigeria capital market as;

- I. The small size of the market
- II. The problem of illiquidity
- III. Slow growth of the market double taxation
- IV. Lack of effective underwriting
- V. Problem of macroeconomic instability

Thus, it is expected that this study would help in creating awareness about the capital market as well as complement the efforts of government and policy makers in restoring confidence of investors as well as reviving the capital market. It is also hoped that the findings in this study will contribute to the body of knowledge on the Nigerian capital market as well as resolve the conflicting views on its impact on economic growth in Nigeria.

References

- Abu N. (2009). Does stock market development raise economic growth? Evidence from Nigeria. *Journal of Banking and Finance*. 1(1), 15-26
- Adams, J.A & Sanni, I (2005). Stock Market Development and Nigeria Economic Growth.

 Journal of Economics and Allied Fields, Vol 2(2), 166-132, December.
- Afess, A.S & Kazeem, B. A (2010). The Stock Market and Economic Growth in Nigeria: An Empirical Analysis, Journal of Economic Theory, 4, 65 -70.
- Al-faki, M. (2007). Understanding the Nigeria Capital Market: Best Investment Practices & Regulatory Compliance, Nigeria Security and Exchange commission, Abuja.
- Alile, H.O & Richard, A. Anao (1990). The Nigeria Stock Exchange Operation, Lagos: Academy Press.
- Anyanwu, J.C (1993). Monetary Policy Theory, Policy and Institutions. Uyo: Hybrid Publishers Limited
- Atje, R. & Jovanovic, B. (1993). Stock Markets and Development. European Economic Review.
- Baro and Romer (1989) "Economic Growth in A cross section of countries". Harvard University
- working paper, No. 201, London
- Ben, Nacccur, S. & Ghazouani, S (2007). Stock markets, banks and economic growth:

 Empirical evidence from MENA region. Research in International Business
 Finance, 21(2), 297-315.
- Bolbol, A., Fatheldin, A. & Omran M. (2005). Financial development, structure and economic growth. The case of Egypt, 1974-2002. Research in International Business finance, 19(1), 171-194
- Ekezie, E. S. (2002). The Elements of Banking: Money Financial Institutes and Markets.

 Onitsha: Africana Feb Publishers Limited.

- Performance at one day seminar organized by Nigeria Economic Society at the Institute Emenuga, C. (1998): "Nigerian Capital Market and Nigeria Economic of International Affairs, Lagos 21st January, 1998.
- Ewah, S.O.E, Essang, A.S, & Bassey J.U (2009). Appraisal of capital market efficiency on economic growth in nnigeria. International Journal of Business and Management, 4(12), 219-225
- Ezeoha, A., Ebele, O & Ndidi Okereke, O. (2009). Stock Market Development and private investment growth in Nigeria" *Journal of Sustainable Development in Africa*, 11(2), 20-35.
- Greenwood, J. & Smith, B. (1994). Financial Structure and Development. New Haven, Conn: Yale University Press.
- Hamid, M. & Sumit A. (1998). Stock Market Development and Economic Growth Evidence from Developing Countries. Retrieved, April, 2, 2012 from http://faculty.apec.umn.edu/mohta001/PA1-4-01.pdf
- Ifionu, E. P. & Omojefe, G. O. (2013). The Capital Market and Performance of the Nigerian Economy: A time series Analysis. West African Journal of Industrial and Academic Research, 8(1), 192-207.
- Isenmila P.A, & Akinola. A. O (2012). "The Role of Capital Market in Emerging Economy".

 International journal of Business and Social Research (IJBSR), Vol. 2, No 6, pp61-71, November.
- Kolapo, F. T. & Adaramola, A. O. (2012). The Impact of the Nigerian Capital Market on Economic Growth(1990-2010). International Journal of Developing societies, 1(1), 11-19
- Levine, R. (1991). Stock, Growth and Tax Policy. Journal of Finance. 46(4), 1445-1465.
- Mike, I. Obadan. (1998). Presidential Address: The Capital Market & Nigeria's Economic Development, Seminar held at Nigerian Institute of International Affairs, Lagos on January 21.
- Nieuwerbugh, S, Buelens, F & Cuyvers L. (2005). Stock Market Development and Economic Growth in Belgium", NYU working Paper 05 -024

