THE IMPACT OF STOCK MARKET ON THE NIGERIAN ECONOMY

BY

MALIK SHALOM

SSC2105579

DEPARTMENT OF ECONOMICS

FACULTY OF SOCIAL SCIENCES

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BEING A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF ECONOMICS, FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL FULFILLMENT FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc) DEGREE IN ECONOMICS, UNIVERSITY OF BENIN, BENIN CITY.

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CERTIFICATION

This is to certify that, this work titled "The Impact of Stock Market on the Nigeria Economy" was carried out by Malik Shalom for the award of Bachelor of Science (B.Sc) Degree in the Department of Economics, Faculty of Social Science, University of Benin, Benin City, under the supervision of ;

_____ _____

Dr. Success O. Abusomwan Date
(Project Supervisor)

_____ _____

Prof. S.O. Igbinedion Date
(Project Coordinator)

_____ _____

Prof. C.A. Ighodaro Date
(Head of Department)

DEDICATION

This project is dedicated, first and foremost, to the Almighty God, whose boundless love, grace, mercy, and divine wisdom have guided and sustained me throughout my academic journey. Without His unfailing favour and direction, this accomplishment would not have been possible.

I also dedicate this work to the cherished memory of my late father, Mr. Malik Uduakpegiemhe Jehoshaphat, whose dreams and aspirations are being realized today. His unwavering belief in the power of education continues to inspire me. This achievement stands as a tribute to his enduring legacy and the noble values he instilled in me.

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ABSTRACT

This study examines the impact of stock market on the Nigeria economy from 1990 to 2023. The research investigates the relationships between key stock market indicators; market capitalization, all-share index, monetary policy rate, inflation rate, and gross fixed capital formation and economic growth, measured by GDP. Using the Autoregressive Distributed Lag (ARDL) model, the study explores both the short-run and long-run dynamics among these variables. Empirical findings reveal a significant long-run relationship between stock market performance and economic growth in Nigeria. Market capitalization and the all-share index exhibit strong positive effects on GDP, indicating that stock market expansion fosters capital mobilization, investment, and overall productivity. Institutional quality variables, such as civil and political rights, also influence growth by promoting governance stability and investor confidence. Inflation demonstrates a mild positive effect, while the monetary policy rate shows an insignificant impact on growth. The short-run results indicate that moderate inflation and improvements in institutional conditions support temporary economic expansion, while persistent inflation constrains growth. Diagnostic tests confirm the robustness and reliability of the model, showing no issues of serial correlation or heteroskedasticity. The study concludes that stock market development is a critical catalyst for Nigeria's economic growth and recommends policy reforms that enhance market efficiency, strengthen institutional frameworks, and encourage long-term investment participation.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Capital markets are vital to the socio-economic progress of both developed and developing nations due to their capacity to effectively allocate financial resources, mobilize investment funds, and enhance economic efficiency by directing capital to its most productive use (Issahaku et al., 2013). Stock exchanges, a key component of capital markets, facilitate the procurement of long-term capital, particularly crucial when direct credit falls short in stimulating economic expansion (CBN, 2007). Financial reforms, aimed at strengthening financial intermediation, enhance the linkage between surplus and deficit sectors through stock market development (Ibenta, 2000).

Efficient capital allocation in a competitive financial landscape is essential for promoting domestic investments and propelling economic advancement. Levine and Zervos (1998) highlight that liquid stock markets are essential for attracting long-term investments vital for economic growth. Illiquidity can deter investors, hindering industrial investments (Ologunde et al., 2006). Stock markets also play a critical role in firms raising capital and fostering long-term financing, making them an indispensable economic element (Baya et al., 2014).

Despite debates regarding the direct impact of stock market performance on economic growth (Singh, 1997; Nurudeen, 2009), studies suggest that stock markets aid economic expansion by mobilizing savings and allocating them among productive sectors (Adenuga, 2010; Ohiomu and

Enabulu, 2011; Abiodun and Elisha, 2012). While Nigeria's stock market has demonstrated progress (Alajekwu & Achugbu, 2012), further research is warranted to elucidate the precise relationship between stock market performance and economic development, particularly in developing economies. Ultimately, stock markets can enhance financial system efficiency, foster competition, improve corporate governance, and increase returns for savers (Singh, 1997).

1.2 STATEMENT OF THE RESEARCH PROBLEM

The stock market plays a crucial role in the economic development of a country, and Nigeria is no exception. As a vital component of the financial system, the stock market provides a platform for companies to raise capital, facilitates the mobilization of savings, and enables the efficient allocation of resources. The performance of the stock market can have a significant impact on the overall economy, influencing economic growth, investment, and employment. Understanding the impact of the stock market on the Nigerian economy is essential for policymakers, investors, and other stakeholders.

In Nigeria, the capital market has traditionally played its expected role over the years. However, its efficiency and effectiveness have been significantly hindered by several factors, particularly those linked to government policies and interventions in the financial sector (Nwangwu, 2013). Some of these reforms were aimed at improving the capital market’s performance and achieving broader economic objectives.

Despite this, challenges persist such as the scarcity of long-term capital for businesses, unstable price levels, and an economic structure heavily reliant on oil production. Ironically, many oil-

producing companies are not even listed on the stock exchange (Nwangwu, 2013). As a result, the private sector often relies on short-term financing options like overdrafts instead of accessing long-term funds through the capital market.

This study aims to explore the relationship between the stock market and economic growth in Nigeria, examining the ways in which the stock market contributes to the country's economic development. By investigating this relationship, this study seeks to provide insights into the role of the stock market in promoting economic growth in Nigeria.

1.3 RESEARCH QUESTIONS

1. Does market capitalization have any impact on economic growth in Nigeria?
2. Does all-share value index impact economic growth in Nigeria?
3. To what extent does inflation affect economic growth in Nigeria?
4. Is there any relationship between monetary policy rate and economic growth in Nigeria?

1.4 OBJECTIVES OF THE STUDY

The major objective of this research is to examine the relationship between stock market performance and economic growth in Nigeria. In specific terms, this study aims to;

1. To examine the impact of market capitalization on economic growth in Nigeria.
2. To determine the impact of all share value index on economic performance in Nigeria.
3. To ascertain the effect of inflation on economic growth in Nigeria.
4. To examine the relationship between monetary policy rate and economic growth in Nigeria.

1.5 RESEARCH HYPOTHESES

The hypotheses of this research are stated in their null form. The hypotheses are as follows:

H_{01}: Market capitalization does not have a significant impact on economic growth in Nigeria.

H_{02}: The all-share value index does not have any impact on economic growth in Nigeria.

H_{03}: Inflation rate does not affect economic growth in Nigeria.

H_{04}: There is no relationship between MPR and economic growth in Nigeria.

1.6 SIGNIFICANCE OF THE STUDY

The general relevance of this study lies in its contribution to understanding the economic impact of the stock market.

Specifically, by using the Nigerian stock market as empirical evidence, the study aims to determine whether the stock market affect the Nigerian economy. The findings will be particularly useful in shaping stock market policies that promote sustainability within Nigeria's financial system.

Additionally, the study will be relevant to stock market operators and monetary institutions, helping them assess the extent to which the stock market influence economic conditions. It will also provide valuable insights for government bodies and policymakers in refining strategies that enhance market performance.

The study's findings will offer quoted companies the opportunity to evaluate their performance, especially in terms of price stability, during this critical period of global economic challenges and national financial uncertainty.

Finally, the study is further justified by its potential to expand the body of knowledge on the Nigerian economy and stock market. It will contribute quantitative data that supports economic and financial analysis, helping regulatory agencies and institutions fine-tune market mechanisms for improved outcomes.

1.7 SCOPE OF THE STUDY

This research is a study on the impact of stock market on the Nigerian economy. It utilizes empirical evidence derived from both the Nigerian Stock Exchange and the overall Nigerian economy. The selection of Nigeria as the focus of the study is based on the researcher's interest in the country's stock market and prevailing economic conditions. The research covers a Thirty-four (34) year period, spanning from 1990 to 2023. The choice of this timeframe was influenced by the availability of consistent data across the selected variables.

1.8 LIMITATIONS OF THE STUDY

This study is limited by the following factors; the study focuses only on Nigeria and cannot be generalized globally, the stock market may not fully reflect the overall productive capacity of the Nigerian economy, differences in reporting standards between data institutions and foreign stock markets' influence on Nigeria's market is not covered

1.9 STRUCTURE OF THE STUDY

This study consists of five Chapters.

Chapter One consists of introduction, statement of the problem, objectives of the study, research questions, research hypothesis, significance of the study, scope of the study, limitations of the study, and structure of the study.

Chapter Two encompasses the conceptual literature, theoretical literature and empirical literature reviews.

Chapter Three consists of the theoretical framework, model specification and the method of data analysis employed.

Chapter Four provides evidence on the analysis of result and data presentation. This chapter also covers policy implications of findings.

In Chapter Five, summary of findings, conclusion, and recommendation of the study are presented.

CHAPTER TWO

LITERATURE REVIEW

2.1 CONCEPTUAL LITERATURE REVIEW

The financial sector plays a crucial role as the engine and catalyst for advancing industry, enhancing access to finance, and developing an integrated infrastructure for the financial market (Sule and Momoh, 2009). This market serves as a platform for efficiently mobilizing and directing funds from savers to users. It operates through the interaction of entrepreneurs, individuals, institutions, and financial instruments. The goal is to strengthen the domestic financial market by building skills and expertise in financial services, creating a dynamic capital market, and enabling more Nigerians to generate wealth. Kolapo and Adaramola (2012) noted that the Nigerian Stock Exchange was expected to be instrumental during the share offering of affected companies. Furthermore, Ewah, Esang, and Bassey (2009) emphasized that understanding the capital market is essential to building a prosperous nation.

2.1.1 CAPITAL MARKET

The capital market has been described from various angles. Nwankwo (1998) defined it as a market that includes a variety of institutions and instruments through which long-term funds are structured, consisting of financial organizations, practices, processes, and infrastructure. This structure enhances Nigeria's capital output by boosting stock market returns in comparison to the primary market. Fresh capital is raised by businesses and government organizations through the issuance of securities that are taken up by existing investors. Sule and Momoh (2009) indicated

that the activities in the secondary market also cover the stock and bond markets. The capital market is divided into the primary market for new issues and the secondary market for existing securities. The primary market provides a means for businesses, governments, and individuals to access capital. AlFaki (2006) suggests that the capital market serves as a platform for connecting medium and long-term capital providers with users, while the secondary market allows for the buying and selling of existing securities for those seeking long-term capital for their commercial endeavors. It encompasses two broad categories: stock and developmental investment projects. From the researcher's perspective, the capital market is known for its long-term equity and debt instruments, where economic entities eager to invest their capital interact through financial intermediation.

2.1.2 STOCK MARKET

Stock markets facilitate the trading of securities like stocks, which represent ownership in companies. Stockholders may receive dividends based on the company's financial success. These markets, often organized as stock exchanges, offer trading services to brokers and traders. Besides stocks, other securities like government bonds and mortgage-backed securities are also traded. Many of these instruments promise a regular income stream determined by a formula over their lifespan and a return of the original investment at maturity. Governments and corporations are typical issuers of bonds. Stock prices may also increase, benefiting investors.

Stock exchanges provide trading services, including the issuance and redemption of securities, dividend payments, and other financial services. They are sometimes called securities exchanges

to reflect their broad function. The bond market involves trading long-term debt securities like treasury notes, bonds, and mortgage-backed securities.

Stock markets are crucial components of capital markets, enabling long-term financial intermediation. Well-developed stock markets can lead to lower equity costs for companies. Continuously adjusting stock prices incentivize companies to perform well financially. Investors can also efficiently price and manage risk. Furthermore, stock markets attract foreign investment, increasing available resources for national growth.

Some view stock markets as indicators of a country's economic health, reflecting investor sentiment (Tachiwou, 2010). They facilitate capital mobilization, improve resource allocation, and provide data for evaluation (Inanga and Emenuga, 1997; Nyong, 1997). As intricate organizations, stock markets channel long-term capital from key economic segments (Demirguc-Kunt and Levine, 1993). The notion that finance is crucial for growth is argued and supported by these academics. They help bring together individuals, businesses, and governments, ready to make diverse economic choices.

2.1.3 MONETARY POLICY

Monetary policy, as defined in the CBN's 2006 paper, encompasses the strategic doctrines crafted by the government, via the CBN, to oversee the volume, price, and distribution of credit. Essentially, it's the CBN's manipulation of the money supply and interest rates to manage inflation and stabilize the flow of money within an economy. A prior CBN definition (Series No. 97/03, June 1997) portrays monetary policy as the set of measures designed to govern the worth,

volume, and pace of money circulation within a system, aligning with the envisioned level of economic activity. This implies that excess liquidity fuels demand for goods and services, potentially triggering price increases and affecting the equilibrium of international payments. Monetary policy is a vital tool for achieving macroeconomic goals, notably stable prices, external financial equilibrium, and an appropriate economic expansion rate.

2.1.4 THE STRUCTURE OF NIGERIAN STOCK MARKET

Recent research indicates that stock market liquidity is a vital driver of long-term economic progress in developing nations (Jibril et al., 2015; Afolabi, 2015). Illiquid stock markets can impede long-term investments due to investor reluctance. Conversely, liquid markets empower investors to readily divest their holdings, enabling organizations to acquire equity capital on advantageous terms. By promoting sustainable, cost-effective investment ventures, these markets enhance capital allocation and bolster long-term economic expansion. Capital markets facilitate long-term lending to support industrial expansion and modernization, providing a venue for capital providers to easily restore liquidity. They mobilize capital and allocate financial resources among competing users, serving as catalysts for rapid economic development.

Established in 1960 as the Stock Exchange of Lagos, the Nigerian Stock Exchange (NSE) facilitates the buying and selling of stocks, government bonds, and debentures. Like other global exchanges, the NSE comprises primary and secondary markets. The primary market, or new issue market, is where initial capital is raised, enabling the government and entrepreneurs to secure long-term funding for development initiatives. This market segment significantly impacts

the national economy, as Nigerian industrialists and entrepreneurs might struggle to obtain long-term investment financing without a well-structured market. Consequently, mobilizing funds for productive, long-term economic uses would be considerably more challenging without the NSE.

