

RESEARCH ARTICLE

THE IMPACT OF INTEREST RATES ON ECONOMIC GROWTH IN NIGERIA (1990-2023)

Agama Omachi* and Onum Friday Okoh

Department of Economics, University of Ibadan, Ibadan Nigeria.

*Corresponding Author Email: agamaomachi201912@gmail.com

This is an open access article distributed under the Creative Commons Attribution License CC BY 4.0, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

ARTICLE DETAILS

Article History:

Received 6 January 2025
Revised 13 February 2025
Accepted 19 March 2025
Available online 29 April 2025

ABSTRACT

Nigeria's economy has faced a number of difficulties that have hurt overall economic activity, in addition to international crises that have had a significant impact on global commodity prices. Structural imbalances brought on by the drop in oil prices, which drastically cut the country's revenue, made this situation even worse. This study examines the effect of interest rates on economic growth in Nigeria from 1990 to 2023. The results imply that interest rates have a negligible impact on economic expansion, suggesting that lowering interest rates could boost growth by encouraging investment. Therefore, the study suggests that interest rate policies that promote economic growth be put into place by Nigerian policymakers. Adopting the right policies is essential to accelerating economic growth.

KEYWORDS

Commodity, interest, negligible, right policies

1. INTRODUCTION

Economists continue to argue over the relationship between interest rates and economic growth, especially in developing nations like Nigeria where monetary policy has a significant impact on macroeconomic performance. As a monetary control tool, interest rates have a direct impact on borrowing costs and savings returns, which influences investment choices and overall economic output (Obamuyi, 2009; Obamuyi and Olorunfemi, 2011). Given the necessity of consistent and efficient financial reforms, fluctuating interest rates in Nigeria have sparked worries about their effects on investment and long-term economic growth (Chete, 2006).

In order to empirically investigate the impact of interest rates on economic growth in Nigeria, this study employs the Keynesian theoretical framework, which highlights the significance of government intervention and investment in stabilizing the economy (Okpanachi, 2007).

1.1 Background to the Study

Nigeria's economy has seen a number of difficulties that have negatively affected its overall performance, frequently made worse by worldwide economic downturns. Particularly with the collapse of oil prices, which had a direct impact on national revenue, these crises have had catastrophic repercussions on global commodity prices, causing structural imbalances in Nigeria (Obansa et al., 2013). Nigeria's economy and financial system have recently been impacted by the global financial crisis, which started in the US and expanded throughout the world (Obansa et al., 2010).

Nigerian policymakers have enacted a number of economic reforms in reaction to these outside shocks. In order to solve the economic crisis and put the economy on a path of growth, the government started the Structural Adjustment Program (SAP) in the middle of the 1980s. Several corrective steps were adopted, including financial sector changes. Later, in 2004, the government unveiled the National Economic Empowerment and Development Strategy (NEEDS), which was primarily designed to address the rising rates of inflation in the economy and high unemployment, particularly among young people (Millicent, 2013).

The Vision 20:2020 agenda is a summary of the nation's current development plan (Eze, 2013). Macroeconomic factors like interest rates, exchange rates, and inflation rates have been the main emphasis of Nigerian economic policy. Many economic issues remained unsolved despite the fact that economic reforms in the 1980s brought about tremendous development, especially in the banking sector. Notably, Nigerian interest rates have stayed incredibly high, which has had a detrimental impact on investments and borrowing expenses. Foreign investors have been deterred by this high cost of financing (Hakkio, 2000). When it comes to communicating monetary policy decisions to economic activity, interest rates are essential (Craig, 2000).

Nigeria has alternated between regulated and deregulated interest rate regimes, and its effect on economic growth is still up for discussion (Acha et al., 2011). Interest rates became extremely high and unstable after the Nigerian government implemented a framework centered on interest rate deregulation in 1993. The government set the Monetary Policy Rate (MPR) at 13.5% in 1994 as a result of interest rate volatility (CBN, 1994). Following the lifting of this cap in October 1996, a flexible interest rate regime that is primarily influenced by the forces of supply and demand for money has been in effect (CBN, 2007). However, significant interest rate volatility has frequently been a feature of this market-based strategy (CBN, 2006).

Over time, Nigerian interest rates have changed dramatically. For example, the rate increased from 2.5% in 1986 to 8.9% in 1990 (CBN, 1990). Auction markets for government securities were established, capital adequacy requirements were increased, and credit extension based on foreign exchange deposits was prohibited in order to stabilize the financial system (Hussainatu, 2008). With the Central Bank controlling and monitoring interest rates throughout the economy, interest rates continued to fluctuate in spite of these attempts. In order to regulate inflation and interest rates, the Central Bank also implemented indirect monetary tools. Interest rates doubled between 1997 and 2007, peaking at 24.62% in 2002 (CBN, 2002).