- Nyong, M.O (2003). Predictability and Volatility of Stock Return in Three Emerging Markets. Kano: Frontline Press.
- Obstfeld, M. (1994). "Risk-Taking, Global Diversification, and Growth," American Economic Review, December 1994, 84(5), pp. 1310-1329.
- Onyiuke Ndi Okereke J. (2010), "Overview of the Nigerian capital market" A Seminar Paper Presented in UNEC, Enugu.
- Osinubi, T. S. & Amaghionyediwe, L. A. (2003). Stock Market Development and Long-run Growth in Nigeria. Journal of African business, 4(3), 103-129.
- Pardy R. (2001): Regulatory and Institutional Impacts of Securities Market Computerization. The World Bank Paper series. No. 886.
- Pat, D. & James, O. (2010), An Empirical Analysis of the Impact of the Nigeria Capital Market. Lagos: Royal Eagles Publishers
- Pedro S. Amaral & Erwan Quintin (2004), The Implications of Capital-skill Complementarity in Economies with Large Informal Sectors' Center for Latin America Working Papers, 0404, Federal Reserve Bank of Dallas.
- Security and Exchange Commission (SEC). http://www.sec.gov.ng.
- Security and Exchange Commission Publication (2005). "Issues in Capital market development" SEC. Journals Vol. 2.
- Soludo CC (2006). Can Nigeria be the China of Africa? Lecture delivered at the University of Benin's Founders day, November.
- UNDP(2003). African Stock Market Handbook. New York: UNDP
- World Bank (1994). Adjustment in Africa: Lessons from Country Case Studies, Washington D.C. The World Bank

CHAPTER THREE

RESEARCH METHODOLOGY

INTRODUCTION

3.0

3.1

This chapter provides information on the sources of data, population and sampling design, techniques used for data analysis, specification and justification of techniques for analysis.

Research Design

In every research, one needs a specific structure and strategy for investigating the relationships among the variable of study. For it is through an observation of the tangled web of relationships among variables that the necessary data for our research are generated (Nnandi, 1999). Therefore, the study employed inferential statistical methods to access the impact of capital market on economic growth of Nigeria. Secondary data would be sourced from CBN, NBS and Stock Exchange statistical bulletin as well as journals, text books, used for analysis using e-view econometrics computer package to run the regression.

5.2 Sources of Data

Data collected for the purpose of this research were obtained primarily from secondary sources, and these sources include the central bank of Nigeria (CBN) statistical bulletins, the security and exchange commission (SEC) bulletins, the Nigerian stock exchange (NSE) facts book, national bureau of statistics publications and other relevant journals.

2.3 Population and Sampling Techniques

Since the study is an evaluation of the impact of capital market activities on economic growth of Nigeria, all firms and government actions that has been captured by the major capital market indicator that fall within the time frame of this study constitute the population of this study. Census sampling is used because all contributing factor as captured by the market indicators are considered. Similarly the Gross domestic product which proxy economic growth is captured for the entire specified time frame of the study.

3.4 Techniques for Data Analysis

The multiple regression method of analysis will be employed to generate estimate of the parameters. The regression analysis will be used to determine whether capital market proxies by four indices market capitalization, total new issues, volume of transactions and total listed equities had impacted on economic growth of Nigeria, this is proxied by Gross Domestic Product covering the time period of the study. This obtained result will then be evaluated based on the following criteria;

- Theoretical specification
- Statistical specification
- Econometric specification

Theoretical Specification

This criteria assist the researcher evaluate whether the obtained results conforms to its economic theory specification. The magnitude and the sign of the estimated parameters are studied to ascertain if they meet their theoretical expectation. They are determined by the principle of economic theory

Statistical Specification

This is the first order test. This measures the statistical reliability of the estimate of the parameters of the model. The correlation coefficient is used to assess the statistical criteria.

Econometric Specification

This criterion determines the reliability of the first order test. They help us to determine if the estimated parameter has the desired quality of unbaisedness, consistency and efficiency. It investigates whether the assumptions of econometric method are satisfied. The following tests will be carried out under this criterion;

- A. Heteroscedasticity this test was carried out to determine the spread of the error term, so as to know whether the variance is constant.
- B. Autocorrelation This was done to ascertain if the assumption of non liner relationship between random terms of two adjacent periods was not violated. The Durbin- Watson test is used.

The above mentioned tests are carried out to clean the data so as to improve the quality of inferences that the result of this study may be used for.

3.5 Model Specification.

The model specified for testing the hypothesis of this study is;

GDP = f(MCAP, TLE, VLT, TNI)

 $GDP_t = a_0 + a_1MCAP_t + a_2TNI_t + a_3VLT_t + a_4TLE_t + U_t$

Where;

GDP = Gross domestic product.

The theoretical expectation of a^1 , a_2 , a_3 , $a_4 > 0$

 a_0 = Regression intercept.

 $a_1 - a4 = coefficient of independent variables.$

MCAP = Market Capitalization

TNI = Total New Issues

VLT = Volume of transactions

TLE = Total listed equities

U =Stochastic error term (Disturbance term)

t = Time series.

