THE IMPACT OF NON-BANK FINANCIAL INSTITUTIONS ON ECONOMIC DEVELOPMENT IN NIGERIA

(2003-2022)

BY

IBHATABHUNU GLORY

MGS2003455

RESEARCH PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF FINANCE, FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF BENIN,BENIN CITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.) DEGREE IN FINANCE.

NOVEMBER, 2024

DECLARATION

I, **IBHATABHUNU GLORY** an undergraduate student in the Department of Finance, Faculty of Management Sciences, University of Benin, have satisfactorily completed the requirements for research work for the award of the Bachelor of Science (B.Sc.) Degree in Finance.

The work incorporated in this report is original and has not been submitted either in part or full for any Degree or Diploma of this University or any other Institution of higher learning.

IBHATABHUNU GORY **MGS2003455**	**SIGNATURE**	**DATE**

CERTIFICATION

This is to certify that this research project conducted by IBHATABHUNU GLORY with matriculation number MGS2003455 presented to Finance Department, Faculty of Management Sciences, University of Benin, Benin city was supervised and approved to have met the conditions necessary for the award of Bachelor of Science (B.Sc.) Degree in Banking and Finance of the University.

MR PAUL EFE OHWOJERO _____ _____

SUPERVISOR **SIGNATURE** **DATE**

DR.O. AIGBOVO _____ _____

(Project Coordinator) **SIGNATURE** **DATE**

Dr. O.G. Omorokunwa.

(Head of Department)

DEDICATION

This project is dedicated to God Almighty for his Supremacy upon my life.

I also dedicate this project to my parents Mr. and Mrs IBHATABHUNU.

ACKNOWLEDGEMENTS

I wish to express my profound gratitude to almighty God who made it possible for me to be part of this great institution of leaning and also grateful for His infinite mercy, love, favour, and grace during my course of studies, I also thank God for giving me the strength to finish this research work. It has not been easy but His grace sustained me throughout this period.

My sincere appreciation goes to my project supervisor MR. P. E.OHWOJERO for been accessible and spent much of his time and effort to read through this work and made necessary adjustments and corrections. It is a privilege and honor to be supervised by you sir. Thank you. I pray that the Lord will bless you richly.

I wish to appreciate my Head of Department, Dr. O.G. Omorokunwa, my project coordinator, Dr O Aigbovo for his encouragement through out the project .I would like to thank my course adviser Dr. Abudu, and all the lecturers . You have all in one way or the other contributed in making me what I am today. Thank you.

My greatest debt goes to my parents, mr and mrs IBHATABHUNU and to my sibling mr Christian, mrs Endurance,Godstime and Favour for their care, encouragement, and financial support, which without which, I won't have made it. And to all my big brother IBHATABHUNU CHRISTIAN for being there for me for his encouragement, advice, call, and support to ensure I am successful in my academic pursuit. I also acknowledge some person I come to know as my friends especially,Beauty, Olivia, Sucess and all the 400 level Banking and finance student for their contribution in general to my academic know that you are highly appreciated.

ABSTRACT

This empirical study investigated the impact of non-bank financial institutions on economic development in Nigeria from 2003 to 2022. Specifically, the research aimed to determine the impact of Primary Mortgage Institutions Total Assets and Economic Development in Nigeria; the impact of Finance Companies Total Assets and Economic Development in Nigeria, and the impact of inflation rate on GDP per capita of Nigerians. Secondary data on gross domestic product (GDP), Primary Mortgage Institutions Total Assets (PMITA), Finance Companies Total Assets (FCTA) and Insurance Companies Total Assets (ICTA) were sourced from CBN Statistical Bulletins and statistical Directory of the National Insurance Commission from the period of 2003 to 2022. The methodology adopted was Auto Regressive Distributed Lag (ARDL) model. The findings reveal that there is a significant relationship between Primary Mortgage Institutions Total Assets and economic development in Nigeria; also, that there is a significant relationship between Finance Companies Total Assets and economic development. And finally, a significant relationship between Insurance Companies Total Assets and economic development in Nigeria. The study recommended that; the government should establish a conducive environment, potentially through tax holidays and concessions, to foster the swift growth of the Non-Bank Financial industry; there should be restructuring and consolidations implemented in the insurance industry; and finally, Nigerian Primary Mortgage Institutions (PMIs) should assume a more robust role to augment housing delivery.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

BOFIA (1991) defined Non-Bank Financial Institution (NBFI) as any individual, body, association or group of persons; whether corporate or unincorporated, other than the banks licensed under the Act which carries on the business of a discount house, finance company, and money brokerage and whose principal object include factoring, project financing, equipment leasing, debt administration, fund management, private ledger services, investment management, local purchase order financing, export finance, project consultancy, pension fund management and such other business as the Bank may from time to time designate. NBFIs covers a very wide scope in the finance industry. They are the bodies that deal in the financial industry but are not licensed to operate as a bank. Acha (2012) highlighted the following NBFI operating in Nigeria: Finance companies, community/microfinance banks, bureau de change, discount houses, development finance institutions, insurance companies and primary mortgage institutions.

The NBFI are licensed to complement the work of the banks in the financial industry. Earlier, NBFI were known to unregulated but the non-bank financial institutions now have several guidelines and frameworks that regulates them. Example, the Pension fund is regulated by the Pension Commission, Insurance companies are regulated by the National Insurance Commission (NAICOM).

The non-bank financial institutions cover a very large scope as noted by Aramonte, Schrimpf, and Shin (2022). They stated that the NBFI landscape is vast and varied, covering a diverse set of players with a number of business models and subject to different regulatory regimes. The boundaries of which activities are the purview of an NBFI as opposed to a bank's can at times be

blurred, and so can be the delineations among NBFIs. This this end it can be said a non-bank financial institution is that financial institution that is not given the license to operate as a bank financial institution. Aramonte et al (2022) noted that the market intermediaries like the broker dealers and the principal trading firms; and financial market infrastructures such as exchange and electronic trading platforms and central counterparties are also non-bank financial institutions.

