

**MACROECONOMIC VARIABLES AND STOCK MARKET RETURNS IN  
NIGERIA**

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**DEPARTMENT OF FINANCE  
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BENIN CITY**

**NOVEMBER, 2025.**

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**A PROJECT WRITTEN AND SUBMITTED TO THE DEPARTMENT OF FINANCE,  
FACULTY OF MANAGEMENT SCIENCES IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE(B.SC) DEGREE  
IN FINANCE OF THE UNIVERSITY OF BENIN,BENIN CITY.**

**NOVEMBER, 2025.**

## **DECLARATION**

I, Osarodion Jeffery Omobuogbe, do hereby declare that this project is undertaken by me in the department of finance, Faculty of Management Sciences, University of Benin, Benin City, Edo State under the supervision of Prof. (Mrs ) Esther I. Evbayiro-Osagie The work embodied in this project has not previously been submitted in candidature for any other degree and is not concurrently being submitted for any other degree. All references made to works of other persons have been duly acknowledged.

Any litigation or liability arising from this work is wholly bone by me and not the supervisor for this work.

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Osarodion Jeffery Omobuogbe.

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Date

## CERTIFICATION

This is to certify that this project work was carried out by Osarodion Jeffery Omobuogbe with Matriculation Number MGS2104766 in the Department of Finance, Faculty of Management Sciences, University of Benin, Benin city, Edo State, in partial fulfillment for the award of Bachelor of Science (B.Sc) in Business Administration.

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## **DEDICATION**

This project is dedicated first to God Almighty being a Perfect Father to me! and to my caring, lovely and Great mother Madam Gladys Osato Uhunmwangho.

## ACKNOWLEDGEMENTS

My sincere gratitude goes to almighty God for his unending love and grace that has kept me throughout my programme and for the success of this work.

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My hearty thanks to my Maternal Family who teamed up with my mother to ensure my dream comes true. Osi my younger brother, your arrival to join me in the family is a source of courage to me. My thanks goes to some men of God for being there for me most especially Pastor Hyford, Rev. Father Gregory Ekhaton, Pastor Friday Ikhanoba, Pastor George and other men of God whose names are not mentioned here... Also to some of my mum's friends who in one way or another contributed to this stage of my life today, I say a big thanks to you all. To my Father and his family, I thank you for your unique role. Special gratification to Mr. Gomez Irene Omoregie (Esama of Hamburg) for your support towards my education and career. My mother's cousin Professor Bright Edosa Omaregie (The present VC of University of Benin) thanks for the unique advice you rendered to my mother some years back, which actually helped her to be more courageous.

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## **ABSTRACT**

This study examined the relationship between macroeconomic variables and stock market returns in Nigeria. Using a quantitative approach, the research analyzed how key economic indicators such as interest rates, inflation rates, exchange rates, GDP growth, and unemployment rates influenced the performance of the Nigerian stock market over the period from 1999 to 2024. The study employed secondary data sourced from the Central Bank of Nigeria and the Nigerian Exchange Group, utilizing econometric models, particularly the Ordinary Least Square (OLS) regression, to establish relationships between the variables. The findings revealed significant impacts of interest rates, inflation, and exchange rates on stock market returns, while GDP growth and unemployment rates exhibited a moderate correlation. The study highlighted the complex interplay of these macroeconomic variables and the vulnerability of the stock market to economic shocks. The results provided valuable insights for policymakers, investors, and researchers, suggesting that effective management of these macroeconomic factors was crucial for stabilizing the Nigerian stock market and fostering sustainable economic growth. Recommendations included monetary policy adjustments, fiscal reforms, and targeted strategies to address inflation and unemployment, which could enhance investor confidence and improve stock market performance.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

The Nigerian stock market has experienced significant fluctuations over the years, largely driven by the volatility of macroeconomic variables. Stock market performance, which is measured through stock returns and market capitalisation, is heavily influenced by various economic indicators. In particular, macroeconomic factors such as interest rates, inflation rates, exchange rate fluctuations, GDP growth, and unemployment rates have been found to have a profound impact on market trends in Nigeria. These variables, in turn, shape investor behaviour and overall market performance. The challenges faced by the Nigerian stock market are compounded by external factors such as oil price volatility, political instability, and global economic downturns. For instance, the recent drop in oil prices has exacerbated the existing economic uncertainty, further influencing the dynamics of stock returns (Ahmad, et al; Ayinuola, 2023).

Interest rates are one of the most influential macroeconomic variables affecting stock market performance in Nigeria. Higher interest rates typically signal increased borrowing costs for companies and consumers, which in turn reduces investment in the stock market. Conversely, lower interest rates make borrowing cheaper, often leading to increased stock market activity. A rise in interest rates, therefore, tends to negatively affect stock returns, as it raises the cost of capital and diminishes company profitability. Recent studies indicate a significant negative correlation between rising interest rates and stock returns in Nigeria, as the market responds to tighter monetary policies (Omodero & Mlanga, 2019; Abu, 2023). The Central Bank of Nigeria's

monetary policies, aimed at controlling inflation, often involve adjusting interest rates, which directly influence stock market behaviour.

Inflation rates in Nigeria have historically been volatile, with periodic spikes that have raised concerns about purchasing power and market stability. Inflation erodes the real value of money, which in turn affects the profitability of businesses and their stock performance. Studies have shown that high inflation rates are typically associated with reduced stock market returns, as inflation can lead to higher operational costs and lower investor confidence. According to Ogiemudia (2022) and Ebosu (2022), inflation is a critical macroeconomic factor that can destabilise the Nigerian stock market. Recently, Nigeria has faced persistent inflationary pressures, which have significantly impacted stock returns. The high inflation rates have made it difficult for businesses to plan effectively, leading to volatility in stock prices (Ayinola, 2023).

The Nigerian economy is heavily reliant on oil exports, making the exchange rate highly sensitive to fluctuations in global oil prices. Exchange rate volatility has had a direct impact on the Nigerian stock market, especially as the value of the Naira fluctuates against major currencies like the U.S. Dollar. A weaker Naira often leads to higher import costs for businesses, which can reduce their profit margins and, consequently, their stock market performance. Several studies have demonstrated a strong relationship between exchange rate movements and stock market returns in Nigeria, with depreciation in the Naira typically leading to a negative market reaction (Okoebor, 2022; Adaramola, 2013). In recent times, the Nigerian government has struggled to stabilise the exchange rate, further contributing to market instability and poor stock returns (Abu, 2023).

The growth of a nation's GDP is often considered a direct indicator of its economic health. In Nigeria, periods of robust economic growth typically correlate with positive stock market

performance, as increased production and consumption lead to higher corporate earnings. However, stagnation or contraction in GDP growth often leads to a decline in stock market performance. The Nigerian economy, while showing growth in certain periods, has faced challenges such as oil price fluctuations and global economic downturns that have hindered sustained growth. Studies by Ayinuola (2023) and Ogiemudia (2022) suggest that positive GDP growth rates lead to increased investor confidence, while negative growth or recessionary periods result in a fall in stock prices. Recently, the Nigerian economy has shown signs of sluggish growth, further reflecting in the underperformance of the stock market (Ebosu, 2022).

Unemployment is another key variable that influences stock market performance. High unemployment rates typically signal economic distress, reducing consumer spending and business profitability, which in turn negatively impacts stock market returns. In Nigeria, unemployment rates have been persistently high, and this economic challenge has contributed to the instability of the stock market. Unemployment leads to reduced domestic demand for goods and services, lowering company revenues and stock prices. Research by Adaramola (2013) and Ayinuola (2023) has shown that high unemployment rates are associated with lower stock market returns in Nigeria. The country's efforts to reduce unemployment through various policies have had limited success, and the ongoing high unemployment rate has posed a major challenge to both economic growth and stock market performance.

The continued rise in inflation, coupled with an unstable exchange rate, has led to lower investor confidence. Additionally, the economic recovery from the COVID-19 pandemic has been slower than anticipated, further contributing to market instability (Abu, 2023). The recent tightening of monetary policies by the Central Bank of Nigeria, in response to inflationary pressures, has further increased borrowing costs, negatively affecting stock market performance. Moreover,

political uncertainty, particularly in light of upcoming elections, has also contributed to market volatility. These challenges have resulted in a lacklustre performance of the Nigerian stock market in recent years, with investors closely monitoring any signs of improvement in macroeconomic conditions.

## **1.2 Statement of the Research Problem**

The Nigerian stock market has historically demonstrated considerable volatility, largely influenced by the country's macroeconomic environment. Recent trends indicate that while there have been periods of growth, the stock market often experiences significant downturns, driven by unpredictable shifts in key economic indicators. Despite an increasing body of literature linking macroeconomic variables to stock market performance, there is a significant gap in understanding why these fluctuations are more pronounced in the Nigerian context. The trends show that external factors such as oil price fluctuations and domestic issues, like inflation and exchange rate instability, play a significant role in shaping stock returns (Ogiemudia, 2022; Ayinuola, 2023).

There is a noticeable gap in understanding the role of external factors like global oil price shifts and how they indirectly influence the Nigerian stock market. Many studies focus on the direct effects of domestic macroeconomic variables but fail to incorporate external factors that shape the Nigerian economy, which can often amplify or mitigate domestic shocks (Abu, 2023).

Interest rates are one of the primary determinants of stock market performance, as they directly impact the cost of capital for businesses and consumers. A rise in interest rates typically leads to higher borrowing costs, reducing investment and stock returns, while lower interest rates can encourage investment. However, most studies have only examined the direct impact of interest

rates on stock prices, often neglecting to explore how investor behaviour adjusts to these changes. A gap lies in understanding how investor sentiment shifts in response to changes in interest rates, especially when there is uncertainty around policy adjustments by the Central Bank of Nigeria (Okoebor, 2022).

Another significant gap is the timing and frequency of interest rate changes and their long-term effects on stock market performance. Many studies consider interest rates in isolation, but the timing of rate hikes or cuts, combined with the broader economic context (such as inflation rates or exchange rate movements), is not explored comprehensively (Ayinuola, 2023).

Inflation has long been a central concern in economic discussions and is often cited as one of the primary causes of reduced stock market returns in Nigeria. High inflation erodes purchasing power, leading to reduced consumer spending and decreased profitability for companies.

Existing research highlights the negative correlation between inflation and stock returns (Ebosu, 2022), yet a significant gap remains in understanding how inflation affects stock returns indirectly through its impact on business costs, wages, and overall economic confidence. Inflation impacts the stock market by creating economic uncertainty, but studies often focus only on the immediate effects of inflationary pressures (Ogiemudia, 2022).

Moreover, inflation's effects on stock market returns are often analysed in isolation without considering how inflation expectations or stagflationary environments (where inflation and unemployment rise together) influence investor behaviour and market volatility (Adaramola, 2013). This gap in research limits the ability to develop strategies for mitigating the negative effects of inflation on the stock market.

Exchange rate fluctuations have long been acknowledged as a significant driver of stock market performance in Nigeria, primarily due to the country's reliance on oil exports and imports for business operations. When the Naira depreciates, the costs of imports rise, affecting businesses' profitability, especially in industries dependent on imported goods. While exchange rate depreciation is often linked to declining stock market performance, a major gap in existing research is the sector-specific impact of exchange rate fluctuations. For example, industries such as oil and gas may benefit from a weaker Naira, as it increases the value of their exports, while other industries that rely on imports suffer (Abu, 2023).

This sectoral differentiation is often overlooked in the literature, which tends to treat exchange rate changes as a uniform effect on the stock market (Adaramola, 2013). The gap exists in understanding how the stock market reacts to exchange rate fluctuations across different sectors and how these variations affect the overall market index. Furthermore, exchange rate volatility often compounds other macroeconomic factors like inflation, yet studies have not adequately explored how these compounded effects drive investor behaviour and market returns in specific sectors (Okoebor, 2022).

GDP growth is often cited as a key indicator of economic health, with positive growth typically correlated with increased stock market returns. However, the relationship between GDP growth and stock performance in Nigeria has not been studied in terms of the duration of growth phases. Existing studies often treat GDP growth as a static indicator, failing to consider how the length and sustainability of economic growth periods impact stock market returns.

