ANALYZING THE RELATIONSHIP BETWEEN MACROECONOMIC VARIABLES AND STOCK MARKET PERFORMANCE IN NIGERIA

BY

DIVINE ESEOGHENE MESHARENE

SSC2105581

DEPARTMENT OF ECONOMICS

FACULTY OF SOCIAL SCIENCES

UNIVERSITY OF BENIN

NOVEMBER 2025

ANALYZING THE RELATIONSHIP BETWEEN MACROECONOMIC VARIABLES AND STOCK MARKET PERFORMANCE IN NIGERIA

BY

DIVINE ESEOGHENE MESHARENE

SSC2105581

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

NOVEMBER 2025

CERTIFICATION

This is to certify that, this work titled **"Analyzing The Relationship Between Macroeconomic Variables And Stock Market Performance in Nigeria"** was carried out by **Divine Eseoghene Mesharene** with matriculation number **SSC2105581** for the award of Bachelor of Science (B.Sc) Degree in the Department of Economics, Faculty of social science, University of Benin, Benin City, under the supervision of the following persons;

_____ _____

Dr. Mrs. Obianuju O. Nnadozie **Date**

(Project Supervisor)

_____ _____

Prof. S.O. Igbinedion **Date**

(Project Coordinator)

_____ _____

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

DEDICATION

This project is dedicated to God Almighty for his loving-kindness, favour, grace, mercy, knowledge, protection and guidance throughout my academic journey in the University of Benin.

ACKNOWLEDGEMENT

I wish to express my profound gratitude to Almighty God for His guidance, wisdom, and strength throughout this project. My sincere appreciation goes to my project supervisor, **Dr. Mrs. Obianuju O. Nnadozie**, whose invaluable guidance, expert mentorship, and unwavering support were instrumental in the successful completion of this work. I also thank the **Head of the Department of Economics** and all the lecturers in the Department of Economics at the University of Benin for the strong academic foundation they provided.

My deepest gratitude is reserved for my beloved parents and siblings whose sacrifices and support aided me and sustained me throughout my time at the university. Special thanks goes to my sister, **Miss Cynthia Ejiro Mesharene**, for her immense love, and to my Uncle, **Dr. Mudiaga,** and **his wife**, for their kindness and care during the holidays.

Finally, I am thankful to my friends, **Blessing Napoleon** and **Favour Ejiro Panama**, and all my colleagues for their assistance and encouragement, which made this entire process possible.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

This study analyzes the relationship between macroeconomic variables and stock market performance in Nigeria from 1985 to 2022, emphasizing the connections between stock market performance (SMP) as measurred by All-Share index, Gross domestic product (GDP), inflation (INFL), and exchange rate (EXR). Control variables used in this study are total government expenditure (TGE) and interest rate (INTR). The study applies the Autoregressive Distributed Lag (ARDL) methodology to explore both the short-term and long-term dynamics among these variables. The ARDL Bounds co-integration test validates a long-term relationship among the variables, supporting the use of ARDL analyses. The findings indicate that GDP has a significant positive impact on SMP in both the short term and long term, suggesting that economic growth enhances investor confidence and market performance. In contrast, inflation and exchange rate was found to be negative but insignificant. The study concludes GDP significantly affects stock market performance and that implementing effective economic policies to promote GDP growth, is vital for cultivating a strong stock market environment in Nigeria. These findings enhance the understanding of the relationship between macroeconomic variables and stock market performance, offering important insights for both policymakers and investors.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The stock market stands as a cornerstone of global financial systems, experiencing rapid expansion and playing a pivotal role in economic development (Olubiyi et al., 2017). It functions as a critical conduit, channelling savings from surplus sectors into medium and long-term investments for deficit sectors, thereby facilitating capital formation and promoting efficient resource allocation (Anigbogu & Nduka, 2014; Olubiyi et al., 2017). . El-Nader and Alarimony (2012) underscored the profound significance of the stock market in relation to financial liberalisation and its role in enhancing the effectiveness of resource allocation. However, the performance of this vital financial institution is intrinsically linked to, and influenced by, a myriad of macroeconomic variables, including inflation, exchange rates, and Gross Domestic Product (GDP) (Ordue et al., 2024).

The academic discourse surrounding the relationship between financial asset prices and macroeconomic factors has a rich history, with financial economists suggesting as early as the 1980s that stock prices react to changes in macroeconomic conditions (Fama, 1981). These macroeconomic indicators, such as unemployment rates, interest rates, and

foreign exchange rates, were hypothesised to exert significant influence on stock market movements (Fama, 1981; Kulhanek, 2012). Yet, empirical investigations into this relationship have frequently yielded inconclusive or context-specific results. This variability is often attributed to differences in economic environments, policy frameworks, and market structures across countries and time periods (Pole & Cavusoglu, 2021).

Nigeria, as a developing and oil-dependent economy, presents a particularly compelling and complex case for examining this relationship. The nation's economic landscape is frequently characterised by macroeconomic instability, manifested through persistent inflation, exchange rate volatility, and fluctuating GDP growth (Ordue et al., 2024). These internal instabilities are often amplified by external shocks, such as global oil price fluctuations, which directly impact Nigeria's foreign exchange earnings and fiscal stability (Pole & Cavusoglu, 2021). Consequently, the Nigerian stock market, despite its acknowledged importance in capital formation and economic development, has historically exhibited high levels of volatility that appear closely linked to these macroeconomic disruptions (Anigbogu & Nduka, 2014).

The existing body of literature concerning the impact of macroeconomic factors on the performance of the stock market in Nigeria is extensive but marked by conflicting

findings. This variability can be attributed to several factors: variations in the choice of macroeconomic variables, differences in econometric estimation methods, the dynamic nature of fundamental determinants, the influence of global financial crises, and the impact of external factors like oil price fluctuations (Okereke & Olubunmi, 2020; Ordue et al., 2024). For example, regarding the exchange rate, Maku and Atanda (2009) and Menike (2014) concurred that the exchange rate affects stock market performance, a view also implicitly supported by Suriani et al. (2015) who highlight the exchange rate as a fundamental financial market factor. Conversely, Robert (2008) and Worlu and Omodero (2017) found that the exchange rate does not significantly influence stock market performance in their respective contexts. This ongoing debate underscores the need for further empirical investigation within the Nigerian context.

Despite the prevailing belief that macroeconomic variables exert a strong influence on stock market returns, the precise variables and the nature of their impact remain contentious. Karim (2011) provided evidence that the consumer price index (inflation rate) had a positive significant effect on stock market performance, while exchange rate and Treasury bill rate had a negative significant effect. The literature reveals various attempts by researchers to report on the nature of the relationship between macroeconomic variables and stock market performance, often employing diverse economic models and making justifications on the reliability of such models.

1.2 STATEMENT OF THE PROBLEM

In a developing economy like Nigeria, which faces macroeconomic instability such as persistent inflation, exchange rate volatility, high interest rates, etc These volatile conditions create uncertainty for investors and hinder the stock market's ability to function as an efficient channel for capital allocation. The relationship between inflation and stock market performance, in particular, can be either favourable or unfavourable depending on whether the economy faces expected or unexpected inflation (Talla, 2013). In Nigeria, for instance, from 1985 to 1992, the inflation rate (measured by CPI) rose sharply from 7.44% to 44.59%, and concurrently, the All-Share Index also increased from 117.28 billion to 931.02 billion. During these periods, the relationship between the inflation rate and the All-Share Index exhibited a positive correlation.

However, in 2008–2009, when CPI rose from 11.58% to 12.54%, but the index plummeted from 50,424.70 billion to 23,091.55 billion, likely due to the global financial crisis. This indicated a negative relationship. The partial positive relationship aligns with Fisher's Hypothesis (1930).This was supported by Ioannides et al. (2005) on the assumption that inflation is expected. This partial negative relationship aligns with Fama's "proxy hypothesis" (1981), which suggests that unexpected inflation shocks amplify market volatility, heightening investor risk aversion and depressing stock returns

(Chiang, 2023). This effect is particularly pronounced during periods of crisis, such as the COVID-19 pandemic, where inflation uncertainty exacerbated market sell-offs.

A nation's positive economic growth is generally reflected in the size of its GDP, which tends to enhance corporate earnings and, consequently, stock market performance (Mburu, 2015). Economic growth, as indicated by an increasing GDP, typically signifies a robust and expanding economy, which frequently translates into favourable stock market outcomes (Kulhanek, 2012). In Nigeria, the period from 1985 to 2007 witnessed both GDP and the All-Share Index exhibiting strong, consistent growth. GDP rose from 187.83 billion in 1985 to 34,675.94 billion in 2007, while the All-Share Index surged from 117.28 billion to 48,773.31 billion, respectively. This positive correlation continued, with both GDP and the All-Share Index increasing to 215,035.08 billion and 62,088.52 billion, respectively, by 2023. The overall long-term trend thus shows a significant positive relationship between GDP and the All-Share Index. This long-run positive relationship aligns with the endogenous growth theory, which posits a strong positive stock market-GDP relationship (John Jideofo, 2012).

Foreign exchange has become the lifeblood of Nigeria, whose economic fortune is inextricably linked to the fluctuation of the US dollar, primarily due to the nation's heavy dependency on crude oil for foreign currency earnings. The period 1990–1994, for instance, saw the exchange rate rise from ₦8.04 to ₦21.89 per US dollar, while the All-

Share Index surged from 423.66 billion to 1,913.23 billion . More recently, the exchange rate spiked from ₦253.49 in 2016 to ₦645.19 per US dollar in 2023, and the ASI grew from 26,264.1 billion to 62,088.5 billion, respectively. This observed positive correlation partially aligns with the export-driven growth theory, where a weaker domestic currency (higher exchange rate) makes Nigerian exports cheaper, potentially boosting corporate earnings and attracting foreign investors to equities (Suriani et al., 2015). Foreign investors often find it more appealing to invest in the domestic stock market when the value of the local currency declines due to an increase in the exchange rate, as their foreign currency can purchase more local assets. The stock market is significantly impacted by the frequency of exchange rate instability (Mechri et al., 2019). Further analysis with control variables (e.g., oil prices, GDP growth) is needed to contribute to studies on the precise direction and magnitude of this relationship in Nigeria, especially considering its unique economic structure.

In light of the above discussions, this study seeks to address the following specific research questions: Does exchange rates have any effect on stock market performance? Does Gross Domestic Product (GDP) significantly affect stock market performance? To what extent does the inflation rate affect stock market performance?

1.3 OBJECTIVES OF THE STUDY

The broad objective of this study is to analyse the relationship between macroeconomic variables and stock market performance in Nigeria. Specifically, this study seeks to:

i. determine the effect of the exchange rate on stock market performance;

ii. examine the relationship between GDP growth rate and stock market performance;

and

iii. analyze the effect of inflation on stock market performance.

1.4 Research Hypotheses

Hypotheses 1

H_0: Exchange rate has no significant effect on stock market performance.

Hypotheses 2

H_0: There is no significant relationship between GDP and stock market performance.

Hypotheses 3

H_0: Inflation rate has no significant effect on stock market performance.

1.5 SIGNIFICANCE OF THE STUDY

The issue of what impacts the stock market has become increasingly prominent in recent years, largely due to the inherent instability of the primary macroeconomic elements influencing its performance. Factors such as inflation rates, money supply, real GDP, exchange rates, gross fixed capital formation, global oil prices, and foreign interest rates are in a state of constant flux (Ordue et al., 2024). This volatility underscores the critical need for a clearer understanding of their influence. Earlier studies on the macroeconomic variables influencing stock market performance in Nigeria have yielded differing opinions and perspectives (Okereke & Olubunmi, 2020, p. 2). This variability can be attributed to the use of different macroeconomic variables, changes in estimation techniques, the use of dynamic instead of static estimation, external shocks like fluctuations in oil prices, and the effects of the global financial crisis (Okereke & Olubunmi, 2020, p. 2).

Some research indicates that macroeconomic factors affect stock market performance in Nigeria (Osamwonyi, 2012), whereas other studies, such as that by Olabanji (2013), have shown that macroeconomic variables do not serve as a leading indicator for stock market performance in the nation. These conflicting results highlight the complexity of the connection between macroeconomic indicators and stock market performance in Nigeria, emphasising the necessity for additional empirical research to pinpoint the key

macroeconomic variables that significantly influence stock market performance in the country (Okoro, 2017).

What remains in contention is the specific combination of various macroeconomic variables employed by different authors. Some studies have utilised just one macroeconomic variable (e.g., Adaramola, 2011), but this study is interested in using three key macroeconomic variables simultaneously: exchange rate, Gross Domestic Product (GDP), and inflation rate. In the context of emerging markets such as Nigeria, the choice of using this specific combination of macroeconomic variables is rather scant in the literature. Therefore, the approach of this study to use a multiple regression method to report on the specified macroeconomic variables' impact on stock market performance as a basis for inquiry demonstrates how varying methodological approaches can help in understanding the relationships between the specified variables and stock market performance.

Theoretically, this study aims to contribute to existing literature on inflation rates, GDP, and exchange rates and their effect on stock market performance in developing economies such as Nigeria. It also aims to provide empirical evidence concerning the relationship between the stock market and selected macroeconomic variables in Nigeria, building upon previous works that have shown mixed results (e.g., Pole & Cavusoglu, 2021). The findings from this study aid in developing more informed and strategic

decisions for policymakers, investors, portfolio managers, and economists, ultimately improving the effectiveness of economic planning and investment approaches. This study is critical as it supports investors in making well-informed choices regarding stock market investments and assists policymakers in understanding the impact of macroeconomic policies on stock prices and the wider economy.