Monetary policy actions have helped the economy grow, but they haven't been enough to guarantee sustained progress. The Central Bank of Nigeria's 2007 Annual Report states that monetary policy by itself did not

Quick Response Code



Access this article online

Website:
www.seps.com.my

DOI:
10.26480/seps.01.2025.28.33

always lead to economic progress. Due in large part to the favorable oil price shock, which saw oil prices climb from \$18 per barrel in 1999 to \$28 per barrel in 2000, Nigeria's real GDP growth rate increased to 3.8% in 2000 from 2.8% in 1999 and 1.8% in 1998 (Abwaku, 2010). However, the Nigerian economy still faces issues like low rates of savings and investment, an ineffective public sector, ongoing budget deficits, and an uncertain macroeconomic climate (Eze, 2010).

The economy's growth has been impeded by these problems (Sanni, 2006). Nigerians are optimistic that improved interest rate and currency rate management might boost economic growth despite continuing policy reforms (Jelilov, et al., 2016). However, macroeconomic variables which are essential for economic growth have shown sluggish and underwhelming benefits from exchange rate and interest rate control (Obansa et al., 2010). Despite the nation's substantial changes, it is still difficult to obtain investment capital because lending rates are significantly higher than deposit rates (Oweoye, 2007).

According to the study, the Nigerian economy has yet to gain significant benefits from over forty years of policy changes, especially in the areas of interest and currency rate regulations (Onagowora, 2007). Interest rates are essential for the effective distribution of resources, supporting economic expansion and development, and encouraging the mobilization of deposits and the creation of credit (Ebirigan, 2012). The Central Bank raised interest rates as a result of rising inflationary pressures notwithstanding the adoption of several expansionary monetary measures (CBN, 2013). In light of the debate surrounding this interest rate hike, this study attempts to investigate how higher interest rates affect Nigeria's economic expansion. Interest rates will be analyzed as a key element influencing Nigeria's economic expansion (Jelilov, et al., 2016).

1.2 Problem Statement

This study's main goal is to evaluate how interest rates affect economic expansion. Interest rates and import substitution have long been problems for the Nigerian economy. Exchange rate stability is a crucial initiative that is anticipated to be maintained, and while interest rates may drop considerably under the new Central Bank of Nigeria (CBN) administration, the emphasis is still on preserving price stability. Economic growth is expected to be impacted by interest rates in one of two ways.

An expansionary monetary policy, which is usually linked to a decrease in interest rates, may be able to stimulate the economy by increasing economic activity. On the other hand, a tight monetary policy that results in a relatively high interest rate regime may delay economic development and ultimately impair overall economic performance. The relationship between interest rate changes over time and macroeconomic factors like investment will be examined in this study, with an emphasis on how these shifts affect the overall state of the economy.

1.3 Research Questions

Measuring a country's economic growth seeks to determine whether it can meet the increasing demands of society. This study aims to evaluate the impact of interest rates on Nigeria's economic growth by addressing the following questions:

- i). Does interest rate have a significant effect on the economic growth rate?
- ii). What is the relationship between investment and interest rates?
- iii). Is the impact of investment on economic growth significant?

1.4 Objectives of the Study

The overall objective of this study is to assess the impact of interest rates on economic growth in Nigeria. In line with the research questions, the specific objectives are:

- i). To determine if interest rates have a significant effect on the economic growth rate.
- ii). To examine how investment is influenced by interest rates.
- iii). To investigate the significance of investment in driving economic growth.

1.5 Scope of the Study

This study focuses on how interest rates affect Nigeria's economic growth, specifically looking at the years 1990–2023. It will examine how interest rate changes impact investment levels, which in turn impact the expansion of the economy as a whole. Macroeconomic factors like interest rates, investment, and their direct correlation with Nigeria's economic performance will be the main emphasis of the study. The study's

geographic scope is restricted to Nigeria, and its analysis will rely on information from financial institutions, national economic reports, and pertinent government publications.