Non-bank financial institutions should be appropriately regulated to prevent them from allowing an unsustainable appetite for risk, which might have severe effects on the financial system and the general economy. It is widely accepted that economic growth is a sign of an economy's development as it moves a nation from one economic level to another. It cannot be overstated how important it is for economic units with surpluses and deficits to be in sync with every economic system. Nwafor (2017) asserts that non-banking financial institutions like insurance companies contribute in empowering the economy as they deliver multiple alternatives to transform an economy’s savings into capital investments. Rateiwa and Aziakpono (2017) also argue that Nigeria's Non-financial industry has a significant effect on economic growth of the selected African States. This is indicative of their potential as a pool of non-bank long term finance to invest in productive capital, especially in a period of constrained bank lending.

In other nations like the USA the non-bank financial institutions have accounted for more than $60 trillion on a global scale in 2020, in terms of credit intermediation activities since the end of financial crisis, (Cetorelli, et al 2023).

1.2 Statement of the Problem

Non-bank financial institutions are the platforms that complement the role of the bank financial institutions. Due to the regulation of the bank financial institutions, it cannot perform other financial

activities under same cover. This came as the result to putting an end to universal banking. The conflict in the regulations of these institutions makes it impossible to be conducted by bank.

Acha (2012) saw that NBFIs possess potential advantages in the performance of economic development functions in certain areas that the bank cannot be willing to enter. He cited an instance that, certain NBFIs are rural in nature, like the community banks (now microfinance banks), and their activities can enable them access greater population of Nigerians and their latent savings potentials.

Despite this great contribution of the non-bank financial institutions, much attention has not been given to them recently in Nigeria. Few studies like Acha (2012); Rateiwa and Aziakpono (2017) tried to search into the contribution of the non-bank financial institutions in Nigeria but their studies are very old because many reformations have taken place in the field which were not available as at the time of their study. Nazneen and Dhawan (2018); Eren and Wooldrdge (2021); Aramonte (2022) tried to step up with a year but their study was not in Nigeria. Those new studies such as Nawfor (2017), Akpeghughu and Igoni (2021), Oloyede Folorunsho, and Ogamien (2023), that considered to treat the problem of the non-bank financial institutions narrowed their study top specific institutions in the non-bank financial institutions such as insurance companies, or pension fund companies.

To this end this study tried to study the effect of non-bank financial institutions on economic growth in Nigeria with cognizance of the new developments in the entire non-bank financial institution.

1.3 Objectives of the Study

This study broadly aimed at investigating the impact of non-bank financial institutions on economic development in Nigeria from 2003 to 2022. But specifically, the study focused on:

1. To Determine the relationship between Primary Mortgage Institutions Total Assets and Economic Development in Nigeria.
2. To ascertain the relationship between Finance Companies Total Assets and Economic Development in Nigeria
3. To Assess the relationship between Insurance Companies Total Assets and Economic Development in Nigeria.

1.4 Research Questions

1. To what extent does the Primary Mortgage Institutions Total Assets and Economic Development in Nigeria relate?
2. To what extent is the rate of association between Finance Companies Total Assets and Economic Development in Nigeria?
3. To what extent does the Insurance Companies Total Assets and Economic Development in Nigeria relate?

1.5 Research Hypotheses

Ho_1 Primary Mortgage Institutions Total Assets does not have Significant and positive and relationship with economic development in Nigeria.

Ho_2 Finance Companies Total Assets dose not have Significant and Positive relationship with Economic Development in Nigeria.

Ho_3 Insurance Companies Total Assets does not have Significant and Positive relationship with Economic Development in Nigeria.

1.6 Scope of the study

The study covered the non-bank financial institutions in Nigeria from 2003 to 31st December, 2022 which 20 years. Non-bank financial institutions include the primary mortgage institutions, finance

houses, discount house, bureau de change, pension fund companies, merchant banks, holding companies, payment service bank, and development financial institutions. The study limits it scope of variables to three only which are Primary mortgage institution Total Assets, and Finance Companies Total Assets and the Insurance companies total Assets. Data for this study will be derived from CBN statistical Bulletin and directory of National Insurance commission.

1.7 Significance of the Study

The study will have a substantial impact on decision-makers, government and academician. The outcome and recommendation from this study if adopted will be of great benefit to government and policy makers; it would help government to rightly implement policies that will effectively be of great significant in the non-bank financial sector. It would also serve as a useful navigator for financial regulatory bodies on possible area to improve upon in order to minimize financial leakages. Also, the study would be of great benefit to public and private employees, and general public by shedding more lights on the significance of non-bank financial institutions and its benefits. Lastly, it will also serve as a point of reference and stimulate more research in this direction and it will be of immense benefits for academic purposes.

1.8 Limitations of the Study

The study is limited by the following:

1. Current materials: one greater challenge that this study encounter is that of recent materials especially in the context of Nigeria. It is very difficult to access recent materials on the non-bank financial institutions because most researcher pay attention to the attention to the bank financial institution. Even what is done in the non-bank financial institution was narrowed down to specific institution leaving many untapped.

2. Financial constraint: another challenge which seem common which everyone is the constraint in the financial status of the researcher due to the economic hardship.
3. Time: time was not on the side of the researcher because the study was combined with class work which made the hard to give the study the best.

1.9 Operational Definition of Terms

Non-bank financial institutions: these are institutions that are not licensed to operate as a bank financial institution**.**

Bureau de change: this is the business that make it profit from buying foreign currency and selling them.

Discount house: it is the financial institution that buys money market instrument at discount and holds it or sells them as an investment tool.

Finance companies: these are businesses which lend money to people and charge them interest while the pay it back.

Economic Development: this is the programme or policy that seeks to improve the economic wellbeing and quality of life of the community.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Non-Bank Financial Institution

BOFIA (1991) defined Non-Bank Financial Institution (NBFI) as any individual, body, association or group of persons; whether corporate or unincorporated, other than the banks licensed under the Act which carries on the business of a discount house, finance company and money brokerage and whose principal object include factoring, project financing, equipment leasing, debt administration, fund management, private ledger services, investment management, local purchase order financing, export finance, project consultancy, pension fund management and such other business as the Bank may from time to time designate.