3.6 Justification of the Model.

Multiple regression technique has been preferred because it enable the researcher to ascertain the relationship between the capital market and economic growth of Nigeria proxied by GDP, as well as determining the impact in magnitude of such relationship. It also enables the researcher to capture the influences of other factors that has affected the capital market. This enables the researcher to specifically determine the exact influence of the capital market on the economic growth of Nigeria. Thus, the technique is appropriate in order to achieve the objective of the study. The fact that it

produces optimal result in forecasting numeric output is as well as easy to understand another reason for it choice.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

1.1 Data Presentation

As early stated in the previous chapter that the data for the presentation and analysis of the study was secondary data and these data are presented in the table below and all the were presented in millions of Naira;

TABLE I: Data for GDP, Market capitalization (MCAP), Turnover Ratio (TR), Values of Shares Traded (VLT) and Infaltion Rate (INF).

Year	GDP	MCAP	TR	VLT	INF
	(N' million)	(N' million)	(N'million)	(N'million)	
1990	328600	16300	1.38	225.4	7.5
1991	545700	23100	1.05	242.1	13
1992	875300	31200	1.58	491.7	44.5
1993	1089700	47500	1.69	804.4	57.2
1994	1399700	66300	1.49	985.9	57
1995	2907400	180400	1.02	1838.8	72.8
1996	4032300	258800	2.44	6979.6	29.3
1997	4189200	281900	3.66	10330.5	8.5
1998	3989500	262600	5.17	13571.1	10
1999	4679200	300000	4.69	14072	6.6
2000	6713600	472300	5.96	28153.1	6.9
2001	6895200	662500	8.71	57683.8	18.9
2002	7795800	764900	7.77	59406.7	12.9
2003	9913500	1359300	8.86	120402.6	14
2004	11411100	2112500	10.69	225820.7	10.1
2005	14610900	2900100	9.07	262935.8	11.5
2006	18564600	5120100	9.18	470253.4	8.6
2007	20657300	13181700	8.16	1076020.4	6.6
2008	24296300	9563000	17.56	1679143.7	15.1
2009	24794200	7030800	9.75	685717.3	12.1
2010	54204800	9918200	8.07	799911	11.8
2011	63258600	10275300	6.22	638925.7	10.4
2012	71186600	14800900	5.47	808991.4	12
2013	80222100	19077400	12.32	2350875.7	7.9
2014	89043620	16875100	7.91	1334783.1	8.01
2015	84632860	17976250	10.12	1842829.4	7.96
		- X			
2004					
2005				istic (NRS) 2015	

Source: CBN Statistical Bulletin, 2015 and National Bureau of Statistic (NBS), 2015.

4.2 Data Analysis

As stated in the preceding chapter that the data for the analysis is secondary in nature and the basic assumption about these secondary data is that there should be stationary among the data under consideration. The Unit Root Test Technique was applied in order to examine the stationary among the data of the variable.

4.2.1 Unit Root Test Analysis

Since the data of the variables under study were secondary in nature, therefore in order to determine whether the data of the variables are stationary, a unit root test based on Augmented Dickey-Fuller (ADF) Test was applied in which the results of these test is presented in Appendix I and the summary results of the test is shown in table II below;

Table II: Unit Root Test Results

Variable	State of test	ADF Test		CRITICAL VA	ALUES
			1%	5%	10%
GDP	At Level	0.826635	-3.7343	-2.9907	-2.6348
	At 1 st Difference	-2.330147	-3.7497	-2.9969	-2.6381
	At 2 nd Difference	-4.848642	-3.7667	-3.0038	-2.6417
MCAP	At Level	0.177432	-3.7343	-2.9907	-2.6348
	At 1 st Difference	-4.419692	-3.7497	-2.9969	-2.6381
	At 2 nd Difference	-6.696236	-3.7667	-3.0038	-2.6417
VLT	At Level	-0.519859	-3.7343	-2.9907	-2.6348
	At 1 st Difference	-4.355524	-3.7497	-2.9969	-2.6381
	At 2 nd Difference	-6.006287	-3.7667	-3.0038	-2.6417
TR	At Level	-1.607489	-3.7343	-2.9907	-2.6348
	At 1 st Difference	-4.562569	-3.7497	-2.9969	-2.6381
	At 2 nd Difference	-6.017629	-3.7667	-3.0038	-2.6417
INF	At Level	-2.211128	-3.7343	-2.9907	-2.6348
	At 1 st Difference	-3.659374	-3.7497	-2.9969	-2.6381
	At 2 nd Difference	-5.437241	-3.7667	-3.0038	-2.6417

Source: E-view Econometric Package, 2017.

In trying to determine the authenticity of the data, the absolute value criterion was applied in which based on the criterion stated that, when the absolute value of the ADF Test is greater than the absolute value of the critical values at either 1%, 5% or 10% level of significance, then the data of the variable in which the test was conducted is assumed to be stationary, otherwise non stationary.