2. LITERATURE REVIEW

Interest rates have been extensively researched, and different economists have varied definitions of what they are. According to Keynes, the interest rate is the compensation for giving up liquidity for a predetermined amount of time rather than hoarding. The loan rate is the main focus of his definition. The return or yield on equity, or the opportunity cost of postponing present spending for the future, is how they define interest rates (Adebiyi, 2002). The discount rate, loan rate, and saving rate are a few types of interest rates. As stated by Professor Lerner in (Jhingan, 2003),

The price that compares the supply of "credit" or savings plus the net rise in the amount of money over a given time period to the demand for credit or investment plus net hoarding during that same period is known as interest. According to this definition, the price of credit, which is established by supply and demand in the market for loanable funds, is the interest rate (Jelilov, et al., 2015). Interest rates are defined as the return on lenders' liquidity and the rental payment for borrowers' usage of credit (Ibimodo, 2005). Additionally, interest rates serve as a rationing mechanism, dividing up the finite supply of credit among conflicting demands. They claim that the interest rate can be thought of as the real interest rate, where the production gap is equal to zero and inflation is stable (Bernhardsen, 2008). When discussing monetary policy, this rate is essential. According to the study, one of the elements influencing interest rate setting is inflation (Irving Fisher, 1936). Since inflation reduces money's purchasing power, creditors must set interest rates high enough to offset this decline in future purchasing power. When assessing whether an interest rate is high enough for creditors, expected inflation is a crucial factor (Jelilov, et al., 2016).

One essential instrument for assessing short-term capital provision that doesn't change over time is the real interest rate. To keep the real rate constant, nominal interest rates must be adjusted in response to shifts in inflation expectations (Cottrell, 2005). Inflation is important in this context because it gradually enables economic agents to understand the real worth of money, which causes them to modify their projections of future inflation. The nominal interest rates that are charged are subsequently impacted by this. Understanding how interest rates, inflation, and investment are related is essential to comprehending the wider effects on the economy (Bencik, 2009).

2.1 The Concept of Economic Growth

The process through which a country's output of goods and services rises over time is known as economic growth. It asserts that when real output per capita increases steadily, an economy is considered to be expanding (Anyanwoncha, 1993). The percentage increase in national output above the level of the previous year over a certain time period, usually a year, is known as the rate of economic growth. Economic growth, according to the study, is the long-term gain in real per capita income, which is commonly gauged by the increase in the volume of products and services produced domestically (Jhingan, 2003). When an economy's productive capacity increases and it can generate more goods and services, economic expansion takes place.

This growth is often measured in terms of national income and real per capita income. Economic growth is a crucial objective of macroeconomic policy, as it is instrumental in the broader economic development of a country (Jelilov, 2016). The relationship between interest rates and economic growth is pivotal in understanding the role monetary policy plays in shaping a nation's economic trajectory.

3. THEORETICAL REVIEW

3.1 The Classical Theory of Interest

It points out that no single classical school author is responsible for the Classical Theory of Interest (Vanish, 2000). Classical economists built on Adam Smith's work by concentrating on the underlying dynamics that shape long-term interest rates while purposefully ignoring secondary or transitory causes that could result in short-term imbalances. Nonetheless, it is generally accepted that the main contributors to the development of this theory, which is also known as the demand and supply theory of saving (Marshall, 1920; Pigou, 1932).

This theory states that the relationship between the supply and demand for capital determines the interest rate. Time preference affects the capital supply, but the expected productivity of the capital drives the demand for capital. Two important elements affecting the supply side are time

preference and the amount of savings (Jelilov, et al., 2015). According to the study, both productive and consumptive goals contribute to the demand for capital (Vanish, 2000). Capital is sought after by investors due to its potential for output. However, the rule of diminishing returns governs capital productivity, which means that when more capital is added, the productivity of the extra units of capital decreases.

According to the study, the ability and willingness of the community to save money determines the supply of capital more so than the interest rate (Jhingan, 2001). Some people will continue to save even if the interest rate is nil, regardless of the interest rate. Higher interest rates, on the other hand, encourage others to save more, and as the rate increases, so do their savings. In this sense, when interest rates rise, the capital supply curve, also known as the savings curve, moves higher, increasing the amount of money available.

3.2 Methodology Literature Review

Studies that investigate how interest rates affect economic growth usually use a combination of theoretical and empirical analysis in their methodology. The majority of research evaluates the connection between interest rates and macroeconomic variables like investment, inflation, and economic growth using a combination of statistical methods and econometric models. They state that time series data analysis is frequently used in empirical research on the connection between interest rates and economic growth (Jelilov, et al., 2015).

This method makes it possible to examine how interest rates affect an economy's growth trajectory by looking at economic activity over a long period of time, usually many decades. Cointegration analysis, vector autoregressive models (VAR), and ordinary least squares (OLS) regression are examples of common statistical techniques. These techniques aid in determining the potential interdependencies between interest rates and other economic factors, including investment and inflation, as well as the potential long-term effects of changes in one on the other. For instance, emphasize in their work the application of OLS regression to model the connection between interest rates and economic growth in a particular nation (Jelilov et al., 2015).