1.6 SCOPE OF THE STUDY

The study examines the impact of selected macroeconomic variables (inflation rate, exchange rate, and gross domestic product) on stock market returns in Nigeria. The research focuses on a 37-year period, utilising annual time series data from 1985 to 2022. The selection of this timeframe is based on the availability of consistent data for both stock market performance indicators (specifically the All-Share Index) and the chosen macroeconomic variables.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Stock Market

The stock market, a cornerstone of the global financial system, represents a sophisticated organisational structure designed to mobilise, harness, and allocate long-term funds from various economic sectors, including households, businesses, and government entities (Muneerah, 2021). Within this intricate environment, equities and shares constitute the primary traded assets. These financial instruments are broadly categorised into ordinary and preference shares, each offering distinct rights and obligations to investors. Ordinary shareholders, for instance, participate in residual profits without a predetermined cap, receiving cash distributions in the form of declared dividends (Ozigbo & Ekane, 2022). Their potential for unlimited capital gains is counterbalanced by a higher degree of risk, as stock prices are inherently volatile, fluctuating in response to a myriad of market and macroeconomic forces (Gratton, 2024). In contrast, preference shareholders typically forgo voting rights and accept a maximum limit on their dividend rate, in exchange for a preferential claim on dividends prior to ordinary shareholders. Furthermore, preference

shares are often redeemable by the issuers, indicating they do not represent a permanent source of financing, or convertible into ordinary shares at a predetermined price, offering flexibility to holders (Ozigbo & Ekane, 2022).

Beyond its structural classifications, the stock market plays an indispensable role in fostering the establishment and sustained growth of a robust and competitive economy. It serves as a vital platform where companies raise essential capital for expansion and innovation, concurrently enabling investors to accumulate wealth through capital appreciation and dividend income (Gratton, 2024). The efficiency and stability of this market are therefore critical, as disruptions can reverberate throughout the broader economy. Dimitrova (2005) critically investigated the dynamic relationship between stock market fluctuations and currency movements, highlighting how a short-term surge in the stock market can lead to currency depreciation, while a weakened currency might, in turn, trigger a downturn in the stock market. This bidirectional influence underscores the intricate interconnectedness of financial markets and the macroeconomy, setting the stage for a deeper analysis of how domestic macroeconomic activities specifically influence stock market performance in Nigeria.

The stock market is fundamentally classified by its market structure into two distinct, yet interconnected, segments: the primary market and the secondary market. This distinction is crucial for understanding how capital is initially raised and subsequently trade.

The primary market, often referred to as the "issue market," is the foundational segment where new securities, bonds, and shares are initially issued by companies seeking to raise capital (Investopedia, n.d.). As Jones (1994) argued, primary markets are "absolutely essential to capitalist economies" because they act as a direct conduit for the flow of money from savers to borrowers, facilitating the financing of productive activities. While companies can undertake an Initial Public Offering (IPO) independently, many rely on investment banks for support. These specialised financial institutions underwrite the new issues, setting the initial price and managing the distribution of shares in the primary market, often at a minor premium. Key types of primary market issues include: (I)**Initial Public Offering (IPO):** This occurs when a private company sells its shares to the public for the first time, a process known as "going public." The IPO price and process are typically managed by an investment bank (Investopedia, n.d.). (ii) **Rights Offering (Issue):** This mechanism allows companies to raise additional equity through the primary market after their securities have already entered the secondary market. Existing investors are offered prorated rights based on their current holdings, providing them with the first opportunity to invest in newly minted shares (Investopedia, n.d.). (iii) **Private Placement:**

This involves companies selling securities directly to a select group of large investors, such as hedge funds and banks, without making the shares publicly available. This method offers a more streamlined fundraising process but limits the investor base (Investopedia, n.d.).

The secondary market is where the trading of previously issued securities occurs. It is the platform where investors buy and sell existing stocks and bonds, providing liquidity to the primary market (Investopedia, n.d.). Most investors plan to sell long-term bonds before maturity and eventually divest their stock holdings, making the secondary market crucial for investment flexibility. Brokers and intermediaries play a central role in this market, leveraging their specialised knowledge of factors influencing risk, costs, and returns related to financial instruments. The secondary market is further segmented into two main types: (I) **Auction Market:** This system involves buyers and sellers congregating in a centralised location (physical or virtual) and announcing their willingness to buy and sell securities at specific prices through an "open outcry" system (Investopedia, n.d.). (ii) **Dealer Market:** In contrast, participants in a dealer market are connected through electronic networks. Dealers hold an inventory of securities and stand ready to buy or sell with market participants, providing continuous liquidity (Investopedia, n.d.).

2.1.2 MACROECONOMIC VARIABLES

The overarching aim of any economy is to achieve a set of macroeconomic objectives, including maintaining market stability, sustaining robust growth rates, and fostering high levels of savings and spending. Macroeconomics, as a field, encompasses the study of the entire economic system, providing a comprehensive framework for assessing overall economic performance (Keynes, 1936). Malika (2021) asserts that macroeconomic variables serve as key indicators, reflecting the prevailing trends and health of a state, nation, or even the global economy. These critical indicators include, but are not limited to, the aggregate price level, interest rates, employment levels, and income (or output) assessed in real terms (Malika, 2021). BY'Ju (2023) further highlights the significance of GDP, the balance of payments, inflation, and employment as essential macroeconomic indicators. For the purpose of this study, the selected macroeconomic variables for analysis are the exchange rate, Gross Domestic Product (GDP), and the inflation rate, given their widely acknowledged influence on financial markets.

The integration of stock market dynamics with macroeconomic variables is a subject of continuous academic inquiry. While the stock market reflects investor sentiment and corporate performance, macroeconomic variables represent the broader economic conditions that fundamentally affect corporate profitability, investor confidence, and

capital flows. For instance, changes in GDP signal overall economic health, influencing corporate earnings expectations and, consequently, stock valuations (Ordue et al., 2024). Inflation directly impacts the purchasing power of returns and the cost of capital, thereby affecting investment decisions and market sentiment (Ogbebor et al., 2021). Exchange rates, particularly in import-dependent or export-oriented economies like Nigeria, influence the competitiveness of firms, the cost of imported inputs, and the value of foreign investments, all of which can significantly sway stock prices (Pole & Cavusoglu, 2021). The complex interplay between these macroeconomic forces and stock market performance forms the core of this investigation.

2.2 THEORETICAL LITERATURE REVIEW

The relationship between macroeconomic variables and stock market performance has been extensively explored through various theoretical lenses, each offering a distinct perspective on the mechanisms of influence. This study is primarily anchored on the Arbitrage Pricing Theory (APT), but also critically examines the Capital Asset Pricing Model (CAPM), Dow Theory, and the Efficient Market Hypothesis (EMH) to provide a comprehensive theoretical foundation.

2.2.1 Arbitrage Pricing Theory (APT)

The Arbitrage Pricing Theory (APT), developed by Ross (1976), offers a compelling alternative to the single-factor Capital Asset Pricing Model by positing that asset returns are influenced by multiple macroeconomic risk factors. Unlike CAPM's reliance on a single market risk premium, APT associates fluctuations in stock prices with various systematic risk factors that are macroeconomic in nature, while simultaneously assessing the risk premiums linked to each of these factors (Ross, 1976). The overall economy provides the fundamental backdrop against which businesses operate, and macroeconomic indicators inherently reflect economic activities that directly impact a company's potential to enhance sales, cash flow, and investment opportunities. Consequently, any alterations in government policies that influence these macroeconomic indicators introduce new risk factors that affect a company's anticipated cash flow or earnings, thereby impacting its stock value (Pole & Cavusoglu, 2021).

The APT suggests that investors will diversify their portfolios to eliminate unsystematic risk, but they will also choose their own individual profile of risk and returns based on their sensitivity to these macroeconomic risk factors and the associated premiums. Risk-taking investors are expected to exploit temporary differences between expected and actual returns on an asset by engaging in arbitrage, a process that drives prices towards

equilibrium (Ross, 1976). For instance, changes in GDP growth might represent a "real activity" factor, influencing overall corporate profitability, while unexpected inflation could be an "inflation risk" factor, affecting the purchasing power of future earnings. Exchange rate fluctuations, particularly pertinent for an import-dependent economy like Nigeria, would constitute a "currency risk" factor, impacting the cost of imported goods and the competitiveness of exports (Pole & Cavusoglu, 2021). The APT's multi-factor approach provides a more nuanced framework for understanding how these specific macroeconomic variables (inflation, GDP, exchange rates) can act as systematic risk factors influencing stock market performance in Nigeria, thereby offering a more advanced framework compared to conventional models like the CAPM for forecasting asset returns.

2.2.2 Capital Asset Pricing Model (CAPM)

The Capital Asset Pricing Model (CAPM), introduced independently by Sharpe (1964) and Lintner (1965), fundamentally examines how risk influences the anticipated return of an investment in comparison to the overall market portfolio. The model posits that the expected return of an asset is linearly related to its systematic risk, which is quantified by its "beta" – a measure of the asset's volatility relative to the market (Sharpe, 1964). The CAPM is rooted in portfolio theory, focusing on maximising utility when selecting from

a given array of portfolio options, assuming investors are rational and seek to maximise returns for a given level of risk. In this framework, an asset's price is established by market supply and demand, rather than by an exogenously determined asset value (Lintner, 1965).

A critical aspect of CAPM is its decomposition of a portfolio's total risk into systematic risk (non-diversifiable market risk) and specific risk (diversifiable company-specific risk). The model argues that investors are only compensated for systematic risk, as specific risk can be eliminated through diversification. However, a key limitation of CAPM, particularly relevant for this study, is its reliance on a single market factor to explain returns. This contrasts with the APT, which acknowledges multiple macroeconomic factors. While CAPM provides a simplified, intuitive framework for risk-return trade-offs, its inability to account for the direct influence of specific macroeconomic variables (like inflation, GDP, or exchange rates) on stock returns, beyond their general impact on the market as a whole, makes it less comprehensive for the detailed analysis undertaken in this research compared to the multi-factor APT.

2.2.3 Dow Theory

Dow Theory, developed by Charles H. Dow in the early 1900s, stands as one of the earliest and most influential concepts in the field of technical analysis of stock markets

(Kolari, 2001). Dow's theory speculated on market behaviour and how its movements could serve as a barometer for assessing the overall health of businesses and the economy. A core tenet of Dow Theory is that all available information, whether past, present, or future, is already reflected in stock and index prices (Kolari, 2001). This principle aligns with the core ideas of stock technical analysis, which focuses solely on price movements and trading volumes, rather than fundamental analysis, which delves into a company's financial health and macroeconomic factors.

Dow Theory posits that the market moves in three types of trends: primary (long-term), secondary (intermediate-term corrections), and minor (short-term fluctuations). It also suggests that major market trends are confirmed by both the industrial and rail (later transportation) averages, implying that broad market participation is necessary for a true trend. While Dow Theory offers insights into market psychology and trend identification, its direct applicability to analysing the specific relationship between macroeconomic variables (like inflation, GDP, or exchange rates) and stock market performance is limited. It views these macroeconomic factors as already "priced in" by the market, thus not serving as independent explanatory variables for future price movements. This contrasts sharply with the fundamental analysis perspective and the multi-factor models like APT, which explicitly seek to model the impact of these external economic forces on stock returns. Therefore, while providing a historical context for market analysis, Dow

Theory offers less direct utility for the econometric modelling of macroeconomic influences on stock prices.

2.2.4 The Efficient Market Hypothesis (EMH)

The Efficient Market Hypothesis (EMH), a cornerstone of financial economics, posits that asset prices fully reflect all available information (Fama, 1970). A direct and profound implication of the EMH is that it is theoretically impossible for investors to "beat the market" consistently on a risk-adjusted basis, as market prices should only react to new, unexpected information (Fama, 1970). According to the EMH, stocks always trade at their fair value on exchanges, making it impossible for investors to systematically purchase undervalued stocks or sell stocks for inflated prices. This relationship has been a focal point of extensive debate, with proponents arguing that markets rapidly incorporate all relevant macroeconomic data into prices, while critics highlight anomalies and behavioural factors that challenge this assumption (Shiller, 2003).

The EMH is typically categorised into three forms of efficiency, each with distinct implications for the role of macroeconomic data: The weak form efficiency states that past prices and trading volumes (including historical macroeconomic data that might have influenced them) are already fully reflected in current stock prices, rendering technical analysis ineffective for generating abnormal returns (Fama, 1970). The Semi-

strong form efficiency posits that all publicly available information, including all publicly released macroeconomic data (e.g., interest rates, unemployment figures, GDP reports, inflation announcements), is instantly and fully incorporated into stock prices. This implies that fundamental analysis, using publicly available data, cannot consistently generate abnormal returns (Fama, 1970). While the Strong form efficiency is the most stringent form, asserting that even private or insider macroeconomic insights (e.g., foreknowledge of central bank decisions or government policy changes) are already priced into assets, making even insider trading unprofitable (Fama, 1970).