Unemployment is a critical macroeconomic variable that influences stock market performance, as high unemployment rates signal economic distress and reduced demand for goods and services. While existing studies suggest a negative correlation between unemployment and stock

returns, there is a noticeable gap in the comprehensive study of unemployment's broader impact on economic confidence and its subsequent effect on stock market performance (Adaramola, 2013). High unemployment not only reduces consumer demand but also contributes to economic instability, which negatively affects stock prices and investor sentiment.

By addressing these gaps, this study aims to provide a more nuanced understanding of the interconnected macroeconomic variables that influence the Nigerian stock market and to offer insights that could help guide policy and investment decisions in a volatile economic environment.

### **1.3 Research Questions**

Based on the identified gaps, the study aims to answer these research questions:

1. How do changes in interest rates affect stock market returns in Nigeria?
2. To what extent do inflation rates influence stock returns in Nigeria?
3. What is the impact of exchange rate fluctuations on stock market returns in Nigeria?
4. How does GDP growth influence stock market returns in Nigeria?
5. What is the effect of unemployment rates on stock market returns in Nigeria?

### **1.4 Objectives of the Study**

The main objective of this study is to investigate the impact of macroeconomic variables on stock market returns in Nigeria. The specific objectives are to:

- i. analyse the effect of interest rates on stock market returns in Nigeria;
- ii. ascertain how inflation rates influence stock returns in Nigeria;
- iii. evaluate the impact of exchange rate fluctuations on market returns in Nigeria;
- iv. investigate the relationship between GDP growth and stock market returns in

Nigeria; and

- v. examine the effect of unemployment rates on returns in the stock market in

Nigeria.

### **1.5 Hypotheses of the Study**

The following hypotheses were formed to guide this study and are, however, stated in the null form;

H<sub>01</sub>: Interest rates do not have a significant impact on stock market returns in Nigeria.

H<sub>02</sub>: Inflation rates do not have a significant influence on stock returns in Nigeria.

H<sub>03</sub>: Exchange rate fluctuations do not have a significant impact on stock market returns in Nigeria.

H<sub>04</sub>: There is no significant relationship between GDP growth and stock market returns in Nigeria.

H<sub>05</sub>: Unemployment rates do not have a significant effect on stock market returns in Nigeria.

## 1.6 Significance of the Study

The relevance of this study lies in its ability to contribute to the understanding of the relationship between macroeconomic variables and stock market returns, a critical aspect for the Nigerian economy. The Nigerian stock market plays a vital role in capital formation, wealth creation, and overall economic stability. However, Nigeria's financial landscape is shaped by many external and internal factors, such as high inflation rates, fluctuating exchange rates and unemployment. These factors influence stock market performance, which in turn impacts the broader economy. This study seeks to fill the gap in knowledge by examining how these key macroeconomic indicators, such as interest rates, inflation rates, exchange rate fluctuations, GDP growth, and unemployment, affect stock market returns in Nigeria, providing critical insights that can help policymakers, investors, and other stakeholders navigate the complexities of the financial market.

The significance of this study is highlighted by its timeliness and necessity in the current economic climate. Nigeria's economy has been grappling with numerous challenges in recent years, including volatile oil prices, high inflation and exchange rate instability. These issues have contributed to fluctuations in the stock market, making it increasingly difficult for investors to predict market trends. This study is crucial because it will shed light on the dynamics between these macroeconomic variables and stock market performance, particularly given the recent economic policies, such as the unification of exchange rates and adjustments in interest rates by the Central Bank of Nigeria (CBN). Understanding the relationship between these variables is vital for creating strategies to stabilise the market and foster long-term economic growth.

The benefits of this research extend to various stakeholders. **Regulatory agencies**, such as the Central Bank of Nigeria (CBN) and the Securities and Exchange Commission (SEC), will find the study invaluable in formulating policies that promote financial stability and attract

investment into the stock market. By understanding how interest rates, inflation and other macroeconomic factors affect stock returns, these bodies can adjust policies accordingly to create a more conducive environment for investment. Investors, both institutional and retail, will also benefit from the findings as they will gain insights into how economic conditions impact stock market returns. This information will allow them to make more informed decisions and manage risks better, thus optimising their portfolios.

The study also holds significant value for **future researchers and students**. Academics and students studying economics, finance or business will benefit from the insights provided, as it will serve as a foundation for further research on financial markets, particularly in emerging economies like Nigeria. For future researchers, this study can provide a framework for examining the broader implications of macroeconomic factors on stock markets in similar developing economies. Moreover, the findings will assist students in understanding how realworld economic conditions impact financial markets, enriching their academic knowledge and practical understanding.

This research will also contribute to the broader understanding of financial markets and the macroeconomic environment in Nigeria. Policymakers, especially those working on national development plans, can use the findings to improve their strategies for economic growth. By identifying the key factors that drive stock market performance, the government can tailor its policies to address these issues, ensuring that the financial system remains stable and attractive to both local and foreign investors. Similarly, international stakeholders, including foreign investors and multinational corporations, will find the study useful in evaluating the risks and opportunities of investing in Nigeria's stock market.

## **1.7 Scope of the Study**

This study examines the relationship between macroeconomic variables and stock market returns in Nigerian banks. Specifically, it investigates how interest rates, inflation rates, exchange rate fluctuations, GDP growth, and unemployment rates influence the financial performance and stock market returns of banks listed on the Nigerian Exchange Limited (NGX). By examining the dynamic relationships between these macroeconomic factors and the banking sector, the study seeks to offer insights into how the broader economic environment influences the profitability, stock valuations, and investor sentiment within the Nigerian banking industry. The work will also evaluate the implications for policy formulation and investment strategies tailored to the financial sector.

The study covers the period from 1999 to 2024. This period was selected because it encompasses significant events that have influenced the Nigerian economy, particularly the banking sector. These include the response to the economic impact of the COVID-19 pandemic, changes in the monetary policy, including interest rate adjustments by the Central Bank of Nigeria (CBN), and the unification of exchange rates in 2023.. This timeframe provides a clear picture of the recent macroeconomic challenges and their impact on the banking sector, making it particularly relevant for analysing stock market performance in

Nigerian banks.

The geographical scope of this study is focused on Nigerian banks, specifically those listed on the Nigerian Exchange Limited (NGX). The study is centred on this area because Nigerian banks are key players in the country's financial system, and their performance is highly sensitive to macroeconomic factors. Given the central role of the banking sector in economic development,

understanding how external economic variables influence their stock market returns is crucial for both policymakers and investors. Nigeria's unique economic conditions, including high inflation, exchange rate volatility, and an oil-dependent economy, make it a fascinating case study for this type of research. The findings from this study will have direct implications for the banking sector, providing valuable insights for stakeholders within Nigeria's financial markets.

### **1.8 Limitations of the Study**

One of the key limitations of this study is the method used for data analysis. The study primarily uses quantitative methods to analyse the relationship between macroeconomic variables and stock market returns. While this method provides statistical insights, it may not fully capture the nuances of qualitative factors, such as investor sentiment or the impact of non-economic events (e.g., political instability). Additionally, the study's reliance on historical data and statistical models such as regression analysis may not account for future economic shocks or unforeseen changes in the financial environment. As a result, the findings might be limited by the constraints of the data analysis techniques used and the assumptions underlying the models.

The study focuses on Nigerian banks listed on the Nigerian Exchange Limited (NGX), which naturally limits the sample size to a relatively small number of institutions. While this approach provides a detailed look at the banking sector, it may not be fully representative of the entire financial market in Nigeria or other sectors outside of banking. A larger sample size, potentially including all listed companies or a broader range of sectors, would provide a more comprehensive understanding of the broader impact of macroeconomic factors on stock market returns across different industries. The small sample size may, therefore, limit the

generalisability of the findings to other sectors of the Nigerian economy or to emerging markets in general.

The study is limited to the period from 2020 to the present due to practical considerations, such as the availability of data and the need to complete the research within a reasonable timeframe. The chosen period encompasses significant events like the COVID-19 pandemic, changes in monetary policies, and fluctuations in exchange rates. While this timeframe is crucial for analysing the recent challenges faced by the Nigerian banking sector, it limits the study's ability to consider long-term trends or historical patterns before 2020. Extending the study to include data from previous years would have provided a more complete picture of how macroeconomic factors affect stock market returns over time. However, due to time constraints and the focus on recent developments, the study is confined to this period.

These limitations suggest that while the study provides valuable insights into the relationship between macroeconomic variables and stock market returns in Nigerian banks, the findings may not be fully generalisable to other sectors or applicable to future economic conditions. Future research could expand the sample size, explore qualitative factors, or extend the time period to enhance the depth and breadth of the analysis.

## **1.9 Definition of terms**

**Macroeconomic Variables:** Macroeconomic variables refer to the broad indicators that reflect the overall economic health of a country. These variables include inflation rates, interest rates, exchange rates, GDP growth, and unemployment rates.

**Stock Market Returns:** Stock market returns are the gains or losses made by investors in the stock market. These returns are typically calculated as the percentage change in the value of an

investment over time, including both capital gains and dividends received. In this study, stock market returns are used as a measure of the overall performance of the Nigerian stock market.

**Interest Rates:** Interest rates refer to the percentage charged on borrowed money or the return on investment over time. In the context of this study, interest rates are typically set by the Central Bank of Nigeria and play a crucial role in influencing investment behaviour in the stock market. Rising interest rates generally increase borrowing costs, thereby reducing stock market activity, while lower interest rates can stimulate investment in the stock market.

**Inflation Rates:** Inflation is the rate at which the general level of prices for goods and services rises, leading to a decrease in purchasing power. In this study, high inflation is considered a critical macroeconomic factor that negatively impacts the stock market, as it can lead to higher operational costs for businesses and erode the value of money held by investors.

**Exchange Rates:** Exchange rates refer to the value of one country's currency in relation to another. In this study, exchange rate fluctuations are specifically linked to the Nigerian Naira's value against foreign currencies like the US Dollar. These fluctuations are crucial in determining the cost of imports, the profitability of businesses, and stock market performance.

**GDP Growth:** Gross Domestic Product (GDP) growth is the increase in the economic output of a country. Positive GDP growth typically indicates a healthy economy, which is expected to correlate with positive stock market performance. This study examines how Nigeria's GDP growth, both positive and negative, influences stock returns in the Nigerian stock market.

**Unemployment Rates:** Unemployment rates represent the percentage of the labour force that is without work but is actively seeking employment. High unemployment often signals economic distress and is usually linked to reduced demand for goods and services, thereby negatively

affecting stock market returns. This study explores the relationship between Nigeria's unemployment rates and stock market performance.

**Monetary Policy:** Monetary policy refers to the actions taken by a country's central bank to control the money supply and interest rates. The Central Bank of Nigeria's monetary policies, including interest rate adjustments, are pivotal in shaping the macroeconomic environment and influencing stock market returns in Nigeria.

**Stock Market Performance:** Stock market performance is the overall condition of the stock market, typically measured by indices such as the Nigerian Stock Exchange All-Share Index (NSE ASI). Stock market performance is influenced by macroeconomic conditions, investor sentiment, and the economic health of a nation.

**Capitalisation:** Market capitalisation refers to the total value of a company's outstanding shares of stock. It is calculated by multiplying the share price by the number of shares in circulation. Market capitalisation is often used as an indicator of the size and performance of the stock market.

**Oil Price Volatility:** Oil price volatility refers to the fluctuation in oil prices due to changes in supply and demand dynamics, geopolitical tensions, or global economic conditions. Nigeria, being an oil-dependent economy, faces significant impacts on its stock market from oil price volatility.

**Investor Sentiment:** Investor sentiment refers to the overall attitude of investors towards the market or economy. It can be either positive or negative, and it often drives market trends. Investor sentiment in Nigeria is significantly affected by macroeconomic variables such as inflation rates, interest rates, and exchange rate fluctuations.

**Political Instability:** Political instability refers to the likelihood of government changes, social unrest, or other political factors that create uncertainty in an economy. In Nigeria, political instability has historically contributed to market volatility and affects investor confidence, influencing stock market returns.

**Economic Uncertainty:** Economic uncertainty refers to the unpredictability of economic factors such as inflation, interest rates, and government policies. In Nigeria, economic uncertainty is often caused by fluctuating oil prices, inflation, and the instability of the exchange rate, leading to stock market fluctuations.