Therefore, based on the table above, it shows that from the result obtained from the unit root test at different test, it shows that the data GDP appeared not to be stationary at level and at first difference both at 1%, 5% and 10% level of significance. At the same time data for the same variable (GDP) shows to be stationary at second difference under both 1%, 5% and 10%.

The unit root test result with regard to MCAP shows that the data of the variable is stationary at first and second differences at both 1%, 5% and 10% level of significance. But the result of the data at level revealed not to be stationary at both the critical values. On the other hand, the result of unit root test of both VLT and TR appeared not to be stationary at level. But the first and second differences results of these variables indicates that the data for these variables were stationary at both 1%, 5% and 10% level of significance.

Lastly, the unit root test result with regard to INF reveals that the data for this particular variable is not stationary at level and first difference. The result of the same variable appeared to be stationary at first difference under 5% and 10% level of significance and at second difference under 1%, 5% and 10% level of significance.

Therefore, based on the results obtained from the unit root test, it clearly shows that almost all of the data of the variables appeared to be stationary at first difference and second difference.

.2.2 Co - integration Analysis

Since almost all the data of the variables under study appeared to be stationary at first and second differences, then there is a need to determine a long run relationship exists among the variable.

In order to determine whether the long run relationship exist among the variable, the co-integration test based on Johansen Co-integration technique was applied in which the result of this is shown in Appendix II.

Based on the co-integration test result presented in Appendix II, it shows that the Likelihood Ratio Test (I.R) indicates 3 co-integrating equations at 5% level of significance and also 3 co-integrating equations at 1% level of significance.

Therefore, based on the result obtained from the co-integration test, it shows that really there exists a long run relationship among the variables under study.

4.2.3 Granger Causality Test Analysis

The study also employed the Granger Causality Test to examine the direction of causality between the variables and the result of this test is shown in Appendix III.

Based on the result of the causality test as presented in Appendix III, it clearly shows a unidirectional relationship from the variables. It therefore shows that each variable under is independent and there is no single variable that cause the other variable.

4.2.4 Correlation Analysis

Having determine the stationary, the long run relationship and the causal relation among the variables, the linear relationship is determine using the correlation matrix in which the result of this test is shown below:

CORRELATION TEST ANALYSIS

	GDP	MCAP	VLT	TR	INF
GDP	1.000000	0.938981	0.826080	0.447813	-0.362835
MCAP	0.938981	1.000000	0.930876	0.558326	-0.385737
VLT	0.826080	0.930876	1.000000	0.696797	-0.350729
TR	0.447813	0.558326	0.696796	1.000000	-0.528852
INF	-0.362835	-0.385737	-0.350729	-0.528852	1.000000

Source: E-view Econometric Package, 2017.

The above table shows a linear relationship that exists between the variable based on correlation matrix. Based on the obtained results, it shows that there is a strong relationship that exists between GDP as a dependent variable and the independent variables (MCAP, VLT, TR and INF). This is because based on the figures given, it shows a positive relation of about 94%, 83% and 45% relationship that exist between the dependent variable GDP and the independent variables MCAP, VLT and TR respectively. On the other hand, a negative relationship of about 36% exists between GDP as a dependent variable and Inflation Rate (INF) as an independent.

Therefore, based on the correlation results so far, it clearly shows that there is a strong relationship that exist between Nigerian Economy proxied to Gross Domestic Product and the Market Capitalization, Value of Share Traded, Turnover Ratio and the Inflation Rate.

the Nigerian Economy proxied by GDP that does not depend on any of the independent variable (i.e. MCAP, VLT, TR and INF).

The result of the OLS estimated equation shows that regression coefficient of Market Capitalization (MCAP) is 5.624482. This value means any 1% change in Market Capitalization (MCAP) will lead to an increase in the Nigerian Economy proxied by GDP by the rate of 5.6224482 (562%). The regression coefficient of the Value of Shares Traded (VLT) is 13.70769. This value means that any 1% change in the Value of Shares Traded (VLT) will increase the Nigerian Economy proxied by GDP by the rate of 13.70769.

Also, On the other hand, the regression coefficient of Turnover Ratio (TR) is 259410. This value explained that a percent change in the Turnover Ratio (TR) will increase the GDP by the rate of 259410. And lastly, the regression coefficient of the variable Inflation Rate (INF) appeared to be -17788.28. This value means that any 1% increase on Inflation Rate (INF) will lead to a decrease in GDP by the rate of 17788.28.

In term of the statistical significance of the variables, the result shows that the only data of the variable that is statistically significant at 1% level of significance is Market Capitalization (MCAP). But the remaining data of the variables VLT, TR and INF show not to be statistically significant.

The R-squared value of the estimated coefficient is 0.899379. This value explained the variation in the dependent variable (GDP) as a result of the variations in the independent variables (MCAP, VLT,TR and INF). Thus, based on the R-squared value, it shows that about 90% variations in GDP is explained by the independent variables while the remaining 10% is explained by other factors that were not captured in the model.