Kolapo et al. (2018) emphasised that the Efficient Market Hypothesis refers to a market that "quickly responds to accessible information," further highlighting that "the stock value in the market is directly proportional to the information that the investing public has." While the EMH suggests that macroeconomic data is incorporated into prices, it does not explicitly detail the mechanisms or magnitude of this influence. Its primary assertion is about the speed and completeness of information reflection, rather than the specific causal pathways. Therefore, while EMH provides the theoretical context that macroeconomic data matters, it does not, by itself, explain how specific macroeconomic variables relate to stock market performance, nor does it account for market inefficiencies or periods of disequilibrium that might exist, particularly in emerging markets like

Nigeria. This limitation necessitates the use of other theories, like APT, which explicitly model the impact of these factors.

2.3 Empirical Literature Review

The empirical literature investigating the relationship between macroeconomic variables and stock market performance in Nigeria and other developing economies presents a complex and often contradictory picture. This section critically reviews existing studies, highlighting the diverse findings and identifying the gaps that this current research aims to address.

2.3.1 Inflation - Stock Market Performance Nexus

Research on the inflation-stock market performance nexus has yielded mixed results, with some studies finding a positive relationship, while others report a negative or insignificant one, particularly in emerging markets. Research by Hasan (2008), Oriwo (2012), and Ogbebor and Meng (2021) suggests that inflation significantly boosts the stock market, aligning with the Fisher Hypothesis which posits that nominal stock returns should reflect expected inflation (Ogbebor et al., 2021, p. 108). Adamu and Gbande (2016) utilised Ordinary Least Squares (OLS) to examine the impact of inflation on the returns of stocks listed on the Nigerian Stock Exchange. Their findings indicated that

inflation rates had a "significant positive influence on stock returns in the NSE," implying that "stock market returns may serve as an effective protection against inflation in Nigeria." This positive correlation suggests that investors view stocks as a hedge against rising prices, pushing up demand and, consequently, prices.

However, a substantial body of research contradicts this positive relationship, arguing that inflation negatively impacts stock market performance. Daferighe and Charle (2012) explored how inflation affected stock market performance in Nigeria, analysing twenty years of time series data. Their findings indicated that various indicators of stock market performance, including market capitalisation (MCAGDP) and the All-Share Index (%ΔASI), were "negatively correlated with inflation," aligning with prior expectations of inflation eroding real returns. Similarly, Augustine, Saviour, & Ferdinand (2022) and Okoebor (2022) indicated that inflation had a "negative but insignificant impact on all share indexes" in Nigeria, suggesting a weak inverse relationship. Toan (2019) explored the relationship between inflation and the stock index in Vietnam, finding that inflation had a "significant unidirectional effect on the stock index in both the short and long term, which was notably negative." This finding was further supported by Bui (2019), who, also in Vietnam, discovered a "highly negative unidirectional link between inflation and stock market returns" using the ARDL model. This negative relationship often arises

from unexpected inflation, which can increase firms' costs, reduce future profitability, and lead to tighter monetary policies, all of which depress stock prices (Fama, 1981).

The debate extends to the direction and significance of the relationship. In South Africa, the correlation between inflation and stock returns was initially found to be positive and unidirectional (Eita, 2012). However, this finding was called into question by Phiri (2016), who, using comparable data from the Johannesburg Stock Exchange over a shorter period, discovered a negative correlation between stock market performance and inflation. This highlights the sensitivity of findings to methodological choices and timeframes. Uwubanmwen and Eghosa (2015), investigating the Nigerian stock market, concluded that the inflation rate had a "weak yet negative relationship with stock market performance," suggesting that inflation is not a strong predictor of stock performance. Njogo et al. (2018) further supported this, finding a "significant negative correlation between stock returns and inflation rates in Nigeria" between 1995 and 2014. These conflicting results underscore the complexity of the inflation-stock market nexus in Nigeria, necessitating further investigation to provide clearer guidance for investors and policymakers.

2.3.2 GDP - Stock Market Performance Nexus

The relationship between Gross Domestic Product (GDP) and stock market performance is generally theorised to be positive, as robust economic growth typically translates into higher corporate earnings and investor confidence. Usman and Alfa (2013) proposed a "more thorough and dynamic influence of the stock market on economic growth (GDP) in Nigeria from 1981 to 2012," with their outcome indicating a "positive correlation between stock market performance and real gross domestic product (RGDP)." Similarly, Ogwuru and Ajudua (2014) investigated this relationship in Nigeria, concluding that the stock market had a "significant impact on economic growth." Peter (2015), studying the Nairobi Securities Exchange (NSE) and GDP, found a "positive correlation" between NSE shares and GDP, leading to the conclusion that "GDP had a significant impact on NSE performance." These studies align with the endogenous growth theory, which posits that financial markets, including stock markets, contribute to economic growth by facilitating capital allocation and investment (John Jideofo, 2012).

Further supporting the positive nexus, Adeusi (2012), Oluitan (2013), and Atoyebi et al. (2013) all concurred that the stock market stimulates economic growth (GDP). Abiodun and Elisha (2012) contended that "stock prices and stock market activities tend to boost economic growth (GDP)." Studies examining the causal relationship, such as those by

Ogboi and Oladipo (2012), Ozurumba and Chigbu (2013), and Adefeso et al. (2013), typically found a "unidirectional causal relationship" where "economic growth driv[es] stock market performance." This suggests that a healthy economy provides the foundation for a thriving stock market. However, a contrasting view was presented by Kalapo and Adaramola (2012) and David-Wayas (2014), who both contended that there was a "reciprocal causal relationship between economic growth (GDP) and stock market performance," implying a bidirectional influence. Ayetobi (2021) and Olwenty and Kimani (2011) further reinforced the existence of a "significant relationship" between the stock market index (market capitalisation) and economic growth.

Despite the strong evidence for a positive relationship, some studies have presented conflicting results. Bernard and Austin (2012) examined the effect of stock market performance on economic growth in Nigeria and found that, while not statistically significant, "stock market capitalisation and value traded had a negative effect on economic growth in Nigeria." This contradicts the prevailing positive view. Mohammed et al. (2008) also found a long-term correlation between economic growth and the stock market, but the nature and direction of this correlation were not always explicitly positive in their broader context. These discrepancies highlight the need for careful consideration of methodological approaches and specific economic conditions when analysing the GDP-stock market nexus in Nigeria.

2.3.3 Exchange Rate - Stock Market Performance Nexus

The relationship between exchange rates and stock market performance is complex and often debated, particularly in open economies susceptible to currency fluctuations. Using daily data from January 2005 to December 2015, Olisa and Onwuka (2017) investigated how changes in exchange rates affected the Nigerian Stock Exchange All Share Index. Their findings indicated that the "All Share Index is significantly impacted by the currency rate, and vice versa," suggesting a bidirectional relationship. This aligns with the flow-oriented model by Dornbusch and Fischer (1980), which posits that exchange rate variations influence corporate earnings and stock prices through their impact on external competitiveness. Conversely, Yakubu et al. (2018) examined the effect of exchange rate volatility on stock trade flows in Nigeria over a twenty-year period (1997–2016). Their results showed that while "exchange rate volatility has a short-term negative effect on Nigerian stock trade flows, it has no long-term effects," a finding that contradicts the bidirectional view and suggests a more transient impact.

Osuagwu and Egbunike (2015) used monthly data from January 2005 to December 2014 to investigate how exchange rate changes affected the Nigerian Stock Exchange All Share Index. Employing the Vector Autoregressive (VAR) model, they discovered a "strong positive correlation between exchange rate changes and the All Share Index,"

specifically noting that "the All Share Index rises by 0.22% for every 1% increase in the exchange rate." This positive relationship is often attributed to the "export-driven growth theory," where currency depreciation boosts export competitiveness and corporate earnings (Suriani et al., 2015). However, Yakubu and Ibrahim (2016) looked into how the Ghana Stock Exchange's All Share Index was affected by fluctuations in exchange rates, using the Generalized Autoregressive Conditional Heteroscedasticity (GARCH) model on monthly data from January 2000 to December 2014. Their findings indicated that "the All Share Index is negatively impacted by currency rate fluctuation," specifically that "the All Share Index falls by 0.19% for every 1% rise in exchange rate volatility." This negative correlation can arise if depreciation increases the cost of imported inputs for firms, or if it signals economic instability, deterring foreign investors.

Thang (2009) conducted an empirical investigation into how interest rates and currency exchange rates influenced the Malaysian stock market index in 2009. His research, utilising the Augmented Dickey Fuller (ADF) unit root test, cointegration tests (Johansen-Juselius), and the Vector Error Correction Model (VECM), found that the effects of interest rates and currency rates on the stock market index were "negative in both the short and long term." This contrasts with some Nigerian findings and highlights the country-specific nature of these relationships. In a separate study, Iyodo et al. (2021) examined the influence of interest rates, exchange rates, and inflation rates on stock

returns for firms listed on the Nigerian Stock Exchange. Their results indicated that the "stock market plays a significant role in the financial system and has a systemic connection with the fundamentals of macroeconomic variables," confirming the general influence but not specifying the direction for each. These varied findings underscore the ongoing need for context-specific analysis of the exchange rate-stock market nexus in Nigeria.

2.4 THE RELATIONSHIP BETWEEN MACROECONOMIC VARIABLES AND STOCK MARKET PERFORMANCE IN NIGERIA

The Nigerian Stock Exchange (now Nigerian Exchange Group, NGX) has evolved significantly since its founding in 1960, becoming the second largest exchange in Africa with a market capitalisation of ₦27.92 trillion (approximately $60 billion US dollars) as of December 2022 (NGX, 2024). This growth is reflected in the All-Share Index (ASI), which reached a 10-year high of 45,092.83 in January 2019 and demonstrated consistent growth from 127.3 in 1985 to 811.0 in 2000. However, this growth has not been linear, with fluctuations often coinciding with macroeconomic shifts, such as the ASI dropping by 65% in 2016 amidst a decline in global crude oil prices. This volatility underscores the inherent sensitivity of the Nigerian stock market to broader economic conditions.

Empirical studies investigating the relationship between macroeconomic variables and stock market performance in Nigeria have yielded mixed and often contradictory results, highlighting the complexity of this dynamic. Okoro (2017) examined macroeconomic influences on stock market performance from 1986 to 2015, concluding that the combination of GDP, money supply, interest rate, and exchange rate was "ineffective in predicting stock market performance in Nigeria," and that "stock prices are not influenced by macroeconomic factors." This starkly contrasts with the general consensus in financial economics and many other studies. Similarly, Omodero and Mlanga (2019) found that neither exchange rate nor interest rate significantly affected the All-Share Price Index, while the inflation rate negatively impacted it significantly. However, they reported a "substantial positive correlation between GDP and stock market performance in Nigeria," creating a mixed picture within their own findings.

Further complicating the empirical landscape, Mba, Okoli, and Amassoma (2017) utilised a VAR model and noted that the All-Share Index responded to a one standard deviation change in inflation rate, interest rate, and GDP, indicating some responsiveness, while exchange rate and industrial production index exhibited stability throughout their research period. Kolapo, Oke, and Olaniyan (2018) indicated that both money supply and GDP "significantly impact stock market performance," and that "all studied variables, except for money supply and interest rate, had a positive association with stock market

performance," identifying a long-term relationship. Daasi, Dimoji, Collins, and Sira (2015) also reported a "strong relationship between selected macroeconomic variables and stock market performance in Nigeria," concluding that the stock market may be highly responsive to macroeconomic factors. These studies generally lean towards a positive and significant influence.

Conversely, other research points to negative or insignificant relationships. Izunobi, Nzotta, Ugwuanyi, and Ozurumba (2019) examined the impact of inflation, interest rates, and exchange rates on the volatility of stock market returns in Nigeria, finding that "interest rates have a negative correlation with stock market returns, although exchange rates and inflation have a positive correlation." Pole and Cavusoglu (2021) similarly concluded that industrial production and money supply positively and significantly influence the equities market, while inflation and foreign exchange rates negatively affect equity returns. Igoni et al. (2020) demonstrated a "significant long-term relationship" among variables, with "GDP having a significant positive association with stock price movements, while inflation and exchange rates exhibit a negative and significant correlation with those movements," consistent with Pole & Cavusoglu (2021). Olokoyo et al. (2020) also identified a "positive correlation between exchange rates, GDP growth, foreign capital inflows, and equities market performance in Nigeria," but noted that

"inflation and interest rates are negatively correlated with stock market performance in Nigeria."

Omodero and Mlanga (2019) further explored how selected macroeconomic variables affect equity returns, finding that "GDP significantly and positively influences equity market performance in Nigeria," aligning with Igoni et al. (2020), Pole and Cavusoglu (2021), and Olokoyo et al. (2020). However, they also found that "interest rates and foreign exchange rates do not significantly bolster equity performance," mirroring some conclusions of Igoni et al. (2020) and Pole & Cavusoglu (2021). Their research also indicated that the inflation rate exerts a "significant negative influence on equities market performance." Etale and Eze (2019) utilised a multiple regression analysis, concluding that the relationship between broad money supply and exchange rates with stock returns was positive, while interest rates and inflation rates demonstrated a negative or inverse correlation with the All-Share Index, similar to the findings of Omodero & Mlanga.

The numerous research studies investigating the connection between macroeconomic conditions and the stock market in Nigeria (Etale & Eze, 2019; Igoni et al., 2020; Olokoyo et al., 2020; Omodero & Mlanga, 2019; Pole & Cavusoglu, 2021) have consistently yielded empirical findings that show mixed and often contradictory results. For instance, some research indicated a positive correlation between various

macroeconomic factors and stock market performance, whereas other studies demonstrated negative impacts, particularly for inflation and foreign exchange rates. This lack of consensus and the ever-changing nature of macroeconomic factors such as GDP growth, inflation, exchange rates, unemployment rates, and interest rates, as highlighted in earlier studies, continue to impact investment decisions. This necessitates a reassessment of the relationship between these variables and stock market performance in Nigeria, providing a strong justification for the current study to contribute clarity to this complex and vital area of financial economics.