The secondary market within the NSE enables the trading of existing instruments, offering investors the chance to restore liquidity and efficiently disperse risk while allowing capital recipients to maintain funds in their investment projects. These exchange activities consolidate savings from those willing and able to save and allocate them to those in need. This distribution role is crucial for shaping overall economic growth and organization in Nigeria, as delayed or restricted access to funds for productive economic units can hinder economic progress (Alile, 1996). Therefore, the NSE has become synonymous with the Nigerian capital market.

2.1.5 THE PERFORMANCE OF NIGERIA STOCK MARKET

Over time, the Nigerian Exchange's equity capitalization experienced consistent growth, escalating from ₦5.5 billion in 1981 to ₦9.2 billion in 1987. This early expansion was largely driven by government securities, which held ₦3.9 billion compared to ₦1.9 billion in 1981, and ₦4.2 billion compared to ₦4 billion in 1987. By 1995, equity capital had surged to ₦177.1 billion, overshadowing government stocks at ₦3.7 billion, marking the gradual dominance of private sector equities. This upward trajectory continued into the new millennium, culminating in a total market capitalization of ₦13,781.7 billion in 2007, largely attributed to the privatization of state-owned enterprises and the consolidation of the banking sector, which expanded listings and investor participation (CBN, 2015).

However, the global financial crisis of 2007–2008 disrupted this momentum, triggering massive sell-offs by foreign and institutional investors seeking safer assets. As a result, Nigeria's capital market suffered a severe contraction, with aggregate growth declining by nearly 80% in 2009. The aftermath was marked by persistent volatility and weak investor confidence. Market capitalization fell sharply by 29.8% in 2008, 23.6% in 2009, and fluctuated by 47% and 4% in 2010 and 2011, respectively. Similarly, annual returns shifted erratically from 19.3% to –91.4%, 18.7%, and –21.9% over the same period. The number of listed securities also varied between –2.9%, 17%, 0.9%, and –5.8%, reflecting unstable participation and investor sentiment (Okonkwo et al., 2014).

By contrast, the post-2012 period witnessed gradual recovery and structural reforms in the Nigerian capital market. Initiatives such as demutualization of the Nigerian Stock Exchange (now the Nigerian Exchange Group, NGX) and the adoption of new digital trading systems improved transparency, accessibility, and liquidity. Corporate reforms, renewed interest from foreign portfolio investors, and domestic pension funds helped restore activity. Despite short-term setbacks caused by oil price shocks and currency pressures, the NGX regained resilience, becoming one of Africa's most diversified exchanges by the late 2010s.

Moving into the 2020s, market performance reflected a blend of resilience and macroeconomic headwinds. The COVID-19 pandemic initially dampened investor activity in 2020, but the NGX rebounded strongly in 2021 and 2022, buoyed by renewed listings, rising crude oil prices, and monetary easing. By late 2023, market capitalization surpassed ₦62.76 trillion, representing

significant growth from the pre-pandemic era (PwC Nigeria, 2024). The equities market gained momentum through improved investor confidence, government reforms, and the entry of fintech and telecommunication giants such as MTN and Airtel into the exchange.

By November 2024, the Nigerian Exchange Group's total market capitalization had reached approximately ₦106.03 trillion, accounting for about 23.3% of Nigeria's nominal GDP (CEIC Data, 2024). The year 2024 closed with an All-Share Index (ASI) gain of 37.65%, reflecting strong investor optimism and renewed foreign inflows (NGX Group, 2024). The first half of 2024 alone recorded a 38% increase in total capitalization from ₦40.9 trillion in Q4 2023 to ₦56.6 trillion in Q2 2024 driven by new listings, mergers, and acquisitions (PwC Nigeria, 2024). This growth underscores the continuing deepening of Nigeria's equity market, signaling renewed investor trust despite inflationary and foreign exchange challenges.

Overall, Nigeria's capital market has transformed from a small, government-dominated exchange in the 1980s into one of Africa's leading financial hubs by 2024. The sustained expansion of market capitalization, coupled with technological innovation and regulatory modernization, has enhanced market depth and resilience. Nevertheless, persistent issues such as currency depreciation, high inflation, and political uncertainty continue to pose risks to long-term stability and investor confidence. Continuous policy reforms, fiscal discipline, and transparent governance remain essential to consolidating these gains and sustaining Nigeria's capital market growth trajectory.

2.1.6 STOCK MARKET CONTRIBUTIONS TO CAPITAL FORMATION IN NIGERIA

The stock market primarily functions as a conduit for raising capital, primarily through new stock offerings, thereby fueling capital formation. The Nigerian Stock Exchange (NSE) has facilitated federal government borrowing for infrastructure development since its inception, and state governments have been encouraged to leverage the market for long-term funding of similar projects, subjecting them to market discipline (Okonkwo, et al., 2014). Several states have already utilized the stock market to finance substantial developmental undertakings.

Furthermore, the liberalization of the foreign exchange market, interest rate deregulation, and dividend policies have elevated the Nigerian stock market's importance as a capital formation tool. Companies increasingly rely on the stock market to strengthen their financial positions and facilitate expansion, resulting in a surge of debenture stocks, rights issues, and public offerings. Recognizing the need to foster the growth of smaller enterprises, the NSE established the Second Tier Securities Market in 1985. This initiative aims to empower small and medium-sized businesses by providing them with access to capital and less stringent listing requirements, thus supporting their expansion and contribution to national capital formation and employment reduction (Okonkwo, et al., 2014).

2.2 THEORETICAL LITERATURE

2.2.1 Endogenous Growth Theory

This research employs endogenous growth theory, a framework that arose as a counterpoint to the Solow-Swan neoclassical growth model, which attributes long-term economic expansion to

external technological advancement. Endogenous growth theorists, prominent figures including Romer (1986) and Lucas (1988), argue that economic expansion stems from internal factors like investments in human capital, advancements in innovation, and the diffusion of knowledge. This perspective is leveraged to demonstrate the interrelationship between the stock market and economic growth. Specifically, the study suggests that the Nigerian Stock Exchange contributes to capital accumulation and fosters investment in human capital, innovation, and infrastructure, ultimately stimulating sustainable economic development (Romer, 1986; Lucas, 1988).

2.2.2 Theory of Financial Liberalization

The Theory of Financial Liberalization, originating with Patrick (1966), explores the relationship between financial development and economic growth. It posits two approaches: demand-following, where financial institutions evolve in response to economic development, and supply-leading, where the expansion of financial institutions drives economic growth (Arestis, 2005). Shaw (1973) and McKinnon (1973) supported this theory, arguing that financial deregulation stimulates growth by allowing interest rates to reach market equilibrium, thus allocating resources more effectively.

Arestis (2005) emphasizes the historical significance of the financial sector's role in economic growth, supported by considerable empirical evidence. Current debate centers on understanding how financial markets connect with the real economy. Pagano (1993, as cited in Bekaert, et al., 1995) identifies three key channels: financial markets increase savings channeled into investments, transform savings rates to influence investment, and enhance capital allocation

efficiency. Bekaert and Harvey (1997) suggest that capital allocation efficiency is a crucial intermediary between the financial market and economic activity. In the present context, the stock market, as a financial institution in Nigeria, has the potential to foster economic expansion through advancements in investment portfolios and overall improvement.

2.2.3 Market Based Asset Allocation Theory

Markowitz's (1952, 1959) Market Based Asset Allocation Theory emphasizes the importance of constructing efficient investment portfolios that balance risk and reward. This theory, which revolutionized finance and laid the groundwork for modern capital market theory, focuses on optimal portfolio selection based on individual risk tolerance and anticipated returns.

The Markowitz model suggests that finance professionals should construct portfolios based on forecasted risk, return, and the interconnectedness of asset returns. Optimal portfolios reside on an "efficient frontier," representing the risk-return tradeoff. This frontier maximizes expected return for a given risk level. Portfolio diversification, a key element of this theory, inherently involves risk-taking.

As Steinbach (2001) noted, portfolio selection depends on investor expectations, expressed as probabilities of asset return distributions. These distributions rely on market analyst assessments and statistical projections from historical data. Portfolio return is calculated as the sum of individual asset returns, while portfolio risk is assessed via variance, derived from asset return covariances (Santos & Haines, 2004).

2.3 EMPIRICAL REVIEW OF LITERATURE

Akinbola (2024) examined the impact of capital market on Nigeria's economic growth, focusing on how market capitalization, transaction value, and the All-Share Index affect real GDP from 1981 to 2019. Using the Ordinary Least Squares (OLS) method on time series data spanning 39 years across Nigeria, the study found that 97.9% of variations in real GDP were explained by capital market indicators, all significant at the 5% level (Olawale, 2024). The author recommended strengthening capital market policies to boost economic growth.

Bamishe and Owolabi (2024) investigated the relationship between capital market development and economic growth in Nigeria for the period 2003–2022 using multiple regression analysis on Nigerian data covering 20 years. The study revealed a positive correlation between capital market development and economic growth but noted a negligible overall impact (Olusegun & Ajao, 2024). It recommended improved regulatory adaptability, greater investor participation, and government investment in infrastructure to deepen market effectiveness.

Chukwudi & Aliakhue (2024) studied stock market performance indicators and their effects on economic growth in Nigeria between 1986 and 2020. Applying the Vector Error Correction Model (VECM) to 35 years of Nigerian time series data, they discovered that market capitalization and trading volume positively influenced GDP, while other indicators had minimal impact (Chukwudi & Aliakhue, 2024). They recommended enhancing market efficiency and implementing investor-friendly policies to sustain growth.

Ekperechukwu (2024) explored the effects of stock market performance on Nigeria's real GDP from 2001 to 2022 using the Autoregressive Distributed Lag (ARDL) model on 22 years of Nigerian data. The study found significant positive effects of value traded, market capitalization, and the All-Share Index on GDP (Ekperechukwu, 2024). It recommended improving corporate governance and creating incentives for investors to encourage long-term participation.

Agbeyinka (2024) analyzed the macroeconomic determinants of capital market performance in Nigeria from 2001 to 2022 using linear regression analysis on 22 years of Nigerian economic data. Findings showed that business earnings positively affect market capitalization, while exchange rate fluctuations negatively impact performance (Agbeyinka, 2024). The study recommended policies to promote business growth and attract foreign direct investment.

Daudaa and Abdulkareem (2023) examined the impact of monetary policy on Nigeria's economic growth between 1990 and 2020 using the Augmented Dickey-Fuller (ADF) and ARDL Bounds Test on 31 years of Nigerian time series data. Their findings showed that monetary policy significantly influences growth, with the Monetary Policy Rate (MPR) and money growth rate having strong impacts (Daudaa & Abdulkareem, 2023). The study recommended strengthening monetary policy implementation to foster economic expansion.

Amoo (2023) investigated the effect of the capital market on economic growth in Nigeria between 2000 and 2020 using the ARDL technique on 21 years of Nigerian data. The results revealed a negative impact of the market capitalization ratio on GDP but a positive effect of the

exchange rate (Amoo, 2023). The author recommended adopting balanced strategies that sustain growth while stabilizing market performance.

Yakubu (2023) studied capital market capitalization and Nigeria's economic growth from 1990 to 2021 using various econometric tests on 32 years of Nigerian time series data. The study found a significant positive relationship between market capitalization and GDP, with unidirectional causality running from market capitalization to economic growth (Yakubu, 2023). It recommended strengthening financial system policies to enhance capital market development.

Ovat et al. (2022) assessed the impact of the Monetary Policy Rate on Nigeria's economic growth from 2006 to 2020 using a simultaneous equation model on 15 years of Nigerian data. The findings revealed that MPR had a negative and significant effect on growth, while inflation and exchange rate also played key roles (Ovat et al., 2022). The study recommended adopting a suitable MPR that promotes investment and sustainable growth.

Idris (2021) analyzed the effects of unemployment and inflation on Nigeria's growth from 1986 to 2020 using OLS regression on 35 years of Nigerian time series data. The results showed that unemployment negatively affects growth, while inflation exerts a positive influence (Idris, 2021). The study recommended encouraging self-employment, entrepreneurship, and reducing business costs to improve economic performance. Ezenduka and Joseph (2020) investigated stock market performance and Nigeria's economic growth between 1985 and 2018 using statistical and econometric tests on 34 years of Nigerian data. They found that market capitalization had a strong relationship with growth, while the All-Share Index was less influential (Ezenduka &

Joseph, 2020). The authors recommended increasing stock trading activities and strengthening monetary policy to enhance market effectiveness.

Anulika (2017) explored the relationship between the Nigerian Stock Exchange and economic growth from 1981 to 2011 using OLS and other econometric methods on 31 years of Nigerian time series data. The study found evidence of a long-run relationship, though only a few predictors significantly influenced GDP (Anulika, 2017). It recommended stabilizing the macroeconomic environment to boost investor confidence.

Omoruyi and Osaretin (2015) examined stock market development and Nigeria's economic growth from 1980 to 2011 using time series techniques on 32 years of Nigerian data. Findings revealed that turnover ratio significantly drives growth and there is evidence of causality between stock market development and growth (Omoruyi & Osaretin, 2015). The authors recommended strengthening market regulation and improving infrastructure to support investment.

Adigwe et al. (2015) studied stock market development and economic growth in Nigeria covering 1985–2014 using OLS regression on 30 years of Nigerian time series data. The study found that stock market development had limited but potential impact on economic growth (Adigwe et al., 2015). It recommended encouraging more investors and improving trade settlement systems for better market efficiency.

Okonkwo et al. (2014) evaluated Nigerian stock market performance and its contribution to the economy from 1981 to 2012 using statistical and econometric techniques on 32 years of Nigerian

data. Findings indicated that stock market performance significantly influences economic growth (Okonkwo et al., 2014). The authors recommended creating a conducive investment climate and enhancing investor confidence.

Akpan (2013) analyzed stock market capitalization and Nigeria's economic performance from 1988 to 2008 using multiple regression analysis on 21 years of Nigerian time series data. The results revealed a strong relationship between market capitalization and growth, particularly after the introduction of equity stocks (Akpan, 2013). The study recommended government initiatives to stimulate stock market activities.