Lastly, the value of the Durbin Watson Stat of the estimated coefficient is 1.398998. Therefore, this value shows that there is weak serial correlation among the variables.

4.4 Discussion of Findings

Firstly, the dynamic approach to the analysis shows that turnover ratio, value of stock traded and market capitalization are strong stock market development proxies which are highly linked to Nigerian Economy in the short run. More specifically, positive

short-run linkages exist between Nigerian Economy and stock market development (in terms of MCAP, VLT, TR and INF). In the same vein, it is observable from the empirical results that in the long run, total value of share traded (VLT), Turnover Ratio (TR) and Inflation Rate (INF) significantly influences and are strongly linked to economic growth in Nigeria.

Furthermore, the empirical findings indicate that the coefficient of value of share traded and turnover ratio positively influence economic growth in Nigeria while all inflation rate negatively impact economic growth. Similarly, positive significant long-run linkages between stock market development (measured by MCP, VLT and TR) and economic growth were found. Odhiambo (2010) and Adenuga (2010) result also reveals that MCP and TR positively influence economic growth.

Based on the findings from the obtained result of the analysis, it shows that a positive increase in the Market Capitalization will significantly increase the Nigerian economy proxied by GDP. It also reveals that when trading on the Value of Stocks (Shares) increases without any effect from both the internal and external factors, then the Nigerian Economy proxied to GDP will also increases positively and significantly by about 1371% annually as evidenced from the result of the analysis.

On the same vein, the Turnover Ratio also has a positive impact on the Nigerian Economy as evidenced from the result of the analysis. This reveals that any 1% positive changes on the Turnover Ratio will also lead to a positive change in the Nigerian Economy an increasing rate of return. Lastly, inflation which is regarded as a decline in the value of money; an increase in the quantity of money, leading to a devaluation of existing money have a significant negative impacts on the Nigerian Economy. Inflation rate as evidenced form the result of the analysis have shown a negative impact on the Nigerian Economy proxied by GDP. This means that if there is any increase on the rate of inflation in Nigeria, then the Economy of Nigeria will not on any means have a progress, for instance as what is currently happening in Nigeria with the recent general increase in the prices of commodities in the country. So, the based thing is that for the concerned authorities to implement a strong policy that will regulate the unnecessary increase in the prices of these commodities in the country so as allow the Economy realizing it progress.

Therefore, based on the different results obtained from the findings of this study, the Null Hypothesis (H_o) which states that there is no significant economic impact of stock market on Nigerian Economy from 1990 to 2015 is rejected and the Alternate

Hypothesis (H_i) which states that there is significant economic impact of stock market on Nigerian Economy from 1990 to 2015 is accepted.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The achievement of a high sustainable level of economic growth and development has been the main objective of many countries of the World, most especially after the publication of the famous Book "An Enquiry into the Nature and Cause of Wealth of a Nation" by Adam Smith in 1776. For this reason, the study evaluates the impact of stock market on the Nigerian Economy from 1990 to 2015. This is because stock market provides a platform that helps in improving the allocation of capital and thus enhancing the prospects of long-term economic growth. The study employed secondary source of data in analyzing the impact of stock market on the Nigerian Economy and the findings from the result of the analysis suggests that stock market have impacted significantly toward the growth of the Nigerian Economy under the period of this study.

5.2 Conclusion

In this study, an evaluation between stock market and economic growth was exhaustively examined, specifically to determine the impact of stock market development on economic growth. For this purpose, a multivariate regression model was specified to depict the empirical relation of stock market on the Nigerian Economy from 1990 to 2015. Four measures of stock market development; market capitalization, turnover ratio, total value of share traded and inflation rate were included in the empirical analysis. Using annual time series data covering the period 1990 - 2015, Unit Root test, Cointegration test, correction and Granger causality test were employed in estimating the specified model. The overall conclusion of the study is that stock market has a strong effect on Nigerian Economy. Specifically, all the explanatory variables except Inflation Rate positively and significantly influence Nigerian Economy in the short run; Inflation Rate has a negative influence though significant. In the long run all the explanatory variables positively influence economic growth. However, market capitalization is significant while turnover ratio, total value of shares traded and inflation rate are not significant. Therefore, as a result of accepting the Alternative Hypothesis of this study, it can be concluded that the Nigerian Economy is positively affected by stock market development proxied by market capitalization, turnover ratio and value of stock traded. This supports the argument that the stock market development in developing countries will contribute positively to economic growth.