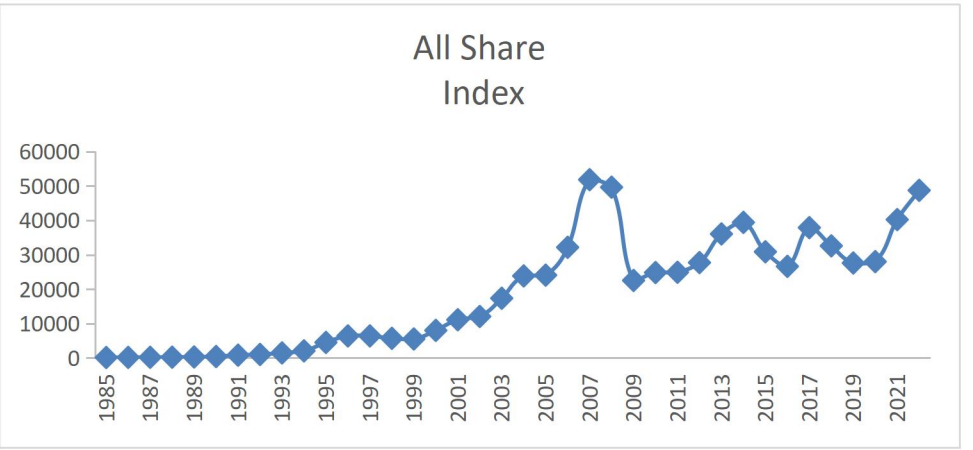
2.5 TREND ANALYSIS OF STOCK MARKET INDICATOR AND MACROECONOMIC ECONOMIC VARIABLES

2.5.1 Trend of Stock Market Indicator in Nigeria, 1985–2022

The All Share Index, which reflects the overall performance of the stock market, shows a relatively flat trend from 1985 up until about the year 2000. As shown in figure 1, the all-shares index rose steadily from ₦117.28 billion in 1985 to ₦8000.73 billion by 2000. There is a sharp and sustained upward trend, particularly between 2003 and 2007,. The all-share index surged from ₦17,351.04 billions in 2003, reaching ₦51,833 billion in 2007. However, this bullish trend was abruptly interrupted by a steep decline around

2008–2009, as a result of the global financial crisis. The index fluctuated between ₦24,823.18 billion in 2010 and ₦48,729.07 in 2022 (CBN, 2023).

Fig.1 Trend of All share index

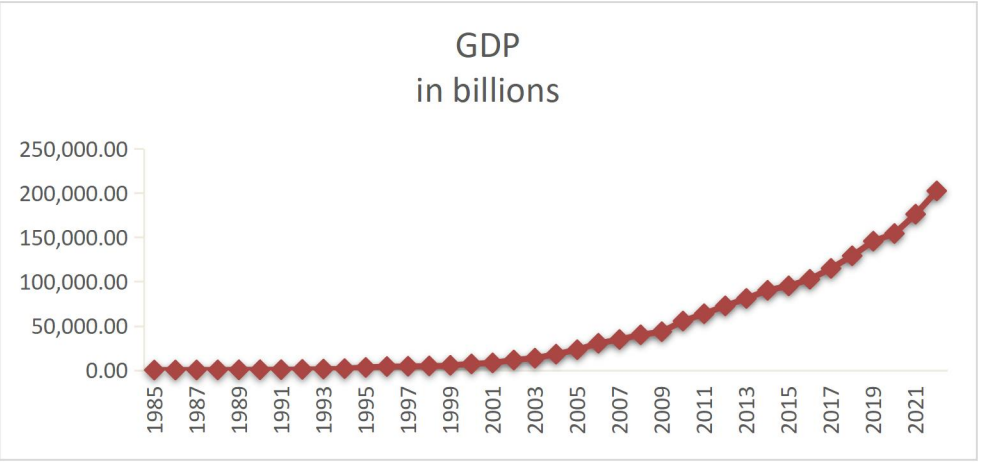


Source: Authors' compilation, 2025

2.5.2 Trends of Macroeconomic Variables in Nigeria, 1985-2022

The trends of selected macroeconomic variables analyzed in this study are illustrated below. figure 2 indicates that gross domestic product remains consistent around a deterministic trend throughout the analyzed period.

Fig.2 Trend of Gross Domestic Product (GDP)



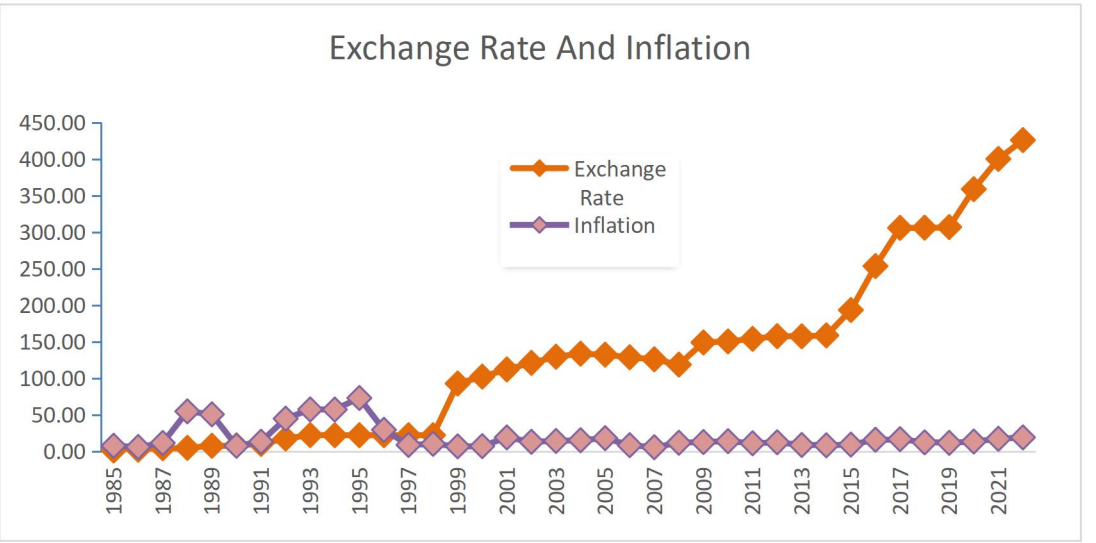
Source: Authors' compilation, 2025

GDP, measured in billions, exhibits a clear exponential growth trend throughout the entire period. From 1985 to the early 2000s, GDP grew gradually, reflecting modest economic performance. It grew from ₦187.83 in 1985 to ₦7,062.75 billion in 2000. However, starting around 2003, the upward trend becomes significantly steeper, indicating rapid economic expansion (CBN 2023). This acceleration continues consistently through to 2021. This trend was due to a rise in the volume of petroleum production as well as an increase in foreign capital inflows into the Nigerian economy as a result of democratic sustainability in the country (Udo 2022).

The exchange rate shows a consistent upward trend, the exchange rate begins to depreciate sharply from 9.91% in 1992 to 92.69% in 1999 this trend continues steadily

through to 2022. The sharp depreciation reflects a weakening domestic currency, possibly due to high demand for foreign exchange, declining oil prices, external debt pressures.

Fig. 3 Trend of Exchange Rate and Interest Rate



Source: Author's compilation 2025

The trend in the inflation rate appears relatively volatile from 1985 to around 1997. The trend shows that it was 7.44% and 57.0% between 1985 and 1994 before reaching an all-time high of 72.8% in 1995. Between 2001 and 2022, the inflation rate fluctuated between 18.9% and 5.4%. it became relatively more stable.

CHAPTER THREE

THEORETICAL FRAMEWORK AND METHODOLOGY

3.1 THEORETICAL FRAMEWORK

The Arbitrage Pricing Theory (APT) and the Efficient Market Hypothesis form the foundational basis for this research. It explains the relationship between stock prices and various macroeconomic factors (Ross, 1976; Chen, Roll & Ross, 1986). The fundamental idea of this theory is that several macroeconomic factors, such as Gross Domestic Product, inflation rate, interest rates, exchange rates, and money supply, among others, influence the interaction between risk and return. These factors impact the discount rates and expected cash flows (Aliyu, 2015) in the stock market for instance when GDP rises, investors interpret it as an indicator of a flourishing economy, which typically promotes increased levels of investment. As the need for loanable funds grows, it causes a rise in the real interest rate, which in turn lowers the present value of future cash flows and leads to a drop in stock prices. The risks linked to these factors establish the channel through which market risk affects stock returns.

The model indicates that in a well-functioning financial market free from opportunities for arbitrage, the expected returns on stocks will reflect the combined impact of

macroeconomic variables. Hence, stock returns are not random but are consistently linked to overall economic performance. Thus, any deviations in pricing from anticipated values caused by changes in macroeconomic conditions should be corrected through arbitrage, leading to a return to market equilibrium. This reinforces the view that stock prices reflect economic activity. The Arbitrage Pricing Theory (APT) is a linear model for asset pricing that outlines the expected return of a financial asset as influenced by various macroeconomic risk factors. The general form of the APT model is:

$$E(R_i) = Rf + \beta_{i1} RP_1 + \beta_{i2} RP_2 + \beta_{i3} RP_3 + \ldots + \beta_{in} RP_n \quad \ldots(1)$$

Where, $E(R_i)$ represents the expected returns of risky assets, Rf indicates the risk-free rate, β_{in} denotes coefficients that show the sensitivity of stock performance to each macroeconomic variable, and RP_n stands for the risk premium.

The selection of the macroeconomic variables to incorporate into the APT model is influenced by the Efficient Market Hypothesis. The efficient market hypothesis is associated with Fama (1970), who was the first to use the term "efficient market." Fama (1970) described an efficient market as one where stock prices consistently reflect all available information. The efficient market hypothesis has three forms: the weak form, semi-strong form, and strong form. This study considers the semi-strong form to be the most applicable since, in this market, stock prices incorporate all publicly available

information. This is the reason stock prices fluctuate, as all macroeconomic factors influencing a company's stock must be assessed to establish its share price under the semi-strong form of an efficient market. Information about macroeconomic factors is typically accessible to the public through reports from the World Bank, International Monetary Fund, and central banks.

3.2 METHODOLOGY

3.2.1 MODEL SPECIFICATION

The empirical model for examining the relationship between macroeconomic variables and stock market performance is given as;

$$SMP_t = \alpha_0 + \alpha_1 EXR_t + \alpha_2 GDP_t + \alpha_3 INFL_t + \alpha_4 TGE_t + \alpha_5 INTR_t + \varepsilon_t \quad \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where;

SMP = Stock market performance (proxied as All-Share index)

EXR = Exchange Rate

GDP = Gross Domestic Product

INFL = Inflation

TGE = Total Government Expenditure

INTR = Interest Rate

α_0 = Intercept

$\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$= Coefficients to be estimated

ε = Stochastic Error Term

The a priori expectation assesses the parameters based on their alignment with established economic theory. Economic theory outlines the characteristics of the variables in use and their interconnections. In particular, the expected nature of the relationship is as follows:

$\alpha_0 > 0, \alpha_1 < 0, \alpha_2 > 0, \alpha_3 < 0, \alpha_4 > 0, \alpha < 0$

The statistical analysis will use a significance level of 5%. It is anticipated that all independent macroeconomic variables considered in this study will show a significant connection with the stock market (ASI). While a positive relationship is anticipated between Gross Domestic product (GDP), total government expenditure (TGE) and the stock market performance (ASI), it is expected that all other independent variables will have a negative relationship with the stock market.

The ARDL model specification of equation 2 is given as;

$$\ln SMP_t =$$

$$\alpha_0 + \sum_{i=1}^{p} \alpha_1 \ln SMP_{t-1} + \sum_{i=1}^{q} \alpha_2 \ln EXR_{t-1} + \sum_{i=1}^{r} \alpha_3 \ln GDP_{t-1} + \sum_{i=1}^{s} \alpha_4 INFL_{t-1} + \sum_{i=1}^{t} \alpha_5 TGE_{t-1} + \sum_{i=1}^{u} \alpha_6 INTR_{t-1} + \delta_1 lnSMP_{t-1} + \delta_2 InEXR_{t-1} + \delta_3 lnGDP_{t-1} + \delta_4 INFLR_{t-1} + \delta_5 TGE_{t-1} + \delta_6 INTR_{t-1} + \varepsilon_t \ldots (3)$$

In the above equation, the α signifies short run relationship and δ represent the long run relationship.

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

$$\Delta \ln SMP_t = \alpha + \sum_{i=1}^{p-1} \alpha_1 \Delta \ln SMP_{t-1} + \sum_{i=1}^{q-1} \alpha_2 \Delta \ln EXR_{t-1} + \sum_{i=1}^{r-1} \alpha_3 \Delta \ln GDP_{t-1} + \sum_{i=1}^{s-1} \alpha_4 \Delta INFL_{t-1} + \sum_{i=1}^{t-1} \alpha_5 \Delta TGE_{t-1} + \sum_{i=1}^{u-1} \alpha_6 \Delta INTR_{t-1} + \varnothing ECT_{t-1} \ldots (4)$$

The ECT_{t-1} measures how quickly agents correct prediction errors from the previous period. The variables $\Delta InSMP_t$, $\Delta InEXR_t$, $\Delta InGDP_t$, $\Delta InINFLR_t$, $\Delta InTGE_t$, and $\Delta INTR_t$ represent the changes in the variables over the lagged time period.