**Fiscal Policy:** Fiscal policy refers to the government's use of public spending and taxation to influence the economy. In Nigeria, fiscal policy decisions, such as government spending on infrastructure and the taxation of corporations, have a direct effect on the stock market, as they influence business performance and investor decisions.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter deals with the theoretical frameworks relevant to the impact of macroeconomic variables on stock market returns in Nigeria. It explores key concepts such as interest rates, inflation, exchange rates, GDP growth, and unemployment, with a focus on their influence on stock market returns. The chapter also reviews empirical literature on the topic, leading to the development of a conceptual framework to understand the relationship between these macroeconomic factors and stock market returns in Nigeria.

#### **2.2 Conceptual Review**

##### **2.2.1 Stock Market Returns**

Stock market returns represent the gains or losses investors realise from owning stocks, encompassing price appreciation plus dividends over a given period. Globally, markets such as the S&P 500 have delivered average annual returns near 10%, or about 3.8% adjusted for inflation, making equities a prime asset class over the long run compared with bonds, gold, or real estate. However, returns are volatile and influenced by economic cycles, monetary policies, geopolitical tensions, and investor sentiment (Business Insider, 2025).

In the Nigerian context, the Nigerian Exchange (NGX) has delivered robust performance in 2025. The NGX All-Share Index rose by about 27.8% year-to-date as of mid-July 2025, making it one of the top-performing stock markets in Africa. Market capitalisation surged from approximately

₦62.8 trillion at the start of the year to nearly ₦88.4 trillion by July. Several factors fuelled this growth: exchange rate stability, improved foreign exchange liquidity, strong corporate earnings in banking, industrial goods, and consumer staples sectors, and ongoing market reforms including banking sector recapitalisation mandated by the Central Bank of Nigeria (CBN) (BusinessDay, 2025; Cowrywise, 2025; PwC Nigeria, 2025).

The Nigerian market saw a record N2.7 trillion in transactions during the first four months of 2025, propelled by both domestic and foreign investors. Foreign portfolio investments grew substantially, accounting for over 27% of equity trades, up from around 20% in 2024. This influx of foreign funds reflects increased confidence in Nigeria's economic reforms and relatively attractive valuations compared to global peers. Local institutional investors have also shifted from fixed income to equities in search of higher returns amid low bond yields (NGX Group, 2025).

From a conceptual standpoint, stock returns in Nigeria reflect compensation for bearing systematic risk amidst an emerging market environment with specific challenges such as currency volatility, political uncertainty, and regulatory changes. Models like Vanguard's Capital Markets Model, used globally, can be adapted to Nigerian data to predict returns and volatility, acknowledging that short-term outcomes are highly variable but long-term equity investment tends to yield positive growth (Vanguard Advisors, 2025).

Long-term return expectations for Nigeria are influenced by domestic economic growth prospects, inflation trends, policy certainty, and structural reforms in sectors like oil and banking. The NGX currently has several mid-cap and large-cap stocks with rising valuations; notably, at least 17 Nigerian companies now have market capitalizations exceeding \$1 billion. This has

improved market depth and liquidity, making it more attractive to international investors (Nairametrics, 2025).

Investor sentiment in Nigeria has fluctuated but shows growing optimism supported by improved macroeconomic stability and corporate earnings. Whereas global markets are experiencing sector rotations and technological disruptions, Nigeria's market gains are primarily driven by traditional sectors like banking, industrial goods, and consumer goods, reflecting a unique economic structure. The challenge remains to sustain momentum amid external shocks and domestic policy risks (Morgan Stanley, 2025; Charles Schwab, 2025).

Nigerian stock market returns in 2025 exemplify a frontier market with strong growth potential amid elevated risks. The blend of increasing foreign investment, market reforms, corporate profit growth, and stabilising macroeconomics provides a fertile ground for above-average returns. However, investors must remain mindful of volatility, liquidity constraints, and geopolitical factors, employing diversification and a long-term perspective to benefit from the

Nigerian equity market's opportunities (BusinessDay, 2025; NGX Group, 2025; PwC Nigeria, 2025; Cowrywise, 2025).

## **2.2.2 Macroeconomic Variables**

### **2.2.2.1 Interest Rates**

Interest rates are fundamental to both the Nigerian economy and global financial markets, representing the cost of borrowing money or the return on lending capital over time, typically expressed as an annual percentage. They compensate lenders for the time value of money, inflation risk, and credit risk, thus influencing investment, consumption, and savings decisions.

As noted by financial experts like Dr. Uju Ogubunka, a President of the Bank Customers Association of Nigeria, interest rates reflect the economic reality Nigerians face, shaped by domestic inflation, currency stability, and regulatory policy (Ogubunka, 2025; Central Bank of Nigeria, 2017). The Central Bank of Nigeria's Monetary Policy Rate (MPR) remains a significant benchmark, impacting commercial bank lending rates and overall credit availability necessary for economic activity and growth.

Academic research published in the Nigerian Journal of Banking and Financial Issues by Professors J. A. Oloyede & B. A. Azeez highlights that Nigerian interest rates are typically higher than those in developed economies. This premium arises due to factors like inflationary pressures, foreign exchange volatility, and risk premiums demanded by lenders in the Nigerian context (Oloyede & Azeez, 2025). Interest rates in Nigeria are also influenced by capital market reforms and evolving monetary policy tools aimed at balancing inflation control and economic growth stimulation (PwC Nigeria, 2025).

Nigerian finance experts highlight the dual nature of interest rates as both nominal (stated on loans or deposits) and real (adjusted for inflation), with varied instruments reflecting fixed or variable rates depending on loan terms and market conditions. Experts like Eyitemi Efole emphasise the importance of understanding these distinctions for effective financial planning, given Nigeria's economic volatility and inflation backdrop (Efole, 2025). Furthermore, compounding interest's exponential effect underscores the critical role rates play in wealth accumulation or debt servicing over time.

Factors driving Nigerian interest rates include inflation expectations, monetary policy stance from the CBN, credit risk assessments, liquidity conditions, and macroeconomic growth prospects. Isa Alade and colleagues note that prevailing high inflation rates above 30% in

Nigeria create upward pressure on nominal interest rates, while policy shifts from the CBN modulate credit costs to manage inflation and support investment (Alade et al., 2025). The domestic credit environment is uniquely shaped by regulatory reforms, currency policy, and financial sector developments, which collectively impact rate volatility and lending practices (PwC Nigeria, 2025).

Interest rates exert broad economic influence by affecting consumption, investment, saving behaviour, and capital flows. Lower interest rates encourage borrowing and spending on durable goods and business expansion, stimulating economic growth, while higher rates incentivise saving but may suppress demand, helping to control inflation. These mechanisms have been witnessed in Nigeria's recent monetary policy adjustments, where the CBN has navigated complex trade-offs between inflation containment and growth sustainability, as observed by financial analysts and professionals (Ogubunka, 2025; PwC Nigeria, 2025).

In sum, contemporary Nigerian financial thought, anchored by academics and practitioners like Prof. J. A. Oloyede, Dr. Uju Ogubunka, and Eyitemi Efole, portrays interest rates as a critical barometer of economic health and financial market conditions. Effective interest rate policy, guided by the CBN and informed by capital markets, remains central to balancing inflation, currency stability, and growth, amidst evolving domestic and global challenges (Oloyede & Azeez, 2025; Ogubunka, 2025; Alade et al., 2025; PwC Nigeria, 2025). Understanding Nigerian-specific economic, regulatory, and market risks is essential to comprehending and anticipating interest rate trends in this dynamic economy.

### **2.2.2.2 Inflation Rates**

Inflation rates measure the rate at which the general price levels of goods and services in an economy rise over time, thereby eroding purchasing power. In Nigeria, inflation has been a persistent economic challenge with significant impacts on living standards, monetary policy, and business planning. As noted by Tunji Andrews, CEO and Founder of Awabah, Nigeria's inflation rate is projected to drop closer to 15% by the end of 2025, marking a substantial improvement driven by stabilising prices of everyday commodities and adjustments to the inflation basket that now weighs less on volatile petrol costs (Andrews, 2025). This trend aligns with the government's and Central Bank of Nigeria's (CBN) sustained efforts to curb inflation through fiscal discipline and monetary tightening (Yusuf, 2025).

The Consumer Price Index (CPI), Nigeria's primary inflation measure, showed a decline in annual inflation to 21.88% in July 2025, the lowest since early 2023, helped by currency stability and a drop in petrol prices. However, food inflation, a dominant component representing about 52% of the price basket, remained elevated, slightly rising to 22.74% in July due to seasonal factors and supply chain disruptions (National Bureau of Statistics, 2025;

Trading Economics, 2025). Dr. Muda Yusuf, CEO of the Centre for Protection of Private Enterprises, attributes recent inflation moderation partly to base effects, as the high price levels recorded in 2024 gradually recede from the year-on-year comparisons, providing room for a more positive outlook (Yusuf, 2025).

Economic forecasts from Parthian Partners estimate that headline inflation may continue its gradual descent to approximately 22.37% as of June 2025, supported by subdued consumer demand and modest petrol price moderation, though short-term fluctuations remain due to global

oil price volatility and geopolitical tensions (Parthian Partners, 2025). Inflation expectations surveys report that large corporations perceive higher inflationary pressures than smaller firms, reflecting supply chain vulnerabilities and input cost hikes (CBN, 2025).

Nigeria's inflation experience is shaped by a complex interplay of domestic monetary policy, fiscal spending, such as the 2025 budget with increased allocations for security and infrastructure, and external factors like exchange rate movements and global commodity prices. President Bola Tinubu's administration aims to reduce inflation from historic highs near 35% in late 2024 to the 15% target by end of 2025, a goal met with cautious optimism by economists considering implementation challenges (Andrews, 2025; Yusuf, 2025).

### **2.2.2.3 Exchange Rates Fluctuations**

Exchange rate fluctuations refer to the variations in the value of one currency relative to another over time. For Nigeria, the exchange rate of the Nigerian Naira (NGN) against major currencies such as the US Dollar (USD) has been subject to significant volatility, influenced by both domestic and global economic factors. As of mid-2025, the USD/NGN exchange rate has experienced widening fluctuations, trading officially at around ₦1,498 per US Dollar, while the parallel (black market) rate often exceeds ₦1,600 per Dollar, reflecting persistent pressures on foreign exchange supply (EBC, 2025; MoneyAfrica, 2025).

The primary driver of these fluctuations is Nigeria's dependence on oil exports, which constitute over 90% of its foreign exchange earnings. Variations in global oil prices directly affect Nigeria's foreign reserves and forex availability, causing the Naira to fluctuate sharply. Additionally, the Central Bank of Nigeria (CBN) has taken steps including unifying multiple exchange rates under

a floating regime since 2023, aiming to stabilise the currency and improve market efficiency. However, this transition initially led to pronounced depreciation, with the Naira falling from around ₦460 per USD in 2023 to a record low near ₦1,738 in late 2024 before partially recovering (Foakinrele, 2025).

Other factors driving exchange rate volatility include inflationary pressures, foreign investor sentiment, fiscal deficits, and global financial market trends. Inflation in Nigeria, which has remained elevated, erodes the Naira's purchasing power and fuels depreciation. Fiscal imbalances and government borrowing increase demand for foreign currency, further straining reserves (Central Bank of Nigeria, 2025). Analysts like Foakinrele observe that short-term rates show a pattern of sharp declines followed by periods of relative stability, reflecting attempts by the CBN to manage market expectations and liquidity (Foakinrele, 2025).

The economic implications of these fluctuations are significant. Currency volatility affects import costs, inflation, capital flows, and business planning. For consumers, it translates into price uncertainty and higher costs, while for investors, it introduces risk related to foreign exchange exposure. Nigeria's export competitiveness also hinges on the exchange rate, influencing trade balances and the broader macroeconomic outlook (IMF, 2025; EconJournals, 2025).