Any other financial institution that is not licensed to operate the business of banking is term a non-bank financial institution of other financial institutions (BOFIA 2020). BOFIA (2020) outline the institutions or businesses that referred to non-bank financial institutions to include:

i. Discount house;
ii. Bureau de change;
iii. Credit companies or money brokerage;
iv. International money transfer service;
v. Mortgage refinance companies;

vi. Mortgage guarantee company;

vii. Credit guarantee;

viii. Finance holding companies or payment service provider and any other business whose objective include:

- Factoring
- Project financing
- Equipment leasing
- Debt administration
- Private ledger service
- Investment management
- Local purchase order financing
- Export finance and
- Any other business as the Bank may, from time to time, designate, regardless of whether such businesses are conducted digitally, virtually, or electronically.

These NBFIs are regulated by Securities and Exchange Commision (SEC), Federal Mortgage Bank, National Insurance Commission (NAICOM), National Pension Commission, (Ndugbu et al, 2015)

2..1.1.1 Bureau de Change

A Bureau de Change (BDC) is established by CBN in accordance with the power conferred to her by the CBN Act no 24 of 1991 as amended and BOFIA No. 25 of 1992 as amended. The CBN (2002) defined the bureau de Change as a company that is licensed to carry our small-scale foreign exchange service in Nigeria with the objective of carrying that business on a stand-alone basis. The business deals in notes, coins, buying and selling of Traveller's cheque.

The guideline provided rules for the application of licence for the operation of the business to include a payment of nonrefundable fee of N10,000, deposit of prescribed minimum paid-up capital with the CBN, tendering of the feasibility report, a copy of memorandum and article of association, a letter of intent to subscribe to the shares of the proposed BDC signed by each subscriber among other requirements. There are 1290 bureau de change in Nigeria according to CBN.

2.1.1.2 Finance Company

Finance companies engage in short term non-bank money lending, leasing, hire purchase, factoring, LPO financing, export financing, electronic funds transfer and issue of vouchers, coupons, credit cards and token stamps. As finance companies are not authorized to mobilize deposits from the public, they rather rely on owners' equity and borrowings to perform their intermediation role. They are known to play active role in financing small and medium scale enterprises, (Acha, 2012).

2.1.1.3 Primary Mortgage Institutions

Primary Mortgage Institutions (PMIs) mobilize long-term funds for the development of housing. The National Housing Policy launched by the government in 1992 was aimed to boost activities in this sector. Workers in public and private sectors, banks, insurance companies were mandated to contribute to housing development. These funds were to be lent to PMIs by the Federal Mortgage Bank of Nigeria (FMBN) for on lending. The PMIs apart from mobilizing funds of their own also serve as a conduit through which National Housing Policy loans pass to beneficiaries. Acha (2012) opined that PMIs have not made any appreciable impact in the housing finance market. This he attributed to their unfaithfulness to their operational scope by lending to non-housing businesses. Another factor that has impeded their performance is the paucity of long-term funds in the financial market.

2.1.1.4 Development Finance Institutions:

Development finance institutions (DFIs) popularly known as development banks are specialized institutions established to foster development in specified sectors of the economy. To improve the performance of these institutions' government has re-organized them. As part of this re-organization process, government brought them under the supervision of the CBN and merged some of them. The Nigerian Industrial Development Bank (NIDB), the Nigerian Bank for Commerce and Industry (NBCI) and Nigerian Economic Reconstruction Fund (NERFUND) were merged to form the Bank of Industry (BOI). Also, the Nigerian Agricultural and Cooperative Bank (NACB), the People's Bank and Family Economic Advancement Programme (FEAP) were brought together to form the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB). Acha (2012) identified the need for the provision of long-term loans to encourage investment and aid economic development as driving force behind the reorganization of these institutions. He further pointed out that apart from making loans available, these institutions also extend technical and managerial expertise to the loan beneficiaries.

2..1.1.5 Discount House

CBN defined discount houses generally are non-bank financial institutions established to intermediate funds between a central bank and the rest of the banking institutions with the primary aim of assisting the monetary authorities in monetary management. Specifically, discount houses perform a liquidity management function in the money market.

2..1.1.6 Non-Bank Financial Institutions and Economic Development

There are areas that the conventional bank cannot cover in financial service delivery due to the bank regulation. This area is left un-attended to will create a one side development in the economic growth. Oloyede et (2023) noted that the neglect of the insurance industry in Nigeria, carrying out business in Nigeria today is very risky considering the rate of insecurity in the country. He clearly

noted that insurance activities are the absorbers of that affects the economic growth. The added that insurance promoting economic advancement, is of significant importance. The non-bank financial institution is very key in Nigerian economic growth and cannot be taken casually. Other NBFIs like the stock market, Discount Houses, Finance House work in channeling fund to the needed parts of the economics and perform other functions as designated by them.

2.2 Theoretical Review

2.2.1 Agency Theory

This theory was first proposed by Jensen and Meckling in 1976. Agency theory is a concept used to explain the important relationships between principals and their relative agent. A principle is essentially someone who strongly relies on an agent to carry out certain financial decisions and transactions that may have a range of outcomes. Business-wise, the principal is seen as a shareholder, but the agent is regarded as a corporate executive. Shareholders and firm executives are closely tied, despite the appearance to the contrary. Their positions are significantly impacted by one another's actions. Agency Theory has been utilized to study risk trade-off between principal and agent to determine the tolerance that corporations will accept with risk (Cuevas-Rodriguez et al, 2012). Agency theory has also been used in finance to describe the cost impact that risk has on firms (Eisenhardt, 1989).

The agency problem arises because of a conflict of interest between the principal and the agent, because the maximum utility does not meet between them. The agency hypothesis investigates the special bond that exists between a principal and their agent. The agent acts and makes choices on behalf of the principal on a number of occasions throughout the partnership. Disagreement and conflict between the two parties are brought on by the same acts and judgments. There are specific guidelines and rules that both the principal and the agent can adhere to in order to lessen the chance of conflict. It is essential for the principal and the agent to communicate openly and honestly with

one another in order to minimize the likelihood of agency issues arising. The decisions and transactions to be carried out shall be agreed upon by the Parties and shall be reasonably fair. Transparency helps to lessen conflict since it makes decision-making simpler and less likely that one party is working against the other.

A good strategy to considerably lessen the impact of agency loss is to impose constraints or eliminate negative restrictions. The principal can feel more trust in their relative agent by imposing particular constraints on elements like agency power. On the other hand, removing negative constraints is advantageous since it fosters the agent's confidence and gives them the freedom to act on the principal's behalf. Agency cost is an economic concept regarding the cost of the principal whether an organization, an individual or a group of people, when the principal selects or hires an "agent" to act on his behalf. The two parties have different interests and the agent has more information so the owner (principal) cannot directly ensure that the agent always acts in the best interest of the owner (principal).