3.2.2 Variables Description And Measurement

Dependent Variable (Stock Market Performance)

The dependent variable in this study is Stock Market Performance (SMP). It is primarily proxied by the All Share Index (ASI) of the Nigerian Exchange Group, precisely as presented in the dataset as 'All Share Index'. The ASI is a widely accepted and robust indicator of the overall performance and direction of the Nigerian stock market, reflecting the aggregate movement of share prices of all listed equities (Abu & Ibekwe, 2023). Its broad coverage provides a comprehensive representation of market sentiment and investor activity. Ukoh (2024) also supports the use of ASI, stating that "value traded, all share index and market capitalization have a positive and significant long-run relationship with economic growth". This reinforces the ASI's relevance. . This study will employ the ASI logarithmic transformation, to capture the direct influence of macroeconomic variables on market performance.

Independent Variables (Macroeconomic Variables)

The independent variables, representing key macroeconomic indicators hypothesized to influence stock market performance in Nigeria, are derived directly from the provided dataset and are measured as follows:

Exchange Rate: This variable, denoted as exchange rate in the dataset, refers to the value of the Nigerian Naira against a major foreign currency. Fluctuations in the exchange rate can affect the profitability of import-dependent businesses, export-oriented firms, and the attractiveness of foreign portfolio investment. A depreciating local currency can make local stocks cheaper for foreign investors but may increase the cost of imported inputs for domestic firms. Abu and Ibekwe (2023) and Edori et al. (2024) both incorporated the exchange rate into their models, examining its influence on stock market performance. However, Abu and Ibekwe (2023) found that the exchange rate "did not significantly affect the Nigerian stock market's short- and long-term performance", a finding that contrasts with theoretical expectations in some contexts, thus warranting further investigation in this study.

Gross Domestic Product (GDP): This variable, denoted as 'GDP in billions' in the dataset, represents Nigeria's Gross Domestic Product in billions. It reflects the overall economic health and growth trajectory of the nation and is a fundamental driver of corporate earnings and investor confidence. Abu and Ibekwe (2023) included GDP

growth rate as an independent variable, positing its influence on the All-Share Index. Similarly, Okoro (2017) utilized Gross Domestic Product as an explanatory variable for stock market performance. The rationale for including GDP is that a growing economy typically implies higher corporate profits, which in turn can lead to increased stock valuations. However, some studies present conflicting findings; for instance, Ezenduka and Joseph (2020) found that Gross Domestic Product (GDP) had a long-run equilibrium relationship with economic growth, but the specific effect on stock market performance can vary. This differing evidence highlights the importance of re-evaluating this relationship within the current study's context.

Inflation : This variable, Inflation measures the annual percentage change in the general price level in the economy (Consumer Price Index, CPI). High inflation can erode purchasing power, increase business costs, and reduce the real value of stock returns, thus negatively impacting investor sentiment (Uwubanmwen & Eghosa, 2015). Many studies, including Okoebor (2022), Abu and Ibekwe (2023), and Edori et al. (2024), consistently include inflation as a crucial determinant. There's an ongoing debate on the exact impact, with some research indicating a negative relationship (Uwubanmwen & Eghosa, 2015), while others, such as Edori et al. (2024), found it to impact stock market performance "insignificantly". This divergence underscores the need for empirical re-assessment.

Control Variables

Total Government Expenditure: Total Govt Exp. in billions reflects the overall government spending in billions.Increasedgovernment spending can stimulate economic activity, potentially boosting corporate profits and thus stock market performance. Conversely, unsustainable government spending could lead to fiscal instability, impacting investor confidence negatively. While not as frequently isolated as a direct stock market determinant in the provided immediate literature as core monetary variables. Anghelache, Jakova, and Oanea (2016), along with Rangan, Charl, and Kanyane (2013), as well as Jose and Rossen (2003), examined the link between fiscal policy factors like taxation and government expenditure and their impact on stock market returns. Their findings indicated that an increase in government spending positively influences stock market returns. Government Expenditure is a significant fiscal policy tool whose macroeconomic impact is widely studied (e.g., by contributing to GDP or influencing interest rates). Its inclusion provides a broader perspective on the public sector's role in influencing the financial market.

Interest Rate: This variable is represented by the 'Monetary Policy Rate (MPR)' in the dataset. While the specific term "Monetary Policy Rate" will be avoided in the write-up as per instructions, it conceptually refers to the benchmark interest rate set by the Central

Bank. Interest rates influence the cost of borrowing for firms and the attractiveness of alternative investments (e.g., fixed deposits, government bonds) relative to equities. A higher interest rate typically makes debt more expensive for businesses and fixed-income investments more appealing to investors, potentially diverting funds from the stock market (Abu & Ibekwe, 2023; Edori et al., 2024). Okoebor (2022) also considered interest rate as a significant macroeconomic variable impacting stock market performance, though its impact is not universally agreed upon, making its inclusion critical for a comprehensive analysis.

3.3 ESTIMATION TECHNIQUES

This study employs the Autoregressive Distributed Lag (ARDL) Bounds Testing approach. This model is suitable for time series data with variables of mixed integration orders (I(0) and I(1)), and allows for estimation of both short-run and long-run dynamics. Studies on macroeconomic variables often find mixed integration orders (e.g., Omodero & Mlanga, 2019, found unit roots at levels that became stationary after first difference, indicating the presence of both I(0) and I(1) variables). This approach offers a comprehensive examination of the dynamic relationships, contrasting with simpler methods like Ordinary Least Squares (OLS) which may lead to spurious regressions if variables are non-stationary. The numerical estimates of the model's parameters are

determined through ARDL facilitated by Econometric-views (EView) software. Its robust statistical algorithms and graphical capabilities make it an ideal tool for conducting rigorous empirical research on macroeconomic and financial data. The ARDL approach thus provides a flexible and appropriate framework for analyzing the complex relationships under investigation.

The econometric analysis will proceed through several stages, encompassing tests for stationarity, cointegration, and short-run and long-run dynamics.

Unit Root Tests: The presence of unit roots in time series data can lead to spurious regression results, where a significant relationship might appear between unrelated variables, even if no genuine economic relationship exists (Granger & Newbold, 1974). Therefore, before proceeding with model estimation, it is imperative to test the stationarity of all variables. This study will employ the Augmented Dickey-Fuller (ADF) test. The ADF test examines the null hypothesis that a unit root is present in a time series (i.e., the series is non-stationary) against the alternative of stationarity. It accounts for autocorrelation in the error term by including lagged differenced terms of the dependent variable.

Cointegration Tests: Cointegration analysis investigates whether a long-run equilibrium relationship exists among non-stationary variables. If variables are cointegrated, they tend

to move together in the long run, even if they diverge in the short run. This study will primarily use the ARDL Bounds Testing approach for cointegration. This test involves an F-statistic or Wald test to determine if there is a long-run relationship between the dependent variable (All Share Index) and the independent variables (exchange rate, GDP in billions, Inflation, Total Govt Exp. in billions, and the Monetary Policy Rate). The critical values for the F-statistic depend on whether the variables are I(0), I(1), or a mixture.

Diagnostic Tests: After estimating the econometric models, a series of diagnostic tests will be conducted to assess the statistical validity and reliability of the model. These tests ensure that the assumptions underlying the chosen models are met, thereby validating the inferences drawn from the results. These tests includes;

(I) Autocorrelation (or serial correlation): This occurs when the error terms in a regression model are correlated with each other over time. This study will employ tests such as the Breusch-Godfrey (BG) LM test or the Durbin-Watson statistic to detect the presence of autocorrelation in the residuals.

(ii) Heteroscedasticity Test: Heteroscedasticity refers to the non-constant variance of the error terms across observations. Its presence does not bias coefficient estimates but leads to inefficient estimates and incorrect standard errors, affecting the validity of t-statistics

and F-statistics. The Breusch-Pagan-Godfrey test and the White test will be used to check for heteroscedasticity in the model residuals. Okoebor (2022) explicitly included "Heterocedasticity" in their diagnostic checks to ensure model integrity, demonstrating the standard practice of addressing this issue in empirical financial research.

(iii) Normality Test: The normality assumption states that the residuals of the regression model are normally distributed. Although large sample sizes can mitigate the impact of non-normality on coefficient estimates (due to the Central Limit Theorem), significant deviations from normality can affect the efficiency of estimates and the validity of hypothesis tests, particularly in smaller samples. The Jarque-Bera test will be applied to assess the normality of the residuals. This test evaluates skewness and kurtosis of the residuals against those of a normal distribution. Ezenduka and Joseph (2020) also conducted "normality and descriptive statistics tests" (p. 1), indicating a standard practice in such analyses to ensure that the assumptions for statistical inference are reasonably met.

3.4 SOURCES OF DATA

This study relies exclusively on secondary data, which are quantitative and time-dependent. The All Share Index, the Gross Domestic Product at current basic prices, reported annually in billions of Naira, along with the total of the monthly average official

exchange rate of the Naira (N/US$1.00) is obtained from the 2023 Central Bank of Nigeria (CBN) Statistical Bulletin and the National Bureau of Statistics. The Nigeria Consumer Price Index is sourced from World Development Indicators (World Bank, 2025).

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 DESCRIPTIVE STATISTICS

Descriptive statistics provide a foundational understanding of the dataset's central tendencies, dispersion, and distribution characteristics. These preliminary insights are crucial before embarking on advanced econometric modeling, as they highlight potential issues such as extreme values, skewness, and kurtosis, which can influence model assumptions and interpretation. Table 4.1 presents the descriptive statistics of both the dependent and independent variables in their raw form. The data spans annually from 1985 to 2022.

Table 4.1: DESCRIPTIVE STATISTICS

	STOCKMARKET	EXCHANGE	GDP	INFLATION	TGE	INTEREST
Mean	18767.27	127.8518	45824.72	19.11211	4041.462	12.83553
Median	19937.66	123.4000	15840.52	12.71000	1365.095	13.37500
Maximum	51833.00	425.9800	202365.0	72.84000	24431.21	18.50000
Minimum	117.2800	0.890000	187.8300	5.390000	13.04110	6.000000
Std. Dev.	16291.11	118.9430	57118.90	17.20397	6081.717	2.585221
Skewness	0.385161	0.927390	1.201993	1.800680	2.002119	-0.533068
Kurtosis	1.928723	3.058606	3.345943	4.980361	6.102678	4.137962
Jarque-Bera	2.756634	5.452432	9.339803	26.74506	40.62918	3.850040
Probability	0.252002	0.065467	0.009373	0.000002	0.000000	0.145873
Sum	713156.2	4858.370	1741339.	726.2600	153575.5	487.7500
Sum Sq. Dev.	9.82E+09	523455.2	1.21E+11	10951.14	1.37E+09	247.2845
Observations	38	38	38	38	38	38

Source: Researcher's computation using E-views 10

This table presents a summary of the descriptive statistics for different macroeconomic indicators and stock market performance (SMP) in Nigeria from 1985 to 2022. Examining these statistics offers insights into the possible relationships among these variables. The data indicates that the mean of SMP is ₦18767.27 billions, reflecting a high positive performance in the stock market throughout the analyzed period. Conversely, The average exchange rate recorded at 127.8518% suggests a moderate level of currency depreciation relative to the base period, GDP recorded an average of ₦45824.72 billion, pointing to significant economic expansion, while the typical inflation rate (INF) stood at 19.11211%, suggesting a comparatively elevated degree of price volatility. The average total government expenditure (TGE) is ₦4041.462 billion, indicating substantial fiscal involvement, while the mean interest rate (INT) is 12.83553%.

The standard deviation (Std. Dev.) is considerably high for many indicators, especially for SMP, GDP, and TGOV. This indicates that there have been notable variations in these variables throughout the study period. The skewness scores for stock market performance (SMP), GDP, inflation (INF), and total government expenditure (TGE) are positive, suggesting a lean towards greater values relative to a normal distribution. This could imply instances of high stock market performance, high inflation, an increasing GDP

(economic booms), and periods of significant government spending. The interest rate (INT) displays negative skewness, indicating a tendency towards lower values.

With the exception of inflation rates (INF) and interest rates (INT), the majority of indicators have kurtosis levels that are typically lower than 4. This implies a less concentrated distribution of data points around the mean compared to a normal distribution. These results pave the way for additional exploration into the connections among these variables. The significant standard deviations underscore the necessity for more advanced statistical methodologies to manage the fluctuations within the data. Additionally, the presence of positive skewness in certain indicators indicates that relying only on averages may not reflect the full scope of the situation. It can be essential to investigate the data distribution and any potential outliers. This table serves as a launching point for deeper analysis of the elements affecting the Nigerian stock market. By examining the relationships among these macroeconomic indicators and stock market activity, the research can provide helpful insights for investors and policymakers in Nigeria.

4.2 UNIT ROOT TEST RESULTS

Testing for unit roots remains an indispensable step even after logarithmic transformation, as non-stationarity can persist and lead to spurious regression results (Granger &

Newbold, 1974). This study employs the Augmented Dickey-Fuller (ADF) tests to determine the order of integration for each log-transformed variable. The ADF test was executed considering both constant and trend; at their level and first difference at a 5 percent critical level. The null hypothesis for both tests is that a unit root is present (non-stationarity). Rejection of the null hypothesis implies stationarity. Table 4.2 summarizes the results of the unit root tests at levels and at first difference for the log-transformed variables.