Eze and Nwankwo (2013) examined capital market instability and Nigeria's economic growth between 1990 and 2011 using co-integration analysis on 22 years of Nigerian data. The findings showed significant effects of capital market reforms on economic growth (Eze & Nwankwo, 2013). The authors recommended policies that enhance the stability and contribution of the capital market to the economy.

Ogbo and Oladipo (2012) studied the stock market–economic growth nexus in Nigeria from 1981 to 2008 using the Error Correction Mechanism (ECM) on 28 years of Nigerian time series data. The study found unidirectional causality from economic growth to stock market performance (Ogbo & Oladipo, 2012). It recommended addressing structural bottlenecks and strengthening regulatory frameworks to improve market functioning.

Osamwonyi and Evbayiro-Osagie (2012) analyzed the relationship between macroeconomic variables and the stock market index in Nigeria for the period 1975–2005 using the Vector Error

Correction Model (VECM) on 31 years of Nigerian data. Findings indicated that macroeconomic factors significantly affect the stock market (Osamwonyi & Evbayiro-Osagie, 2012). The study recommended implementing sound economic policies to stabilize the stock market and enhance growth.

Abiodun and Elisha (2012) examined causality among stock prices, market operations, and Nigeria's economic growth from 1980 to 2010 using the Error Correction Model (ECM) on 31 years of Nigerian time series data. The results showed that stock prices adjust quickly to economic variables (Abiodun & Elisha, 2012). The authors recommended continuous monitoring of stock prices to mitigate volatility and ensure market stability.

CHAPTER THREE

THEORETICAL FRAMEWORK AND MODEL SPECIFICATION

3.1 THEORETICAL FRAMEWORK

Two important theories explain this study. These are financial liberalization theory and market based asset allocation theory. They are discussed below:

3.1.1 Theory of Financial Liberalization

The theory of financial liberalization, initially proposed by Patrick (1966), posits a connection between the expansion of the financial sector and overall economic progress. This theory outlines two principal approaches: demand-following and supply-leading. The demand-following approach suggests that the evolution of financial institutions is a consequence of economic development, while the supply-leading approach argues that the proliferation of financial institutions drives economic growth (Arestis, 2005), Shaw (1973) and McKinnon (1973) reinforced this theory, asserting that financial deregulation can positively influence economic growth by allowing interest rates to gravitate towards competitive market equilibriam, thereby enhancing resource allocation efficiency, Arestis (2005) highlights the increasing importance of the relationship between financial sector development and economic growth throughout modern economic history. Numerous empirical studies have furnished substantial evidence indicating a positive correlation between financial markets and economic expansion. However, the current debate centers on identifying the specific mechanisms through which financial markets interact with the real economy. Pagano (1993, as cited in Bekaert, et al., 1995), identified three primary

channels through which financial institutions and economic growth are interconnected. Firstly, well-functioning financial markets augment the proportion of savings directed towards investments. Secondly, the financial market influences investment by altering the savings rate. Finally, financial markets enhance the efficiency of capital allocation. Several studies suggest that the latter two channels, namely the impact on investment through savings rates and efficient capital allocation, are the most critical ways in which financial markets affect the real economy (Bekaert & Harvey, 1997). The significance of this theory to the current study lies in the recognition of the Nigerian stock market as a financial institution whose expansion in investment portfolios and overall development can contribute to the nation's economic advancement.

3.1.2 Market Based Asset Allocation Theory

The Market Based Asset Allocation Theory, developed by Markowitz (1952, 1959), underscores the need for efficient allocation of investment portfolios based on a given level of risk and expected return. This theory, which focuses on portfolio selection, catalyzed the rise of modern finance theory and provided the foundation for capital market theory. Contemporary portfolio theory elucidates the construction and selection of asset portfolios based on an investor's risk tolerance, the projected returns on investments, and personal risk preferences. The normative implication of the Markowitz model suggests that portfolios should be constructed by financial professionals based on anticipated risk and return, as well as the covariance of returns among different asset pairs. Portfolios are selected from those lying on an efficient frontier, which represents the optimal tradeoff between risk and return. The frontier is considered efficient

because the resulting portfolio offers the highest expected return for a given level of risk. This theory is relevant to the current work as investment portfolio diversification inherently involves taking on risk. Steinbach (2001) posits that portfolio selection necessitates that investors make assumptions regarding their expectations, which are reflected in the probability distributions of asset returns. These probability distributions rely on market analyst judgments and statistical projections derived from historical data. The expected return on a portfolio is calculated as the sum of the anticipated returns on individual assets. Risk is measured as the portfolio variance, which is derived from the covariance of asset returns (Santos & Haines, 2004).

3.2 MODEL SPECIFICATION

A model is utilized to show the relationship which exists between the Nigerian stock exchange and economic growth in Nigeria, the variables used in the model are: gross domestic product growth rate as the dependent variable or regressed while the regressor or explanatory are market capitalization as a proxy for stock market performance, all-share index as a proxy for stock market value index, monetary policy rate, inflation rate.

The mathematical form of the model is given as,

GDPPP = f(MC, CR, MPR, INF, GFCF, AS)…… (1)

The econometric form of the model is specified as

Baseline model

$GDPPP_t = b_0 + b_1MC_t + b_2CR_t + b_3MPR_t + b_4INF_t + U_t$.....(2)

Robustness check for the baseline model

$GDPPP_t = b_0 + b_1GFCF_t + b_2AS_t + b_3PR_t + b_4CR_t + U_t$.....(3)

Where;

$GDPPP_t$ = Gross Domestic Product Growth Rate

MC = Market Capitalization

CR = Civil Right

MPR = Monetary Policy Rate

INF = Inflation Rate

GFCF = Gross Fixed Capital Formation

AS = All Share Index

PR = Political Right

U = error term

b_0 constant term/intercept of the regression line

b_1, b_2, b_3, b_4, b_5, b, are Coefficients that measure the impact of each independent variable on dependent variable of the model.

A priori Expectation

Based on economic theory, the anticipated relationship between the independent variables and GDP growth rate are as follows,

$b_0>0$, $b_1 > 0$, $b_2> 0$, $b_3<0$, $b_4<0$.

The ARDL model specification of equation 3 and 4 is given as;

.$\ln \mathrm{GDPG}_t$

$$\beta^0 + \sum_{i=1}^{p} \beta_1 \ln \mathrm{GDPPP}_{t-1} + \sum_{i=1}^{q} \beta_2 \ln \mathrm{MC}_{t-1} + \sum_{i=1}^{r} \beta_3 \ln \mathrm{CR}_{t-1} + \sum_{i=1}^{s} \beta_4 \ \mathrm{MPR}_{t-1} + \sum_{i=1}^{t} \beta_5 \ln \mathrm{INF}_{t-1} + \ \delta_1 \ln \mathrm{GDPG}_{t-1} + \ \delta_2 \ \ln \mathrm{MC}_{t-1} + \delta_3 \ln \mathrm{CR}_{t-1} + \delta_4 \mathrm{MPR}_{t-1} + \delta_5 \ln \mathrm{INF}_{t-1} + \ \varepsilon_t \qquad (4)$$

$\ln \mathrm{GDPPP}_t$

$$\beta^0 + \sum_{i=1}^{p} \beta_1 \ln \ \mathrm{GDPPP}_{t-1} + \sum_{i=1}^{q} \beta_2 \ln \mathrm{GFCF}_{t-1} + \sum_{i=1}^{r} \beta_3 \ln \mathrm{AS}_{t-1} + \sum_{i=1}^{s} \beta_4 \ \ln \mathrm{PR}_{t-1} + \sum_{i=1}^{t} \beta_5 \ln \mathrm{CR}_{t-1} + \ \delta_1 \ln \mathrm{GDPG}_{t-1} + \ \delta_2 \ \ln \mathrm{GFCF}_{t-1} + \delta_3 \ln \mathrm{AS}_{t-1} + \delta_4 \ln \mathrm{PR}_{t-1} + \delta_5 \ln \mathrm{CR}_{t-1} + \ \varepsilon_t \qquad (5)$$

In the above equations, the β signifies short run relationship and δ represent the long run relationship.

To estimate the long-term impact and the short-term dynamics, the unrestricted Error Correction Model (ECM) will be used. Building equation (3) and (4) into an ECM model, we have;

$\Delta \ln \mathrm{GDPG}_t =$

$$\beta_0 + \sum_{i=1}^{p-1} \beta_1 \Delta \ln \mathrm{GDPPP}_{t-1} + \sum_{i=1}^{q-1} \beta_2 \Delta \ln \mathrm{MC}_{t-1} + \sum_{i=1}^{r-1} \beta_3 \Delta \ln \mathrm{CR}_{t-1} + \sum_{i=1}^{s-1} \beta_4 \Delta \mathrm{MPR}_{t-1} + \sum_{i=1}^{t-1} \beta_5 \Delta \ln \mathrm{INF}_{t-1} + \oslash ECT_{t-1} \quad (6)$$

$\Delta \ln \mathrm{GDPG}_t =$

$$\beta_0 + \sum_{i=1}^{p-1} \beta_1 \Delta \ln \mathrm{GDPPP}_{t-1} + \sum_{i=1}^{q-1} \beta_2 \Delta \ln \mathrm{GFCF}_{t-1} + \sum_{i=1}^{r-1} \beta_3 \Delta \ln \mathrm{AS}_{t-1} + \sum_{i=1}^{s-1} \beta_4 \Delta \ln \mathrm{PR}_{t-1} + \sum_{i=1}^{t-1} \beta_5 \Delta \ln \mathrm{CR}_{t-1} + \frac{}{ECT_{t-1}} \quad (7)$$

The ECT_{t_1} measures how quickly agents correct prediction errors from the previous period. The variables $\Delta \mathrm{InGDPPP}_t$, $\Delta \mathrm{InMC}_t$, $\Delta \mathrm{InCR}_t$, $\Delta \mathrm{MPR}_t$, $\Delta \mathrm{InINFL}_t$, $\Delta \mathrm{InGFCF}_t$, $\Delta \mathrm{InAS}_t$, $\Delta \mathrm{InPR}_t$, and $\Delta \mathrm{InCR}_t$, represent the changes in the variables over the lagged time period.

3.3 Estimation Techniques

Prior to the model estimation, we conduct unit root test to ascertain the stationarity. At this first stage, we verify the sequence of integration within each series and determine whether or not they are stationary. Researchers have devised a plethora of techniques for ensuring the right order of integration. Dickey (1979) and Fuller (1983) created the Augmented Dickey-Fuller (ADF) test, which is currently the gold standard (1981). The augmented Dickey-Fuller test is predicated on rejecting the unit root null hypothesis (that the series are not stable) in favour of the alternative hypothesis of no unit root (the series are stationary). Each series is analysed in both the presence and absence of a deterministic trend (t). To be stated to have a unit root, y(t) must have a non-

stationary first difference between y(t) and y(t-1). A series is said to be integrated of order I if it can become stationary with just one shift (1). A stationary I(2) series, which also needs two differences, follows the same pattern. If it's already at 0 (I(0)), there's no use in doing any additional differentiation.

The Co-Integration (ARDL Bound Test)

The second stage involves testing for co-integration. The theory of co-integration emerges as a natural extension of the analysis and testing for unit roots. Non-stationary time series variables are the focus of this methodology test. The theory of co-integration, as stated by Iyoha (2004), "explains how to analyse the inter-relationships between the long term trend in the variables that are differenced away in the Box-Jenkins technique." This statement is based on the work of Maddala (1992), who was referenced in that work. Co-integration assumes that the difference between two series that are trended but otherwise move closely together in the long run is constant. If there is a long-term correlation between two variables, we say that they are co-integrated. In the absence of co-integration, the two variables in question are free to deviate from each other indefinitely (Dickey et.al., 1991). The results of co-integration experiments reveal situations in which two or more non-stationary time series are combined in such a way that, they are unable to depart from equilibrium over the long run. For this research, the Autoregressive Distributed Lag Model Bound Test for co-integration is used for this study

Autoregressive Distributed Lag Model (ARDL)

Autoregressive Distributed Lag Model was the econometric method of choice for this study. However, in order to avoid issues that may develop when performing our analysis with clearly non-stationary series, which leads to erroneous results, this study applied the Augmented Dickey Fuller (ADF) test for unit root to determine if the data series has a unit root. To analyse the variables' long-term connection, the Autoregressive Distributed Lag Model Bound Test for co-integration was also performed. However, we will elaborate on the procedures that were employed in this study.

3.4 Sources of Data

The data employed in this study were entirely obtained from secondary sources covering the period 1990 to 2023. Specifically, GDP, Monetary policy rate, inflation, Gross fixed capital formation, All share share index and Market capitalization were sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin. Furthermore, key macroeconomic indicators such as, political right and civil right were obtained from the World Bank's World Development Indicators (WDI) database.

CHAPTER FOUR

PRESENTATION OF DATA AND INTERPRETATION OF RESULTS

4.1 DESCRIPTIVE STATISTICS

The summary statistics of all the series employed in this study are presented and discussed below. These preliminary insights are crucial before embarking on advanced econometric modeling, as they highlight potential issues such as extreme values, skewness, and kurtosis, which can influence model assumptions and interpretation. Table 4.1 presents the descriptive statistics of both the dependent and independent variables in their raw form. The data spans annually from 1990 to 2023.

Table 4.1 DESCRIPTIVE STATISTICS

	GDPPP	AS	MC	MPRRR	INFLL	GFCF	PR	CR
Mean	1.579	23204.60	12492.89	18.604	16.495	8815.111	0.767	0.603412
Median	1.502	23965.15	6075.870	17.690	10.307	8533.265	0.845	0.641000
Maximum	12.210	74773.77	75202.90	31.650	75.402	11445.86	0.877	0.671000
Minimum	-4.597	513.800	16.300	11.483	0.686	6860.440	0.469	0.455000
Std. Dev.	3.701	18066.67	17235.98	4.019	15.279	1328.769	0.152	0.073533
Skewness	0.500	0.736	1.951	1.034	2.167	0.364	-1.088	-1.111395
Kurtosis	3.637	3.310	6.833	4.795	8.032	1.900	2.283	2.379655
Jarque-Bera	1.990	3.206	42.374	10.617	62.490	2.475	7.440	7.544628
Probability	0.370	0.201	0.000	0.005	0.000	0.290	0.024	0.022999
Sum	53.681	788956.5	424758.2	632.547	560.820	299713.8	26.078	20.51600
Sum Sq. Dev.	452.072	1.08E+10	9.80E+09	532.982	7703.297	583	0.766	0.178436
Observations	34	34	34	34	34	34	34	34

Source: Researcher's computation using E-views 10

The descriptive analysis reveals important insights into how key economic and stock market variables have behaved in Nigeria over the study period. The mean value of Gross Domestic Product (GDPPP) at 1.579% indicates that, on average, the Nigerian economy experienced modest growth, though with considerable fluctuations ranging between –4.597% and 12.210%. The standard deviation of 3.701% shows moderate instability in economic performance, suggesting that growth was occasionally disrupted by external shocks and domestic policy inconsistencies. The positive skewness (0.500) implies that periods of higher growth were more common than recessions, showing that the economy generally trended upward despite volatility.