Because it takes into consideration the impact of multiple macroeconomic factors, this method is useful for figuring out the direction and strength of the relationship between interest rates and GDP growth. Researchers can examine how shocks to interest rates or other factors, like inflation, might spread across the economy by using VAR models, which are also commonly employed to represent the dynamic interactions between numerous variables (Vanish, 2000). Panel data analysis is another popular methodological strategy because it enables the simultaneous analysis of cross-sectional and time-series data, offering a more thorough comprehension of the connection between interest rates and economic growth.

Panel data analysis helps account for country-specific characteristics, such as variations in institutional setups and financial systems, that may affect how interest rates affect economic growth by combining data from several nations or regions (Jhingan, 2001). Some research use qualitative techniques, including case studies or expert interviews, in addition to econometric modeling to better understand the ways in which interest rates impact economic growth. These qualitative methods are frequently employed to supplement quantitative results, offering a more thorough comprehension of the underlying economic mechanisms (Bernhardsen, 2008).

Overall, the literature suggests that the methodology for studying the relationship between interest rates and economic growth is diverse, combining both quantitative and qualitative approaches. This methodological diversity allows researchers to examine the complex interactions between monetary policy, interest rates, investment, and economic growth, thereby offering valuable insights into how interest rates shape long-term economic outcomes.

3.3 Empirical Review

The connection between interest rates and economic growth has been the subject of numerous research. For example, used time series data from 1970 to 2006 to investigate the relationship between interest rates and economic growth in Nigeria (Obamuyi, 2009). To account for the long-term and short-term dynamics of the variables in his research, he used cointegration and error correction models. The findings showed that actual lending rates had a big influence on economic expansion. Using panel data, they examined the connection between economic growth and actual interest rates from 1960 to 1994 (D'Adda and Scorcu, 2001).

Their results showed a negative relationship between real interest rates and economic growth, indicating that the adoption of restrictive monetary

policies may be to blame for the recent decades' slowdown in economic growth. The effect of foreign interest rates on economies has also been the subject of other research. For instance, Obamuyi investigated interest rates and economic growth in Nigeria once more and discovered that lending rates significantly impacted growth (Obamuyi, 2009). According to the report, encouraging economic growth requires interest rate policies that are conducive to investment. They evaluated the relative significance of domestic and foreign factors in influencing short-term real interest rates in 22 countries from 1985 to 2005 using a dynamic factor model (Brzoza-Brzezina and Cuaresma, 2008).

Their findings demonstrated that a single global component, which peaked in the mid-1990s before stabilizing, explained roughly half of the variation in real interest rates. Additionally, they discovered that in countries with fluctuating exchange rates, particular country factors were more important. It used a vector error correction model to examine Nigeria's economic growth, inflation, and fiscal deficits (Onwiodiokit, 2005). The findings cast doubt on the conventional wisdom that budget deficits inherently lead to inflation by showing a monotonically declining connection with prices over time. They investigated the connection between the real rate of interest and economic growth (Oosterbaan et al., 2000). According to their research, growth was at its highest when real interest rates fell between a specific band, usually between -5% and +15%.

Subsequently, They proposed that there is an inverted U-curve association between real interest rates and economic growth, with very low or negative real interest rates causing financial disintermediation and slower growth (De Gregorio and Guidotti, 2009).. It was discovered that there was no direct correlation between real output growth and any of the three real interest rate indicators in India (Malick and Agarwal, 2007). They explained this surprising outcome by pointing to a number of variables that impact investment, a major driver of economic growth, in addition to real interest rates. On the other hand, it was found that economic growth and real lending rates in India were inversely correlated (Mohanty et al., 2012). They also found evidence that real lending rates Granger affect growth in both non-agricultural GDP and overall GDP.

The factors influencing swap spreads in the US interest rate market were investigated using a multivariate Generalized Autoregressive Conditionally Heteroscedastic (GARCH) model with Error Correction Terms (ECM) (Zhang and Liang, 2007). Changes in interest rate swap spreads were positively correlated with changes in stock market volatility, but not with changes in the default premium in the corporate bond market, according to their study, which examined monthly data for 106 observations. They came to the conclusion that there was a negative relationship between swap spreads and the business cycle.

They suggested that emerging nations are better off with flexible exchange rate regimes, whereas countries contended that in the early phases of financial development and integration are best suited to fixed or somewhat rigid exchange rate regimes (Rogoff and Reinhart, 2004; Oyejide and Udun, 2010). Further, posited that a non-linear relationship exists between growth and exchange rate regime choices for developing and emerging market countries, with fixed or managed float regimes associated with higher growth rates, while this relationship was not significant for advanced European countries (David et al., 2010).