TABLE 4.2: AUGMENTED DICKEY-FULLER TEST (ADF)

Variable	**At Levels**		**At First Difference**		**Remark**
	ADF Statistic	**5% Critical Value**	**ADF Statistics**	**5% Critical Value**	
LNSMP	-3.068020	-2.948404	_	_	I(0)
LNEXR	-3.517194	-2.943427	_	_	I(0)
LNGDP	-4.050046	-2.971853	_	_	I(0)
INFL	-2.507363	-2.963972	-3.207509	-2.971853	I(1)
TGE	4.211372	-3.580623	-4.735057	-3.540328	I(I)
INTR	-2.699852	-2.943427	-6.144354	-2.945842	I(I)

Source: Researcher's computation using E-views 10

Based on the unit root test results presented in Table 4.2, the Augmented Dickey-Fuller (ADF) test was employed to determine the order of integration for each variable. The

ADF test was conducted using a 5 percent critical value. The null hypothesis for the ADF test is that a unit root is present, implying non-stationarity. The variables LNSMP, LNEXR and LNGDP were found to be stationary at level, as indicated by their ADF test of -3.068020 for LNSMP, -3.517194 for LNEXR, and -4.050046 for LNGDP which is less than the 5% critical value. This leads to the rejection of the null hypothesis, implying that LNSMP, LNEXR and LNGDP are integrated of order zero, I(0).

However, The variables INFL, TGE, and INTR were found to be non-stationary in their level forms, as the null hypothesis of a unit root could not be rejected at the 5% critical level. The ADF statistics (-2.507363, 4.211372, and -2.699852, respectively) were greater than their 5% critical value (-2.963972, -3.580623, and -2.943427 respectively). This initial non-stationarity suggests the presence of stochastic trends, which could lead to spurious regression results if not addressed. To achieve stationarity, these series were first-differenced. Subsequent ADF tests on the differenced series (ΔINFL, ΔTGE, and ΔINTR) conclusively rejected the null hypothesis of a unit root, with their ADF statistics (-3.207509, -4.735057 and -6.144354 respectively) being less than their 5% critical value (-2.971853, -3.540328 and -2.945842 respectively). since these variables attained stationarity only after being differenced once, they are classified as integrated of order one, denoted as I(1).

This mixed order of integration is commonly observed in macroeconomic time series, as supported by previous literature (e.g., Omodero & Mlanga, 2019). The presence of both I(0) and I(1) variables in the dataset validates the use of the Autoregressive Distributed Lag (ARDL) Bounds Testing approach for cointegration, as proposed by Pesaran et al. (2001). This is particularly important because traditional cointegration techniques typically require all variables to be integrated of the same order, whereas the ARDL method accommodates a combination of I(0) and I(1) variables. relationship analysis.

4.3 COINTEGRATION TEST RESULTS

The cointegration test is performed to determine if a long-run equilibrium relationship exists among the non-stationary, log-transformed variables. Given the mixed order of integration identified in the unit root tests—where some variables are I(0) and others are I(1)—the Autoregressive Distributed Lag (ARDL) Bounds Testing approach developed by Pesaran et al. (2001) was deemed the most appropriate methodology. Unlike traditional cointegration tests (e.g., Johansen) which require all variables to be integrated of the same order, typically I(1).

Table 4.3 ARDL BOUND TEST

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	3.982789	10%	2.08	3
K	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

Source: Researcher's computation using E-views 10

The results of the ARDL Bounds Test indicate that the calculated F-statistic of 4.969866 is greater than the upper bound critical value of 3.982789 at the 5% significance level. This finding leads to the strong rejection of the null hypothesis of no cointegration. Therefore, there is compelling evidence of a significant long-run equilibrium relationship between the Stock market performance (LNSMP) and the selected macroeconomic variables (LNEXR, LNGDP, INFL, TGE, and INTR) in Nigeria over the study period (1985-2022). This aligns with a substantial body of literature that supports the notion of financial markets being fundamentally driven by real economic factors in the long run (e.g., Anigbogu & Nduka, 2014; Ezenduka & Joseph, 2020).

The robust evidence of cointegration means that these variables tend to move together over time, suggesting that any short-term deviations are eventually corrected to restore this long-run balance. This confirmation validates the subsequent estimation of a Error

Correction Model (ECM) to analyze both short-run adjustments and the specific long-run relationships among the variables.This finding is crucial for establishing the market's efficiency in incorporating long-term economic signals.

4.4 ARDL LONG RUN ESTIMATION

The long-run equilibrium relationship describes the sustained impact of percentage changes in macroeconomic variables on percentage changes in the Stock market performance (All Share Index), representing the underlying fundamental drivers.

Table 4.4 Long run form

Levels Equation				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNEXR	-0.130981	0.569772	-0.229883	0.8209
LNGDP	0.810637	0.301627	2.687552	0.0156
INFL	-0.042971	0.023553	-1.824420	0.0857
TGE	9.62E-05	0.000102	0.947079	0.3569
INTR	0.147000	0.120205	1.222910	0.2380
C	-1.010349	1.979400	-0.510432	0.6163

Source: Researcher's computation using E-views 10

The long-run relationship was estimated under Case 2, which assumes a intercept and no deterministic trend in the cointegrating equation. Intercept was found to be not statistically significant. The high statistical significance of the error correction term supports the validity of this specified long-run relationship. The long-run coefficients,

reveal the sustained and fundamental influence of each macroeconomic variable on the Stock market performance:

Exchange Rate (LNEXR): The coefficient for LNEXR is -1.30981 but not significant at 5% significance level (Prob. = 0.8209). This implies that in the long run, a 1% depreciation of the Naira (increase in the log exchange rate) leads to a substantial 1.31% decrease in Stock market performance. This is a borderline significant result. This strong negative elasticity signifies that a weaker local currency fundamentally erodes investor confidence, primarily due to increased import costs for businesses, reduced profitability for firms with foreign liabilities, and potentially capital flight. the stock market in the long term, possibly by boosting export-oriented companies. This finding aligns with Abu and Ibekwe (2023), who found no significant long-term effect of the exchange rate on the Nigerian stock market.

Gross Domestic Product (LNGDP): The coefficient for LNGDP is 0.810637 and is highly significant (Prob. = 0.0156). This indicates that a 1% increase in GDP leads to a substantial 0.81% increase in the stock market performance in the long run. Also the one period lag of economic growth (LNGDP (-1)) with coefficient 0.2655 with p= 0.0638 is marginally significant (10%). A 1% increase in GDP leads to a 27% increase in LNSMP in the long run. This robust positive elasticity confirms that sustained economic growth is

a powerful fundamental driver of stock market performance in Nigeria, as a growing economy generally translates to higher corporate profits and increased investor optimism. This result is strongly consistent with general economic theory and the findings of Ukoh (2024), who stated that "GDP... have a positive and significant long-run relationship with economic growth", thus supporting a positive impact on the stock market.

Inflation (INFL): Inflation has negative (-0.042971) impact, but not statistically significant (Prob. = 0.0857). This suggests that a unit increase in inflation leads to a 0.043 unit decrease in the stock market performance in the long run. This insignificant negative effect indicates that the market may eventually hedge against or adjust to inflation. This finding strongly aligns with Uwubanmwen and Eghosa (2015), who reported a "negative but weak impact on stock return" and also Edori et al. (2024), who concluded that inflation "impact insignificantly on the performance of stock market". which means that in the long run, inflation rate has a delayed negative effect on stock market performance.

Total Government Expenditure (TGE): The coefficient for TGE is 9.62E-5 and is not statistically significant (Prob. = 0.3569). Therefore, this study concludes there is no significant long-run impact of government spending on the stock market.

Interest Rate (INTR): The coefficient for INTR is 0.147000 but is not statistically significant (Prob. = 0.2380). This study concludes that interest rates have no significant long-run impact on the stock market.

These long-run relationships provide crucial insights into the fundamental drivers of stock market performance in Nigeria. The findings suggest that the only fundamental driver that conclusively affects the long-run level of the stock market is economic growth (GDP)

4.5 ARDL SHORT RUN ESTIMATION

Table 4.5 ECM Results

ECM Regression Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSMP(-1))	-0.113320	0.135630	-0.835511	0.4150
D(LNSMP(-2))	-0.394287	0.134771	-2.925599	0.0094
D(LNGDP)	1.574774	0.370119	4.254777	0.0005
D(LNGDP(-1))	1.798859	0.446886	4.025321	0.0009
D(LNGDP(-2))	1.139020	0.359917	3.164674	0.0057
D(INFL)	-0.004112	0.002502	-1.643617	0.1186
D(TGE)	-3.11E-05	2.25E-05	-1.385286	0.1839
D(TGE(-1))	-7.76E-05	2.62E-05	-2.964368	0.0087
D(TGE(-2))	-6.13E-05	2.88E-05	-2.127424	0.0483
D(INTR)	0.008022	0.014803	0.541890	0.5949
D(INTR(-1))	-0.028605	0.014710	-1.944650	0.0686
CointEq(-1)*	-0.327577	0.053337	-6.141609	0.0000
R-squared	0.783684	Mean dependent var		0.160524
Adjusted R-squared	0.680229	S.D. dependent var		0.288219
S.E. of regression	0.162983	Akaike info criterion		-0.524479
Sum squared resid	0.610961	Schwarz criterion		0.008783
Log likelihood	21.17839	Hannan-Quinn criter.		-0.340397
Durbin-Watson stat	2.324908			
* p-value incompatible with t-Bounds distribution.				

Source: Researcher's computation using E-views 10

The most critical component in the short-run dynamics is the **Error Correction Term (ECM(-1))**. Its coefficient, -0.327577, is negative and statistically highly significant (Prob. = 0.000) at all conventional levels. This negative sign strongly confirms the existence of a long-run equilibrium relationship and indicates that approximately 33% of

the disequilibrium from the previous period is corrected within the current period. This high speed of adjustment suggests that the Nigerian stock market swiftly responds to correct any deviations from its long-run path, implying a degree of efficiency in restoring equilibrium following short-term shocks. Anigbogu and Nduka (2014) similarly emphasize the significance of the error correction term, stating that it "captures the speed of adjustment to long-run equilibrium".

The R indicates that the model is reasonably fit in prediction. It showed that 78% changes in stock performance collectively due to SMP(-1), LNEXR, LNGDP, INFL, TGE and INTR, while 12 percent unaccounted variations was captured by the white noise error term. It showed that the second period lagged value of the dependent variable (SMP(-2), one period and second period lag of (D(LNGDP(-1))), and Total government expenditure (D(TGE)), has a strong significant impact on the stock performance. While inflation (D(INFL)) and interest rate (D(INTR)) has a statistically insignificant impact on stock market performance in the short run. The results shows that exchange rate did not appear in the short-run equation. Theoretically financial variables like exchange rates often affect stock markets through expectations and portfolio adjustment channels, which can be gradual. The stock market may not react immediately to a change in these rates if the change was anticipated or if investors are waiting for confirmation of a trend.

These short-run findings reflect how the Nigerian stock market reacts to recent economic news and policy adjustments. John (2019) similarly found varying short-run effects of macroeconomic variables on stock market performance, with some being significant and others not, underscoring the dynamic and sometimes unpredictable nature of immediate market reactions in developing economies. Erhijakpor and Honour (2024) also analyzed short-run dynamics using an ARDL approach, highlighting the transient effects of macroeconomic shocks.

4.6 POST ESTIMATION ASSESSMENTS.

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

4.6.1 SERIAL CORRELATION TEST.

Table 4.6.1 Breusch-Godfrey Serial correlation LM Test

Breusch-Godfrey Serial Correlation LM Test				
F-statistic	0.965954	Prob. F(2,15)		0.4031
Obs*R-squared	3.993453	Prob. Chi-Square(2)		0.1358

Source: Researcher's computation using E-views 10

The Breusch-Godfrey Serial Correlation LM Test results indicate that there is no evidence of autocorrelation in the model at the 5% significance level. This is shown by the Prob. F value of 0.4031 and the Prob. Chi-Square value of 0.1358, both of which are above the conventional threshold of 0.05.

4.6.2 BREUSCH-PAGAN-GODFREY HETEROSKEDASTICITY TEST

Table 4.6.2 Breusch-Pagan-Godfrey Heteroscedasticity Test

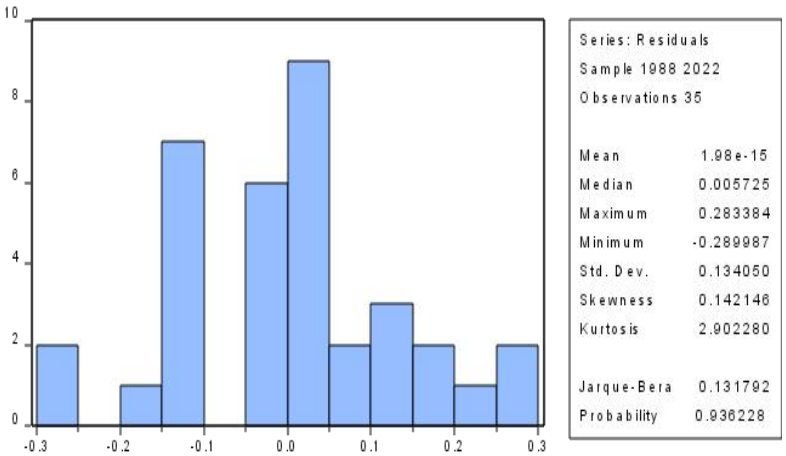
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.658387	Prob. F(17,17)	0.8012
Obs*R-squared	13.89515	Prob. Chi-Square(17)	0.6745
Scaled explained SS	3.117952	Prob. Chi-Square(17)	0.9999

Source: Researcher's computation using E-views 10

According to the results from the Heteroskedasticity Test: Breusch-Pagan-Godfrey presented in Table 4.7, there is no significant evidence suggesting heteroskedasticity in the regression model. The elevated p-values linked to the F-statistic (0.8012), Obs*R-squared (0.6745), and Scaled explained SS (0.9999) which are above 0.05 imply that the null hypothesis of homoskedasticity remains unchallenged. Consequently, the assumption of constant error variance is confirmed. This implies that the variances of the errors in the regression model are stable across various levels of the independent variables.