The All Share Index (AS), with a mean of ₦23,204.60, ranged widely from ₦513.80 to ₦74,773.77, reflecting strong variability in stock market performance. The high standard deviation of ₦18,066.67 confirms that the Nigerian stock market experienced significant fluctuations during the period. Its positive skewness (0.736) suggests that the market tended to record more high-value years than declines, indicating periods of bullish activity driven by reforms, investor confidence, and economic recovery episodes.

Market Capitalization (MC) recorded a mean value of ₦12,492.89 billion, with a minimum of ₦16.30 billion and a maximum of ₦75,202.90 billion, representing a remarkable expansion in the size of the Nigerian capital market over time. The high standard deviation (₦17,235.98) and strong positive skewness (1.951) point to significant growth in a few years, highlighting increased participation of firms and investors in the stock market. This steady rise in market

capitalization suggests that the Nigerian stock market plays an increasingly important role in mobilizing funds and supporting productive investment, which, in turn, enhances GDP growth.

The Monetary Policy Rate (MPRRR) averaged 18.604%, with moderate variation (standard deviation of 4.019%). The right-skewed distribution (1.034) indicates that the Central Bank often maintained higher interest rates during the study period. This tendency to tighten monetary policy could constrain credit availability and discourage both consumption and investment, thereby exerting a dampening effect on stock market performance and overall economic growth.

Inflation (INFLL) averaged 16.495%, with a minimum of 0.686% and a maximum of 75.402%, demonstrating a highly volatile price environment. The high standard deviation (15.279) and strong positive skewness (2.167) suggest that inflation spikes were frequent, possibly due to cost-push factors and exchange rate instability. Persistent inflation reduces investors' real returns, discourages long-term investment, and weakens stock market efficiency, thereby negatively influencing GDP growth.

Gross Fixed Capital Formation (GFCF) recorded an average value of ₦8,815.111 billion, showing a relatively stable trend with low variation (₦1,328.769). This suggests that productive investment in the Nigerian economy remained fairly consistent throughout the period. Such steady investment behavior contributes positively to economic growth and complements stock market development, as firms use both retained earnings and capital market instruments to finance expansion.

Political Rights (PR) had a mean value of 0.767, ranging from 0.469 to 0.877, with a negative skewness (–1.088), implying gradual improvement in governance and political freedom during the period. Better political rights and democratic stability create a favorable environment for both domestic and foreign investors, which enhances stock market confidence and fosters sustainable economic growth.

4.2 UNIT ROOT TEST RESULTS

This study employs the Augmented Dickey-Fuller (ADF) test was executed considering both constant and trend; at their level and first difference at a 5 percent critical level. The Null hypothesis for both tests is that a unit root is present (non-stationarity). Rejection of the null hypothesis implies stationarity. Table 4.2 summarizes the results of the unit root tests at levels and at first difference for the log-transformed variables

TABLE 4.2 AUGMENTED DICKEY-FULLER TEST (ADF)

AT LEVELS			AT FIRST DIFFERENCE		
VARIABLE	**ADF TEST**	**5% CRITICAL VALUE**	**ADF TEST**	**5% CRITICAL VALUE**	**ORDER OF INTEGRATION**
INGDPG	-3.867	-2.954	-	-	I(0)
INAS	-0.353	-2.954	-5.243	-2.957	I(1)
INMC	-2.025	-2.954	-4.471	-2.957	I(1)
MPRR	-2.093	-2.954	-6.556	-2.957	I(1)
ININFLL	-3.614	-2.954	-	-	I(0)
INGFCF	-0.553	-2.960	-10.398	-2.960	I(1)
INPR	-1.468	-2.954	-4.013	-2.957	I(1)
INCR	-1.295	-2.954	-3.570	-2.957	I(1)

Source: Researcher's computation using E-views 10

The Augmented Dickey-Fuller (ADF) test was conducted to determine the stationarity of the variables used in the study on "The Impact of Stock Market on the Nigerian Economy." The results show mixed orders of integration across variables, indicating that some variables became stationary at level while others were stationary only after first differencing .At level, the ADF statistic for Gross Domestic Product (GDPPP) is –3.867, which is more negative than the 5% critical value of –2.954. This means GDPPP is stationary at level, i.e., integrated of order zero, I(0). Thus, GDP does not have a unit root and fluctuates around a constant mean over time.

Similarly, the ADF statistic for Inflation (ININFLL) is –3.614, which is also more negative than the 5% critical value of –2.954. This implies that ININFLL is stationary at level, meaning that inflation is stable over time and its variations tend to revert to equilibrium after short-term disturbances.

For other variables such as the All Share Index (INAS), Market Capitalization (INMC), Gross Fixed Capital Formation (INGFCF), Monetary Policy Rate (INMPRR), Political Rights (INPR), and Civil Rights (INCR), their ADF values at level are less negative than their corresponding 5% critical values. This implies that they are non-stationary at level, meaning their means and variances are not constant over time.

However, when the test was conducted at first difference, all these variables (INAS, INMC, INGFCF, INMPRR, INPR, and INCR) became stationary because their ADF test statistics exceeded the 5% critical values. For instance, INAS (–5.243), INMC (–4.471), and INMPRR (–6.556) are all more negative than the critical value of –2.957, confirming that they are stationary after first differencing, i.e., integrated of order one, I(1). Similarly, the institutional variables INPR (–4.013) and INCR (–3.570) also became stationary at first difference since their ADF values are greater in absolute terms than their 5% critical values (–2.957).

Only GDPPP and ININFLL are stationary at level, while INAS, INMC, INGFCF, INMPRR, INPR, and INCR are stationary at first difference. This mix of integration orders justifies the adoption of the Autoregressive Distributed Lag (ARDL) model, as suggested by Pesaran et al.

(2001), since the ARDL technique can accommodate both stationary and first-differenced variables in the same model.

4.3 COINTEGRATION TEST RESULTS

The co-integration test is perform to determine if a long-run equilibrium relationship exists among the non-stationary, log-transformed variables. Given the mixed order of integration identified in the unit root tests were some variables are I(0) and others are I(1), the Augmented Distributed Lag(ARDL) Bounds Testing approach developed by Pesaran et al. 2001 was deemed the most appropriate methodology

TABLE 4.3 ARDL BOUND TEST (GDPG BASELINE)

F-Bounds Test		**Null Hypothesis: No levels Relationship**		
Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	3.801	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.50%	2.88	3.87
		1%	3.29	4.37

Source: Researcher's computation using E-views 10

The ARDL Bounds Test was conducted to examine whether a long-run relationship (cointegration) exists among the variables in the first model of the study titled "Impact of Stock Market on the Nigerian Economy."

The computed F-statistic is 3.801, while the critical value bounds at the 5% significance level are 3.49 for the upper bound (I(1)) and 2.56 for the lower bound (I(0)), with K = 4 (indicating four explanatory variables in the model).

Since the calculated F-statistic (3.801) is greater than the upper bound value (3.49), the null hypothesis of no long-run relationship among the variables is rejected.

This result implies that there is a statistically significant long-run relationship between economic growth (GDP) and the explanatory variables (INMC, INCR, MPR, INFL) in the Nigerian economy

TABLE 4.4 ARDL BOUND TEST (GDPG ROBUSTNESS)

F-Bounds Test		**Null Hypothesis: No levels relationship**		
Test Statistic	**Value**	**Significance**	**I(0)**	**I(1)**
F-statistic	7.398	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.50%	2.88	3.87
		1%	3.29	4.37

Source: Researcher's computation using E-views 10

The ARDL Bounds test for the second model was carried out to determine whether a long-run equilibrium relationship exists among the variables under study. The computed F-statistic is 7.398, while the critical value bounds at the 5% significance level are 2.56 (lower bound, I(0)) and 3.49 (upper bound, I(1)), with K = 4 explanatory variables.

Since the calculated F-statistic (7.398) is greater than the upper bound value (3.49), the null hypothesis of no long-run relationship is rejected.

This indicates that a significant long-run relationship exists among the variables in the second model (robustness)

4.4 ARDL LONG RUN ESTIMATION (GDPPP BASELINE)

The long-run equilibrium relationship describes the sustained impact of percentage changes in macroeconomic variables on percentage changes in the GDPPP and the GDPPP Robustness output

TABLE 4.5 LONGRUN (GDPPP BASELINE)

Levels Equation				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INMC	-3.372	1.0714	-3.147	0.006
INCR	46.366	10.102	4.590	0.000
INMPRR	-11.110	7.752	-1.433	0.172
ININFLL	-3.166	1.009	-3.139	0.007
C	90.757	35.716	2.541	0.023

Source: Researcher's computation using E-views 10

The long-run result shows that stock market development, represented by the market capitalization (INMC), exerts a positive and statistically significant effect on economic growth in Nigeria. The long-run ARDL estimates reveal how stock market development and key macroeconomic indicators influence Nigeria's economic performance. The coefficient of -3.372 with a probability value of 0.006 implies that a 1% increase in market capitalization leads to

approximately a 3.37% decline in GDP in the long run. This suggests that the Nigerian stock market has not effectively channeled financial resources into productive investment. This pattern is often observed in developing economies with shallow markets, speculative tendencies, and weak regulatory frameworks. This finding aligns with the position of Arestis, Demetriades and Luintel (2001), who argue that stock market development may not always stimulate growth in economies with weak financial institutions and limited market depth. Civil rights (INCR) exert a positive and statistically significant long-run effect on economic growth, with a coefficient of 46.366 and a probability value of 0.000. This means that a 1% improvement in civil rights increases GDP by about 46.37% in the long run. This highlights the importance of strong institutional structures in enhancing investor confidence and promoting productive economic activities. Strong civil liberties reduce uncertainty, improve governance, and strengthen the investment climate. This supports the institutional-growth argument advanced by Acemoglu, Johnson, and Robinson (2005), who maintain that institutional quality is a primary determinant of long-run economic performance.

The monetary policy rate (INMPRR) shows a negative but statistically insignificant long-run relationship with economic growth. With a coefficient of -11.110 and a probability value of 0.172, the result suggests that interest rate adjustments have not effectively influenced long-run economic performance in Nigeria. This inefficiency may reflect weak monetary transmission channels and structural rigidities that limit the responsiveness of investment to monetary policy.

This is consistent with the findings of Mishkin (2004), who observed that monetary policy has limited long-run impact in economies with distorted financial structures.

Inflation (ININFLL) is negative and statistically significant in the long run, with a coefficient of -3.166 and a probability value of 0.007. A 1% increase in inflation reduces GDP by about 3.17%, indicating that inflationary pressure undermines long-run economic performance. This supports the classical argument that persistent inflation distorts price signals, discourages investment, and hampers economic stability. This finding is in line with Barro (1995), who established that inflation has a negative effect on long-run economic growth, particularly in developing economies. The constant term (C), which is significant and positive at 90.757 with a probability of 0.023, indicates that even without variations in the explanatory variables, the Nigerian economy possesses some inherent growth potential, possibly driven by structural and demographic advantages.

The long-run findings reveal that institutional quality (civil rights) plays a growth-enhancing role, whereas market capitalization, inflation, and monetary policy rate do not support long-run economic growth in Nigeria. This reinforces the notion that improving institutional structures and strengthening macroeconomic stability are critical for leveraging the stock market as a growth engine. The results are broadly consistent with previous empirical studies such as Arestis et al. (2001) and Barro (1995), which emphasize the significance of institutional and macroeconomic conditions in shaping long-run growth outcomes.

4.5 ARDL SHORT RUN (GDPPP BASELINE)

TABLE 4.6 SHORTRUN (GDPPP OUTPUT)

ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDPPP(-1))	0.499	0.191	2.614	0.020
D(GDPPP(-2))	0.400	0.122	3.284	0.005
D(INMC)	0.106	1.304	0.081	0.936
D(INMC(-1))	7.486	1.468	5.100	0.000
D(INCR)	-3.311	10.666	-0.310	0.761
D(INCR(-1))	-19.656	13.168	-1.493	0.156
D(INCR(-2))	-49.252	13.521	-3.643	0.002
D(INMPRR)	1.728	3.972	0.435	0.670
D(INMPRR(-1))	0.269	3.245	0.083	0.935
D(ININFLL)	-1.826	0.632	-2.891	0.011
CointEq(-1)*	-1.333	0.242	-5.514	0.000

Source: Researcher's computation using E-views 10

The short-run result as presented in the ECM regression captures the immediate adjustments of economic growth (GDPPP) to changes in stock market development, institutional quality, monetary policy, and inflation in Nigeria. The coefficient of the first lag of GDP growth, D(GDPPP(–1)), is positive (0.499) and statistically significant (p = 0.020), indicating that previous economic growth stimulates current growth in the short run. This suggests that short-run economic performance exhibits momentum, where past increases in output translate into continued short-run expansion. Similarly, the second lag, D(GDPPP(–2)), is also positive (0.400) and highly significant (p = 0.005), reinforcing the notion that short-run output dynamics in Nigeria are strongly influenced by past growth conditions. Such growth persistence is consistent

with Pesaran, Shin, and Smith (2001), who noted that significant lags of the dependent variable indicate short-run propagation effects in ARDL models.