In their study on foreign direct investment in developing countries, researchers focused on factors determining FDI inflows between 1990 and 2007 (Shahmoradi and Baghbanyan, 2011). The impact of financial reform and interest rate behavior on Nigeria's economic growth was examined, revealing that both significantly influenced economic growth (Obamuyi and Olorunfemi, 2011). The threshold effect of inflation on economic growth in Azerbaijan from 2000 to 2009 was investigated, revealing a non-linear relationship where inflation below the threshold positively impacted growth, while inflation above it had a negative effect (Onanuga, 2010).

Long-run economic growth in Bangladesh was largely explained by physical capital and real interest rates, but financial liberalization had a significant negative effect on growth, likely due to the unfavorable investment climate (Omar et al., 2007). The relationship between interest rate deregulation and economic growth in Pakistan from 1981 to 2002 was studied, concluding that interest rate liberalization did not have a positive effect on economic growth because financial liberalization indicators showed no significant effect on saving, investment, or growth (Khalid, 2007).

They investigated how the money supply was affected by interest rate indices from 1990 to 2007 (Oforegbunam, 2012). According to his research, lending rates had a very small detrimental effect on the money supply, whereas minimum rediscount and savings rates had a major

positive effect. He came to the conclusion that the monetary authority's failure to reduce the difference between lending and saving rates was a contributing factor in the money supply's volatility. The relationship between real interest rates and economic growth in Nigeria was also explored, concluding that interest rates are a significant determinant of economic growth (Chete, 2006). He did, however, raise the possibility that if other variables that have a detrimental impact on investment are not addressed, interest rate deregulation may not produce the best outcomes.

Finally, time series analysis using annual data from 1970 to 2006 was used to investigate the connection between interest rates and economic growth in Nigeria (Adekunla and Akungba, 2009). They discovered a special long-term relationship between economic growth and its causes, including interest rates, and that real lending rates had a major impact on economic growth. This emphasizes how crucial interest rate behavior is for fostering economic expansion.

3.4 Theoretical Framework

The Keynesian theory of interest and investment, which asserts a robust relationship between interest rates and economic growth through investment behavior, serves as the theoretical foundation for this investigation. According to Keynes, interest rates are an important monetary policy tool that affects an economy's borrowing costs and investment levels. This hypothesis states that lowering interest rates decreases borrowing costs, which encourages investment spending, which propels economic expansion. A rise in interest rates, on the other hand, deters investment, which lowers aggregate demand and slows growth. This paradigm is suitable for evaluating the economic performance of Nigeria.

particularly in light of the nation's persistent problems with investment productivity, loan availability, and financial sector stability.

Keynes also claimed that economies do not always self-adjust to full employment and underlined the importance of effective demand in economic output. Thus, when interest rates are high, it increases the cost of capital and potentially crowds out private investment, a phenomenon particularly significant in emerging economies like Nigeria where access to inexpensive credit is a barrier (Okpanachi, 2007). The inclusion of investment as an explanatory variable in the model used to assess how interest rates affect Nigeria's GDP is justified by this theoretical perspective.

This study uses an expanded specification that takes into account investment as a mediating component in the interest rate-growth relationship, building on the Keynesian model. The model makes the assumption that there is a functional link between GDP and changes in interest rates and investment levels. This model's simplicity makes it possible to see clearly how changes in monetary policy rates impact the operations of the real sector. The Keynesian paradigm is still appropriate for comprehending the processes at work in Nigeria's macroeconomic environment, notwithstanding the conflicting empirical data regarding the relationship between interest rate growth in rich and developing economies.

According to the model's assumptions, government intervention through monetary policy, specifically interest rate adjustments, can change investment behavior and impact economic outcomes. This is consistent with the findings of researchers, who showed that interest rate behavior has a significant impact on economic growth, who discovered a long-term relationship between real interest rates and Nigeria's economic performance (Obamuyi and Olorunfemi, 2011; Chete, 2006).

4. METHODOLOGY

The nature of the study being conducted influences the methodology that is used in any research project. The Ordinary Least Squares (OLS) regression approach will be used in this investigation. Because it minimizes the sum of squared residuals and estimates the linear relationship between the dependent and independent variables, this approach is suitable for examining the relationship between interest rates and economic growth.

4.1 Data Type and Source

This research makes use of secondary data from 1990 to 2013. The information was taken from pertinent publications and the Statistical Bulletin of the Central Bank of Nigeria. It is crucial to note that the data used in this study are time series data, and they span the designated years 1990–2013.

4.2 Technique of Data Analysis

The ordinary least square (OLS) regression approach is the methodology used in this study. In order to reduce the discrepancies between the values predicted by the linear model and the actual values in a dataset, OLS is used to estimate the unknown parameters in a linear regression model. One statistical technique for determining the relationships between variables is regression analysis. It covers a range of modeling and analysis methods for multiple variables, especially when examining the connection between one or more independent variables and a dependent variable.