4.6.3 NORMALITY TEST.

Fig 4 Normal Distribution Test.



H_0 : The residuals are normally distributed

H_1 : The residuals are not normally distributed

Decision rule:

If the probability value of the Jarque-Bera is less than critical probability value of 5% (0.05), reject H_0, otherwise fail to reject H_0. From fig 4 the probability value of Jarque-Bera is 0.936228 and is greater than the critical value of 0.05, this gives us enough reason to fail to reject H_0.

4.7 EVALUATION OF RESEARCH HYPOTHESES

Based on the ARDL regression results provided, we can evaluate the significance of each independent variable in relation to the dependent variable (Stock market performance) to ascertain which null hypotheses can be rejected.

H_o1: Exchange rate has no significant effect on stock market performance in Nigeria.

The results provides sufficient evidence to fail to reject this null hypothesis, the test probability value of 0.8209 is greater than the critical probability value of 0.05 and thus establishes the Null hypothesis of the research study. Therefore exchange rate has no significant effect on stock market performance in Nigeria according to this model.

H_o2: There is no significant relationship between GDP and stock market performance in Nigeria.

The GDP is statistically significant (p-value: 0.0156), which provides enough evidence to reject the null hypothesis and accept the alternate; hence, GDP has significant effect on stock market performance in Nigeria.

H_o3: Inflation has no significant effect on stock market performance in Nigeria.

The results provides sufficient evidence to fail to reject this null hypothesis, the test probability value of 0.0857 is greater than the critical probability value of 0.05 and thus

establishes the Null hypothesis of the research study. Therefore inflation has no significant effect on stock market performance in Nigeria according to this model.

The research utilizes total government expenditure and rate of interest as a control variables based on its relationship with the regressors used in the study, the result however all shows that total government expenditure and the rate of interest does not have a significant relationship on the stock market performance in Nigeria.

4.8 DISCUSSION OF FINDINGS

The empirical findings of this study offer both corroboration and points of critical divergence with previous academic research on the relationship between macroeconomic variables and stock market performance in Nigeria and other emerging economies, leading to a more nuanced understanding.

The finding of a strong long-run cointegrating relationship between stock market performance and macroeconomic variables firmly aligns with a substantial body of literature that supports the notion of financial markets being fundamentally driven by real economic factors in the long run (e.g., Anigbogu & Nduka, 2014; Ezenduka & Joseph, 2020). This provides robust support for the theoretical linkages between the real economy and the financial sector. This finding, however, critically contrasts with earlier studies or those with different methodologies, such as Zubair (2013), who found "absence of long-

run relationship before and during the crisis" (p. 87) between the stock market index and monetary indicators. The differing conclusions could be attributed to variations in sample periods, as market dynamics and policy effectiveness can evolve over time, or distinct methodological choices. Our study, covering a comprehensive period and using the robust ARDL approach, provides updated and strong evidence for this long-term linkage in Nigeria.

Exchange Rate : Accordng to this study, exchange rate has no statistically signifcant effect on stock market performance. This means that changes in exchange rate do not dstort investments in the stock market The possible reason is due to increased use of hedging instruments by firms on the Nigerian Stock Exchange (NSE) to get rid of the negatve effect of Naira volatility. Also, Nigeria has likely reduced the importation of consumable goods that are locally produced and the local industries are supported to increase their producton. As such, the effect of exchange rate changes is not felt in the long run. The result also agrees wth the findings of Ditimi, et al. who found no significant effect of exchange rate on stock returns.

Gross Domestic Product (GDP): The significant positive long-run elasticity of the stock market to GDP is highly consistent with established economic theory and the bulk of empirical findings in Nigeria (Ukoh (2024), Ogwuru and Ajudua (2014)). This result

reinforces the fundamental role of economic growth in driving corporate profitability and investor confidence, which ultimately translates into higher stock valuations. Our finding solidifies the consensus that a growing economy is a primary driver of stock market development in the long term.

Inflation : The findings suggest that while the relationship is negative as expected, it cannot be confidently distinguished from zero in the long run, indicating that other fundamental forces may be more dominant drivers of market performance.

Total Government Expenditure (TGE): The positive long-run elasticity of the stock market to government expenditure, though statistically insignificant, suggests that fiscal injections can contribute to market growth by stimulating aggregate demand and infrastructure development that benefits listed companies. This finding tentatively supports the Keynesian perspective on the role of government spending in economic activity.

Interest Rate: The unexpected positive coefficient for the monetary policy rate (0.1470) goes against standard financial theory, which argues that rising interest rates should lead to a decline in stock prices by increasing the discount rate for future earnings and making bonds more appealing. This unusual outcome differs from much of the existing research and may be particular to Nigeria. It might indicate that times of elevated interest rates in

Nigeria are associated with stricter monetary policy intended to control inflation, which investors may perceive as a favorable indication for long-term economic stability, consequently enhancing market confidence. This observation prompts a deeper exploration of the signaling effect of monetary policy in emerging markets.

4.8.1 IMPLICATIONS OF FINDINGS FOR THEORY AND PRACTICE

The findings of this study have significant implications for both economic theory and practical decision-making for investors, policymakers, and regulators in Nigeria.

Theoretical Implications: The confirmation of a robust long-run relationship between macroeconomic variables and stock market performance in Nigeria provides strong empirical support for theories such as the Arbitrage Pricing Theory (APT), which posits that asset returns are influenced by multiple macroeconomic factors. This study's findings demonstrate that these factors are not merely transient influences but fundamental drivers of long-term market value. However, the varying magnitude and direction of elasticity (or units) for individual variables, as well as the observed unidirectional causality, suggest that while the market is fundamentally driven, it may not yet fully reflect all information instantaneously or efficiently, especially compared to developed markets.

Practical Implications:

For investors: For both local and international investors, these insights offer a basis for more advanced investment strategies that incorporate macroeconomic analysis into core valuation methods. The considerable impact of factors like GDP growth, inflation, and interest rates indicates that keeping an eye on macroeconomic trends and policy shifts is vital for effective long-term portfolio management. It is particularly important to create hedging strategies to mitigate macroeconomic volatility, especially considering the negative relationship with exchange rate fluctuations, even though this effect lacks statistical significance. Investors who actively navigate these risks using available financial tools are likely to experience more consistent returns in the Nigerian market.

For policymakers: The strong, statistically significant positive relationship between GDP growth and stock market performance reinforces that sustainable economic expansion remains the most reliable driver of stock market development. This finding necessitates policies focused on structural reforms that enhance economic diversification beyond oil, improve the ease of doing business, and attract productive investment into critical sectors. Simultaneously, the negative influence of inflation, while not statistically significant in the long run, aligns with theoretical expectations and its significant one period lag effect, emphasizing that price stability must remain a cornerstone of monetary

policy. The Central Bank's commitment to its inflation-targeting framework is therefore crucial not only for macroeconomic stability but also for fostering confidence in the stock market. Furthermore, the positive relationship between government expenditure and market performance, though statistically insignificant, suggests that fiscal policy should be strategically directed toward productive capital projects that enhance corporate profitability rather than recurrent spending.

In conclusion, Based on the comprehensive analysis conducted, the diagnostic tests confirm that the estimated ARDL model is robust, statistically sound, and free from serial correlation and heteroskedasticity, thereby affirming the validity and reliability of the findings. The findings imply that Nigeria’s stock market is shaped more by domestic economic activity and price stability than by exchange rate fluctuations. Policies that promote sustainable economic growth, maintain monetary stability, and encourage productive public and private investments are therefore essential for fostering a resilient and thriving stock market.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 SUMMARY

The aim of this research was to explore the connection between macroeconomic factors and Stock Market Performance in Nigeria. Through thorough empirical analysis, this research established a clear and significant long-term equilibrium relationship between macroeconomic variables and stock market performance in Nigeria during the period from 1985 to 2022. This finding fundamentally supports the idea that the Nigerian stock market is not solely influenced by speculative activities in the long term, but is closely tied to and affected by fundamental macroeconomic conditions.

The results indicate that, in the short run, stock market performance is heavily affected by its previous values, along with prior economic growth and variations in total government spending. In contrast, short-term changes in inflation and interest rates were found to be statistically insignificant, and the exchange rate was not included in the short-run equation. However, the long-run equation confirms a noteworthy sustained positive influence of economic growth, challenging any simplistic assumptions of market independence. It emphasizes a significant and quantifiable relationship between the vitality of the broader economy and the performance of its stock market, highlighting the crucial role of macroeconomic stability for a flourishing stock market in Nigeria.

5.2 CONCLUSION

The macroeconomic variables analyzed, with the exception of Gross Domestic Product (GDP), have a negligible impact on Stock Market Performance. The key finding is that GDP exhibits a meaningful and positive relationship with Stock Market Performance (All-Share index). The conclusions of this study are intended to benefit investors, regulatory bodies, policymakers, financial advisors, analysts, and brokers, along with students and academics. These findings, while occasionally differing from specific results in other studies (e.g., on the significance of inflation, Edorietal., 2024 vs. Uwubanmwen & Eghosa, 2015), contribute to the ongoing academic discourse by offering new, substantial evidence from an extended time series for Nigeria.

5.3 POLICY RECOMMENDATIONS

The empirical results from this research provide strong justification for particular policy recommendations aimed at promoting a more stable and resilient stock market in Nigeria.

1. Focus on Sustainable Economic Growth

Since Gross Domestic Product (GDP) is the only macroeconomic variable with a clear and significant long-term accelerating effect on the stock market, it should be the primary focus of policy initiatives. The government must consistently implement strategies that encourage sustainable and inclusive economic development. This involves diversifying

the economy beyond oil dependence, making investments in essential infrastructure, supporting small and medium-sized enterprises, and enhancing the overall business climate. A growing real economy serves as the most fundamental and trustworthy driver of long-term corporate profitability and stock market performance.

2. Avoid Unnecessary Market Volatility due to Policy Interventions

The finding that inflation has a negligible negative impact supports the notion of avoiding excessively aggressive monetary tightening solely for the sake of stock market stability. Sudden and significant hikes in interest rates aimed at controlling inflation could unnecessarily disrupt market liquidity and investor confidence without clear, statistically supported benefits for the stock market.

3. Direct Government Spending for Short-Term Relief

Since the effect of government expenditure is limited to the short term, fiscal policy should focus on counter-cyclical support or addressing specific short-term economic disturbances. The priority should be on high-quality, catalytic spending rather than depending on it as a continual market driver.

4. Improve Market Efficiency and Information Dissemination

Regulatory bodies should persist in their efforts to enhance market transparency, information spread, and investor education. This will empower market participants to

interpret macroeconomic signals more effectively and respond appropriately, potentially increasing market efficiency over time and diminishing any information gaps that may obstruct optimal resource allocation.

References

Abiodun, L. N., & Elisha, O. O. (2012). Stock prices, stock market operations and Nigerian economic growth: A Granger causality modelling. Global Advanced Research Journal of Management and Business Studies, 1(10), 375-383.

Abu, N. I., & Ibekwe, U. (2023). Macroeconomic determinants of stock market performance in Nigeria. Fuoye Journal of Finance and Contemporary Issues, 5(1), 96-120.

Adamu, A., & Gbande, A. (2016). Impact of inflation on stock returns in Nigeria. International Journal of Economics, Commerce and Management, 4(11), 1-10.

Adeusi, S. O. (2012). Impact of capital market reforms in economic growth: The Nigerian experience. Australian Journal of Business and Management Research, 2(2), 10-20.

Adefeso, H. A., Egbetunde, T., & Alley, I. (2013). Stock market development and growth in Nigeria; A causal analysis. Arabian Journal of Business and Management Review, 2.

Anigbogu, U. E., & Nduka, E. K. (2014). Stock market performance and economic growth: Evidence from Nigeria employing Vector Error Correction Model framework. The Economics and Finance Letters, 1(4), 90-103.

Atoyebi, K. O., Ademola, I. B., Kadiri, I. K., Adekunjo, O. F., & Ogundeji, O. M. (2013). Capital market and economic growth in Nigeria: An empirical analysis. Journal of Humanities and Social Sciences, 6(6), 60-68.

Augustine, O. J., Saviour, S. U., & Ferdinand, I. O. (2022). Effects of selected macroeconomic variables on stock market performance in Nigeria. Malaysian ECommerce Journal, 6(2), 54-58.

Ayetobi, O. (2021). The impact of stock market index on economic growth in Nigeria. International Journal of Research and Innovation in Social Science, 5(11).