Looking ahead, projections by economic forecasters anticipate continued gradual depreciation of the Naira, with the USD/NGN rate potentially reaching ₦1,672 by mid-2025 and escalating beyond ₦1,800 in the medium term if inflation and forex supply issues persist (EBC, 2025). The Nigerian government and CBN remain committed to stabilising the currency through policy reforms, forex market interventions, and economic diversification efforts to reduce oil dependency and strengthen external reserves (IMF, 2025). Nonetheless, exchange rate stability in

Nigeria continues to be inherently tied to global commodity markets and domestic economic reforms.

#### **2.2.2.4 GDP Growth**

Gross Domestic Product (GDP) growth measures the increase in the value of all goods and services produced by a country over a specific period, usually a year or a quarter. It is a primary indicator of economic health, reflecting how fast an economy is expanding or contracting.

In the first quarter of 2025, Nigeria's GDP grew by 3.13% year-on-year, an improvement from 2.27% growth in the same period of 2024, according to the National Bureau of Statistics (NBS). This growth was driven largely by robust performance in the services sector, which expanded by 4.33% and contributed 57.5% to total GDP. Within this sector, telecommunications and information services had notable growth of 7.40%, significantly supporting overall economic output. The industrial sector also performed well, growing by 3.42%, led by manufacturing and other industries, while the oil sector's growth moderated to 1.87% amid production challenges (NBS, 2025; Nairametrics, 2025; Trading Economics, 2025).

Nigeria's nominal GDP reached approximately ₦94.05 trillion in Q1 2025, up from ₦79.51 trillion in Q1 2024, representing an 18.3% year-on-year increase. This growth follows a rebasing of the GDP base year from 2010 to 2019, enabling a more accurate reflection of the country's economic structure and size. The rebasing increased Nigeria's estimated nominal GDP to ₦372.8

trillion (\$243 billion) as of 2024, highlighting shifts toward service-related industries and technological sectors (NBS, 2025; Channelstv, 2025).

The International Monetary Fund (IMF) recently upgraded Nigeria's GDP growth forecast for 2025 from 3.0% to 3.4%, suggesting improved economic prospects and investor confidence. Analysts from FBNQuest also project a 3.4% GDP growth for 2025, reflecting optimism about continued recovery momentum supported by macroeconomic stability and policy reforms. However, Nigeria faces structural challenges including unemployment, infrastructure deficits, and a need for economic diversification beyond oil dependency (IMF, 2025; FBNQuest, 2025; United Capital, 2025).

#### **2.2.2.5 Unemployment Rates**

Unemployment rate is defined as the percentage of the labour force that is without work but is actively seeking employment. It is a vital economic indicator that reflects the health of the labour market and overall economy. In Nigeria, unemployment remains one of the most pressing socio-economic challenges, particularly affecting the youth and recent graduates.

Recent data from the National Bureau of Statistics (NBS) and other credible sources indicate that official unemployment in Nigeria was recorded at approximately 4.3% in the second quarter of 2024, following changes in methodology by the NBS that now align with International Labour Organization standards. This methodological revision redefined employment and unemployment criteria, significantly lowering unemployment rates from the previously published figures, which exceeded 30% due to narrower definitions (NBS, 2025; African Business, 2025). Underemployment remains significant at around 9.2%, highlighting a large proportion of Nigerians working fewer hours than desired or in low-productivity conditions.

Despite this official figure, structural unemployment, especially youth unemployment, remains high. The youth unemployment rate is reported as approximately 6.5%, affecting an estimated 4.18 million youths aged 15 to 34. This stark contrast reveals ongoing labour market mismatches and insufficient formal sector job creation. Analysts such as Sewuese Leah Anyo emphasize that while the headline unemployment rate might seem moderate, it conceals widespread underemployment, informal labour, and a significant skills-opportunity gap that restricts productive employment for Nigerians, particularly the educated youth (Anyo, 2025; Afrobarometer, 2025).

Projections indicate that unemployment may rise to about 4.84% by 2025, with nearly 3.9 million Nigerians expected to be unemployed. This projection underscores the persistent challenge of job creation amid a rapidly growing labour force. Experts argue that addressing this issue requires systemic reforms in education-to-employment pathways, incentivization of small and medium-sized enterprises (SMEs), investment in emerging sectors such as digital and green economies, and enhanced public-private collaboration (Anyo, 2025).

The labour market situation in Nigeria is further complicated by the prevalence of selfemployment, constituting roughly 93% of the labour force, indicating a large informal economy where job security, income stability, and social protections are limited. Trade unions and civil society have questioned the accuracy of the revised unemployment figures, arguing they underestimate the real extent of joblessness and underemployment (African Business, 2025; NBS, 2025).

## **2.3 Theoretical Review**

### **2.3.1 Efficient Market Hypothesis (EMH)**

The Efficient Market Hypothesis (EMH), propounded by Eugene Fama in his landmark 1970 paper "Efficient Capital Markets: A Review of Theory and Empirical Work," suggests that stock prices at any point fully incorporate all relevant information, making abnormal gains through information arbitrage impossible. Fama defined markets as "informationally efficient" if prices at each moment incorporate all available information about future values, implying that neither technical analysis nor fundamental analysis can consistently yield excess returns beyond the market average.

Recent Nigerian studies using Nigerian Stock Exchange (NSE) data by Gimba (2009) and more recently by Gbanador (2021) assess market efficiency, showing that the NSE partially exhibits weak to semi-strong form efficiency. This means stock prices generally respond swiftly to macroeconomic variables such as inflation, interest rates, GDP growth, exchange rates, and employment data. For example, price changes following Consumer Price Index and monetary policy announcements by the Central Bank of Nigeria rapidly influence investor expectations and pricing. Inflation and interest rate movements alter the discount rates embedded in valuations, while GDP growth signals corporate earnings potential. Exchange rate fluctuations impact foreign investor behaviour, and employment statistics affect market optimism, confirming EMH's premise on Nigeria's evolving market informational efficiency (Ogunsakin et al., 2025; Gbanador, 2021; Fama, 1970).

### **2.3.2 Dividend Discount Model (DDM)**

The Dividend Discount Model (DDM) was introduced by John Burr Williams in his 1938 seminal work, *The Theory of Investment Value*. Williams articulated that the intrinsic value of a stock is the present value of all its expected future dividends, discounted back at a rate reflecting opportunity cost and inflation risks. He famously illustrated this idea with the poem: "A cow for her milk, A hen for her eggs, And a stock, by heck, For her dividends," emphasising that dividends are the fundamental cash flows for equity investors.

In the context of Nigeria, inflation and interest rates critically affect the discount rate in the DDM framework. Higher inflation raises the required rate of return, which weighs down stock valuations unless dividend growth compensates. Similarly, interest rates set by the monetary policy alter alternative investment returns, influencing discount factors and thus stock prices. Nigeria's 2025 market shows resilience with consistent dividend payments, particularly in banking and consumer goods sectors, mitigating the negative impact of inflation and interest rate volatility as noted in recent PwC Nigeria (2025) analyses and empirical studies by Oladosu and Topbie (2024). Additionally, exchange rate fluctuations affect foreign investors' real returns, which influences demand for dividend-yielding Nigerian stocks when dividends are converted into foreign currencies, altering valuations.

### **2.3.3 Capital Asset Pricing Model (CAPM)**

The Capital Asset Pricing Model (CAPM), developed by William F. Sharpe in 1964, estimates expected stock returns as the sum of the risk-free rate plus a risk premium proportional to a security's systematic risk or beta. In Nigeria, the risk-free rate is commonly proxied by government bond yields, which reflect inflation trends and fiscal policy credibility. For example,

persistent inflation erodes the real risk-free rate, increasing yields demanded by investors to compensate for purchasing power loss. Conversely, strong gross domestic product (GDP) growth, recorded at about 3.13% in early 2025 by the National Bureau of Statistics, signals improving economic fundamentals that generally reduce market risk premiums, encouraging equity investment.

However, volatility in inflation, exchange rates, and unemployment magnify market risks and raise investor required returns, thereby increasing risk premiums in CAPM calculations.

Analysts at FBNQuest (2025) incorporate these macroeconomic uncertainties to interpret Nigerian equity returns, showing how inflation uncertainty elevates expected returns. Exchange rate fluctuations inject currency risk, especially affecting foreign portfolio investors seeking Nigerian assets, demanding higher equity risk premiums. Rising unemployment creates economic uncertainty, depressing earnings prospects and raising required returns. These macroeconomic variables dynamically influence CAPM parameters—beta sensitivity, risk-free rate, and market risk premium—affecting stock pricing and expected returns.

Several empirical studies have applied CAPM to Nigerian data. Ogiugo, Adesuyi, and Ogbeide (2020) used CAPM to estimate stock returns of firms listed on NSE between 2010 and 2016, finding a positive relationship between beta coefficients and stock returns, supporting CAPM's core proposition that higher market risk commands higher expected returns. Despite some critiques whereby CAPM predictions do not always hold perfectly in Nigeria's frontier market environment due to market inefficiencies (Adesuyi et al., 2020), CAPM remains a widely used framework for equity valuation and expected return estimation in Nigeria's capital markets.

### **2.3.4 Behavioural Finance Theory**

Behavioural finance, originally developed by psychologists Daniel Kahneman and Amos Tversky in the late 1970s, integrates psychology with economics to explain how cognitive biases, sentiment, and herd behaviour influence stock prices, especially in emerging markets like Nigeria with information asymmetry and institutional gaps. In Nigeria's context, recent research and market performance in 2025 illustrate this theory vividly. The Nigerian stock market's 27.84% year-to-date return recorded by the Nigerian Exchange Group (NGX) partly reflects market optimism propelled by government reforms, monetary policy announcements, and investor sentiment rather than purely fundamental economic indicators (Cowrywise, 2025; NGX, 2025).

Macroeconomic variables such as inflationary pressures, exchange rate uncertainties, GDP fluctuations, and concerns about employment significantly affect investor sentiment. For example, high inflation and currency volatility amplify uncertainty and risk perceptions, sometimes causing overreactions or panic selling, leading to price swings that diverge from fundamental valuations predicted by models like EMH or CAPM. Afrobarometer (2025) reports highlight that Nigerian investors' perceptions and expectations drive significant trading behaviours that amplify market volatility. Empirical studies (Abdullahi et al., 2022; Rupande et al., 2019) show that investor sentiment significantly influences stock return volatility in Nigeria, emphasizing that investor mood and cognitive biases (e.g., overconfidence, herd instincts) shape market dynamics.

Furthermore, proxies such as consumer confidence index (CCI), initial public offerings (IPOs), and dividend premiums have been linked to stock price movements on the NSE, confirming that

sentiment-based factors operate alongside traditional fundamentals (Latif et al., 2025). Turnover rates inversely relate to market pricing in Nigeria, indicating that heightened trading from speculative behaviour often leads to price corrections. These findings suggest behavioural factors are priced risks in Nigeria's stock market, reflecting the limited market depth and information inefficiencies typical of frontier markets (Abdullahi et al., 2022).

## **2.4 Empirical Review**

### **2.4.1 Interest Rates and Stock Market Returns in Nigeria**

Adekunle et al. (2024) assessed the impact of interest rates, exchange rates, and inflation on stock market returns and volatility in Nigeria using monthly data from January 2000 to September 2022. They employed Autoregressive Distributed Lag (ARDL) and Generalised Auto-Regression Conditional Heteroskedasticity (GARCH) models. The study found that the prime lending rate significantly influenced stock market returns with a lag of one month, showing that stock prices tend to react to changes in interest rates after a short delay.

Furthermore, maximum lending rate, prime lending rate, interbank rate, and Treasury bill rate substantially affected stock market volatility. However, inflation did not have a significant effect on returns during the study period. The authors concluded that Nigerian monetary authorities should prioritise managing interest rate mechanisms to stabilise the stock market (Adekunle et al., 2024).

Babangida and Khan (2021) explored the nonlinear impacts of monetary policy, including interest rates, on Nigerian stock market performance from 2013 to 2019, applying a Smooth Transition Autoregressive (STAR) model. They discovered asymmetric effects of interest rates

on stock returns: rate hikes negatively influenced stock returns more during bearish market regimes, while effects were less pronounced or mixed in bullish phases. They also noted that money supply had a positive and significant impact on stock market prices, while the treasury bill rate showed opposing effects depending on its current or lagged value. The study highlights the complexity of interest rate impacts on the Nigerian stock market, revealing that monetary policy's effect depends on broader market conditions (Babangida & Khan, 2021).