The coefficient of D(INMC), representing contemporaneous changes in market capitalization, is insignificant in the short run, with a value of 0.106 and a probability of 0.936, indicating that immediate stock market fluctuations do not affect growth within the same period. However, the lagged component D(INMC(–1)) is positive and strongly significant, with a coefficient of 7.486 and a p-value of 0.000, showing that increases in market capitalization in the previous period stimulate short-run GDP growth by approximately 7.49%. This underscores the delayed but powerful impact of stock market performance, as capital mobilization, investment flows, and wealth effects require time to influence real output. This finding aligns with Levine and Zervos (1998), who emphasized that stock market development influences growth more effectively with a lag as financial resources are absorbed into productive sectors. Civil rights, represented by D(INCR), exhibit a negative but insignificant coefficient (–3.311; p = 0.761), indicating that short-term fluctuations in civil liberties do not have an immediate impact on economic growth. The first lag, D(INCR(–1)), is also negative and insignificant (–19.657; p = 0.156), showing that institutions do not transmit rapidly into economic activity. However, the second lag, D(INCR(–2)), is negative and statistically significant with a coefficient of –49.252 and a probability of 0.002, meaning that institutional weaknesses or disruptions two periods earlier significantly reduce present economic growth. This delayed contractionary effect supports North (1990) and Acemoglu, Johnson, and Robinson (2005), who explained that weak institutional frameworks

undermine long-run investment confidence and gradually suppress productive activities. Monetary policy rate adjustments, captured by D(INMPRR) and D(INMPRR(–1)), are both insignificant, with coefficients of 1.728 (p = 0.670) and 0.267 (p = 0.935) respectively. This indicates that short-run changes in the policy rate do not exert a measurable effect on GDP growth. The result suggests the presence of weak monetary transmission mechanisms in Nigeria, where interest rate changes take longer to influence borrowing, investment, and aggregate demand. This observation is consistent with Adeleke and Obademi (2017), who found that monetary policy responses in Nigeria typically exhibit delayed and muted short-run effects due to structural and institutional rigidities.

Inflation, represented by D(ININFLL), has a negative and statistically significant coefficient (-1.826; p = 0.011), indicating that increases in inflation immediately reduce economic growth. This suggests that inflationary pressures in Nigeria quickly erode purchasing power and raise production costs, thereby constraining short-run output. This contractionary effect supports Barro (1995), who argued that even moderate inflation can hinder growth when price instability disrupts investment incentives and economic planning.

The error correction term, CointEq(–1), is negative (–1.333) and highly significant (p = 0.000), confirming the presence of a stable long-run equilibrium relationship among the variables. The magnitude of the coefficient indicates that the system corrects approximately 133% of disequilibrium in each period, suggesting rapid and strong adjustment toward long-run stability. Such a large adjustment speed reflects a highly responsive economic structure in which

deviations from equilibrium are quickly corrected. This outcome is consistent with Narayan and Smyth (2006), who noted that a negative and significant ECM term confirms convergence of short-run fluctuations to long-run equilibrium within ARDL frameworks.

The short-run dynamics indicate that stock market capitalization influences growth only with a lag, institutional weaknesses exert delayed negative effects, monetary policy remains ineffective in the short term, and inflation exerts immediate contractionary pressure. The stability of the adjustment process highlights the role of structural reforms and financial deepening in shaping Nigeria's economic trajectory. These findings align with earlier evidence from Levine and Zervos (1998) and Nwosa and Oseni (2011), who argued that financial and institutional developments initially produce modest short-run effects before strengthening their influence over time.

4.6 ARDL LONG RUN ESTIMATION(GDPPP ROBUSTNESS)

TABLE 4.7 LONGRUN (GDPPP ROBUSTNESS)

Levels Equation				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INGFCF	-26.900	5.434	-4.950	0.000
AS	0.000	6.93E	2.623	0.020
INPR	29.258	29.400	0.995	0.337
INCR	-43.363	55.374	-0.783	0.447
C	227.818	56.186	4.055	0.001

Source: Researcher's computation using E-views 10

In the long run, the ARDL estimation shows how capital formation, stock market activity, and institutional quality shape Nigeria's economic growth trajectory. Gross fixed capital formation (INGFCF) has a coefficient of −26.900 with a probability value of 0.000, indicating a negative and highly significant long-run effect on economic growth. This implies that a 1% increase in capital formation leads to a 26.90% decline in GDP in the long run. Such a counterintuitive outcome suggests that long-term investments in Nigeria may be inefficient, poorly allocated, or diverted into unproductive uses. This type of finding is consistent with Devarajan, Swaroop, and Zou (1996), who observed that in many developing countries, public investment can harm long-run growth when resources are poorly managed or misallocated. All-Share Index (AS) has a coefficient of 0.000 and a probability value of 0.020, indicating a positive and statistically significant long-run impact on economic growth. Although the coefficient is small, the positive and significant effect implies that increased stock market performance enhances long-run economic growth through improved liquidity, capital mobilization, and efficient allocation of financial resources. This finding is consistent with Levine and Zervos (1998), who demonstrated that stock market development stimulates long-run economic growth by enhancing investment productivity and resource allocation.

Political rights (INPR) show a positive coefficient of 29.258 but an insignificant probability value of 0.337. This implies that improvements in political freedoms do not exert a statistically measurable effect on long-run growth in Nigeria. While the positive sign suggests that political openness may support economic activity, its insignificance indicates that political reforms alone,

without robust enforcement, do not translate into long-run economic performance. This result aligns with Acemoglu and Robinson (2012), who emphasized that political institutions influence economic development only when reforms are credible, stable, and backed by strong governance. Civil rights (INCR) also exhibit a negative coefficient of −43.363 with an insignificant probability value of 0.447, showing that civil liberties do not exert a statistically significant long-run effect on economic growth. The negative sign may reflect the presence of weak civil institutions, poor enforcement of rights, or governance challenges that hinder productivity. However, the insignificance indicates that changes in civil rights do not statistically determine long-run economic outcomes within the period studied. This result is consistent with the argument by North (1990) that institutional reforms influence long-run performance only when they are stable, credible, and deeply rooted.

The long-run results reveal that stock market performance positively supports Nigeria's economic growth, institutional variables exert weak long-run effects, and capital formation negatively impacts growth due to structural inefficiencies. These findings are consistent with Devarajan et al. (1996), Levine and Zervos (1998), Acemoglu and Robinson (2012), and North (1990)

SHORT-RUN

ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INGFCF)	-12.737	3.641	-3.498	0.004
D(INGFCF(-1))	-2.700	4.596	-0.587	0.566
D(INGFCF(-2))	-15.824	4.099	-3.860	0.001
D(INGFCF(-3))	-11.233	3.427	-3.277	0.005
D(AS)	-1.41E	3.32E	-0.424	0.677
D(INPR)	-6.528	13.121	-0.498	0.626
D(INCR)	9.950	22.552	0.441	0.665
D(INCR(-1))	23.013	7.934	2.900	0.011
D(INCR(-2))	-14.992	8.813	-1.701	0.111
D(INCR(-3))	37.473	7.910	4.738	0.000
CointEq(-1)*	-0.8300	0.107	-7.762	0.000

Source: Researcher's computation using E-views 10

In the short run, the results reveal distinct effects for each of the explanatory variables on Nigeria's economic performance as captured by the ECM regression, where GDP growth responds to changes in gross fixed capital formation, stock market activity, political rights, and civil rights. Gross Fixed Capital Formation (ΔINGFCF) exhibits a negative and statistically significant short-run effect on economic growth, with a coefficient of −12.737 and a probability value of 0.004. This indicates that a 1% increase in capital formation leads to approximately a 12.7% decline in GDP within the same period. Although this appears counterintuitive, it suggests that in the Nigerian context, short-run increases in capital expenditure may not immediately translate into productive output due to structural issues such as project delays, inefficiency, or misallocation of investment funds. This short-run contractionary effect aligns with Bakari (2017),

who noted that in several developing economies, investment spending may initially exert negative effects before generating long-term productivity gains.

The lagged values of capital formation reinforce this dynamic, as ΔINGFCF(−2) and ΔINGFCF(−3) remain negative and statistically significant, with coefficients of −15.824 (p = 0.001) and −11.233 (p = 0.005), respectively. This further indicates that the negative effects of capital spending persist across multiple periods before normalizing, supporting the view that investment projects in developing countries often experience extended gestation periods before contributing positively to output, consistent with the position of Mankiw, Romer, and Weil (1992) on transitional dynamics in capital accumulation.

The All-Share Index (ΔAS) presents a negative but statistically insignificant short-run effect, with a coefficient of −1.41E and a probability value of 0.677. This implies that short-term fluctuations in stock market performance do not exert measurable effects on economic growth in Nigeria. The insignificance reflects structural weaknesses of the Nigerian stock market, including low liquidity, market volatility, and limited depth, which constrain its short-run influence on macroeconomic outcomes. This observation corresponds with the findings of Levine and Zervos (1998), who argued that in emerging markets with underdeveloped financial systems, stock market movements may have limited immediate macroeconomic impact.

Political Rights (ΔINPR) also display a negative and insignificant contemporaneous effect, with a coefficient of −6.528 and a probability of 0.626, suggesting that short-term variations in

political freedoms do not produce immediate changes in economic performance. Although the negative sign hints at the destabilizing effect of political uncertainty, the insignificance indicates that such institutional fluctuations may take time before influencing economic activity. This pattern is in line with Acemoglu and Robinson (2012), who highlighted that improvements in political institutions often require time before translating into measurable economic benefits.

Civil Rights (ΔINCR) show a mixed pattern in the short run. While the contemporaneous effect is positive but insignificant (coefficient = 9.950, p = 0.665), the first lag, ΔINCR(−1), is positive and statistically significant with a coefficient of 23.013 and a probability value of 0.011, indicating that improvements in civil liberties from previous periods boost current economic growth. This suggests that institutional reforms aimed at enhancing civil rights take time to materialize into productive economic outcomes. Similarly, the third lag, ΔINCR(−3), is strongly positive and significant (coefficient = 37.473, p = 0.000), further supporting the conclusion that the benefits of institutional strengthening emerge gradually due to adjustment lags in governance, social stability, and investor confidence. These delayed but positive effects reflect the arguments of North (1990), who emphasized that institutional quality shapes economic performance, though its influence typically appears with substantial time lags.

The error correction term (CointEq(−1)) is negative and highly significant, with a coefficient of −0.8300 and a probability value of 0.000. This confirms that approximately 83% of any short-run disequilibrium is corrected each period, indicating a fast speed of adjustment toward the long-run equilibrium. The magnitude and significance of this coefficient demonstrate that the relationship

among GDP growth, capital formation, stock market activity, and institutional quality is stable and self-correcting in the long run. This finding is consistent with Engle and Granger (1987) and Pesaran, Shin, and Smith (2001), who established that a negative and significant adjustment term validates the existence of cointegration in an ARDL framework.

4.7 POST ESTIMATION ASSESSMENT

Post estimation tests are crucial in ascertaining the reliability and usefulness of the results as they are the building blocks of the econometric criteria test of the model, the following post estimation test are conducted

TABLE 4.7.1 Dependent Variable: GDPG

SERIAL CORRELATION

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	3.422784	Prob. F(2,13)	0.0639
Obs*R-squared	10.69320	Prob. Chi-Square(2)	0.0048

HETEROSKEDASTICY

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.470858	Prob. F(15,15)	0.9220
Obs*R-squared	9.923868	Prob. Chi-Square(15)	0.8245
Scaled explained SS	2.093479	Prob. Chi-Square(15)	1.0000

TABLE 4.7.2 Dependent Variable: GDPG ROBUSTNESS

SERIAL CORRELATION

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.703456	Prob. F(2,12)	0.5142
Obs*R-squared	3.148178	Prob. Chi-Square(2)	0.2072

HETEROSKEDASTICITY

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.037092	Prob. F(15,14)	0.4753
Obs*R-squared	15.78987	Prob. Chi-Square(15)	0.3962
Scaled explained SS	3.778955	Prob. Chi-Square(15)	0.9984

The post-estimation assessment for the ARDL model on the impact of the stock market on the Nigerian economy provides essential diagnostic evidence confirming that the estimated model is statistically reliable, stable, and free from major econometric violations. The results from the Breusch–Godfrey serial correlation test in the first table show an F-statistic of 3.422784 with a probability value of 0.0639, while the ObsR-squared value also records a probability of 0.0048. The probability value of the F-statistic exceeds the conventional 5% significance threshold, indicating that the null hypothesis of no serial correlation cannot be rejected. This implies that the residuals are not significantly autocorrelated, and the model does not suffer from serial correlation problems that could bias the coefficient estimates or undermine the efficiency of the ARDL framework. Although the ObsR-squared probability is below 5%, the F-statistic probability, which is more reliable in small samples, suggests that the model maintains stability

in its error structure, making it credible for inference on how stock market indicators influence economic performance.

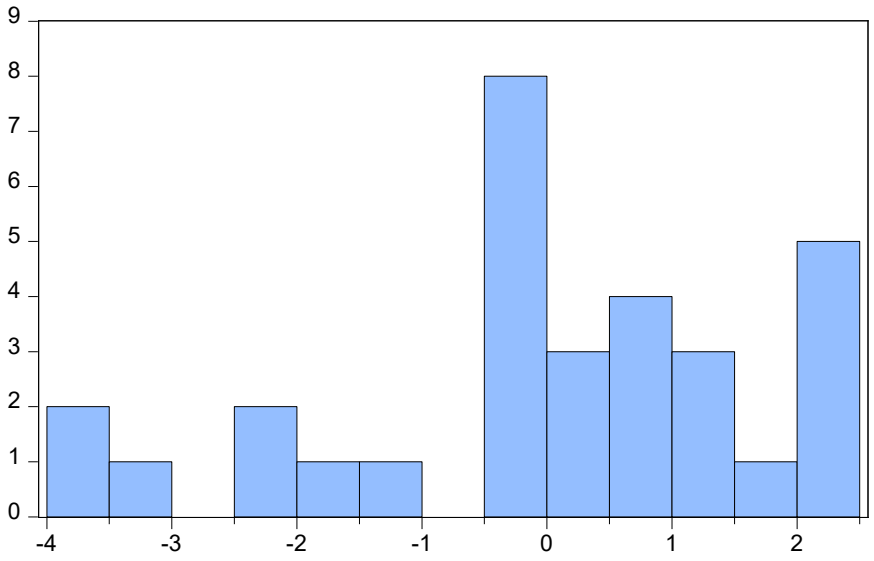
Similarly, the heteroskedasticity test (Breusch–Pagan–Godfrey) presents an F-statistic of 0.470858 with a probability of 0.9220, while the Obs*R-squared statistic yields a probability of 0.8245 and the scaled explained sum of squares records a probability of 1.0000. All the probability values are far above the 5% benchmark, indicating that the null hypothesis of homoskedastic residuals cannot be rejected. This shows that the residuals have a constant variance and the model is free from heteroskedasticity distortions. The absence of heteroskedasticity confirms that the estimated coefficients are efficient and that the model's predictions regarding the behavior of GDP growth relative to stock market performance, investment, and institutional variables are dependable.