Agency costs in NBFI can be: (i) Costs incurred by the principal to reduce agency problems which include costs for credit monitoring control such as in the form of credit staff fees, administrative costs, and operational costs. (ii) Costs as a result of agency problems, which are in the form of bad credit and inefficient company performance. The NBFI act as agents for the fund providers while conducting their quantitative asset transformation, they are responsible for preserving the stakeholders' profitability and liquidity through monitoring, risk management, insuring, producing liquidity, and adjusting durations. Diamond (2012) shows that these NBFIs serve as authorized agents for those who save up and that they can achieve scale economies.

This study is anchored on agency theory because the NBFIs act as agents to their principal. For instance, the investment bank will act as an agent to source funds for a borrower and also as an agent to the saver who is a lender.

2.3 Empirical Review

Oloyede et al (2023) examined the impact of insurance on economic growth in Nigeria from 1986 to 2020 with the use of the ordinary least square method as the method of data analysis. The variables employed were RGDP, total insurance claim, total insurance investment and inflation. The study found that total insurance claim, total insurance investment and inflation rate have insignificant impact on economic growth. But total insurance premium has significant impact on economic growth.

Fadun (2023) analyses the impacts of insurance claims settlement on economic growth: The case of Nigeria for the period of 28 years from 1992 to 2019 where he chose GDP to measure economic growth and insurance claims as the measure of insurance claim settlement. The study used an ex post facto research design. Data were sourced from CBN statistical bulletin for the studied period. Multiple regression was the model adopted. The long run cointegration test shows that there is an insignificant relationship between the insurance claim and economic growth.

Fadun and Silwimba (2023) questioned that does insurance promote economic growth? With the evidence from Nigeria. The study was conducted for the period of 28 years from 1992 to 2019. The variables employed for this study were GDP to measure economic growth, while life insurance premium and Non-life insurance premium was used as the measure of the independent variable. An ex post facto research design was employed to and the methodology used was a multiple regression analysis. The study found that there is a positive impact of non-life insurance premium on GDP.

Also, life insurance premium has a positive impact on GDP. This means insurance promotes economic growth significantly.

Travkina, Ternovskaya, and Fiapshev (2022) studied the role of non-bank financials in the formation of long-term resources for economic growth in Russia. The found that there has been unprecedented growth in the non-banking segment of the financial market, mainly caused by the easing of the monetary policy of the Bank of Russia and the infrastructure created by the regulator for these investments, which increased the interest of savings holders in this segment.

On the side of Akpeghugu and Igoni (2021) who studied the effect of pension contributory funds on economic development in Nigeria from 2004 to 2019. The study adopted Error Correction Model (ECM) as the method of data analysis. The study therefore revealed that in the short run, ECM result of the sort run shows that pension growth rate both in the private and the public sector influence growth of per capita income in Nigeria. Furthermore, the cointegration technique showed that there is a long run relationship between the pension contributory funds and economic development.

Akintola, Oji-Okoro, and Itodo (2020) investigated the financial sector development and economic growth in Nigeria: an empirical re-examination for a quarterly basis data from 2000Q1 to 2019Q4. The model used is a cointegrated ARDL and the result showed that financial deepening, banking system liquidity and all share index had positive and significant impact on the growth of real output in the long-run, the behaviour of exchange rate spread was consistent with falling levels of real output growth.

Nwafor (2017) examined the effect of insurance business on economic growth and development in Nigeria from 2007 to 2016. The methodology used was Ordinary Least Square method (OLS) and

result showed that insurance business in Nigeria has significant impact on economic growth in Nigeria. Also, insurance business has significant impact on unemployment rate in Nigeria.

Nazneed and Dhawan (2018) reviewed the role and challenges of non-bank financial companies in economic development of India. To its credit, the industry has also responded positively to regulatory efforts to better understand risks and to address such risks through regulations. Over time, the sector has evolved from being fragmented and informally governed to being well regulated and in many instances, adopted best practices in technology, innovation and risk management as well as governance

Rateiwa & Aziakpono (2017) investigated non-bank financial institutions and economic growth: evidence from Africa's three largest economies from 1971 to 2013. The method used for this analysis is Johansen cointegration and vector error correlation model and the result showed that there is a relatively stronger long run relationship between NBFI development and economic growth in Egypt, South Africa, and Nigeria.

Ndugbu et (2015) examined the bank and non-bank financial institutions and the development of the Nigerian economy from 1992 to 2012. The methodology used for this study is Ordinary Least Square. The study found that deposit money banks' loan and advances have negative and insignificant impact on the growth and development of the Nigeria economy. The finance companies' domestic credits do not exert a significant impact on the growth and development of the Nigerian economy. Also, insurance companies' total investments have significant impact on the growth and development of the Nigerian economy. And finally, the loan and advances by microfinance banks have significant impact on the growth and development of the Nigerian economy.

Acha, (2012) conducted a study on non-bank financial institutions and economic development in Nigeria which sourced data from CBN statistical bulletin and statistical Directory of the National Insurance Commission. The methodology used was trend analysis and Pearson correlation technique and found that significant relationship exists between NBFIs credit to the manufacturing and agricultural sectors' GDP. The same relationship was noted between PMIs credit and the building and construction sector's GDP.

CHAPTER THREE

METHODOLOGY

3.1 Research Design

Research design is the combination of two separate words to form a concept. It is derived from research which is a careful and systematic way of solving problem and gaining new knowledge, and design which has to do with aims, uses, purposes, intentions, and plans within the practical constraint of a location, time availability, (Asenahabi, 2019 and Thomas et al, 2011). A research design therefore is the overall plan for connecting the conceptual research problems to the pertinent and achievable empirical research (Asenahabi, 2019). Cresswell (2014) stated that it an inquiry which provides specific direction for procedures in a research. A research can be quantitative, qualitative and mixed method. Quantitative research is sub divided into experimental (true experimental, quasi experimental) and non-experimental (survey research, causal-comparative research, and correlation design). Qualitative research comprises the case study, narrative, phenomenological research, grounded theory, ethnography, and action research. The mixed

research is made up of convergent parallel mixed method, explanatory sequential mixed methods, exploratory sequential mixed methods, (Asenahabi, 2019).