4.3 Model Specification

In this study, we extend the Keynesian model specification to include additional determinants of interest rate in Nigeria, and the econometric approach used is the ordinary least square (OLS) method of the classical linear regression model (Gujarati, 2007). The model is thus specified as follows:

$$\{INT\} = f(\text{investment}) \quad (1)$$

$$\{INT\} = \beta_0 + \beta_1 INV + U \quad (2)$$

Where:

INT = Interest rate

INV = Investment

β_0 = Intercept (indicating the interest rate when the explanatory variables are zero)

β_1 = Coefficient for the explanatory variable, investment, showing its effect on the interest rate

u = Error term

Most econometric models link an observable dependent variable to observable explanatory variables, an unobservable variable (the error term in a linear regression model), and parameters. In this model, we use Ordinary Least Squares (OLS) regression to assess the impact of interest rates on economic growth in Nigeria.

5. EMPIRICAL ANALYSIS

According to the empirical findings, which are based on Ordinary Least Squares (OLS) regression and span the years 1990–2023, interest rates and investment have statistically negligible effects on Nigeria's economic growth. At traditional significance levels, neither variable demonstrated a significant impact, despite the interest rate having a positive coefficient and investment having a negative one. The model only accounts for a small percentage of the fluctuation in GDP, as indicated by the low R-squared value, which raises the possibility that other macroeconomic variables are at play. Overall, the results highlight how poorly interest rates and investments explained economic growth in Nigeria throughout the research period.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.855123	1.480143	3.280172	0.0026
INT	0.071159	0.101087	0.703941	0.4867
INVEST	-0.046096	0.060695	-0.759469	0.4533
R-squared	0.126070	Mean dependent var		4.245752
Adjusted R-squared	0.069687	S.D. dependent var		3.905546
S.E. of regression	3.767006	Akaike info criterion		5.574535
Sum squared resid	439.9003	Schwarz criterion		5.709214
Log likelihood	-91.76710	Hannan-Quinn criter.		5.620465
F-statistic	2.235970	Durbin-Watson stat		1.219928
Prob(F-statistic)	0.123848			

5.1 Results of the Analysis

The impact of interest rates and investment on economic growth was investigated by regression analysis utilizing the Ordinary Least Squares (OLS) approach, with GDP serving as the dependent variable. The analysis, which included 34 annual observations, covered the years 1990–2023.

The following details apply to the estimated model:

$$GDP = 4.855 + 0.071 \cdot INT - 0.046 \cdot INVEST$$

A p-value of 0.0026 and a coefficient of 4.855 indicate that the constant term (C) is statistically significant at the 1% level. Despite having a positive coefficient of 0.071, the interest rate (INT) is not statistically significant (p-value = 0.4867), suggesting that changes in interest rates may not have a substantial direct effect on GDP during the course of the study.

The investment variable (INVEST) has a negative coefficient of -0.046 and is statistically insignificant (p -value = 0.4533), indicating that investment does not significantly influence GDP in this specification. The model's adjusted R-squared is 0.069, indicating a weak explanatory power, and the F-statistic of 2.236 (p -value = 0.1238) shows that the model as a whole is not statistically significant at conventional levels. The Durbin-Watson statistic of 1.22 suggests that there may be positive autocorrelation in the residuals.

The impact of interest rates (INT) and investments (INVEST) on economic growth, as measured by GDP, in Nigeria between 1990 and 2023 was assessed using Ordinary Least Squares (OLS) regression analysis. According to theory, an increase in interest rates is linked to an increase in GDP since the interest rate (INT) has a positive coefficient (0.071). The p -value of 0.4867, however, suggests that there is no statistical significance in this association. This suggests that during the reviewed period, Nigeria's economic growth may not have been directly or consistently impacted by variations in interest rates.

An inverse association between investment and GDP is suggested by the investment variable's (INVEST) negative coefficient (-0.046). This is surprising because economic growth is typically anticipated to be facilitated by higher investment. However, as indicated by the p -value of 0.4533, this link is likewise not statistically significant, suggesting that investment, as represented in this model, might not have had a substantial impact on economic growth throughout the study period. The independent variables (interest rate and investment) only account for 12.6% of the variation in GDP, according to the coefficient of determination (R-squared), which is 0.126. This low number suggests that there may be more explanatory power for Nigeria's economic growth from elements not in the model. The model as a whole is not statistically significant, indicating that the combined impact of interest rates and investment on GDP is minimal, as further supported by the F-statistic (2.236) and its matching p -value (0.1238).