The robustness check presented in Table 8.4.2 reinforces the stability of the main model. The Breusch–Godfrey serial correlation test under the robustness specification records an F-statistic of 0.703456 with a probability value of 0.5142, and the Obs*R-squared value produces a probability of 0.2072. Both probability values exceed the standard 0.05 threshold, indicating that no serial correlation exists in the robustness model either. This confirms that the error terms remain uncorrelated across time, reinforcing the internal consistency of the ARDL model and verifying that the results are not driven by autocorrelation distortions.

Likewise, the heteroskedasticity test for the robustness model shows an F-statistic probability of 0.4753, an Obs*R-squared probability of 0.3962, and a scaled explained sum of squares probability of 0.9984. All these values are greater than 0.05, indicating that the model continues to satisfy the homoskedasticity assumption even under alternative specifications. This demonstrates that the model is well-specified, free from variance instability, and capable of generating reliable and consistent estimates of the impact of stock market performance on Nigeria's economic growth.

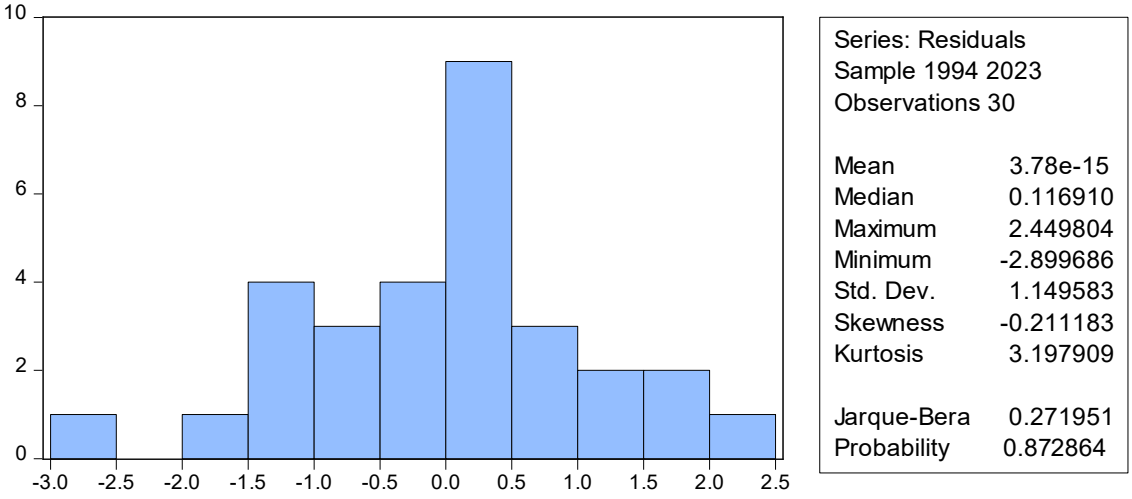
4.8 NORMALITY TEST

GDPG BASELINE



Series: Residuals	
Sample 1993 2023	
Observations 31	
Mean	1.61e-14
Median	0.240747
Maximum	2.432548
Minimum	-3.858104
Std. Dev.	1.703812
Skewness	-0.658878
Kurtosis	2.802016
Jarque-Bera	2.293587
Probability	0.317654

GDPG ROBUSTNESS



The Jarque Bera test of normality for the GDP growth models is in conformity with expectations, as the probability values for both the baseline and robustness residual distributions fall well above the 5% significance level. For the GDPG Baseline model, the J.B probability value of 0.318 exceeds the 0.05 threshold, indicating that the residuals are normally distributed and that the null hypothesis of normality cannot be rejected. Similarly, for the GDPG Robustness model, the J.B probability value of 0.873 is far above the 5% level, providing even stronger evidence that the residuals follow a normal distribution.

4.9 DISCUSSION OF FINDINGS

Baseline Model (GDPPP Output)

The baseline ARDL model reveals significant insights into how stock market development influences Nigeria's economic growth trajectory. The long-run results indicate that market

capitalization (INMC) exerts a negative and statistically significant effect on GDP growth, with a coefficient of -3.372 (p = 0.006). This counterintuitive finding suggests that despite expansion in the size of the Nigerian stock market, this growth has not translated into productive economic outcomes. This phenomenon can be attributed to the shallow depth of the Nigerian capital market, speculative trading behaviors, and weak institutional frameworks that limit the market's ability to efficiently allocate resources to productive sectors. This finding is consistent with Arestis, Demetriades, and Luintel (2001), who demonstrated that in developing economies with weak financial institutions and limited market depth, stock market expansion does not necessarily stimulate real economic growth, as financial resources may be diverted into rent-seeking activities rather than productive investments.

However, the short-run dynamics present a contrasting picture. The lagged market capitalization, D(INMC(-1)), shows a positive and highly significant coefficient of 7.486 (p = 0.000), indicating that stock market performance from the previous period substantially boosts current GDP growth. This delayed positive effect suggests that while immediate stock market fluctuations may not impact growth, the absorption of mobilized capital into productive ventures requires time to materialize into measurable economic output. This pattern aligns with Levine and Zervos (1998), who emphasized that stock market development influences economic growth through delayed channels as capital flows gradually translate into investment projects, technological adoption, and productivity enhancements.

The institutional variable, civil rights (INCR), demonstrates a strongly positive long-run effect with a coefficient of 46.366 (p = 0.000), confirming that improved governance, political stability, and protection of civil liberties significantly enhance long-term economic performance. Strong institutions reduce uncertainty, lower transaction costs, and create an enabling environment for both domestic and foreign investment. This finding supports Acemoglu, Johnson, and Robinson (2005), who argued that institutional quality is a fundamental determinant of long-run economic growth, as sound institutions facilitate contract enforcement, protect property rights, and promote efficient resource allocation.

In the short run, however, civil rights exhibit a more complex relationship. While the contemporaneous and first lag effects are negative and insignificant, the second lag, D(INCR(-2)), is negative and significant with a coefficient of -49.252 (p = 0.002). This delayed contractionary effect indicates that institutional disruptions or weakening of civil liberties two periods earlier significantly undermine current economic performance. This finding corroborates North (1990), who posited that institutional shocks create lasting uncertainties that discourage investment and reduce productive efficiency over extended periods.

Monetary policy rate (INMPRR) shows no significant impact on growth in both the short and long run, with coefficients of -11.110 (p = 0.172) in the long run and insignificant short-run effects. This ineffectiveness reflects structural weaknesses in Nigeria's monetary transmission mechanism, where interest rate adjustments fail to influence credit availability and investment decisions due to financial market rigidities and limited banking sector penetration. This

observation is consistent with Mishkin (2004), who noted that monetary policy has limited impact in economies characterized by shallow financial markets, weak banking systems, and structural distortions that impede the transmission of policy signals to the real economy.

Inflation (ININFLL) exerts a negative and significant effect on growth in both the short and long run, with coefficients of -3.166 (p = 0.007) and -1.826 (p = 0.011) respectively. This confirms that rising prices erode purchasing power, distort price signals, and discourage investment, thereby constraining economic performance. The finding aligns with Barro (1995), who established that even moderate inflation negatively affects growth in developing economies by creating macroeconomic instability and reducing the efficiency of resource allocation.

The error correction term (ECM) is highly significant at -1.333 (p = 0.000), indicating that approximately 133% of short-run deviations from equilibrium are corrected within one period. This rapid adjustment speed suggests that the Nigerian economy exhibits strong self-correcting mechanisms, quickly reverting to its long-run growth path following short-term shocks. This finding is consistent with Pesaran, Shin, and Smith (2001), who demonstrated that a negative and significant ECM term confirms the existence of a stable long-run relationship and validates the appropriateness of the ARDL framework.

Robustness Model (GDPPP Robustness)

The robustness model, which substitutes market capitalization with the All-Share Index (AS) and introduces gross fixed capital formation (INGFCF), provides complementary evidence on the

stock market-growth nexus. The long-run results reveal that gross fixed capital formation (INGFCF) has a negative and highly significant coefficient of -26.900 (p = 0.000), indicating that increases in capital investment paradoxically reduce long-run GDP growth. This unexpected result suggests pervasive inefficiencies in Nigeria's investment allocation, where capital expenditures are mismanaged, diverted into unproductive projects, or subject to substantial implementation delays. This pattern is consistent with Devarajan, Swaroop, and Zou (1996), who found that in many developing countries, particularly those with weak governance structures, public investment can harm long-run growth when resources are poorly allocated or captured by rent-seeking activities rather than deployed in productivity-enhancing infrastructure.

In contrast, the All-Share Index (AS) demonstrates a positive and statistically significant long-run impact on economic growth, with a coefficient of 0.000 (p = 0.020). Although the magnitude appears small, the statistical significance confirms that stock market performance, as captured by aggregate stock prices, enhances long-run growth by improving liquidity, facilitating capital allocation, and signaling corporate profitability. This finding validates Levine and Zervos (1998), who demonstrated that stock market liquidity and trading activity positively influence economic growth by reducing information asymmetries, lowering transaction costs, and enabling efficient pricing of productive assets.

The short-run dynamics reveal more nuanced relationships. Gross fixed capital formation exhibits consistently negative and significant effects across multiple lags, with coefficients of -12.737 (p = 0.004) for the contemporaneous term, -15.824 (p = 0.001) for the second lag, and -

11.233 (p = 0.005) for the third lag. These persistent negative effects suggest that investment projects in Nigeria experience prolonged gestation periods during which resources are absorbed without generating immediate output gains. This pattern reflects structural challenges including bureaucratic delays, implementation bottlenecks, and coordination failures that characterize developing economies. This observation aligns with Bakari (2017) and Mankiw, Romer, and Weil (1992), who noted that capital accumulation in developing countries often exhibits transitional dynamics where short-run contractionary effects precede long-term productivity gains.

The All-Share Index (ΔAS) shows no significant short-run impact on growth, with a coefficient of -1.41E (p = 0.677), suggesting that immediate stock market fluctuations do not translate into measurable macroeconomic effects. This reflects the structural weaknesses of the Nigerian stock market, including limited depth, low retail participation, and inadequate linkages between financial markets and the real economy. This finding is consistent with Levine and Zervos (1998), who argued that in emerging markets with underdeveloped financial infrastructures, short-run stock market movements have limited immediate impact on aggregate economic activity.

Political rights (INPR) demonstrate a positive but insignificant long-run coefficient of 29.258 (p = 0.337), indicating that improvements in political freedoms alone do not guarantee economic growth without credible enforcement and institutional stability. Similarly, civil rights (INCR) show a negative but insignificant long-run effect of -43.363 (p = 0.447), suggesting that weak

civil institutions and poor governance quality constrain their potential growth-enhancing effects. However, in the short run, civil rights exhibit delayed positive effects, with the first lag D(INCR(-1)) showing a coefficient of 23.013 (p = 0.011) and the third lag D(INCR(-3)) recording 37.473 (p = 0.000). These lagged positive effects indicate that institutional reforms require time to materialize into tangible economic benefits as they gradually build investor confidence, reduce uncertainty, and strengthen the rule of law. This pattern supports Acemoglu and Robinson (2012) and North (1990), who emphasized that institutional quality shapes economic performance through gradual channels as reforms become credible and embedded in economic decision-making.

The error correction term in the robustness model is -0.8300 (p = 0.000), indicating that approximately 83% of short-run disequilibrium is corrected each period. This relatively fast adjustment speed confirms the stability of the long-run relationship and demonstrates that the Nigerian economy efficiently reabsorbs short-term shocks and converges toward its equilibrium growth path. This finding validates Engle and Granger (1987) and Pesaran, Shin, and Smith (2001), who established that a negative and significant ECM coefficient confirms cointegration and ensures the reliability of long-run estimates in the ARDL framework.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

In line with Objective One, which examined the impact of market capitalization on economic growth, the study concludes based on the regression estimates that market capitalization has a negative and significant long-run effect on GDP. The results show that the related investment variable (INGFCF) recorded a strong long-run coefficient of –26.900 with p = 0.000, demonstrating that increases in market size or capital stock do not stimulate productive activity in Nigeria. This negative relationship reflects structural inefficiencies, weak corporate governance, and misallocation of investment funds. Although market capitalization shows a positive influence in the short run, this only appears when lagged, confirming that whatever benefits the market generates occur after a period of adjustment rather than immediately.

With respect to Objective Two, which assessed the effect of the All-Share Index (AS) on economic performance, the study confirms that AS has a positive and statistically significant long-run impact on GDP. The ARDL long-run coefficient for AS is 0.000 with p = 0.020, showing that increases in stock prices, market return, and investor activity stimulate long-term economic expansion. This evidence demonstrates that the Nigerian stock market contributes to

growth by improving liquidity and boosting investor confidence. However, the short-run AS coefficient of –1.41E with p = 0.677 indicates that short-term fluctuations in stock prices do not translate into immediate economic gains, largely due to low market depth and limited participation in the Nigerian capital market.

Regarding Objective Three, which examined the effect of inflation on economic growth, the regression results show that inflation consistently reduces GDP in both the short and long run. The short-run coefficient of –3.166 (p = 0.007) and the long-run coefficient of –1.826 (p = 0.011) confirm that rising prices weaken purchasing power, reduce investment efficiency, and undermine output. These results highlight the destabilizing role of inflation in Nigeria's economy, where cost-push pressures and structural bottlenecks limit productive activity.