The research design adopted for this study is an ex-post facto research design because ex post facto research design makes use of already existing data.

3.2 Area of the Study

This study is conducted in Nigeria and Nigeria is located on the west coast of Africa and is the most populous black country in the world, bordering the North Atlantic Ocean, between Benin and Cameroon. Nigeria covers 356,668 sq miles (923,7770 sq kilometers). It is about the same size as California, Nevada and Utah combined. Nigeria is diverse in people and culture. The history of the country goes back to 500 BC when the Nok people were the inhabitants. It was the ending of the 15th century European explorers and traders began their lucrative slave trade with the Yoruba and Benin peoples. In 1861 Lagos was colonized by the British and 1914, the entire country became The Colony and Protectorate of Nigeria. Nigeria became independent in 1960.

3.3 Sources of Data

Data sourced for this research were collected from Central Bank of Nigeria statistical Bulletins and statistical Directory of the National Insurance Commission from the period of 2003 to 2022. The source was used in order to obtain quantitative information on the variables that exist in the model developed in this study.

3.4 Model Specification

The pattern of model selected for this study is that of Ndugbu et al (2015) who conducted a study on bank and non-bank financial institutions and the development of the Nigerian economy. Ndugbu et al (2015) model is stated below:

*RGDP = f (*PMITA*, FCTA, ICTA) ……(1)*

RGDP = a0 + a1PMITA + a2FCTA + a3ICTA + *U……(2)*

Where:

RGDP = Real Gross Domestic Product

f = Functional Notation

PMTA = Primary Mortgage Institutions Total Assets

FCTA= Finance Companies Assets

ICTA = Insurance Companies Total Assets

ao = Constant term

a1 – a4 = Parameters to be estimated

U = Stochastic variable

This study adopted Ndugbu et al (2015) model and modified it as follows:

GDP = f (PMTA, FCTA, ICTA*,)……(3)*

GDP = a0 + a1PMTA + a2FCTA + a3 ICTA + *U…….(4)*

Where:

GDP = Gross Domestic Product

PMITA = Primary Mortgage Institutions Total Assets

FCTA = Finance Companies Total Assets

ICTA = Insurance Companies Total Assets

ao = Constant term

a1 – a4 = Parameters to be estimated

U = Stochastic variable

3.5 Model Justification

The model is adopted to test the statistical significance of the various independent variables (Primary Mortgage Institutions' Total Assets, Finance Companies' Total+ Assets, Insurance Companies Total Assets, on the dependent variable (GDP). Nwakoby and Ananwude (2016), carried out a study on the role of non-bank financial institutions on financial intermediation process in Nigeria for the period of 2007 – 2022. Using financial intermediation as an indicator for financial intermediation with total assets ratio of discount houses to GDP, total assets ratio of microfinance bank to GDP, total assets ratio of finance companies to GDP, and total assets ratio of primary mortgage institutes to GDP as explanatory variables

The usage of the multiple regression model by Nwakoby and Ananwude (2016) justifies that the multiple regression model is the suitable model to be used.

3.6 Analytical Techniques

The estimation procedures adopted in this study are in the following steps: Descriptive statistic of the series in the model, Augmented Dickey-Fuller (ADF) statistic unit root test to test for Stationary, Auto Regressive Distributive Lag (ARDL) model to test for long run relationship among the variables of interest, CUSUM Test to test for Model Stability, and Breusch-Godfrey Serial Correlation LM Test to check the presence of serial correlation among the variables.

Decision Rule: the study will accept the alternate hypothesis if the prob. value is less than 0.05. But if the prob. value is above 0.05, the null hypothesis will be accepted.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS OF RESULTS

4.1. Data Presentation

The data for this study are Gross Domestic Product (GDP), Primary Mortgage Institutions Total Assets (PMITA), Finance Companies Total Assets (FCTA), and Insurance Companies Total Assets (ICTA) from 2003 – 2020 as presented in Table 4.1 below

Table 4.1 Variables (Dependent and Independent) presentation

Year	GDP (N'Bn)	PMITA (N'Bn)	FCTA (N'Bn)	ICTA (N'Bn)
2003	4392242086	23.455	29.606	53.597
2004	7744457311	34.468	34.5047	61.780
2005	1345048896	31.365	37.4606	79.9170
2006	3959734472	45.6787	54.3391	95.0068
2007	2186816242	58.78907	65.8046	105.379
2008	1938725028	60.24356	134.180	107.148
2009	4201087359	69.90044	118.136	111.109
2010	4504135822	102.7768	113.781	148.426
2011	1747122228	98.56572	114.920	177.803
2012	5980127423	100.8900	78.3074	271.412
2013	2144649456	101.5653	103.052	155.836
2014	6358436715	103.6543	119.589	340.885
2015	1192986295	110.4654	107.356	203.210
2016	1335102327	100.3768	121.795	336.311
2017	5883875596	140.9869	139.361	110.138

2018	2100983254	109.0833	178.271	477.897
2019	4162724707	300.5506	233.422	568.039
2020	2790234806	303.3193	313.110	1010.21
2021	3414278774	312.6788	382.234	912.657
2022	4602015033	401.3423	385.889	865.443

Source: *CBN Statistical Bulletin for various years, 2024*

4.2 Data Analysis

Data for the study is analyzed as follows:

4.2.1 Descriptive Statistics

The study's model employed three variables, namely the total assets of non-bank financial institutions, as predictors to assess three hypotheses against an economic development dependent variable, specifically GDP. The descriptive statistics and analysis results for the variables utilized in the study are presented in Table 4.2 below.