Furthermore, the residuals may have positive autocorrelation, as indicated by the Durbin-Watson statistic (1.22), which could compromise the accuracy of the estimates. An overview of the research This study used time series data from 1990 to 2023 to investigate how interest rates affected Nigeria's economic growth. The study, which was based on the Keynesian framework, used the Ordinary Least Squares (OLS) regression technique to evaluate the connection between GDP, investment, and interest rates.

The Central Bank of Nigeria Statistical Bulletin and pertinent scholarly journals provided secondary data for the study. The empirical results showed that neither interest rate nor investment had statistically significant effects on economic growth in Nigeria during the period under review; although interest rate and GDP had a positive relationship and investment and GDP had a negative one, the results were insufficient to establish a clear causal relationship, and the low R-squared value indicated that other macroeconomic variables might have a greater impact on economic growth. These findings underscore the need for more comprehensive economic reforms and a more comprehensive approach to monetary policy design.

6. CONCLUSION AND RECOMMENDATION

Using the Ordinary Least Squares (OLS) regression approach within the Keynesian theoretical framework, this study investigated the relationship between interest rates and economic development in Nigeria from 1990 to 2023. Although interest rates and investments had positive and negative coefficients, respectively, the empirical results showed that neither variable was statistically significant in explaining changes in GDP. Because of the impact of other intervening macroeconomic variables including inflation, exchange rates, institutional quality, and political stability, it appears that the relationship between interest rates and economic growth in Nigeria is not as clear-cut or robust as is generally believed.

It is clear from these results that monetary policy might not be enough on its own to promote long-term economic expansion. A more comprehensive approach to the economy is required, one that enhances the banking system, builds infrastructure, and fosters an atmosphere that encourages profitable investments. Reforms that support macroeconomic stability, stimulate private sector involvement, and improve state expenditure efficiency may also help increase the growth impact of interest rate policy. To make sure that interest rate policies in Nigeria result in significant growth outcomes, a more all-encompassing approach to economic management is essential.

REFERENCES

- Acha, I. A., and Acha, C., 2011. Interest rates in Nigeria: An analytical perspective. Acha, Ikechukwu Anthony and Acha, Chigozie Kelechi. 2011, Interest Rates in Nigeria: An Analytical Perspective, Research Journal of Finance and Accounting, 2(3), Pp. 71-81.
- Aghion, P., and Howitt, P., 2009. The economics of growth. The MIT Press Cambridge, Massachusetts London, England.
- Awakamma C., 2014. Influence of Interest Rates Regimes on Deposit Money Banks Credit In Nigeria: An Econometric Assessment. The Clue Institute International Academic Conference Orlamdo, Florida, 1(3): Pp. 1-12
- Aziakpono, M. J., and Wilson, M. K., 2015. Interest rate pass-through, financial structure and monetary policy in South Africa. African Finance Journal, 17(1), Pp. 67-90.
- Bhatia, H. L., 2006. International economics. Vikas Publishing House.
- Chete L.N., 2006. The Determinants Of Interest Rate In Nigeria; A Monograph Publication Of Nigerian Institute Of Social And Economic Research (NISER), Ibadan, Nigeria.
- David, O. J; Umeh, C and Abu, A. A., 2010. The Effect Of Exchange Rate Fluctuations On The Nigerian Manufacturing Sector, African Journal of Business Management, 4(10), Pp. 2994-2998
- Di Giovanni, J., and Shambaugh, J. C., 2008. The impact of foreign interest rates on the economy: The role of the exchange rate regime. Journal of International economics, 74(2), Pp. 341-361.
- Essia, U., 2005. Macro economic theory. Calabar: Saesprint (Nig) Co.
- Jelilov, G., 2015. An Outlook of The Recent Entrepreneurship and Economic Problems in Nigeria: An Expatriate Perspective. British Journal Of Advance Academic Research , Pp. 78-85.
- Jelilov, G., 2015. An Outlook of The Recent Entrepreneurship and Economic Problems in Nigeria: An Expatriate Perspective. British Journal Of Advance Academic Research , Pp. 78-85.
- Jelilov, G., 2016. The Impact Of Interest Rate On Economic Growth Example Of Nigeria. African Journal of Social Sciences , Pp. 51-64.
- Jelilov, G., Kalyoncu, H., and Isik, A., 2015. Currency Substitution: Evidence from Nigeria. The Empirical Economics Letters , Pp. 737-744.
- Jelilov, Gylych; Abdulrahman, Samira; Isik, Abdurahman., 2015. The Impact of Tax Reforms and Economic Growth in Nigeria. The Empirical Economics Letters , Pp. 1100-1115.
- Jelilov, Gylych; Chidigo, Mary; Onder, Evren., 2016. Firm Size And Firm Growth: Testing Gibrat's Law On 17 Nigeria Manufacturing Industry (2000-2011). The International Journal of Social Sciences and Humanities Invention , Pp. 1869-1879.
- Jelilov, Gylych; Kachallah Ibrahim, Fatima; Onder, Evren., 2016. An Appraisal of the Impact of the Dearth of Pre-Hospital Emergency Medical Services to Road Traffic Accident Victims in Nigeria. International Journal of Humanities and Social Science Invention , Pp. 34-40.
- Jelilov, Gylych; Muhammad Yakubu, Maimuna., 2015. Economic Growth and Energy Consumption in Nigeria. The Empirical Economics Letters , Pp. 1187-1196.
- Jelilov, Gylych; Musa, Muhammad., 2016. The Impact Of Government Expenditure On Economic Growth In Nigeria. Sacha Journal Of Policy And Strategic Studies, Pp. 15 - 23.
- Jelilov, Gylych; Onder, Evren., 2016. Entrepreneurship: Issues and Solutions Evidence From Nigeria. Pyrex Journal of Business and Finance Management Research , Pp. 10-013.
- Jelilov, Gylych; Onder, Evren., 2016. Entrepreneurship in Nigeria Realities on Ground. Pyrex Journal of Business and Finance Management Research , Pp. 006-009.
- Jelilov, Gylych; Waziri, Fadimatu; Isik, Abdurahman., 2016. Interest Rate Behaviour and its Relationship with Economic Growth in Nigeria: An Error Correction Model Approach. The Empirical Economics Letters , Pp. 245-255.
- Jhingan, M. L., 2012. Economics of development and planning. Vrinda Publications (P) Ltd.