Omodero, Adetula, and Adeyemo (2021) investigated the interplay between monetary policy and stock market development in Nigeria, focusing on interest rates and money supply. Using secondary data and econometric analysis, they found that increased interest rates dampened stock market investment by elevating the cost of finance, making stocks less attractive compared to fixed-income assets. Conversely, expansions in the money supply positively influenced stock market activity by increasing liquidity. Their findings emphasized the need for monetary policymakers to balance interest rate levels with liquidity to ensure healthy stock market growth without causing inflationary pressures or liquidity shortages (Omodero et al., 2021).

#### **2.4.2 Inflation Rates and Stock Market Returns in Nigeria**

Adekunle et al. (2024) examined how inflation, along with exchange rate and interest rate, influences stock market returns and volatility in Nigeria from January 2000 to September 2022. Using advanced econometric models (ARDL and GARCH), they found that inflation did not significantly impact stock returns in this period, while interest rates and exchange rates had more pronounced effects. The study suggested that recent monetary policy tightening and exchange rate stabilisation dampened inflation's adverse effects, allowing the stock market to decouple

from inflation volatility. The authors highlighted that monetary authorities should focus on broader macroeconomic stabilisation to sustain stock market growth (Adekunle et al., 2024).

Mbadiugha and Ugwunta (2022) explored the dynamic relationship between inflation and stock market returns in Nigeria using quarterly data covering 2010 to 2020. Applying vector error correction and causality models, they found an inverse long-term relationship between inflation and stock market returns, supporting the idea that sustained high inflation erodes stock values by increasing uncertainty and reducing future earnings expectations. However, short-run dynamics showed some positive effects tied to inflation being interpreted as a signal of expanding economic activity. They recommended anti-inflationary policies to maintain investor confidence and promote stock market development (Mbadiugha & Ugwunta, 2022).

Ibrahim and Ogunmola (2023) conducted an empirical investigation using monthly data from 2015 to 2022 to assess inflation's impact on Nigerian stock market returns employing GARCH models to capture volatility clustering. Their findings revealed that inflation significantly increased stock return volatility, making the Nigerian stock market riskier during periods of rising prices. They noted that while rising inflation may provide nominal gains, the heightened volatility underscores the need for policy consistency and effective inflation targeting to stabilise returns and encourage investment inflows (Ibrahim & Ogunmola, 2023).

#### **2.4.3 Exchange Rates Fluctuations and Stock Market Returns in Nigeria**

Abass et al. (2024) investigated the dynamic relationship between exchange rate movements and stock market returns on the Nigerian Stock Exchange (NSE) using monthly data from 2009 to 2023. Applying a Vector Autoregressive (VAR) model alongside cointegration and Granger causality tests, the study found no significant long-term cointegrating relationship between

exchange rates and stock prices. Short-term responses indicated a sluggish effect of exchange rate shocks on equity returns, with limited predictive power of exchange rates on stock prices. The authors concluded that while exchange rate volatility exists, it does not directly or significantly impact the Nigerian stock market performance, suggesting other macroeconomic factors or market inefficiencies may overshadow FX effects (Abass et al., 2024).

Adewale and Egbide (2023) explored the impact of exchange rate volatility on stock market returns and volatility in Nigeria from 2010 to 2022. Using GARCH-family models, they reported that currency depreciation tends to exert negative pressure on stock returns, mainly through increasing corporate cost structures and reducing investor confidence. However, they also noted that currency appreciation had a more substantial positive effect on stock returns compared to depreciation's adverse effect, reflecting increased foreign portfolio inflows during periods of FX strength. The study emphasized the role of stable foreign exchange regimes in boosting market liquidity and investor participation (Adewale & Egbide, 2023).

PwC Nigeria (2025), in their Nigerian Capital Market Update, reported growing foreign portfolio investment inflows attracted by Nigeria's improving exchange rate stability and market reforms. From June 2024 to June 2025, the Nigerian naira appreciated by about 5% against the US dollar, strengthening investor confidence and supporting a 16.57% rise in the

NGX All Share Index during the first half of 2025. The report highlights that the Electronic Foreign Exchange Matching System (EFEMS) enhanced FX market transparency and liquidity, indirectly fostering a more favourable environment for stock market growth driven by foreign participation. These structural improvements link exchange rate management to stock market performance by moderating currency risk and encouraging capital inflows (PwC Nigeria, 2025).

#### **2.4.4 GDP Growth and Stock Market Returns in Nigeria**

Lawal, Auwal, and Maijamaa (2025) investigated the role of the Nigerian stock market in driving economic growth using data from 1993 to 2023. Employing an Ordinary Least Squares (OLS) regression approach, they examined the impact of stock market indicators like market capitalization, stock turnover ratio, and trade volume on Nigeria's Gross Domestic Product (GDP). Their findings revealed a statistically significant positive correlation between stock market development and economic growth. The study concluded that an efficient and active stock market promotes economic expansion by facilitating capital formation and more efficient resource allocation, thus reinforcing GDP growth (Lawal et al., 2025).

John et al. (2025) examined the linkage between stock market performance and Nigeria's economic growth between 1986 and 2023 using ex-post facto research design with data sourced from the Nigerian Stock Exchange, Central Bank of Nigeria, and Securities and Exchange Commission. The study found significant positive relationships between stock market appreciation and long-run GDP growth, though some stock market variables showed weak or insignificant correlations. The authors underscored the role of stock market development as a catalyst for economic growth, with caution about mixed effects of some variables requiring further research (Aigbogun & Ozigbo, 2025).

Adesokan, Oluwayemisi, Adeleke, and Ojo (2025) critically examined macroeconomic variables, including GDP, inflation, interest rate, exchange rate, and money supply, on Nigerian stock market performance from 1993 to 2020 using Autoregressive Distributed Lag (ARDL) techniques. They reported a positive but statistically insignificant relationship between GDP and stock market performance, indicating that increases in GDP tend to support stock market returns

though other factors also intervene. The study highlighted the complexity and interdependence of macroeconomic variables influencing stock market outcomes in Nigeria (Adesokan et al., 2025).

#### **2.4.5 Unemployment Rates and Stock Market Returns in Nigeria**

Adesokan, Oluwayemisi, Adeleke, and Ojo (2025) analyzed the effect of macroeconomic variables including unemployment rate on Nigerian stock market performance from 1993 to 2020 using the Autoregressive Distributed Lag (ARDL) model. They found that unemployment negatively and significantly affects stock market performance, indicating that rising unemployment reduces investor confidence and market liquidity, thereby depressing stock returns. The study concluded that tackling unemployment is critical for enhancing stock market growth and stability in Nigeria (Adesokan et al., 2025).

Asaolu, Olokoyo, and Fasanya (2022) examined the relationship between stock market returns and unemployment in Nigeria from 2000 to 2020 using Granger causality and Vector Error Correction Models (VECM). The research revealed a unidirectional causality from unemployment to stock market returns where increased unemployment leads to decreased stock returns. Their findings underline how labour market conditions shape investor sentiment and economic outlook, which in turn influence stock valuations. They recommended policies promoting job creation to sustain stock market development (Asaolu et al., 2022).

Ezekwesili and Chukwukelu (2023) investigated the impact of youth unemployment on the Nigerian stock market returns over the period 2010–2022. Using panel regression analysis of various market sectors, they found that high youth unemployment exacerbates market volatility and reduces overall stock returns due to weaker domestic consumption and business confidence.

Their study suggested government interventions in youth employment as a pathway to stabilizing and boosting stock market activity (Ezekwesili & Chukwukelu, 2023).

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter outlines the methodology adopted to achieve the objectives of this study on the relationship between macroeconomic variables and stock market returns in Nigeria. It discusses the research design, population and sample of the study, sources of data, model specification, operationalization of variables, and the methods of data analysis employed.

#### **3.2 Research Design**

This study adopts a quantitative ex-post facto research design, which is appropriate for examining the effect of macroeconomic variables on stock market returns in Nigeria using historical data. An ex-post facto design is employed when the objective is to determine cause and effect relationships between variables without manipulating them. In this context, the study investigates how macroeconomic variables such as interest rates, inflation rates, exchange rate fluctuations, GDP growth, and unemployment rates influence stock market returns, as reflected in the performance of Nigerian stocks over time.

The ex post facto design enables the application of econometric and statistical techniques to identify and quantify the relationships between macroeconomic variables and stock market returns. This approach improves the robustness of the findings, providing empirical evidence on how macroeconomic conditions influence stock market performance. The design is particularly suitable for this research because it avoids the ethical concerns associated with manipulating

macroeconomic data or stock market outcomes, while still providing valuable insights into the impact of macroeconomic variables on stock market returns in Nigeria.

### **3.3 Population and Sample of the Study**

The population for this study consists of stock market returns and macroeconomic variables in Nigeria. The sample used in this study is twenty six (26) year period from 1999 to 2024 was chosen because it captures Nigeria's post-military democratic era, during which significant economic reforms, policy shifts, and market liberalization efforts were implemented. This timeframe provides a comprehensive view of how key macroeconomic variables have influenced stock market returns through various political, economic, and financial cycles.

### **3.4 Source of Data**

The data for this study are entirely secondary in nature, sourced from Central Bank of Nigeria statistical bulletin and the Nigerian Exchange Group bulletin. These documents provide detailed information on key financial performance indicators, stock market returns, and macroeconomic variables such as interest rates, inflation rates, exchange rates, GDP growth, and unemployment rates, which are necessary for evaluating the relationship between macroeconomic variables and stock market returns in Nigeria.

### **3.5 Data Collection Method**

The audited financial statements and annual reports was accessed from official websites or from financial databases such as the NSE listings, the Central Bank of Nigeria (CBN), and the Nigerian Exchange Group (NEG). These documents provided key data on stock market returns,

financial performance, and other essential metrics like market inflation rate, interest rates, capital gains amongst others macroeconomic variables.

### **3.6 Theoretical Framework and Model Specification**

#### **3.6.1 Theoretical Framework**

This study is anchored in the Efficient Market Hypothesis (EMH), which provides a comprehensive explanation for understanding the relationship between macroeconomic variables and stock market returns in Nigeria. The theory posits that financial markets are "informationally efficient," meaning that asset prices reflect all available information at any given time. According to the EMH, any new information, such as changes in interest rates, inflation, or exchange rates, is quickly incorporated into stock prices, making it impossible for investors to outperform the market consistently (Fama, 1970). Changes in interest rates are rapidly incorporated into stock prices, as reflected in the Efficient Market Hypothesis. When the Central Bank adjusts interest rates, investors quickly factor this new information into stock prices, adjusting their expectations about future profits. According to Fama (1970), interest rate changes lead to immediate adjustments in the stock market because they directly affect the cost of borrowing and investment decisions. Rising interest rates generally lead to lower stock prices due to higher borrowing costs, which impact corporate earnings and investor sentiment.

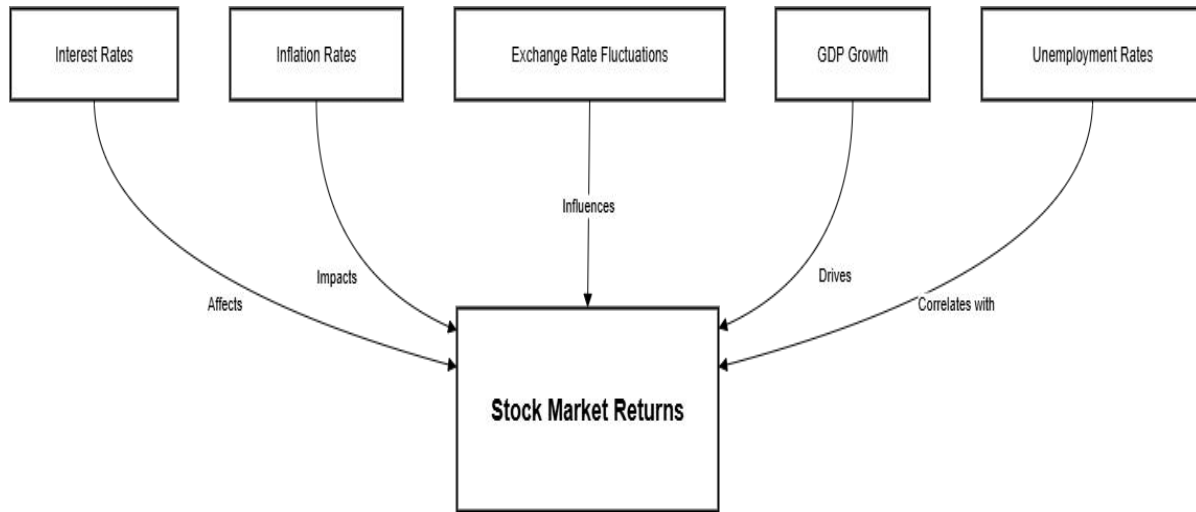
Inflation rates also play a critical role in stock returns, with the EMH suggesting that stock prices immediately adjust to changes in inflation expectations. When inflation rises, the purchasing power of consumers decreases, raising business costs and reducing corporate profitability.