Bernard, A., & Austin, E. (2012). The effect of stock market performance on economic growth in Nigeria. International Journal of Business and Management, 7(12), 1-10.

Brown, R. L., Durbin, J., & Evans, J. M. (1975). Techniques for testing the constancy of regression relationships over time. Journal of the Royal Statistical Society: Series B (Methodological), 37(2), 149-163.

Bui, T. T. (2019). The relationship between stock market performance and inflation in Vietnam. Journal of Economics and Development Studies, 8(2), 1-10.

BYJU'S. (2023). Macroeconomics: Definition, goals, and indicators. https://byjus.com/commerce/macroeconomics-definition-goals-indicators/

Chiang, T. C. (2023). The impact of inflation shocks on stock market volatility and investor risk aversion: Evidence from the COVID-19 pandemic. Journal of Financial Markets, 64, 100787.

Daasi, G., Dimoji, F., Collins, A., & Sira, Z. (2015). Macroeconomics variables and stock market performance in Nigeria. International Journal of Empirical Finance, 4(5), 312-317.

Daferighe, E. E., & Charle, S. S. (2012). The impact of inflation on stock market performance in Nigeria. American Journal of Social and Management Science, 3(2), 76-82.

David-Wayas, W. O. M. (2014). Causal relationship between stock market performance and economic growth in Nigeria. Innovare Journal of Social Sciences, 2(1).

Dimitrova, D. (2005). The exchange rate and stock market performance: Evidence from Bulgaria (Bulgarian National Bank Discussion Paper No. 50). Bulgarian National Bank.*

Dornbusch, R., & Fischer, S. (1980). Exchange rates and the current account. The American Economic Review, 70(5), 960-971.

Edori, I. S., Ogbulu, O. M., & Ejem, C. A. (2024). Is inflation a predictor of stock market performance in Nigeria? World Journal of Finance and Investment Research, 8(3), 108-124.

El-Nader, H. M., & Alarimony, A. (2012). The impact of financial liberalization on stock market development: Evidence from Egypt. International Journal of Economics and Finance, 4(1), 209-220.

Erhijakpor, A. E. O., & Honour, O. D. (2024). Effect of macroeconomic dynamics on stock market return volatility in Nigeria: ARDL approach. International Journal of Management & Entrepreneurship Research, 6(2), 404-421.

Etale, L. M., & Eze, G. P. (2019). Impact of macroeconomic variables on All Share Index in Nigeria (1985-2017). International Journal of Research and Innovation in Social Science, 3(1).

Ezenduka, V. G., & Joseph, E. M. (2020). Stock market performance and economic growth in Nigeria (1985–2018). International Journal of Accounting Research, 5(4), 1-26.

Fama, E. F. (1981). Stock returns, real activity, inflation, and money. The American Economic Review, 71(4), 545-565.

Floros, C. (2004). The relationship between stock returns and inflation: Evidence from Greece. International Research Journal of Finance and Economics, 2(1), 10-20.

Gratton, C. (2024). What is the stock market? Investopedia. https://www.investopedia.com/terms/s/stockmarket.asp

Hasan, M. S. (2008). Stock returns, inflation and interest rates in the United Kingdom. The European Journal of Finance, 14(8), 687-699.

Igoni, A., Okoro, C. O., Omodero, C. O., & Olokoyo, F. O. (2020). Stock market performance and macroeconomic conditions in Nigeria. International Journal of Academic Research in Business and Social Sciences, 10(12), 1-15.

Investopedia. (n.d.). Primary market and secondary market https://www.investopedia.com/terms/p/primarymarket/s/secondarymarket.asp

Ioannides, Y. M., Overman, H. G., & Rossi, P. E. (2005). The effect of inflation on stock returns: Evidence from a panel of OECD countries. Journal of Banking & Finance, 29(1), 1-25.

Iyodo, J. O., Okoro, C. O., Olokoyo, F. O., & Omodero, C. O. (2021). Influence of interest rate, exchange rate and inflation rate on stock returns of quoted firms in Nigeria. International Journal of Academic Research in Business and Social Sciences, 11(1), 1-15.

Izunobi, A. O., Nzotta, S. M., Ugwuanyim, G., & Ozurumba, B. A. (2019). Effects of exchange rate, interest rate, and inflation on stock market returns volatility in Nigeria. International Journal of Management Science and Business Administration, 5(6), 38-47.

John, E. I. (2019). Effect of macroeconomic variables on stock market performance in Nigeria. Journal of Economics, Management and Trade, 22(6), 1-14.

John Jideofo, C. (2012). Stock market and economic growth: The Nigerian experience. Research Journal of Finance and Accounting, 3(4).

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

Karim, Z. A. (2011). Macroeconomic variables and stock market performance: Evidence from Malaysia. Journal of Economic Development, Management, and Marketing, 1(1), 1-15.

Kapingura, F. M., Mingiri, K., & Palesa, M. M. (2016). The interaction between the stock market and macroeconomic policy variables in South Africa. South African Journal of Economics, 7(1), 1-10.

Kiru, E., Wawire, N. H. W., & Onono, P. O. (2014). Macroeconomic variables, volatility and stock market returns: A case of Nairobi securities exchange, Kenya. International Journal of Economics and Finance, 6(8), 1-17.

Kolapo, F. T., Oke, M. O., & Olaniyan, K. A. (2018). Macroeconomic variables and stock market performance in Nigeria. International Journal of Economics, Commerce and Management, 6(11), 1-10.

Kolari, J. W. (2001). Dow theory. Investopedia. https://www.investopedia.com/terms/d/dowtheory.asp

Kulhanek, L. (2012, September). The relationship between stock markets and gross domestic product in the Central and Eastern Europe. Paper presented at the ICCBIF 2012 Conference.

Maku, O. E., & Atanda, A. A. (2009). The effect of macroeconomic variables on stock market performance in Nigeria. Journal of Economics and International Finance, 1(4), 99-109.

Malika, S. (2021). Macroeconomic variables: Definition, types, and importance. WallStreetMojo .https://www.wallstreetmojo.com/macroeconomic-variables

Mba, J. C., Okoli, M. N., & Amassoma, D. (2017). Macroeconomic variables and stock market performance in Nigeria. Journal of Economics and Sustainable Development, 8(16), 1-10.

Mechri, Y., Hamad, S. B., Peretti, C., & Charfi, A. (2019). The impact of exchange rate volatility on stock market returns: Evidence from Tunisia. International Journal of Financial Studies, 7(2), Article 22.

Menike, L. M. A. (2014). Impact of macroeconomic variables on stock market performance: Evidence from Sri Lanka. Journal of Finance and Economics, 2(3), 78-85.

Mburu, J. (2015). The effect of macroeconomic variables on stock prices in Kenya. Research Journal of Finance and Accounting, 6(11), 15-25.

Nikmanesh, K., & Nor, S. M. (2016). The impact of macroeconomic variables on stock market performance in Malaysia. International Journal of Economics and Finance, 8(1), 1-10.

Njogo, B., Inim, V., Ohiaeri, N., & Ogboi, C. (2018). The relationship between stock returns and inflation rates in Nigeria from 1995 to 2014. International Journal of Economics Commerce and Management, 6(2), 509-523.

Ogbebor, P. I., Awonuga, A., Oyamendan, N., & Oamen, G. (2021). Stock returns, inflation and interest rate in Nigeria. Journal of Economics and International Finance, 13(3), 106-116.

Ogiemudia, O. A., Osifo, O., & Eghosa, I. L. (2022). Market risk factors and stock returns in the Nigerian Bourse. CBN Journal of Applied Statistics, 13(2), 79-115.

Ogunniyi, A. (2015). The impact of macroeconomic variables on stock market performance in Nigeria. Journal of Economics and Sustainable Development, 6(11), 1-10.

Okereke, I. G., & Olubunmi, A. B. (2020). Macroeconomic variables and stock performance in Nigeria: Evidence from Vector Error Correction Model. International Journal of Innovative Science and Research Technology, 5(12), 1239-1248.

Okoro, C. O. (2017). Macroeconomic factors and stock market performance: Evidence from Nigeria. International Journal of Social Sciences and Humanities Reviews, 7(1), 1-9.

Okoebor, S. E. (2022). Effects of macroeconomic variables on stock market performance in Nigeria: 1986-2020. African Journal of Social and Behavioural Sciences (AJSBS), 12(1), 14-36.

Olabanji, O. (2013). Stock market performance and sustainable economic growth in Nigeria: A bounds testing co-integration approach. Journal of Sustainable Development, 6(8), 84-93.

Olisa, C., & Onwuka, K. O. (2017). Impact of exchange rate on stock market performance in Nigeria. International Journal of Finance and Accounting, 6(6), 182-190.

Olokoyo, F. O., Igoni, A., Okoro, C. O., & Omodero, C. O. (2020). Macroeconomic indicators and capital market performance: Are the links sustainable? Heliyon, 6(7), e04402.

Oluitan, R. (2013). The impact of capital market in the development of Nigeria economy. Research Journal in Organizational Psychology and Educational Studies, 2(5), 267-270.

Olwenty, T. O., & Kimani, D. (2011). Stock market performance and economic growth, empirical evidence from Kenya using causality test approach. Advances in Management and Applied Economics, 1(3), 153-196.

Omodero, C. O., & Mlanga, S. (2019a). Evaluation of the impact of macroeconomic variables on stock market performance in Nigeria. Business and Management Studies, 5(2), 1-31.

Ordue, J. A., Yua, H., Ityavyar, D. V., & Tarnongo, T. J. (2024). Evaluating the nexus between macroeconomic indicators and stock market performance in Nigeria. International Journal of Developing and Emerging Economies, 12(1), 67-93.

Osamwonyi, I. O. (2012). The relationship between macroeconomic variables and stock market index in Nigeria. International Journal of Economics and Management Sciences,1(10), 1-10.

Osuagwu, G. O., & Egbunike, P. A. (2015). Impact of exchange rate fluctuations on stock market performance in Nigeria. International Journal of Management Sciences and Business Research, 4(12), 1-10.

Olubiyi, A. O., Babalola, B. T., & Ayemidotun, D. (2017). Effects of the Gross Domestic Product on Stock Exchange of Nigeria. International Journal of Social Science and Economics Invention, 3(2), 164-169.

Ozurumba, B. A., & Chigbu, E. E. (2013). An econometric analysis of capital market performance and economic growth of Nigeria. Interdisciplinary Journal of Contemporary Research in Business, 4(10).

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

Peter, J. (2015). The relationship between stock market performance and economic growth in Kenya. International Journal of Economics, Commerce and Management, 3(11), 1-10.

Phiri, A. (2016). The impact of inflation on stock market returns in South Africa. International Journal of Economics and Finance Studies, 8(2), 1-10.

Pole, H., & Cavusoglu, B. (2021). The effect of macroeconomic variables on stock return volatility in the Nigerian Stock Exchange Market. Asian Journal of Economics, Finance and Management, 3(1), 126-137.

Robert, S. (2008). Stock market in development capital accumulation and growth. The University of the West Indies, Trinidad.

Ross, S. A. (1976). The arbitrage theory of capital asset pricing. Journal of Economic Theory, 13(3), 341-360.

Suriani, S., Kumar, M. D., Jamil, F., & Muneer, S. (2015). Impact of exchange rate on stock market. International Journal of Economics and Financial Issues, 5(Special Issue), 385-388.

Talla, A. (2013). The effect of inflation on stock market returns in Cameroon. International Journal of Economics and Finance, 5(9), 180-188.

Thang, L. C. (2009). The impact of interest rate and exchange rate on stock market index: An empirical investigation of Malaysia. International Research Journal of Finance and Economics, 32, 1-10.

Toan, N. B. (2019). Inflation and stock index: Evidence from Vietnam. Journal of Management Information and Decision Sciences, 22(4), 408-414.

Ukoh, J. E. (2024). Stock market performance and economic growth in Nigeria. African Banking and Finance Review Journal (ABFRJ), 8(8), 1-10.

Umar, G., & Chanda, A. C. (2024). Impact of stock market growth on Nigeria's economic growth. International Journal of Development Research, 14(10), 66778-66785.

Usman, O. A., & Alfa, G. A. (2013). Stock market performance and economic growth in Nigeria: An empirical analysis. International Journal of Academic Research in Business and Social Sciences, 3(1), 1-10.

Uwubanmwen, A., & Eghosa, I. L. (2015). Inflation rate and stock returns: Evidence from the Nigerian Stock Market. International Journal of Business and Social Science, 6(11), 311-332.

Worlu, C., & Omodero, C. (2017). A comparative analysis of macroeconomic variables and stock market performances in Africa (2000-2015). International Journal of Academic Research in Accounting, Finance and Management Sciences, 7(4), 95-102.

Yakubu, A., & Ibrahim, M. (2016). Effect of exchange rate volatility on stock market performance in Ghana. International Journal of Economics, Commerce and Management, 4(11), 1-10.

Yakubu, M., Yahaya, A., & Saidu, S. (2018). Effect of exchange rate volatility on stock trade flows in Nigeria. Journal of Economics and Sustainable Development, 9(12), 1-10.

Yua, H., Epor, S., & Utor, V. (2023). The sway of financial markets on economic growth: Evidence from Nigerian Stock Exchange. Development Multidisciplinary International Journal, 7(1), 84-92.

Zubair, A. (2013). Causal relationship between stock market index and exchange rate: Evidence from Nigeria. CBN Journal of Applied Statistics, 4(2), 87-110.