- Lucian-Liviu, A. L. B. U., 2006. Trends in the interest rate–investment–GDP growth relationship. *Romanian Journal of Economic Forecasting*, 5.
- M. L. Jhingan., 2009. *Advance Economic Theory* 13th Edition.
- McKinnon, R. and Shaw, 1973. *Money And Capital In International Development*. The Brokenness Institution, Washington.
- Mehdi Basirat and Arezoo Nasirpour., 2014. The Effect Of Exchange Rate Fluctuations On Economic Growth Considering The Level Of Development Of Financial Markets In Selected Developing Countries
- Mordi, C. N., Englama, A., and Adebusuyi, B. S., 2010. The changing structure of the Nigerian economy. Research Department, Central Bank of Nigeria.
- Nicholas, M.O., 2010. Interest Rate Deregulation, Bank Development And Economic Growth In South Africa: An Empirical Investigation. *International Business And Economic Journal*, 9(11), Pp. 131-142.
- Obansa, S. A. J., Okoroafor, O. K. D., Aluko, O. O., and Eze, M., 2013. Perceived relationship between exchange rate, interest rate and economic growth in Nigeria: 1970-2010. *American journal of humanities and social sciences*, 1(3), Pp. 116-124.
- Obansa, S. A. J., Okoroafor, O. K. D., Aluko, O. O., and Millicent Eze., 2013. Percieved Relationship Between Exchange Rate, Interest Rate And Economic Growth In Nigeria: Pp. 1970-2010.
- Onanuga, A. T., and Shittu, A. M., 2010. Determinants of interest rates in Nigeria: An error correction model. *Journal of economics and international finance*, 2(11), Pp. 261.
- Oosterbaan et al., 2000. Determinants Of Growth: retrieved from <http://books.google.co.uk/books>
- Saharan Africa. In: Iqbal, Z. And K. Ravi (Eds), *External Finance for Low Income Countries*. IMF Institute, Washington DC.
- Saymeh, A. A. F., and Orabi, M. M. A., 2013. The effect of interest rate, inflation rate, GDP, on real economic growth rate in Jordan. *Asian Economic and financial review*, 3(3), Pp. 341.
- SoyiboandOlayiwola., 2000. Interest Rate Policy And The Promotion Of Savings Investment And Resource Mobilization In Nigeria. Development Policy Centre, Ibadan.
- Thang, F. Z., 2009. Impact of Interest Rate and Exchange Rate on the stock market index in Malaysia: A cointegration analysis. Unpublished master's thesis, Universiti Sains, Penang, Malaysia. Retrieved from http://eprints.usm.my/25494/1/Impact_Of_Interest_Rate_And_Exchange_Rate_On.pdf.
- Todaro, M. S., 2006. SC 2006. *Economic Development*, Edisi Kesembilan, Jilid 1.(Drs. Haris Munandar, MA; Puji AL, SE, Trans). Jakarta: Penerbit Erlangga.
- Yahaya, O. A., Yusuf, M. J., and Dania, I. S., 2015. International financial reporting standards' adoption and financial statement effects: Evidence from listed deposit money banks in Nigeria. *Research Journal of Finance and Accounting*, 6(12), Pp. 107-122