According to Mishkin (2007), inflation erodes real returns on investments and leads to higher operating costs for businesses, which in turn negatively impacts stock market performance. Blanchard and Johnson (2012) suggest that stock prices reflect these changes as soon as inflation data is released, as investors adjust their expectations about future profits in response to rising costs.

The impact of exchange rate fluctuations on stock market returns is similarly quickly reflected in the prices of stocks, particularly for companies with significant international exposure. According to the EMH, as exchange rates change, the stock market adjusts rapidly because these fluctuations directly affect the profitability of companies that import or export goods. For example, Chakrabarti and Jayaraman (2008) find that exchange rate depreciation typically leads to a fall in stock prices for import-dependent firms due to increased costs, while export-oriented firms benefit from a weaker currency, causing their stock prices to rise. GDP growth is another macroeconomic factor that is reflected in stock market returns, with the EMH suggesting that positive or negative economic growth is quickly absorbed by the market. A growing economy typically leads to higher corporate profits, which results in an increase in stock prices. According to Gordon (1998), stock prices adjust to reflect the expected growth in GDP, as it signals a positive economic environment conducive to business expansion. Conversely, a slowdown in GDP growth signals potential challenges for businesses, leading to falling stock prices.

Finally, unemployment rates also influence stock returns, with the EMH suggesting that any changes in unemployment data are quickly incorporated into stock prices. High unemployment indicates an economic downturn, reducing consumer spending and corporate profitability, which generally leads to a decrease in stock prices. According to Shiller (2000), the stock market reacts quickly to unemployment figures, adjusting to the expected effects on the broader economy.

**Schematic Representation of the Model**



**Figure 1: Schematic representation of the model developed by the researcher, adapted from the Efficient**

*Market Hypothesis (Eugene Fama, 1970)*

**3.6.2 Model Specification**

In specifying the model for this study, the researcher adapted and modify the model used by Omotor (2010) to examine inflation and stock market returns. Therefore, this study adopts the same approach as modified and specified. The function form of the model is expressed as follows:

Functional Form of the Model:

$$\text{Capital gains} = f(\text{Interest Rates, Inflation Rates, Exchange Rates, GDP Growth, Unemployment Rates}) \dots\dots\dots (1)$$

$$\text{CAPG} = f(\text{IR}, \text{INF}, \text{EXR}, \text{GDP}, \text{UNEMP}) \dots\dots\dots (2)$$

The model can be expressed econometrically as:

$$\text{CAPG}_{it} = \beta_0 + \beta_1 \text{IR}_{it} + \beta_2 \text{INF}_{it} + \beta_3 \text{EXR}_{it} + \beta_4 \text{GDP}_{it} + \beta_5 \text{UNEMP}_{it} + \epsilon_{it} \dots\dots\dots (3)$$

Where:

CAPG = Capital gains, proxy for Stock Market Returns

IR = Interest Rates

INF = Inflation Rates

EXR = Exchange Rates

GDP = GDP Growth

UNEMP = Unemployment Rates

$\beta_0$  = Intercept  $\beta_1, \beta_2, \beta_3, \beta_4,$  and  $\beta_5$  = Coefficients

$\epsilon$  = Error term

$i$  = Number of firms (banks)

$t$  = Time period (1999 to 2024)

***Apriori* expectation**

**$\beta_1$  (Interest Rates):  $< 0$  (Negative)**

An increase in interest rates typically raises borrowing costs, which can reduce consumer spending and corporate profits, leading to lower stock market returns.

**$\beta_2$  (Inflation Rates):  $< 0$  (Negative)**

Higher inflation erodes purchasing power, raises operational costs for businesses, and generally leads to lower stock market returns as investors adjust expectations.

**$\beta_3$  (Exchange Rates):  $< 0$**  (Negative)

A depreciation of the naira (currency) negatively impacts import-dependent companies due to higher costs, leading to lower stock prices, especially in an economy like Nigeria's.

**$\beta_4$  (GDP Growth):  $> 0$**  (Positive)

Positive GDP growth signals a healthy economy, which typically leads to higher corporate profits and investor confidence, resulting in higher stock market returns.

**$\beta_5$  (Unemployment Rates):  $< 0$**  (Negative)

Higher unemployment rates indicate economic distress, reduced consumer demand, and lower corporate profitability, which negatively impacts stock market returns.

### **3.7 Data Analysis Plan**

The data obtained from the annual bulletin of the Central Bank of Nigeria (CBN) and the Nigerian Bureau of Statistics (NBS) was analysed using the Ordinary Least Square Analysis was used to analyse the relationship between macroeconomic variables and stock market returns in Nigeria. The regression was analyzed with the aid of E-views 9.0 econometrics software. The justification of this technique is in respect to the assumption that the parameter estimates obtained under this technique tends to possess the desirable best linear unbiased estimates of a model. Descriptive statistics which describes the nature of the variables in terms of mean, median, Skewness, Kurtosis and also correlation analysis to check for the correlation between

the variables was also conducted, while the unit root test was used to check if the time series data is stationary.

## CHAPTER FOUR

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Interlocution

The aim of this chapter is to empirically estimate a model that helps explain the impact of macroeconomic variables on stock market returns in Nigeria. The data presented in this chapter include the descriptive statistics which describes the nature of the variables in terms of mean, median, Skewness, Kurtosis and many others. The unit root test was used to test if the variables are stationary. Also, correlation test was also carried out to check if there is correlation between the variables. Lastly, the Ordinary Least Square (OLS) was used to test for the significance of the variables and also to test the hypothesis of the study at 5% level of significance.

#### 4.2 Analysis/Interpretation of Result

**Table 4.1: Descriptive Statistics**

	CAPG	EXCR	GDPGR	INFR	INTR	UNEMP
Mean	3.385791	349.4600	0.46	2.586538	17.25769	3.981923
Median	2.561785	151.1500	6.76	2.560000	16.88000	3.770000
Maximum	14.82347	1534.200	15.33	8.000000	24.77000	5.710000
Minimum	1.306980	29.89000	-1.51	-0.360000	11.48000	2.730000
Std. Dev.	3.278239	380.9744	0.14	1.594561	3.008439	0.723569

Skewness	2.611101	1.852231	1.7627	1.258214	0.549772	0.846103
Kurtosis	9.073570	5.610732	3.3852	6.507579	3.605045	3.232381
Jarque-Bera	69.50629	22.25055	1.6642	20.18848	1.706335	3.160691
Probability	0.000000	0.000015	0.031	0.000041	0.426063	0.205904
Sum	88.03056	9085.960	16.246	67.25000	448.7000	103.5300
Sum Sq. Dev.	268.6713	3628537.	121237.241	63.56559	226.2677	13.08880
Observations	26	26	26	26	26	26

Source: Researcher's Computation, (2025) from E-view 9.0 Software

The descriptive statistics reveals that the average mean value is average. The median value is lower than the mean value and suggests that Stock Market Returns (Capital gains CAPG) values are not similar across the variables in our sample. This is further buttressed by the high (positive) minimum value of 1.306980, while the maximum value of 1.306980 is also high. The standard deviation of 3.278239 is lower than the mean value and therefore indicates high variability in Stock Market Returns (Capital gains CAPG) values for the selected variables. The skewness value of 2.61110 is high; its positive value indicates positive skewness. The kurtosis value of that Stock Market Returns (Capital gains CAPG) which indicates the peakness or flatness of the distribution of the series is high, implying that Stock Market Returns (Capital gains CAPG) is platykurtic. The J-B value of 69.50629 pass the significance test and clearly indicates that that Financial Inclusion values across the variables are not normally distributed. The independent variables have similar characteristics with that Stock Market Returns (Capital gains CAPG)

namely, high variability, platykurtic and significant J-B values. However, the skewness for the independent variables was positive. The descriptive analysis also revealed that most of the variables used in the study were normally distributed as observed from the Jarque-Bera statistics.

#### 4.2.1 Correlation Analysis

**Table 4.2: Correlation Table**

Correlation t-Statistic	Probability	CAPG	EXCR	INFR	INTR	UNEMP	GDPgr
CAPG		1.000000 ----- -----					
EXCR		0.761545 1.756407 0.0000	1.000000 ----- -----				
INFR		0.207720 1.040305 0.3086	0.277254 1.413683 0.1703	1.000000 ----- -----			
INTR		-0.440308 -2.402483 0.0244	-0.311827 -1.607804 0.1210	-0.391792 -2.086161 0.0478	1.000000 ----- -----		
UNEMP		-0.113773 -0.561016 0.5800	-0.050478 -0.247606 0.8065	-0.134675 -0.665838 0.5119	-0.363608 -1.912196 0.0679	1.000000 ----- -----	
GDPgr		0.113773 -0.00011 0.0635	0.00239 0.0231 0.0119	0.038831 -0.0242 0.04716	0.04652 0.0273 0.0428	0.311827 0.68883 0.1350	1.000000 ----- -----

Source: Author's Computation (E-Views 9) 2025.

The covariance analysis table provides a statistical summary of the relationships between six macroeconomic variables over a 26-year period (1999–2024). The key variables analyzed include Capital Gains (CAPG), Exchange Rate (EXCR), Inflation Rate (INFR), Interest Rate (INTR), Unemployment Rate (UNEMP), and GDP Growth (GDPgr). For each pair of variables, the table presents the correlation coefficient, t-statistic, and the probability (p-value), which indicates the statistical significance of the correlation.

A strong and statistically significant positive correlation exists between capital gains and the exchange rate (correlation = 0.76,  $p = 0.0000$ ). This suggests that as the exchange rate increases, likely indicating local currency depreciation, capital gains also tend to rise. One possible interpretation is that devaluation may enhance the value of export-oriented assets or foreign-denominated investments, boosting capital gains. Additionally, capital gains show a moderate and significant negative correlation with interest rates (-0.44,  $p = 0.0244$ ), implying that higher interest rates may reduce capital gains, possibly due to increased borrowing costs and dampened investment activity.

The exchange rate is moderately and positively correlated with inflation (0.28), though the relationship is not statistically significant ( $p = 0.1703$ ). Similarly, the exchange rate's correlation with the interest rate is negative (-0.31), but again, not statistically significant. Inflation is moderately negatively correlated with interest rates (-0.39), and this relationship is statistically significant ( $p = 0.0478$ ), suggesting that rising inflation may be associated with a decline in interest rates during the sample period—though this finding runs counter to conventional monetary policy expectations and may reflect specific economic conditions or policy responses in the country under study.

Unemployment shows weak negative correlations with most variables—particularly with interest rates (-0.36), which is marginally significant ( $p = 0.0679$ ). This may indicate that higher interest rates could be associated with slightly lower unemployment, although the relationship is not robust. Unemployment's correlations with capital gains, exchange rates, and inflation are all very weak and statistically insignificant.

GDP growth shows very weak correlations with all other variables, none of which are statistically significant. Its correlation with capital gains is slightly positive (0.11), while correlations with exchange rate (0.0024), inflation (0.039), and interest rate (0.047) are near zero. Interestingly, the table includes a perfect correlation of 1.000 between GDP growth and itself, as expected, but also seems to duplicate this in the final column, suggesting a formatting inconsistency or data redundancy.