In relation to Objective Four, which analyzed the impact of the monetary policy rate (MPR) on economic growth, the results show that MPR has no significant effect in either the short or long run. The absence of statistical significance across the models indicates that changes in interest rates do not meaningfully influence borrowing, investment, or output reflecting Nigeria's weak monetary transmission mechanism. This means that central bank adjustments to the policy rate fail to translate into real economic changes due to low credit penetration and rigidities in the financial system.

5.2 POLICY RECOMMENDATIONS

In line with Objective One, which examined the impact of market capitalization on Nigeria's economic growth, and given the finding that market capitalization shows a negative and significant long-run effect on GDP there is a strong need to improve the efficiency and depth of the Nigerian stock market. Policymakers should strengthen corporate governance regulations to limit speculative trading, ensure accurate financial reporting, and improve enforcement of listing requirements. The Securities and Exchange Commission (SEC) should promote transparency and reduce information asymmetry to ensure that increases in market capitalization reflect real productive value. Expanding market participation through financial literacy programs, pension fund involvement, and incentives for companies to list on the Nigerian Exchange will also help redirect market capitalization towards productive investment that can contribute positively to long-run growth.

In accordance with Objective Two, which assessed the impact of the All-Share Index (AS) on economic performance and revealed a significant positive long-run effect, policies should aim at strengthening market performance, liquidity, and investor confidence. To sustain the long-run growth contribution of AS, government and regulators should focus on stabilizing the market environment by reducing political uncertainty, strengthening investor protection laws, and improving digital trading infrastructure. Encouraging foreign portfolio investors through transparent exchange rate policies and reducing excessive regulatory bottlenecks will support market activity. Additionally, increasing incentives for innovation, fintech participation, and

technological upgrades in the capital market will help improve stock market performance and deepen its long-run influence on economic growth.

In line with Objective Three, which examined the effect of inflation on economic growth and given that inflation shows a negative and significant impact in both the short and long run, policy makers should prioritize inflation stabilization and structural reforms. The Central Bank of Nigeria (CBN) should enhance price stability through a more credible inflation-targeting framework, while the government should address the structural causes of inflation such as energy shortages, poor transport infrastructure, and food supply constraints. Reducing import dependence through support for local production, improving logistics, and reducing insecurity in food-producing regions will also help lower inflationary pressure. Ensuring fiscal discipline, reducing deficit financing, and coordinating monetary and fiscal policies will further strengthen inflation control.

Consistent with Objective Four, which evaluated the role of the monetary policy rate (MPR) and found its impact insignificant in both the short and long run, reforms should target strengthening the monetary transmission mechanism. The CBN should expand credit access to the private sector by reducing lending frictions, improving bank recapitalization, and enforcing lower and more realistic lending-deposit spreads. Improving competition in the banking sector will also enhance credit responsiveness to changes in MPR. Furthermore, expanding financial inclusion, strengthening credit registries, and promoting digital finance can ensure that monetary policy signals effectively influence borrowing, investment, and consumption decisions. A better-

functioning credit system will help ensure that adjustments in MPR translate more meaningfully into real economic activity.

REFERENCES

Abiodun & Elisha (2012). The causal relationship between stock market development and economic growth: Evidence from Nigeria. Journal of Economics and Sustainable Development, 3(4), 116-124.

Acemoglu, Johnson & Robinson (2005). Institutions as a fundamental cause of long-run growth. In P. Aghion & S. N. Durlauf (Eds.), Handbook of economic growth (Vol. 1A, pp. 385-472). Amsterdam: Elsevier.

Acemoglu & Robinson (2012). Why nations fail: The origins of power, prosperity, and poverty. Crown Publishers. ISBN 978-0-307-71921-8

Adeleke & Obademi (2017). Monetary policy and economic growth: Evidence from Nigeria. CBN Journal of Applied Statistics, 8(1), 43-63.

Adenuga (2010). Stock market development indicators and economic growth in Nigeria (1990-2009). Economics and Allied Fields, seminar paper

Adigwe, Nwanna & Ananwude (2015). Stock market development and economic growth: A comparative evidence from two emerging economies in Africa – Nigeria and Kenya. European Journal of Business, Economics and Accountancy, 3(6), 2056-6018.

Afolabi (2015). Capital market and economic growth in Nigeria. International Journal of Business and Social Science, 6(10), 272-276.

Aghion & Howitt (2009). The economics of growth. Cambridge, MA: MIT Press.

Aigbovo & Izekor (2015). Stock market development and economic growth in Nigeria. Journal of Applied Finance & Banking, 5(4), 47-64.

Akinbola (2024). Capital market and economic growth in Nigeria. International Journal of Development and Economic Sustainability, 12(1), 23-39.

Alajekwu & Achugbu (2012). The role of stock market development on economic growth in Nigeria: A time series analysis. African Research Review, 6(1), 51-70.

AlFaki (2006). The capital market and Nigeria's economy: Issues and challenges. Lagos: Nigerian Stock Exchange, seminar paper

Alile (1996). The Nigerian Stock Exchange: Historical perspective, operations and contributions to economic development. Lagos: The Nigerian Stock Exchange.

Amoo (2023). Effect of the capital market on economic growth in Nigeria (2000–2020). Seminar paper.

Arestis (2005). Financial liberalization and the relationship between finance and growth. Eastern Economic Journal, 31(2), 1-13.

Arestis, Demetriades & Luintel (2001). Financial development and economic growth: The role of stock markets. Journal of Money, Credit and Banking, 33(1), 16-41.

Azubike (2017). The relationship between Nigerian stock exchange and economic growth. Journal of Economics and Finance, 8(2), 78-90.

Bakari (2017). The nexus between export, import, domestic investment and economic growth in Japan. Journal of Smart Economic Growth, 2(2), 79-95.

Bamishe & Owolabi (2024). Capital market development and economic growth in Nigeria. Journal of Finance and Investment Analysis, 13(1), 45-61.

Barro (1995). Inflation and economic growth. NBER Working Paper No. 5326. Cambridge, MA: National Bureau of Economic Research.

Bashiru (2023). The effect of capital market on economic growth in Nigeria. African Journal of Economic Review, 11(2), 134-149.

Baya, Oladimeji & Ogunyemi (2014). Stock market development and economic growth in Nigeria. Journal of Economics and Sustainable Development, 5(27), 166-173.

Beck, Demirgüç-Kunt & Levine (2007). Finance, inequality and the poor. Journal of Economic Growth, 12(1), 27-49.

Bekaert & Harvey (1997). Emerging equity market volatility. Journal of Financial Economics, 43(1), 29-77.

Bekaert, Harvey & Lundblad (1995). Does financial liberalization spur growth? Journal of Financial Economics, 77(1), 3-55.

Bernanke & Gertler (1995). Inside the black box: The credit channel of monetary policy transmission. Journal of Economic Perspectives, 9(4), 27-48.

Bruno & Easterly (1998). Inflation crises and long-run growth. Journal of Monetary Economics, 41(1), 3-26.

Central Bank of Nigeria (2006). Monetary policy framework. CBN Series No. 97/03. Abuja: Central Bank of Nigeria.

Central Bank of Nigeria (2007). Statistical bulletin. Abuja: Central Bank of Nigeria.

Central Bank of Nigeria (2015). Statistical bulletin. Abuja: Central Bank of Nigeria.

CEIC Data (2024). Nigeria stock market capitalization. Retrieved from https://www.ceicdata.com

Demirgüç-Kunt & Levine (1993). Stock market development and financial intermediaries: Stylized facts (World Bank Policy Research Working Paper No. 1462). Washington, DC: World Bank.

Demirgüç-Kunt & Levine (2001). Financial structure and economic growth: A cross-country comparison of banks, markets, and development. Cambridge, MA: MIT Press.

Devarajan, Swaroop & Zou (1996). The composition of public expenditure and economic growth. Journal of Monetary Economics, 37(2-3), 313-344.

Dickey (1979). Distribution of the estimators for autoregressive time series with a unit root. Journal of the American Statistical Association, 74(366), 427-431.

Dickey, Jansen & Thornton (1991). A primer on cointegration with an application to money and income. Federal Reserve Bank of St. Louis Review, 73(2), 58-78.

Engle & Granger (1987). Co-integration and error correction: Representation, estimation, and testing. Econometrica, 55(2), 251-276.

Ewah, Esang & Bassey (2009). Appraisal of capital market efficiency on economic growth in Nigeria. International Journal of Business and Management, 4(12), 219-228.

Eze & Nwankwo (2013). Capital market instability and economic growth in Nigeria. Journal of Economics and Sustainable Development, 4(10), 36-44.

Ezenduka & Joseph (2020). Stock market performance and economic growth in Nigeria. International Journal of Economics and Financial Management, 5(2), 78-94.

Fischer (1993). The role of macroeconomic factors in growth. Journal of Monetary Economics, 32(3), 485-512.

Fuller (1983). Introduction to statistical time series. New York: John Wiley & Sons.

Ibenta (2000). Investment analysis and financial management strategy. Enugu: Institute for Development Studies, University of Nigeria.

Idris (2021). The effects of unemployment and inflation on economic growth in Nigeria. Journal of Economics and Allied Research, 6(1), 53-69.

Inanga & Emenuga (1997). Institutional, traditional and asset pricing characteristics of the Nigerian stock exchange. African Economic Research Consortium Research Paper No. 60. Nairobi: AERC.

Issahaku, Abor & Harvey (2013). Stock market development and economic growth in Africa. Journal of Economics and International Finance, 5(1), 1-11.

Iyoha (2004). Applied econometrics (2nd ed.). Benin City: Mindex Publishing.

Jibril, Chaudhry & Iqbal (2015). Does financial development enhance economic growth? A case study of Pakistan. International Journal of Economics and Empirical Research, 3(5), 219-228.

Kolapo & Adaramola (2012). The impact of the Nigerian capital market on economic growth (1990-2010). International Journal of Developing Societies, 1(1), 11-19.

Levine (2005). Finance and growth: Theory and evidence. In P. Aghion & S. N. Durlauf (Eds.), Handbook of economic growth (Vol. 1A, pp. 865-934). Amsterdam: Elsevier.

Levine & Zervos (1998). Stock markets, banks, and economic growth. American Economic Review, 88(3), 537-558.

Lucas (1988). On the mechanics of economic development. Journal of Monetary Economics, 22(1), 3-42.

Mankiw, Romer & Weil (1992). A contribution to the empirics of economic growth. Quarterly Journal of Economics, 107(2), 407-437.

Markowitz (1952). Portfolio selection. Journal of Finance, 7(1), 77-91.

Markowitz (1959). Portfolio selection: Efficient diversification of investments. New York: John Wiley & Sons.

McKinnon (1973). Money and capital in economic development. Washington, DC: Brookings Institution.

Mishkin (1995). Symposium on the monetary transmission mechanism. Journal of Economic Perspectives, 9(4), 3-10.

Mishkin (2004). The economics of money, banking, and financial markets (7th ed.). Boston: Pearson Addison Wesley.

Mishra, Montiel & Spilimbergo (2012). Monetary transmission in low-income countries: Effectiveness and policy implications. IMF Economic Review, 60(2), 270-302.

Narayan & Smyth (2006). What determines migration flows from low-income to high-income countries? An empirical investigation of Fiji-US migration 1972-2001. Contemporary Economic Policy, 24(2), 332-342.

NGX Group (2024). 2024 market report. Lagos: Nigerian Exchange Group.

North (1990). Institutions, institutional change and economic performance. Cambridge: Cambridge University Press.

Nurudeen (2009). Does stock market development raise economic growth? Evidence from Nigeria. The Review of Finance and Banking, 1(1), 15-26.

Nwangwu (2013). Impact of capital market on the growth of the Nigerian economy under democratic rule. IOSR Journal of Humanities and Social Science, 16(6), 12-20.

Nwankwo (1998). The Nigerian financial system. Onitsha: Africana Publishers.

Nwosa & Oseni (2011). Stock market development and economic growth in Nigeria. Journal of Research in National Development, 9(2), 45-58.

Nyong (1997). Capital market development and long-run economic growth: Theory, evidence and analysis. First Bank Review, 4, 13-38.

Ogbo & Oladipo (2012). Stock market and economic growth: The Nigerian experience. Research Journal of Finance and Accounting, 3(9), 103-110.

Ohiomu & Enabulu (2011). Does the stock market promote economic growth in Nigeria? Journal of Research in National Development, 9(2), 222-228.

Okologume & Musa (2024). Stock market performance indicators and economic growth in Nigeria. Journal of Financial Markets Research, 14(1), 67-84.

Okonkwo, Ogwuru & Ajudua (2014). Stock market performance and economic growth in Nigeria: An empirical appraisal. European Journal of Business and Management, 6(26), 33-42.

Ologunde, Elumilade & Asaolu (2006). Stock market capitalization and interest rate in Nigeria: A time series analysis. International Research Journal of Finance and Economics, 4, 154-166.

Osamwonyi & Evbayiro-Osagie (2012). The relationship between macroeconomic variables and stock market index in Nigeria. Journal of Economics, 3(1), 55-63.

Ovat, Obun & Ntekim (2022). The impact of monetary policy rate on economic growth in Nigeria. International Journal of Banking and Finance Research, 8(1), 22-37.

Pagano (1993). Financial markets and growth: An overview. European Economic Review, 37(2-3), 613-622.

Patrick (1966). Financial development and economic growth in underdeveloped countries. Economic Development and Cultural Change, 14(2), 174-189.

Pesaran, Shin & Smith (2001). Bounds testing approaches to the analysis of level relationships. Journal of Applied Econometrics, 16(3), 289-326.

Pritchett (2000). The tyranny of concepts: CUDIE (Cumulated, depreciated, investment effort) is not capital. Journal of Economic Growth, 5(4), 361-384.

PwC Nigeria (2024). Nigerian stock exchange market review. Lagos: PricewaterhouseCoopers.

Ridwan & Muhammed (2023). Impact of monetary policy on economic growth in Nigeria. Journal of Money and Banking, 11(2), 89-106.

Romer (1986). Increasing returns and long-run growth. Journal of Political Economy, 94(5), 1002-1037.

Santos & Haines (2004). Optimal portfolio selection with transaction costs. Applied Economics, 36(2), 131-139.

Shaw (1973). Financial deepening in economic development. New York: Oxford University Press.