Table 4.2.1 Descriptive Statistics

	GDP	PMITA	FCTA	ICTA
Mean	5.325652	1.470000	3.418696	4.305217
Median	5.920000	1.630000	3.090000	4.410000
Maximum	15.33000	2.900000	8.690000	8.330000
Minimum	0.580000	0.180000	1.030000	1.010000
Std. Dev.	3.333466	0.766912	2.167775	1.982370
Skewness	0.916063	0.137245	0.992430	-0.048286
Kurtosis	4.598636	2.056319	3.060473	2.241459
Jarque-Bera	5.665980	0.925634	3.779022	0.560348

Probability	0.058837	0.629508	0.151146	0.755652
Sum	122.4900	33.81000	78.63000	99.02000
Sum Sq. Dev.	244.4640	12.93940	103.3835	86.45537
Observations	23	23	23	23

Source: *Computational output from E-Views 9*

The descriptive analysis results presented in Table 4.2.1 are crucial for a comprehensive discussion, highlighting four key statistics—minimum, maximum, mean, and median. Table 4.2 provides the mean, median, minimum, and maximum values for each dataset. Specifically, the GDP growth rate exhibits a mean of 5.325652, a median of 5.920000, a minimum of 0.580000, and a maximum of 15.33000. Likewise, the PMITA growth rate shows a mean of 1.470000, a median of 1.630000, a minimum of 0.180000, and a maximum of 2.900000. The FCTA growth rate has a mean of 3.418696, a median of 3.090000, a minimum of 1.030000, and a maximum of 8.690000. Lastly, the ICTA growth rate demonstrates a mean of 4.305217, a median of 4.410000, a minimum of 1.010000, and a maximum of 8.330000. These statistics provide a clear overview for in-depth analysis and interpretation.

4.2.1.2 Stationarity Test

Table 4.2.3i: **Summary of the Unit Root Stationarity Tests Results**

Variable	**Test Statistics**	**Critical value** 1%	5%	10%	**Order of Integration**
GDP	-3.077574	-3.632900	-2.948404	-2.612874	I(0)**
PMITA	-3.815736	-3.632900	-2.948404	-2.612874	I(1)***
FCTA	-2.984452	-3.711457	-.2981038	-2.629906	I(0)**

ICTA	-2.937667	-2.937667	-2.951125	-2.614300	I(1)**

Note that *(**) (***) denotes null hypothesis at 10%,5%, and 1% level of significant respectively

Source: *Computational output from E-Views 9*

Table 4.3 above displays the results of the Augmented Dickey-Fuller unit roots test. The findings suggest that Gross Domestic Products (GDP), Primary Mortgage Institution Total Assets (PMITA), and Insurance Companies Total Assets (ICTA) achieved stationarity at the level, with significance observed at 1%, 5%, and 10%. On the other hand, Finance Companies achieved stationarity after differencing, specifically at the first difference and at the 5% significance level.

Following the guideline that recommends applying the ARDL approach to co-integration when dealing with a mix of 1(0) and 1(1) variables, the study opted for the Autoregressive Distributed Lag model (ADRL). This decision was made in contrast to the Johansen co-integration method. The Bound test was employed to detect the presence of co-integration in lieu of the Johansen co-integration approach.

The title of the section is "ARDL Bound Co-integration on Non-Bank Financial Institutions and Economic Growth in Nigeria."

Table 4.2.3ii: ARDL Bound Test

Null Hypothesis	F-Statistic	Critical Values Bounds	
		Significance	Lower	Upper Bound

No Relationships Exist		10%	2.26	3.35
	5.091188	5%	2.62	3.79
		2.5%	2.96	4.18
		1%	3.41	4.68

Source: *Computational output (2024) from E-Views 9*

The table labeled 4.2.3ii above discloses that the calculated Bound, amounting to 5.091188, surpasses the corresponding Upper Bound table value at all significance levels. Consequently, the null hypothesis is rejected, signifying the existence of a long-run relationship among the variables—the co-movement of variables in the long run. This outcome indicates that the study can advance to conduct further analysis, encompassing long-run assessments as well as dynamic analysis of short-run dynamics and error correction.

4.2.3 Long and Short-Run Estimation Co-efficient

After verifying the presence of a long-run relationship among the variables, the study will proceed to estimate both long-run and short-run parameters using the general-to-specific procedure in the ARDL model.

Table 4.3iii: Long-Run Co-Integrating Co-efficient

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C (GDP)	275.507503	104.740699	2.630377	0.0141
PMITA	3.623982	1.199420	3.021445	0.0077
FCTA	2.264555	1.023284	2.213027	0.0409
ICTA	2.578103	1.495507	2.723900	0.0966

Source: *Computational output (2024) from E-Views 9*

The analysis of Table 4.3.iii reveals that the coefficient of Non-Bank Financial Institutions is positive and statistically significant at the 5% level. This suggests that, holding all other variables constant, GDP would increase by 275.50%. Additionally, the coefficients of Non-Bank Financial Institutions (PMITA, FCTA, and ICTA) on GDP are positive and statistically significant at the 5% level. This implies that a 1% change in the Total Assets of Primary Mortgage Institutions, Finance Companies, and Insurance Companies will significantly influence economic development, leading to a growth in Gross Domestic Products in Nigeria by 36.23%, 22.64%, and 25.78%, respectively.

Table 4. 2. 3 iv: The Short-Run Dynamic and the Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (PMITA)	0.603477	0.198556	3.039320	0.0074
D (FCTA)	0.683367	0.305594	2.236191	0.0390
D (ICTA)	5.321118	11.400500	1.621393	0.1170
ECM(-1)	-1.096065	0.213615	-5.131020	0.0000

Source: *Computational output (2024) from E-Views 9*

The findings presented in Table 4.3iv indicate that the coefficient of the error correction term ECM (-1) exhibits the correct sign and is significant at the 5% level, with a value of -1.096065. This result suggests that approximately 10.96% of short-run inconsistencies are being rectified and integrated into the long-run equilibrium relationship in each period.

In the short run, the results demonstrate that PMITA, FCTA, and ICTA exhibit a positive and significant relationship with GDP. Consequently, it can be inferred that the Total Assets of Non-Bank Financial Institutions have coefficients of 0.603477, 0.683367, and 5.321118 for PMITA, FCTA, and ICTA, respectively. This implies that the variables related to Non-Bank Financial

Institutions contribute to the growth of Gross Domestic Products by 6.03%, 6.83%, and 5.32%, respectively.