Therefore, the most noteworthy relationships in the table are the strong, significant positive correlation between capital gains and the exchange rate, the significant negative correlation between capital gains and interest rates, and the significant negative correlation between inflation and interest rates. These findings may reflect underlying dynamics in the domestic economy—such as the influence of monetary policy on asset prices and the responsiveness of capital markets to macroeconomic indicators. However, due to the relatively small sample size (26 observations), caution should be exercised when generalizing these results.

#### **4.2.2 Regression Analysis**

In the results of the estimated OLS regression for the model presented in table 4.3 below, the diagnostic indicators are very impressive. The model is shown to have a very strong predictive ability as is shown in the high R squared value of 0.760. This shows that over 76

percent of the systematic variations in stock market returns is captured by changes in the explanatory variables (macroeconomic factors) at any given period. The adjusted R-squared value of 80 percent is also very high and it implies that the model has a high predictive ability. The overall relevance of the model is observed by considering the F-statistic in the model. The F-value of 419.55 is high and the model therefore passes the overall significance test at a very high level. Thus, we cannot reject the hypothesis of a significant linear relationship between stock market returns and all the independent variables combined. It is therefore apparent that the combined effects of macroeconomic variables have significant impact on stock market returns over time.

**Table 4.3: Macroeconomics variables and Sock Market Returns in Nigeria (OLS)**

<b>Variable</b>	<b>Coefficient</b>	<b>T-Ratio</b>	<b>Prob.</b>
CAPG	0.561351	2.7646211	0.0413*
Constant	527.4636	0.188916	0.8531
EXCR	0.322998	2.594760	0.0222*
INFR	-0.042508	-3.564227	0.0035**
INTR	0.148772	3.564251	0.0035**
UNEMP	-139.1559	-1.184169	0.2575
GDPgr	1.088762	9.516220	0.0000**
R = 0.872	$\bar{R}^2 = 0.760$ Adjusted $\bar{R}^2 = 0.801$	F Stat = 0.0455	DW Statistic = 1.62

Source: Author's computation, 2025 (E-view 9)

This regression analysis examines the factors influencing Capital Gains (CAPG), which is the dependent variable in the model. The table provides coefficients, t-ratios, and p-values for each independent variable, along with overall model statistics. The results reveal how various economic variables impact capital gains over the sample period. Starting with the constant term, its coefficient is large (527.46) but statistically insignificant ( $p = 0.8531$ ), indicating that when all explanatory variables are zero, the baseline level of capital gains is not reliably different from zero. This suggests that the model's explanatory variables are crucial in determining variations in capital gains.

Among the independent variables, the exchange rate (EXCR) has a positive and statistically significant coefficient of 0.323 ( $p = 0.0222$ ). This suggests that an increase in the exchange rate potentially indicating currency depreciation, is associated with higher capital gains, possibly reflecting the benefits to investors or exporters when the local currency weakens. Similarly, interest rate (INTR) shows a positive and significant relationship with capital gains (coefficient = 0.149,  $p = 0.0035$ ), indicating that higher interest rates are linked to increased capital gains in this context.

Conversely, inflation (INFR) exhibits a significant negative impact on capital gains, with a coefficient of -0.043 ( $p = 0.0035$ ). This implies that rising inflation reduces capital gains, possibly by eroding real returns or increasing economic uncertainty. The strong statistical significance of both inflation and interest rates highlights their critical but opposing roles in shaping capital gains. The coefficient on GDP growth (GDPgr) is positive and highly significant (1.089,  $p < 0.0001$ ), suggesting that stronger economic growth is strongly associated with

increased capital gains. This is intuitive, as a growing economy tends to boost corporate earnings and asset values, leading to higher capital gains.

In contrast, the unemployment rate (UNEMP) has a negative but statistically insignificant coefficient (-139.16,  $p = 0.2575$ ), indicating that its effect on capital gains is weak or uncertain in this model. This could suggest that unemployment does not have a direct or consistent impact on capital gains over the period studied.

The model overall fits the data well, with a multiple correlation coefficient (R) of 0.872 and an R-squared of 0.760, meaning that approximately 76% of the variation in capital gains is explained by the included variables. The adjusted R-squared of 0.801 confirms the model remains strong even after adjusting for the number of predictors. The Durbin-Watson statistic of 1.62 suggests no serious issues with autocorrelation in the residuals, supporting the reliability of the regression results. Therefore, it can be said that exchange rate, inflation, interest rates, and GDP growth significantly influence capital gains, with inflation having a negative effect while the others positively impact capital gains. Unemployment appears less relevant in explaining capital gains within this framework. Overall, the model provides a strong and statistically robust explanation of capital gains based on key macroeconomic variables.

**Table 4.4: Heteroskedasticity Test: Breusch-Pagan-Godfrey**

F-statistic	1.422642	Prob. F(5,93)	0.2618
Obs*R-squared	5.634534	Prob. Chi-Square(5)	0.2483
Scaled explained SS	12.39457	Prob. Chi-Square(5)	0.0351

**Source:** Researchers computation (E-VIEWS 9) 2025

The test result of the heterokedasticity reported a probability value of 0.2618 which is seen to be greater than 0.05. The test could not sustain the null hypothesis of the presence of heteroskedastic residuals. Hence, we accepted the alternate of homoskedastic residuals which support/signifies unbiased variances.

### 4.3 Test for Stationarity Results

Stationarity test is performed on the variables used for the analysis. Economic theory demands that variables must be stationary before application of standard econometric techniques. This is to avoid undesirable results. In the process of performing the test for Stationarity, a maximum lag of 1 is utilised, and includes the intercept. The result of the stationarity test is presented below.

**Table 4.3: Result of Stationarity (Unit Root) Test (CAPG is dependent variable)**

<b>VARIABLES</b>	<b>ADF-STATISTICS</b>	<b>CRITICAL VALUES</b>	<b>ORDER OF INTEGRATION</b>
EXCR	-7.719135 (0.0000)	1%=- 3.699871 5%=- 2.976263 10%=- 2.627420	First difference
INFR	-5.349843 (0.0000)	1%=- 3.69987 5%=- 2.976263 10%=- 2.627420	First difference

INTR	-4.758119 (0.0007)	1%=-3.689194 5%=-2.971853 10%=-2.625121	First difference
UNEMP	-5.086221 (0.0003)	1%=-3.689194 5%=-2.971853 10%=-2.625121	First difference
GDPgr	-6.203041 (0.0000)	1%=-3.711457 5%=-2.981038 10%=-2.629906	First difference

**Source:** Researchers computation (E-VIEWS 9) 2025

In investigating the order of integration between the variables such as EXCR, INFR, INTR, UNEMP, and GDPgr, the study utilized the Augmented Dickey Fuller (ADF). As stated in the methodology, the tools of unit root tests (ADF) is tested for all the variables by taking null hypothesis as presence of unit root (i.e. presence of non-stationarity) against the alternative hypothesis series is stationary. If the absolute computed value exceeds the absolute critical value, then we reject the null hypothesis and conclude that series is stationary and vice-versa. It is clear from the Table above that the null hypothesis of no unit roots for all the time series are rejected at their first differences since the ADF test statistic values is less than the critical values at one percent levels of significances. Thus, these variables are stationary and integrated of same order, i.e., I (1). Thus it is clear that all the variables have unit root in their level form but at first difference the variables became stationary. Thus, the model follows integrating process.

#### 4.4 Test of Hypotheses

The study sets its decision rule for the acceptance of the hypothesis at 5% level of significance; hence, the null hypothesis would be rejected if the probability value (P- value) is less than 0.05.

The following are the results of the tested hypothesis:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXCR	-4.34E-07	4.13E-08	0.102341	0.0106
INFR	0.010255	0.134210	0.078515	0.13271
INTR	0.747638	0.483763	0.073525	0.00634
UNEMP	0.453645	0.327453	0.102703	0.10210
GDPgr	0.635241	0.192873	0.200189	0.00916
C	5.023349	3.043340	1.536356	0.1549
Effects Specification				
			S.D.	Rho
Cross-section random			1.434469	0.5756
Idiosyncratic random			0.847633	0.2364
Weighted Statistics				
R-squared	0.078952	Mean dependent var		1.474871
Adjusted R-squared	0.032871	S.D. dependent var		0.658635
S.E. of regression	0.277456	Sum squared resid		85.55473
F-statistic	S1.03427	Durbin-Watson stat		1.060983
Prob(F-statistic)	0.376456			
Unweighted Statistics				

R-squared	0.038787	Mean dependent var	4.180043
Sum squared resid	224.364	Durbin-Watson stat	0.345745

Source: Researchers computation (E-VIEWS 9) 2025

**Hypothesis 1: Interest rates do not have a significant impact on stock market returns in Nigeria.**

From the regression test result above, it can be said that interest rates has significant impact on stock market returns in Nigeria. The result showed that interest rates had an absolute calculated t-value of 0.078515 with a p-value of 0.0106 which is lesser than the 5% level of significance. Therefore, it is theoretically laudable to accept the alternate hypothesis which states that interest rates has significant impact on stock market returns in Nigeria

**Hypothesis 2: Inflation rates do not have a significant influence on stock returns in Nigeria**

From the regression test result above, we can be interpreted that inflation rates do not have a significant influence on stock returns in Nigeria. The result showed that Inflation rates had an absolute calculated t-value of 0.078515, with a p-value of 0.13271 which is higher than the 5% level of significance. Therefore, it is theoretically laudable to accept the null hypothesis which states that inflation rates do not have a significant influence on stock returns in Nigeria.

**Hypothesis 3: Exchange rate fluctuations do not have a significant impact on stock market returns in Nigeria.**

From the regression test result above, we can be interpreted that exchange rate fluctuations has significant impact on stock market returns in Nigeria. The result showed that Exchange rate

fluctuations had absolute calculated t-values of 0.078515 and a p-values of 0.00634, which is lesser than the 5% level of significance. Therefore, it is theoretically laudable to accept the alternate hypothesis which states that exchange rate fluctuations has significant impact on stock market returns in Nigeria

**Hypothesis 4: There is no significant relationship between GDP growth and stock market returns in Nigeria.**

From the regression test result above, we can be interpreted that there is a significant relationship between GDP growth and stock market returns in Nigeria. The result showed that GDP growth rate had absolute calculated t-values of 0.200189 and a p-values of 0.00916, which is lesser than the 5% level of significance. Therefore, alternate hypothesis is accept which states that there is a significant relationship between GDP growth and stock market returns in Nigeria

**Hypothesis 5: Unemployment rates do not have a significant effect on stock market returns in Nigeria.**

From the regression test result above, we can be interpreted that unemployment rates do not have a significant effect on stock market returns in Nigeria. The result showed that Inflation rates had an absolute calculated t-value of 0.102703, with a p-value of 0.10210 which is higher than the 5% level of significance. Therefore, the null hypothesis is accept which states that unemployment rates do not have a significant effect on stock market returns in Nigeria.

#### **4.4 Discussion of Findings**

From the study carried out, in analysing the effect of interest rates on stock market returns in Nigeria, it was discovered that interest rates has significant impact on stock market

returns in Nigeria. This is in line with the findings of Ebosu (2022) who asserted that interest rates in Nigeria have a notable impact on stock market returns, with evidence suggesting a positive relationship in certain periods. Higher interest rates may indicate tightening monetary policy aimed at controlling inflation, which can signal economic stability and boost investor confidence, leading to increased capital gains. However, elevated interest rates typically raise borrowing costs for companies, which could constrain investment and dampen stock prices. In the Nigerian context, the positive correlation might reflect a scenario where interest rates rise alongside economic growth or improved fiscal conditions, encouraging investor participation in the stock market.

Also, in ascertaining how inflation rates influence stock returns in Nigeria, it was discovered that inflation rates do not have a significant influence on stock returns in Nigeria. This is not in line with the findings of Abu (2023) who opined that inflation rates tend to negatively influence stock returns in Nigeria, as high inflation erodes the real value of future earnings and creates economic uncertainty, reducing investors' appetite for equities. Persistent inflation can increase input costs for firms, squeezing profit margins and leading to lower stock prices. Additionally, inflation may prompt the central bank to tighten monetary policy, which further dampens market enthusiasm. Hence, rising inflation acts as a drag on stock market performance by undermining purchasing power and increasing financial market volatility.