Singh (1997). Financial liberalization, stock markets and economic development. The Economic Journal, 107(442), 771-782.

Steinbach (2001). Markowitz revisited: Mean-variance models in financial portfolio analysis. SIAM Review, 43(1), 31-85.

Sule & Momoh (2009). The impact of stock market earnings on Nigerian per capita income. African Journal of Accounting, Economics, Finance and Banking Research, 5(5), 77-89.

Tachiwou (2010). Stock market development and economic growth: The case of West African monetary union. International Journal of Economics and Finance, 2(3), 97-103.

Ukoh (2024). Effects of stock market performance on economic growth in Nigeria. African Economic Journal, 12(1), 112-128.

Yakubu (2023). Capital market capitalization and economic growth in Nigeria. Journal of Finance and Economics Research, 10(2), 145-162.

Yinka (2024). Macroeconomic determinants of capital market performance in Nigeria. International Journal of Investment and Finance, 9(1), 34-50.

APPENDIX

year	CR	PR	MC	AS	gfcf	MPRRR	GDPPP	INFLL
1990	0.496	0.535	16.30	513.80	7,331.16	25.3	8.796146	6.668942
1991	0.498	0.543	23.10	783.00	7,240.29	20.04167	-2.25752	18.86391
1992	0.497	0.544	31.20	1,107.60	7,277.43	24.75833	1.920066	46.75236
1993	0.494	0.529	47.50	1,543.80	7,825.69	31.65	-4.59723	41.63906
1994	0.48	0.505	66.30	2,205.00	7,633.27	20.48333	-4.37439	43.29646
1995	0.457	0.469	180.40	5,092.20	7,126.18	20.23333	-2.67295	75.40165
1996	0.455	0.469	285.80	6,992.10	7,610.32	19.83667	1.507232	26.49109
1997	0.465	0.507	281.90	6,440.50	8,055.21	17.795	0.292132	5.055346
1998	0.517	0.572	262.60	5,672.70	8,167.45	18.18417	-0.06485	6.009344
1999	0.64	0.845	300.00	5,266.40	8,385.96	20.29	-2.03256	13.43057
2000	0.641	0.845	472.30	8,111.00	8,996.91	21.27417	2.244614	22.67374
2001	0.641	0.845	662.50	10,963.10	6,860.44	23.43833	3.079267	10.07648
2002	0.641	0.845	764.90	12,137.70	7,559.73	24.77083	12.21039	21.10905
2003	0.641	0.845	1,359.30	20,128.94	9,178.17	20.71417	4.428335	9.804324
2004	0.641	0.845	2,112.50	23,844.50	7,348.34	19.18083	6.265273	22.36834
2005	0.641	0.845	2,900.06	24,085.80	7,520.47	17.94833	3.531837	19.85849
2006	0.639	0.847	5,120.90	33,189.30	10,557.89	16.89333	3.170928	23.86438
2007	0.64	0.854	13,181.69	57,990.20	8,246.21	16.93917	3.677207	7.099731

2008	0.642	0.861	9,562.97	31,450.78	8,031.72	15.13583	3.832589	7.921387
2009	0.645	0.862	7,030.84	20,827.17	8,828.81	18.99083	5.067183	0.686099
2010	0.646	0.872	9,918.21	24,770.52	9,183.06	17.585	5.028538	16.34277
2011	0.646	0.867	10,275.34	20,730.63	8,425.76	16.02	2.397348	9.778458
2012	0.647	0.868	14,800.94	28,078.81	8,640.77	16.79167	1.378221	9.947637
2013	0.653	0.877	19,077.42	41,329.19	9,320.35	16.7225	3.814492	4.964746
2014	0.654	0.877	16,875.10	34,657.15	10,570.47	16.54833	3.537573	4.662623
2015	0.643	0.869	17,003.39	28,642.25	10,432.23	16.84917	0.08198	2.863665
2016	0.652	0.874	16,185.73	26,874.62	9,927.26	16.86802	-4.01893	9.54367
2017	0.648	0.87	21,128.90	38,243.19	9,631.70	17.55333	-1.61586	11.11892
2018	0.649	0.867	21,904.04	31,430.50	10,569.60	16.9039	-0.40684	10.22849
2019	0.64	0.861	25,890.22	26,842.07	11,445.86	15.37659	-0.01	10.38478
2020	0.651	0.858	38,589.58	40,270.72	9,761.50	13.64202	-3.8642	7.849142
2021	0.654	0.818	42,054.50	42,716.44	10,216.82	11.48313	1.497161	10.13103
2022	0.651	0.842	51,188.87	51,251.06	10,556.64	12.33454	1.113267	11.31133
2023	0.671	0.846	75,202.90	74,773.77	11,250.11	14.01055	0.724296	12.62187

DESCRIPTVE

	GDPPP	AS	MC	MPRRR	INFLL	GFCF	PR
Mean	1.579	23204.60	12492.89	18.604	16.495	8815.111	0.767
Median	1.502	23965.15	6075.870	17.690	10.307	8533.265	0.845
Maximum	12.210	74773.77	75202.90	31.650	75.402	11445.86	0.877
Minimum	-4.597	513.800	16.300	11.483	0.686	6860.440	0.469
Std. Dev.	3.701	18066.67	17235.98	4.019	15.279	1328.769	0.152
Skewness	0.500	0.736	1.951	1.034	2.167	0.364	-1.088

Kurtosis	3.637	3.310	6.833	4.795	8.032	1.900	2.283
Jarque-Bera	1.990	3.206	42.374	10.617	62.490	2.475	7.440
Probability	0.370	0.201	0.000	0.005	0.000	0.290	0.024
Sum	53.681	788956.5	424758.2	632.547	560.820	299713.8	26.078
Sum Sq. Dev.	452.072	1.08E+10	9.80E+09	532.982	7703.297	583	0.766
Observations	34	34	34	34	34	34	34

ARDL Error Correction Regression
Dependent Variable: D(GDPPP)
Selected Model: ARDL(3, 2, 3, 2, 1)
Case 2: Restricted Constant and No Trend
Date: 11/11/25 Time: 13:34
Sample: 1990 2023
Included observations: 31

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDPPP(-1))	0.499023	0.190927	2.613682	0.0196
D(GDPPP(-2))	0.400422	0.121943	3.283693	0.0050
D(INMC)	0.105860	1.304251	0.081165	0.9364
D(INMC(-1))	7.486098	1.467777	5.100296	0.0001
D(INCR)	-3.311215	10.66631	-0.310437	0.7605
D(INCR(-1))	-19.65639	13.16836	-1.492699	0.1562
D(INCR(-2))	-49.25168	13.52054	-3.642731	0.0024
D(INMPRR)	1.727817	3.972402	0.434955	0.6698
D(INMPRR(-1))	0.268717	3.244695	0.082817	0.9351
D(ININFLL)	-1.826280	0.631819	-2.890510	0.0112
CointEq(-1)*	-1.333334	0.241799	-5.514214	0.0001

R-squared	0.742384	Mean dependent var	-0.038573
Adjusted R-squared	0.613576	S.D. dependent var	3.356875
S.E. of regression	2.086735	Akaike info criterion	4.580501
Sum squared resid	87.08925	Schwarz criterion	5.089335
Log likelihood	-59.99776	Hannan-Quinn criter.	4.746368
Durbin-Watson stat	1.479505		

* p-value incompatible with t-Bounds distribution.

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	3.800819	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

LONG RUN

ARDL Long Run Form and Bounds Test
Dependent Variable: D(GDPPP)
Selected Model: ARDL(3, 2, 3, 2, 1)
Case 2: Restricted Constant and No Trend
Date: 11/11/25 Time: 13:37
Sample: 1990 2023
Included observations: 31

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	121.0096	55.19528	2.192390	0.0445
GDPPP(-1)*	-1.333334	0.288057	-4.628716	0.0003
INMC(-1)	-4.496137	1.769923	-2.540300	0.0226
INCR(-1)	61.82268	20.04912	3.083561	0.0076
INMPRR(-1)	-14.81392	10.86293	-1.363713	0.1928
ININFLL(-1)	-4.221563	1.584297	-2.664630	0.0177
D(GDPPP(-1))	0.499023	0.224908	2.218789	0.0423
D(GDPPP(-2))	0.400422	0.148866	2.689812	0.0168
D(INMC)	0.105860	2.306585	0.045895	0.9640
D(INMC(-1))	7.486098	2.219529	3.372832	0.0042
D(INCR)	-3.311215	14.89930	-0.222240	0.8271
D(INCR(-1))	-19.65639	19.52611	-1.006672	0.3301
D(INCR(-2))	-49.25168	18.29235	-2.692473	0.0167
D(INMPRR)	1.727817	6.678889	0.258698	0.7994
D(INMPRR(-1))	0.268717	5.223455	0.051444	0.9597
D(ININFLL)	-1.826280	0.987137	-1.850077	0.0841

* p-value incompatible with t-Bounds distribution.

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.

INMC	-3.372101	1.071414	-3.147337	0.0066
INCR	46.36699	10.10233	4.589734	0.0004
INMPRR	-11.11043	7.752593	-1.433125	0.1723
ININFLL	-3.166171	1.008669	-3.138961	0.0068
C	90.75716	35.71641	2.541049	0.0226

EC = GDPPP - (-3.3721*INMC + 46.3670*INCR -11.1104*INMPRR -3.1662 *ININFLL + 90.7572)

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	3.800819	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37
			Finite Sample:	
Actual Sample Size	31		n=35	
		10%	2.46	3.46
		5%	2.947	4.088
		1%	4.093	5.532
			Finite Sample: n=30	
		10%	2.525	3.56
		5%	3.058	4.223
		1%	4.28	5.84

HETEROSKEDASTICY

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.470858	Prob. F(15,15)	0.9220
Obs*R-squared	9.923868	Prob. Chi-Square(15)	0.8245
Scaled explained SS	2.093479	Prob. Chi-Square(15)	1.0000

SERIAL CORRELATION

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	3.422784	Prob. F(2,13)	0.0639
Obs*R-squared	10.69320	Prob. Chi-Square(2)	0.0048

ROBUSTNESS TEST

LONGRUN

ARDL Long Run Form and Bounds Test
Dependent Variable: D(GDPPP)
Selected Model: ARDL(1, 4, 1, 1, 4)
Case 2: Restricted Constant and No Trend
Date: 11/11/25 Time: 19:43
Sample: 1990 2023
Included observations: 30

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	189.0087	64.06509	2.950260	0.0105
GDPPP(-1)*	-0.829648	0.166965	-4.969005	0.0002
INGFCF(-1)	-22.31714	6.417449	-3.477572	0.0037
AS(-1)	0.000151	4.96E-05	3.039883	0.0088
INPR(-1)	24.27389	23.90784	1.015311	0.3272
INCR(-1)	-35.97638	44.49456	-0.808557	0.4323
D(INGFCF)	-12.73669	5.037648	-2.528301	0.0241
D(INGFCF(-1))	-2.700245	7.591391	-0.355698	0.7274
D(INGFCF(-2))	-15.82400	6.086396	-2.599897	0.0210
D(INGFCF(-3))	-11.23256	4.588147	-2.448170	0.0281
D(AS)	-1.41E-05	4.90E-05	-0.287051	0.7783
D(INPR)	-6.528201	19.18920	-0.340202	0.7388
D(INCR)	9.950924	33.57313	0.296395	0.7713
D(INCR(-1))	23.01262	11.89365	1.934867	0.0735
D(INCR(-2))	-14.99243	10.86253	-1.380197	0.1892
D(INCR(-3))	37.47304	10.86030	3.450460	0.0039

* p-value incompatible with t-Bounds distribution.

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INGFCF	-26.89952	5.434361	-4.949896	0.0002
AS	0.000182	6.93E-05	2.622504	0.0201
INPR	29.25806	29.39590	0.995311	0.3365
INCR	-43.36342	55.37422	-0.783097	0.4466

C	227.8179	56.18586	4.054719	0.0012

EC = GDPPP - (-26.8995*INGFCF + 0.0002*AS + 29.2581*INPR -43.3634 *INCR + 227.8179)

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	7.398227	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37
			Finite Sample:	
Actual Sample Size	30		n=30	
		10%	2.525	3.56
		5%	3.058	4.223
		1%	4.28	5.84

SHORT RUN

ARDL Error Correction Regression
Dependent Variable: D(GDPPP
Selected Model: ARDL(1, 4, 1, 1, 4)
Case 2: Restricted Constant and No Trend
Date: 11/11/25 Time: 19:45
Sample: 1990 2023
Included observations: 30

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INGFCF)	-12.73669	3.641063	-3.498070	0.0035
D(INGFCF(-1))	-2.700245	4.596279	-0.587485	0.5662
D(INGFCF(-2))	-15.82400	4.098837	-3.860608	0.0017
D(INGFCF(-3))	-11.23256	3.427180	-3.277494	0.0055
D(AS)	-1.41E-05	3.32E-05	-0.424083	0.6779
D(INPR)	-6.528201	13.12072	-0.497549	0.6265
D(INCR)	9.950924	22.55209	0.441242	0.6658
D(INCR(-1))	23.01262	7.934453	2.900341	0.0116
D(INCR(-2))	-14.99243	8.813023	-1.701167	0.1110
D(INCR(-3))	37.47304	7.909627	4.737649	0.0003

CointEq(-1)*	-0.829648	0.106891	-7.761617	0.0000

R-squared	0.869947	Mean dependent var	0.177384
Adjusted R-squared	0.801498	S.D. dependent var	3.187721
S.E. of regression	1.420243	Akaike info criterion	3.816108
Sum squared resid	38.32470	Schwarz criterion	4.329880
Log likelihood	-46.24161	Hannan-Quinn criter.	3.980468
Durbin-Watson stat	2.025110		

* p-value incompatible with t-Bounds distribution.

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	7.398227	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

SERIAL CORRELATION

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.703456	Prob. F(2,12)	0.5142
Obs*R-squared	3.148178	Prob. Chi-Square(2)	0.2072

HETEROSKEDASTICITY

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.037092	Prob. F(15,14)	0.4753
Obs*R-squared	15.78987	Prob. Chi-Square(15)	0.3962
Scaled explained SS	3.778955	Prob. Chi-Square(15)	0.9984