5.3 Recommendations

The following recommendations are made on the basis of the findings of this study:

- i. On the basis of our findings, it is vivid that contributions of market capitalization and value of stock traded to gross domestic product is very low. The stock market regulators should improve and encourage more investors (foreign, private and public) to participate in the market, maintain state of the art technology like automated trading and settlement system, electronic fund clearance and the continued dematerialization of physical transfer of shares.
- ii. Furthermore, stock market regulators should ensure that investors have confidence in the market. This could be achieved by maintaining transparency and fairness in transaction, dealings in the stock exchange and safety of the investments.
- The ongoing reforms in the Nigeria financial sector should be continued and pursued to the latter in the capital market. The capital markets are to be restructured as efficient tools of domestic resource mobilization with policies and measures adopted to increase their depth and competitiveness.
- iv. Improve financial infrastructure through the development of various financial products and services, which has been a major problem militating against the level of investment in developing country like Nigeria when compared to developed countries.
- v. Trading systems of stock market should be improved since this improves stock market operations, allowing stocks to trade more frequently and speeds up the purchase and sale process of stocks, in this way enhancing stock market liquidity and efficiency.
- vi. Lastly, promote greater regulation, supervision, and security of stock market since this is a major hindrance to investment activity in Nigeria, where there is low investor confidence in the stock market and its ability to safeguard investments, thus the improvement of security and regulation procedures will likely stimulate information disclosure and reduce misrepresentation and other financial crimes, leading to improved investor confidence. This will enhance market participation, investment and stimulate growth.

References

- Abu .N. (2009). Does stock market development raise economic growth? Evidence from Nigeria. Journal of Banking and Finance. 1(1), 15-26
- Adamu, J.A & Sanni, I (2005). Stock market development and Nigerian economic growth.

 Journal of Economic and Allied Fields, 2(2), 116-132.
- Adenuga, A.O. (2010). Stock market development indicators and economic growth in Nigeria: Empirical Investigation, Central Bank of Nigeria Economic and Financial Review. 48(1), 21 32.
- Adjasi, C.K.D., & Biekpe, N.B (2006). Stock market development and economic growth: The case of selected African countries. African Development Review, 18(1), 144 161.
- Afolabi, A. A. (2015). Impact of the Nigerian Capital Market on the Economy, European Journal of Accounting Auditing and Finance Research, Vol.3, No.2, pp.88-96. http://www.eajournals.org/wp-content/uploads/Impact-of-the-Nigerian-Capital-Market-onthe-Economy.pdf.
- Alile, H.I. (1984). The Nigerian stock exchange: Historical perspective, operations and contributions to economic development., Central Bank of Nigeria Bullion, Silver Jubilee Edn., 2, 65-69.
- Anyanwu, J.C (1993). Monetary Economic Theory, Policy and Institutions. Uyo: Hybrid Publishers Limited. Journal of Policy and Development Studies Vol. 9. No. 5.

 November 2015 148
- Donwa, P. and Odia, J. (2010). An Empirical Analysis of the Impact of the Capital Market on herSocio-Economic Development, *Journal of Social Sciences*, Vol. 24, No. 2, pp. 135-142.
- Ezeoha, A., Ebele, O & Ndidi Okereke, O. (2009). Stock market development and private investment growth in Nigeria, Journal of Sustainable Development in Africa, 11(2), 20-35.
- Hicks, J.R. (1937). Mr. Keynes and the 'Classic': A Suggested Interpretation. Econometrica, 5(2), 147-159.
- Iyoha, M.A. (2004). "Macroeconomics Theory and Policy Mindex publishing, Benin City, Nigeria.
- Jhingan, M. L. (2004). The Economic of Development and Planning. New Delhi, Vrinda Publications Limited
- Johansen, S. (1988). Statistical analysis of cointegration Vector, Journal of Economic Dynamics and Control, 12, 231-254.

- Khan, A. (2000). The Finance and Growth Nexus, Federal Reserve Bank of Philadelphia Business Review, Vol.1, No.2, pp.3-14.
- King, R. and Levine, R. (1993). Finance, Entrepreneurship and Growth: Theory and Evidence, *Journal of Monetary Economics*, Vol. 32, pp. 1-30.
- Levine, R. & Zervos, S. (1998). Stock markets, banks and economic growth. The American Economic Review, 88(3), 537 558.
- Levine, R. (1996). Stock markets: A spur to economic growth. IMF Finance and Development (FeD) Quarterly Magazine, 33(1), 7 10.
- Levine, R. (1997). Financial development and economic growth: Views and Agenda. Journal of Economic literature, 35(92), 688 726.
- Levine, R. (1998), The Legal Environment, Banks, and Long-Run Economic Growth. Journal of Money, Credit, and Banking, 30(3), 596-613.
- MacKinnon, R. I. (1973). Money and capital in economic development, Washington, DC: Brookings Institution.
- Mohtadi, H. & Agarwal, S. (2004). Stock market development and economic growth: Evidence from Developing Countries. Working Paper, University of Wisconsin-Milwaukee.[Online]. Available: https://pantherfile.uwm.edu/mohtadi/www/PAI-4-01.pdf [accessed 05/09/2012].
- Muhammed, S, Nadeem, A & Liaquat. A. (2008). Stock market development and economic growth: ARDL causality in Pakistan, International Research Journal of Finance and Economic Issues. 14, 183-195.
- Obamiro, J.K. (2005). Nigerian economy: Growth and the role of stock market, Journal of Economic and Financial Studies, 2 (2), 21 34.
- Odhiambo, N.M. (2010). Stock market development and economic growth in South Africa:

 An ARDL-Bounds testing Approach. Paper Presented at the Annual American Business Research Conference, June 2010.
- Osinubi, T. S. & Amaghionyeodiwe, L.A. (2003). Stock market development and long-run growth in Nigeria. Journal of African Business, 4(3), 103-129.
- Padhan, P.C. (2007). The nexus between stock market and economic activity: An empirical analysis for India. International Journal of Social Economics, 34 (910), 741 753.
- Patrick, H.T. (1966). Financial development and economic growth in underdeveloped countries. Economic Development and Cultural Change, 14 (2), 174 189.
- Robinson, J. (1952). The generalization of the general theory. In: The Rate of Interest and Other Essays. London: MacMillan.

- Schumpeter, Joseph A. (1912). The orieder Wirtshaftlichen Entwicklung (The Theory of Economic Development).
- Shaw, E.S. (1973). Financial deepening in Economic Development. New York: Oxford University Press.
- Smith, A. (1776) Wealth of Nations. London: Methuen and Co., Ltd., Ed. Edwin Cannan.
- Tsuru, K., (2000). Finance and growth: Some theoretical considerations and a review of the empirical Literature, OECD Economics Department Working Papers, No. 228.
- Van Nieuwerburgh, S., Buelens, F. & Cuyvers, L. (2006). Stock market development and economic growth in Belgium. Explorations in Economic History, 43 (2), 13 38.

RESULTS OF THE ANALYSIS

APPENDIX I

UNIT ROOT TEST ANALYSIS

GDP AT LEVEL

ADF Test Statistic

1% Critical Value* -3.7343

0.826635

5% Critical Value -2.9907

10% Critical Value -2.6348

GDP AT FIRST DIFFERENCE

ADF Test Statistic	_	1%	-3.7497
	2.330147	Critical	
		Value*	
		5%	-2.9969
		Critical	
		Value	
•		10%	-2.6381
		Critical	
		Value	

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

GDP AT SECOND DIFFERENCE

ADF Test Statistic	-	1%	-3.7667
	4.848642	Critical	
		Value*	
		5%	-3.0038
		Critical	
		Value	
		10%	-2.6417
		Critical	
		Value	

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

MCAP AT LEVEL

ADF Test Statistic

1% Critical Value* -3.7343

0.177432

5% Critical Value -2.9907

10% Critical Value _ -2.6348

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

*MacKinnon critical values for rejection of hypothesis of a unit root.

MCAP AT 1ST DIFFERENCE

ADF Test Statistic	-	1%	-3.7497
	4.419692	Critical	
		Value*	
		5%	-2.9969
		Critical	
		Value	
		10%	-2.6381
		Critical	
		Value	

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

MCAP AT 2ND DIFFERENCE

ADF Test Statistic -	•	1%	Critical Value*	-3.7667
6	6.696236		41	
		5%	Critical Value	-3.0038
		10%	Critical Value	-2.6417

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

VLT AT LEVEL

ADF Test Statistic	- 0.519859	1%	Critical Value*	-3.7343
	0.519659		Critical Value Critical Value	

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

VLT AT 1ST DIFFERENCE

ADF Test Statistic	-	1%	-3.7497
	4.355524	Critical	
		Value*	
		5%	-2.9969
		Critical	
		Value	
		10%	-2.6381
		Critical	
		Value_	

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

VLT AT 2ND DIFFERENCE

ADF Test Statistic - 1% -3.7667

6.006287	Critical	
	Value*	
	5%	-3.0038
	Critical	
	Value	
	10%	-2.6417
	Critical	
	Value	

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

TR AT LEVEL

ADF Test Statistic - 1% Critical Value* -3.7343 1.607489 5% Critical Value -2.9907 10% Critical Value -2.6348

TR AT 1ST DIFFERENCE

ADF Test Statistic	-	1%	-3.7497
	4.561569	Critical	
		Value*	
		5%	-2.9969
		Critical	
		Value	
		10%	-2.6381
		Critical	
_4733		Value	

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

TR AT 2ND DIFFERENCE

ADF Test Statistic	- 6.017629	1%	Critical Value*	-3./66/
	0.011020	5% 10%	Critical Value Critical Value	-3.0038 -2.6417

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

INF AT LEVEL.