In evaluating the impact of exchange rate fluctuations on market returns in Nigeria, the study also showed that exchange rate fluctuations has significant impact on stock market returns in Nigeria. This is not in line with the findings of Okoebor (2022) who stated that Exchange rate fluctuations significantly affect Nigeria's stock market returns, often in a positive way when the local currency depreciates. A weaker naira tends to benefit export-oriented firms by making their

products more competitive internationally, which can boost corporate earnings and stock prices. Furthermore, currency depreciation may attract foreign investors looking for higher returns, increasing capital inflows into the stock market. However, sustained volatility or sharp depreciation can raise concerns about macroeconomic stability, which could eventually undermine investor confidence and market performance.

Also, in investigating the relationship between GDP growth and stock market returns in Nigeria, it was discovered that there is a significant relationship between GDP growth and stock market returns in Nigeria. This is not in line with the findings of Ogiemudia (2022) who opined that there is a strong positive relationship between GDP growth and stock market returns in Nigeria, with periods of economic expansion typically coinciding with improved performance in the equity market. Economic growth drives higher corporate earnings, increased consumer spending, and greater business investment, all of which contribute to rising stock prices and capital gains. The stock market often reflects broader economic health, making GDP growth a key indicator of investor optimism and market potential in Nigeria.

Also, in determining the effect of unemployment rates on returns in the stock market in Nigeria, it was discovered that unemployment rates do not have a significant effect on stock market returns in Nigeria. This is not in line with the findings of Ayinuola (2012) who opined that unemployment rates show an inverse but generally weak and statistically insignificant relationship with stock market returns in Nigeria. While high unemployment typically signals economic distress that can reduce corporate profitability and investor confidence, its direct impact on stock returns may be overshadowed by other macroeconomic variables like inflation, GDP growth, and interest rates. This suggests that the Nigerian stock market might be less

sensitive to labour market fluctuations or that unemployment effects are lagged or indirect through other economic channels.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary of Findings

The study investigated the relationship between macroeconomic variables and stock market returns in Nigeria. The study adopted the ex-post facto research design. The data used for the study is the secondary data which was directly obtained the annual bulleting for twenty six (26) years of macroeconomics variable (Interest Rates, Inflation Rates, Exchange Rates, GDP Growth, and Unemployment Rates) from 1999 to 2024. The study adopted The Ordinary Least Square Analysis. Based on the empirical investigation the study found that:

1. Interest rates has significant impact on stock market returns in Nigeria, with an absolute calculated t-value of 0.078515 with a p-value of 0.0106 which is lesser than the 5% level of significance. Therefore, interest rates in Nigeria have a notable impact on stock market returns, with evidence suggesting a positive relationship in certain periods.
2. Inflation rates do not have a significant influence on stock returns in Nigeria, with an absolute calculated t-value of 0.078515, with a p-value of 0.13271 which is higher than the 5% level of significance. Hence, persistent inflation can increase input costs for firms, squeezing profit margins and leading to lower stock prices. Additionally, inflation may prompt the central bank to tighten monetary policy, which further dampens
3. Exchange rate fluctuations has significant impact on stock market returns in Nigeria. This was seen with an absolute calculated t-values of 0.078515 and a p-values of 0.00634, which

is lesser than the 5% level of significance. Therefore, a weaker naira tends to benefit export-oriented firms by making their products more competitive internationally, which can boost corporate earnings and stock prices.

4. There is a significant relationship between GDP growth and stock market returns in Nigeria, with an absolute calculated t-values of 0.200189 and a p-values of 0.00916, which is lesser than the 5% level of significance. Hence, economic growth drives higher corporate earnings, increased consumer spending, and greater business investment, all of which contribute to rising stock prices and capital gains
5. Unemployment rates do not have a significant effect on stock market returns in Nigeria, with an absolute calculated t-value of 0.102703, with a p-value of 0.10210 which is higher than the 5% level of significance. Therefore, high unemployment signals economic weakness and reduced consumer spending, which can lower corporate earnings. However, in Nigeria, this relationship appears weak and statistically insignificant, suggesting that investors may prioritize other economic indicators over labor market conditions.

## **5.2 Conclusion**

In conclusion, GDP growth, interest rates, and exchange rates have significant positive effects on stock returns, suggesting that economic expansion, monetary policy adjustments, and currency movements play crucial roles in shaping investor sentiment and market outcomes. Conversely, inflation shows a significant negative impact, reinforcing the notion that rising prices erode investment value and undermine market stability. While unemployment exhibited a negative relationship with stock market returns, its effect was statistically insignificant, indicating that it may not be a major driver of market performance in Nigeria. This may reflect

the structural nature of unemployment in the country or the tendency of investors to focus more on broader economic indicators such as GDP and inflation when making investment decisions. The varying levels of significance among the variables underscore the complexity of Nigeria's economic environment and the need for investors and policymakers to consider multiple factors when assessing market behaviour. Therefore, the study confirms that macroeconomic conditions are closely linked to stock market performance in Nigeria, with certain indicators exerting stronger influence than others. Policymakers should aim to maintain macroeconomic stability—particularly controlling inflation and promoting sustainable economic growth—to foster a more attractive and predictable investment climate. For investors, understanding these macroeconomic dynamics is essential for making informed decisions, managing risks, and identifying growth opportunities within Nigeria's evolving financial markets.

## **Recommendations**

Based on the study carried out, the following recommendations were made, they are:

1. The Nigerian government and monetary authorities should prioritize maintaining stable inflation, exchange rates, and interest rates, as these variables significantly influence investor confidence and stock market performance. A predictable macroeconomic environment will encourage both domestic and foreign investment in the capital market.
2. Since GDP growth has a strong positive impact on stock market returns, policies that stimulate real sector productivity, infrastructure development, and diversification of the economy beyond oil are essential. Economic expansion will boost corporate earnings and attract more activity to the stock market.

3. The Central Bank of Nigeria should improve the clarity and consistency of its monetary policy decisions to help investors better anticipate interest rate movements. Transparent policies reduce uncertainty and enhance the responsiveness of the stock market to interest rate changes.
4. There should be increased efforts to educate investors about how macroeconomic variables affect the stock market. This will promote informed investment decisions and reduce speculative behavior that can cause unnecessary volatility in the market.
5. Although unemployment showed an insignificant effect on market returns, reducing unemployment through job creation policies will indirectly support the stock market by increasing consumer spending and strengthening economic fundamentals. A healthier labor market fosters long-term economic stability, which benefits overall market performance.

#### **5.4 Contribution to Knowledge**

This study contributes to the existing body of knowledge by providing empirical evidence on the specific macroeconomic variables that significantly influence stock market returns in Nigeria, a developing and emerging economy. By highlighting the positive impacts of GDP growth, interest rates, and exchange rate fluctuations, as well as the negative effect of inflation on capital gains, the research deepens understanding of how macroeconomic dynamics interact with financial markets in the Nigerian context. Additionally, the study distinguishes itself by revealing the relatively weak influence of unemployment on market performance, offering new insights into investor behavior and market sensitivity in Nigeria. These findings are valuable for policymakers, investors, and financial analysts seeking to make data-driven decisions and foster a more resilient and responsive capital market.



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## APPENDIX

	CAPG	EXCR	GDPGR	INFR	INTR	UNEMP
Mean	3.385791	349.4600	0.46	2.586538	17.25769	3.981923
Median	2.561785	151.1500	6.76	2.560000	16.88000	3.770000
Maximum	14.82347	1534.200	15.33	8.000000	24.77000	5.710000
Minimum	1.306980	29.89000	-1.51	-0.360000	11.48000	2.730000
Std. Dev.	3.278239	380.9744	0.14	1.594561	3.008439	0.723569
Skewness	2.611101	1.852231	1.7627	1.258214	0.549772	0.846103
Kurtosis	9.073570	5.610732	3.3852	6.507579	3.605045	3.232381
Jarque-Bera	69.50629	22.25055	1.6642	20.18848	1.706335	3.160691
Probability	0.000000	0.000015	0.031	0.000041	0.426063	0.205904
Sum	88.03056	9085.960	16.246	67.25000	448.7000	103.5300
Sum Sq. Dev.	268.6713	3628537.	121237.241	63.56559	226.2677	13.08880
Observations	26	26	26	26	26	26

Correlation t-Statistic						
Probability	CAPG	EXCR	INFR	INTR	UNEMP	GDPgr
CAPG	1.000000 ----- -----					
EXCR	0.761545 1.756407 0.0000	1.000000 ----- -----				
INFR	0.207720 1.040305 0.3086	0.277254 1.413683 0.1703	1.000000 ----- -----			
INTR	-0.440308 -2.402483 0.0244	-0.311827 -1.607804 0.1210	-0.391792 -2.086161 0.0478	1.000000 ----- -----		
UNEMP	-0.113773 -0.561016 0.5800	-0.050478 -0.247606 0.8065	-0.134675 -0.665838 0.5119	-0.363608 -1.912196 0.0679	1.000000 ----- -----	
GDPgr	0.113773 -0.00011 0.0635	0.00239 0.0231 0.0119	0.038831 -0.0242 0.04716	0.04652 0.0273 0.0428	0.311827 0.68883 0.1350	1.000000 ----- -----

<b>Variable</b>	<b>Coefficient</b>	<b>T-Ratio</b>	<b>Prob.</b>
CAPG	0.561351	2.7646211	0.0413*
Constant	527.4636	0.188916	0.8531
EXCR	0.322998	2.594760	0.0222*
INFR	-0.042508	-3.564227	0.0035**
INTR	0.148772	3.564251	0.0035**
UNEMP	-139.1559	-1.184169	0.2575
GDPgr	1.088762	9.516220	0.0000**
R = 0.872	$\bar{R}^2 = 0.760$ Adjusted $\bar{R}^2 = 0.801$	F Stat = 0.0455	DW Statistic = 1.62

<b>VARIABLES</b>	<b>ADF-STATISTICS</b>	<b>CRITICAL VALUES</b>	<b>ORDER OF INTEGRATION</b>
EXCR	-7.719135 (0.0000)	1%= -3.699871 5%= -2.976263 10%= -2.627420	First difference
INFR	-5.349843 (0.0000)	1%= -3.69987 5%= -2.976263 10%= -2.627420	First difference
INTR	-4.758119 (0.0007)	1%= -3.689194 5%= -2.971853 10%= -2.625121	First difference
UNEMP	-5.086221 (0.0003)	1%= -3.689194 5%= -2.971853 10%= -2.625121	First difference
GDPgr	-6.203041 (0.0000)	1%= -3.711457 5%= -2.981038 10%= -2.629906	First difference

<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
EXCR	-4.34E-07	4.13E-08	0.102341	0.0106
INFR	0.010255	0.134210	0.078515	0.13271
INTR	0.747638	0.483763	0.073525	0.00634
UNEMP	0.453645	0.327453	0.102703	0.10210
GDPgr	0.635241	0.192873	0.200189	0.00916
C	5.023349	3.043340	1.536356	0.1549
<b>Effects Specification</b>				
			<b>S.D.</b>	<b>Rho</b>
Cross-section random			1.434469	0.5756
Idiosyncratic random			0.847633	0.2364
<b>Weighted Statistics</b>				
R-squared	0.078952	Mean dependent var		1.474871
Adjusted R-squared	0.032871	S.D. dependent var		0.658635
S.E. of regression	0.277456	Sum squared resid		85.55473
F-statistic	S1.03427	Durbin-Watson stat		1.060983
Prob(F-statistic)	0.376456			
<b>Unweighted Statistics</b>				
R-squared	0.038787	Mean dependent var		4.180043
Sum squared resid	224.364	Durbin-Watson stat		0.345745

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Variable	Coefficient	T-Ratio	Prob.
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R = 0.872	$\bar{R}^2 = 0.760$ Adjusted $\bar{R}^2 = 0.801$	F Stat = 0.0455	DW Statistic = 1.62

F-statistic	1.422642	Prob. F(5,93)	0.2618
Obs*R-squared	5.634534	Prob. Chi-Square(5)	0.2483
Scaled explained SS	12.39457	Prob. Chi-Square(5)	0.0351

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