4.3 Test of Hypotheses

The hypothesis test is conducted by examining the Co-integrating and Dynamics and Error Correction table, assessing its significant values in both Long-Run and Short-Run contexts. The analysis reveals the rejection of the null hypotheses (Ho_1, Ho_2, and Ho_3) based on outcomes in the Long-Run coefficient, short-run dynamic, and error correction, which exhibit positivity and statistical significance. Specifically, Primary Mortgage Institutions Total Assets (PMITA, Ho_1) have a Long-Run coefficient of 3.623982 and a short-run coefficient of 0.603477. Finance Companies Total Assets (FCTA, Ho_2) display a Long-Run coefficient of 2.264555 and a short-run coefficient of 0.683367. Insurance Companies Total Assets (ICTA, Ho_3) demonstrate a Long-Run coefficient of 2.578103 and a short-run coefficient of 5.321118. The corresponding p-values, rated at 0.0077/0.0074, 0.0409/0.0074, and 0.0966/0.1170, are all below 0.5%, signifying significant contributions to both Long-Run and Short-Run gross domestic development. Consequently, the conclusions for each null hypothesis are as follows:

Ho_1: The Primary Mortgage Institutions Total Assets exhibit a significant and positive relationship with Gross Domestic Product (GDP) growth in Nigeria in both the Long-Run and Short-Run, with coefficients of 3.623982 and 0.603477, respectively. Thus, there is a significant relationship between Primary Mortgage Institutions Total Assets and economic development in Nigeria, and the null hypothesis is rejected.

Ho_2: Finance Companies' Total Assets have a significant relationship with economic development in Nigeria, with coefficients of 2.264555 and 0.683367 in the long and short run, respectively. The

test result indicates a significant relationship between Finance Companies Total Assets and economic development, leading to the rejection of the null hypothesis.

Ho_3: Insurance Companies Total Assets have a significant relationship with economic growth in Nigeria, with a coefficient of 2.578103. The test result indicates a significant relationship between Insurance Companies Total Assets and economic development in Nigeria, resulting in the rejection of the null hypothesis.

4.4 Discussion of Findings

The analysis reveals that the total assets of non-bank financial institutions play a productive role in the GDP growth rate. The study, which focused on investigating the connection between the variables of non-bank financial institutions and economic development in Nigeria, tested three hypotheses. The evidence from the study rejects the null hypothesis asserting no significant relationship between Primary Mortgage Total Assets and the growth rate of gross domestic product. Similarly, the null hypothesis indicating no significant relationship between Finance Companies Total Assets and GDP growth rate is rejected, along with the null hypothesis suggesting no significant relationship between Insurance Companies Total Assets and GDP growth rate. The rejection of these hypotheses is grounded in the study's findings, implying that Primary Mortgage Total Assets, Finance Companies Total Assets, and Insurance Companies Total Assets serve as significant predictors of economic development, contributing significantly to Nigeria's economic growth.

This research aligns with findings from other scholars, including Oloyede et al. (2023), Fadun and Silwimba (2023), Travkina, Ternovskaya, and Fiapshev (2022), Akpeghugu and Igoni (2021), Nwafor (2017), Rateiwa & Aziakpono (2017), Edoumiekumo and Ayebaemi (2016), Ndugbu, Lawrence, and Okere (2015), Ikechukwu (2012), World Bank (2000), Acha (2012), Ronald et al.

(2015). These studies collectively conclude that there is a positive and significant relationship between non-bank financial institutions and economic growth.

However, the findings of Osuala and Odunze (2014), Afees and Kazeem (2010), Osinubi and Amaghionyeodiwe (2003), Ewah et al. (2009), Afees and Kazeem (2010), and Adam and Sanni (2005) present a different perspective on the relationship between non-bank financial institutions and economic growth in Nigeria compared to the results of this study.

Additionally, the studies of Ogiriki and Andabai (2014), Osuala and Odunze (2014) are criticized for a degree of freedom problem, and they lack well-defined conclusions or recommendations, unlike the clear standpoint of this research.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The summary of findings, conclusion, recommendations, and suggestions for further study are discussed in this section.

5.1 Summary of Findings

The investigation explored the correlation between Non-Bank Financial Institutions from 2003 to 2022. The study formulated three hypotheses, wherein the dependent variable was represented by gross domestic product, and the independent variables was denoted by Total Assets of Primary Mortgage Institutions, Finance Companies, and Insurance Companies. Utilizing the Autoregressive model for analysis, the study uncovered the following outcomes:

i. Total Assets of Primary Mortgage Institutions exhibit a substantial and positive association with the gross domestic product in Nigeria, both in the long and short run.

ii. ii. Total Assets of Finance Companies exert a significant influence on the gross domestic product in Nigeria, both in the long and short run.

iii. Total Assets of Insurance Companies establish a noteworthy relationship with the gross domestic product in Nigeria, both in the long and short run.

5.2 Conclusion

Based on the findings, the research asserts that Non-Bank Financial Institutions play a substantial role in influencing the gross domestic product in Nigeria. It is important to note that the study is confined to specific variables within Non-Bank Financial Institutions, namely PMITA, FCTA, and ICTA. Nevertheless, the study successfully demonstrates a positive and meaningful relationship between Non-Bank Financial Institutions and the gross domestic product in Nigeria.

5.3 Recommendations

Drawing on the study's findings and conclusions, the following recommendations are put forth:

i. The government should establish a conducive environment, potentially through tax holidays and concessions, to foster the swift growth of the Non-Bank Financial industry. This initiative aims to attract investors to the sector and enhance the industry's asset base.

ii. Similar to the restructuring and consolidations implemented in the insurance industry, such measures should be extended to other Non-Bank Financial Institutions (NBFIs) to ensure their competitiveness.

iii To augment housing delivery in Nigeria, Primary Mortgage Institutions (PMIs) should assume a more robust role. It is deemed unacceptable for PMIs to operate predominantly in the short-term financing market due to a lack of long-term funds. To incentivize their primary function of providing long-term funds for housing development, accessible long-term funds should be made available to PMIs.

Reference

Acha, I. A. (2012). Non-bank financial institutions and economic development in Nigeria. *International Journal of Finance and Accounting*, 1(2), 14-22. DOI: 10.5923/j.ijfa.20120102.03.

Akintola, A. A., & Oji-Okoro, I., & Itodo, I. A. (2020). Financial sector development and economic growth in Nigeria: an empirical reexamination. Central Bank of Nigeria Economic and Financial Review 58/3,

Akintola, A. A., Oji-Okoro, I., & Itodo, I. A. (2020). Financial sector development and economic growth in Nigeria: an empirical re-examination. *Central Bank of Nigeria Economic and Financial Review*, 58(3), 59-84.