ADF Test Statistic - 1% Critical Value* -3.7343
2.211128
5% Critical Value -2.9907
10% Critical Value -2.6348

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

^{*}MacKinnon critical values for rejection of hypothesis of a

unit root.

INF AT 1ST DIFFERENCE

ADF Test Statistic - 1% Critical Value* -3.7497 3.659374 5% Critical Value -2.9969 10% Critical Value -2.6381

INF AT 2ND DIFFERENCE

ADF Test Statistic - 1% Critical Value* -3.7667
5.437241
5% Critical Value -3.0038
10% Critical Value -2.6417

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

^{*}MacKinnon critical values for rejection of hypothesis of a unit root.

APPENDIX II

COINTEGRATION TEST ANALYSIS

Date: 08/02/2020 Time: 04:04

Sample: 1990 2015

Included observations: 26

Test
assumption:
Linear
deterministi
c trend in
the data

Series: DLOG(GDP) DLOG(MCAP) DLOG(VLT) DLOG(TR)

DLOG(INF)

Exogenous series: CPI UR DS GE

Warning: Critical values were derived assuming no exogenous

series

Lags interval: No lags

· · · · · · · · · · · · · · · · · · ·	Likelihood	5 Percent	1 Percent	Hypothesize d
Eigenvalue	Ratio	Critical Value	Critical Value	No. of CE(s)
0.877801	257.5331	87.31	96.58	None **
0.816884	154.5299	62.99	70.05	At most 1
0.666516	71.34589	42.44	48.45	At most 2
0.293599	17.53610	25.32	30.45	At most 3
0.010255	0.505069	12.25	16.26	At most 4

*(**)

denotes

rejection of

the

hypothesis

at 5%(1%)

significance

level

L.R. test

indicates 3

cointegratin

g

equation(s)

at 5%

significance

level.

APPENDIX III

GRANGER CAUSALITY TEST

Pairwise Granger Causality Tests Date: 08/02/2020 Time: 04:08

Sample: 1990 2015

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
MCAP does not Granger Cause GDP	24	0.48655	0.62219
GDP does not Granger Cause MCAP	·	2.92608	0.07802
VLT does not Granger Cause GDP GDP does not Granger Cause VLT	24	1.21235 4.53618	0.31950 0.02452
TR does not Granger Cause GDP GDP does not Granger Cause TR	24	4.88710 0.55802	0.01939 0.58144
INF does not Granger Cause GDP GDP does not Granger Cause INF	24	0.09840 0.55014	0.90675 0.58578
VLT does not Granger Cause MCAP MCAP does not Granger Cause VLT	24	4.23626 29.3404	0.03010 1.5E-06
TR does not Granger Cause MCAP MCAP does not Granger Cause TR	24	2.59678 8.11293	0.10070 0.00284
INF does not Granger Cause MCAP MCAP does not Granger Cause INF	24	0.21691 0.48465	0.80697 0.62332
TR does not Granger Cause VLT VLT does not Granger Cause TR	24	3.23578 1.49306	0.06175 0.24989
INF does not Granger Cause VLT VLT does not Granger Cause INF	24	0.37374 0.41731	0.69311 0.66471
INF does not Granger Cause TR TR does not Granger Cause INF	24	1.35848 2.12269	0.28091 0.14722

CORRELATION TEST ANALYSIS

GDP MCAP VLT TR	GDP 1.000000 0.938981 0.826080 0.447813	MCAP 0.938981 1.000000 0.930876 0.558326	VLT 0.826080 0.930876 1.000000 0.696796	TR 0.447813 0.558326 0.696796 1.000000	INF -0.362835 -0.385737 -0.350729 -0.528852
TR	0.447813	0.558326	0.696796		
INF	-0.362835	-0.385737	-0.350729	-0.528852	1.000000

APPENDIX IV

OLS ESTIMATION

Dependent Variable: GDP Method: Least Squares Date: 08/02/2020 Time: 04:15

Sample: 1990 2015

Included observations: 26

Variable	Coefficie nt	Std. Error t-Statistic	Prob.
С	3266355.	7136808. 0.457677	0.6519
MCAP	5.624482	0.984119 5.715246	
.VLT	-	11.00911 -1.245123	0.2268
	13.70769		
TR	-	868336.2 -0.298745	0.7681
	259410.9		
iNF	12	142830.1 -0.124542	0.9021
	17788.28		
R-squared	0.899379	Mean dependent	235476
·		var	03
Adjusted R-	0.880213	S.D. dependent	295119
squared		42	
S.E. of regression	1021413	Akaike info	35.2874
_	8	criterion	9
Sum squared	2.19E+1	Schwarz criterion	35.5294
resid	5		3
Log likelihood	-	F-statistic	46.9261
•	453.7373		6
Durbin-Watson	1.398998	Prob(F-statistic)	0.00000
stat			0