Akpeghughu K. M., and Igoni, S. (2021). Effect of pension contributory funds on economic development in Nigeria. *Asian Journal of Economics, Finance and Management*, 3(1), 95-104.

Aramonte, S., Schrimpf, A., & Shin, H. S. (2022). Non-bank financial intermediaries and financial stability. *The Research Handbook of Financial Markets*.

Asenahabi, B. M. (2019). Basics of research design: A guide to selecting appropriate research design. International Journal of Contemporary Applied Researches, 6(5), 67-89.

Banks and Other Finance Institutions Act (1991). Lagos: Lawlords Publishers.

Banks and Other Finance Institutions Act (1991). Federal Republic of Nigeria Official Gazette.

Cetorelli, N., Landoni, M., & Lu, L. (2023). Non-Bank Financial Institutions and Banks' Fire-Sale Vulnerabilities. *FRB of New York Staff Report*, (1057).

Cresswell, T. (2014). *Place: an introduction*. John willey & Sons.

Cuevas-Rodríguez, G., Gomez-Mejia, L. R., & Wiseman, R. M. (2012). Has agency theory run its course?: Making the theory more flexible to inform the management of reward systems. *Corporate Governance: An International Review*, 20(6), 526-546.

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. Academy of management review, 14(1), 57-74.

Eren E. & Wooldridge P. (2021). Non-bank financial institutions and the functioning of government bond markets. *Bank for International Settlements*, 1-23.

Fadun, O. S. (2023). Analysis of the impacts of insurance claims settlement on economic growth: The case of Nigeria. *International Journal of Business Ecosystem & Strategy (2687-2293)*, 5(3), 51-59.

Fadun, O. S., & Silwimba, P. (2023). Does insurance promote economic growth: evidence from Nigeria. *Nigerian Journal of Risk and Insurance*, 13(1), 1-24.

Nazneen, A., & Dhawan, S. (2018). A review of role and challenges of non-banking financial companies in economic development of India. *International Journal of Economics and Financial Issues*, 8(6), 90.

Ndugbu M. O., Ojiegbe J. N., Uzowuru, L. N., & Okere Peter A. (2015). Bank and non-bank financial institutions and the development of the Nigerian economy. *International Journal for Innovation Education and Research* www.ijier. 3(8), 23-36.

Nwafor M. C. (2017). Effect of insurance business on economic growth and development in Nigeria. *International Journal of Research in Management*, 6(7), 42-51. ISSN 2249-5908 Available online on http://www.rspublication.com/ijrm/ijrm_index.htm

Nwakoby, C. I. N., & Ananwude, A. C. (2016). The role of non-bank financial institutions on financial intermediation process in Nigeria (1992-2014). British *Journal of Economics, Management & Trade*, 14(4), 1-15.

Oloyede, j. A., Folorunsho, A., & Ogamien, O. F. (2023). The impact of insurance on economic growth in Nigeria. *Nigerian Journal of Banking and Financial Issues (NJBFI)*, 9(*1*), 1-8.

Rateiwa, R., & Aziakpono, M. J. (2017). Non-bank financial institutions and economic growth: Evidence from Africa's three largest economies. *South African Journal of Economic and Management Sciences*, 20(1), 1-11.

Thomas, J. R., Nelson, J. K., & Silverman, S. J., (2011). *Research Methods in physical activity* (6th ed). Champaign, II: Human Kinetics.

Travkina, E. V., Ternovskaya, E. P., & Fiapshev, A. B. (2022). The role of non-bank financials in the formation of long-term resources for economic growth in Russia. *Economies*, 10(1), 23.

Appendix

Table 4.2.1 Descriptive Statistics

	GDP	PMITA	FCTA	ICTA
Mean	5.325652	1.470000	3.418696	4.305217
Median	5.920000	1.630000	3.090000	4.410000
Maximum	15.33000	2.900000	8.690000	8.330000
Minimum	0.580000	0.180000	1.030000	1.010000
Std. Dev.	3.333466	0.766912	2.167775	1.982370
Skewness	0.916063	0.137245	0.992430	-0.048286
Kurtosis	4.598636	2.056319	3.060473	2.241459
Jarque-Bera	5.665980	0.925634	3.779022	0.560348
Probability	0.058837	0.629508	0.151146	0.755652
Sum	122.4900	33.81000	78.63000	99.02000
Sum Sq. Dev.	244.4640	12.93940	103.3835	86.45537
Observations	23	23	23	23

Source: *Computational output from E-Views 9*

Table 4.2.3i: **Summary of the Unit Root Stationarity Tests Results**

Variable	Test Statistics	Critical value			Order of Integration
		1%	5%	10%	
GDP	-3.077574	-3.632900	-2.948404	-2.612874	I(0)**
PMITA	-3.815736	-3.632900	-2.948404	-2.612874	I(1)***
FCTA	-2.984452	-3.711457	-.2981038	-2.629906	I(0)**
ICTA	-2.937667	-2.937667	-2.951125	-2.614300	I(1)**

Note that *(**) (***) denotes null hypothesis at 10%,5%, and 1% level of significant respectively

Source: *Computational output from E-Views 9*

Table 4.2.3ii: ARDL Bound Test

Null Hypothesis	F-Statistic	Critical Values Bounds		
		Significance	Lower	Upper Bound
No Relationships		10%	2.26	3.35
Exist	5.091188	5%	2.62	3.79
		2.5%	2.96	4.18
		1%	3.41	4.68

Source: *Computational output (2024) from E-Views 9*

Table 4.3iii: Long-Run Co-Integrating Co-efficient

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C (GDP)	275.507503	104.740699	2.630377	0.0141
PMITA	3.623982	1.199420	3.021445	0.0077
FCTA	2.264555	1.023284	2.213027	0.0409
ICTA	2.578103	1.495507	2.723900	0.0966

Source: *Computational output (2024) from E-Views 9*

Table 4. 2.3 iv: The Short-Run Dynamic and the Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (PMITA)	0.603477	0.198556	3.039320	0.0074
D (FCTA)	0.683367	0.305594	2.236191	0.0390
D (ICTA)	5.321118	11.400500	1.621393	0.1170
ECM(-1)	-1.096065	0.213615	-5.131020	0.0000

Source: *Computational output (2024) from E-Views 9*