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# Evaluation of the Effect of Ratio of Money Supply to GDP on Economic Growth of Nigeria

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***Abstract:*** *Sustainable national development necessitated the identification of strategies that foster consistent economic growth. This study examined the impact of the money supply-to-GDP ratio on Nigeria's economic growth from 1986 to 2023. Specifically, it assessed the effects of the money supply-to-GDP ratio and the ratio of credit to the private sector relative to GDP on Nigeria's economic expansion. The investigation is situated within the Nigerian financial system, which predominantly followed the supply-leading or bank-based finance theory. Inferential statistical methods were employed to test the study's hypotheses. Data were sourced from the Central Bank of Nigeria's 2023 Bulletin, utilizing secondary data. The Augmented Dickey-Fuller (ADF) unit root test was applied to determine the integration order of the variables. Findings indicated that a one-unit increase in the money supply-to-GDP ratio corresponds to a decrease in economic growth by 0.082108 units. Similarly, a one-unit increase in the private sector credit-to-GDP ratio resulted in a 0.043240-unit reduction in economic growth. Conversely, when independent variables (money supply-to-GDP and private sector credit-to-GDP ratios) are held constant, the dependent variable (real GDP) increased by 8.334244 units. Notably, the coefficient for the money supply-to-GDP ratio is statistically significant and positively associated with economic growth, contributing 0.801039 units. This suggested that a unit increase in this ratio leads to a 0.801039-unit increase in economic growth. In conclusion, the relationship between financial sector development variables and economic growth in Nigeria is mixed, supporting the relevance of both demand-following and supply-leading theories in the country's financial development. Therefore, an efficient financial system that fosters interaction between bank- and market-based mechanisms is essential to achieve sustainable growth.*

**Keywords:** Money Supply Ratio, Gross Domestic Product, Economic Growth, Financial Intermediation, Sustainable Growth, and Financial Development

## Introduction

The body of financial literature has grown considerably, underscoring the essential importance of a sound and resilient financial sector. An effective financial system facilitates the mobilization of viable investment opportunities and executes vital intermediation functions that close financing gaps, thereby fostering improved economic performance (Bogari, 2019). A well-developed financial sector supports the accumulation of savings, enables effective risk management, enhances investment appraisal, and ensures the provision of credit, all of which serve as fundamental drivers of economic activities that promote societal welfare and improve quality of life (Iwedi, Barisua, & Zaagha, 2021).

Financial theory asserts that an efficient financial system comprises of well-functioning banks, bond markets, and equity markets that channel capital toward its most productive uses—is fundamental to sustaining economic dynamism and fostering growth (Qamruzzaman & Jianguo, 2018). Such a system enhances the accumulation of savings and opens investment opportunities within an economy. According to Rashti, Araghi, and Shayeste (2014), the process by which savings are transformed into investment differs across countries and is largely determined by their level of development, which generally evolves through three stages: reliance on the banking sector, the expansion of market-based financing, and ultimately the emergence of a fully developed economy with a comprehensive financial system. A well-structured financial system is vital for sustaining economic growth, as it promotes efficient investment and enhances the role of financial intermediaries in reallocating resources across different economic units (Balago, 2014).

According to Alkhuzaim (2014) and also, Bidemi and Abidemi (2014), the financial system contributes to economic growth through three principal channels. First, it provides incentives for the accumulation of both physical and human capital. Second, it enables the efficient allocation of capital toward the most productive sectors of the economy. Third, it influences the volume of financial resources engaged in the intermediation process, either expanding or contracting their utilization. These mechanisms are embodied in the core functions of the financial system, which include mobilizing savings, allocating resources, fostering effective corporate governance, generating information on investment opportunities, managing risk, and facilitating the exchange of goods and services, among others (Bidemi & Abidemi, 2014). Each of these functions influences saving and investment behavior, thereby contributing to economic growth. Nevertheless, the precise linkage between the money supply–to–GDP ratio and economic growth in Nigeria remains insufficiently explored. This study, therefore, seeks to examine the relationship between the money supply–to–GDP ratio and the growth of the Nigerian economy.

The persistent shortage of funds within Nigeria's financial sector is primarily attributed to the underdevelopment of the real sectors, where numerous businesses are either forced to shut down due to the high interest rates imposed by financial institutions or remain constrained by limited access to adequate financing. Olushola and Uzoma (2018) emphasized that Nigerian banks predominantly extend short-term financing, rather than the medium- and long-term funding necessary to support investment activities that are critical for economic development. Additionally, Olushola and Uzoma (2018), along with Akintola, Oji-Okoro, and Itodo (2020),It has been argued that financial repression policies diminish the incentive to save, as negative real interest rates discourage savings and consequently constrain the pool of loanable funds.

Over time, scholarly inquiry into the relationship between these variables has expanded. Scholars such as Škare, Sinkovic, and Porada-Rochon (2019), and Bist (2018), argue in favour of the "supply-leading" hypothesis that financial development serves as a catalyst for economic growth. From this perspective, the provision of financial services by institutions and markets is instrumental in driving economic expansion. Advocates further argue that sustainable economic growth is contingent upon robust financial development, thereby highlighting the necessity of an efficient and well-functioning financial system (Puryan, 2017).

Studies by Bist (2018) and Agbélénko and Kibet (2015)Studies have demonstrated that the rate of economic growth varies across countries, largely reflecting differences in their stages of development. Such variations are shaped by a combination of economic, political, and social factors unique to each nation. Accordingly, undertaking a study centered on Nigeria's economy is both timely and significant. In addition, most of the existing studies have primarily focused on developed economies (Škare et al., 2019; Diekmann & Westermann, 2010). Consequently, their findings may not adequately capture the dynamics of a developing economy such as Nigeria. This underscores a gap in the existing literature concerning the relationship between the money supply to GDP ratio and economic growth in the Nigerian context. Accordingly, this study explores the extent to which the money supply to GDP ratio influences Nigeria's economic growth. In addition, it examines the impact of the ratio of credit to the private sector relative to GDP on the country's economic performance; the broad objective of this study was to analyze the relationship between the ratio of money supply to GDP and economic growth in Nigeria. Therefore, the study aimed to: evaluate the effect of the ratio of money supply to GDP on Nigeria's economic growth; and ascertain the effect of the ratio of credit to the private sector to GDP on economic growth in Nigeria. This study concentrated on the development of Nigeria's financial sector and its implications for economic growth. The findings are relevant to financial institutions, industry practitioners, government agencies, business professionals, and future researchers. In particular, the research is of notable importance to the banking sector, as it underscores the necessity of realigning with its traditional function of mobilizing deposits to support diverse economic units across the country. Such a shift is essential for strengthening the stability, transparency, and equity of financial policies that affect all stakeholders. The study further provides valuable guidance for government at both the state and federal levels, particularly in advancing fiscal reforms and fostering more flexible financing mechanisms to stimulate economic development. To evaluate financial sector development (FSD), the study employed indicators such as financial depth—captured through the ratios of money supply and private sector credit to GDP—market size, represented by stock market capitalization relative to GDP, and financial accessibility, measured by the ratio of bank branches to total population. These indicators collectively reflect the volume of money in circulation, the level of private sector credit, the geographical distribution of banking services, and the capitalization of the stock market. The analysis covered the period from 1986 to 2023.

## Literature Review

### Financial Sector Development

Rana and Barua (2015) defined financial system as networks of institutions, instruments, and markets operating within a legal and regulatory framework to facilitate the flow of funds and stimulate economic activity. These systems supply critical information on investment and capital allocation, thereby supporting broader economic functions. The development of financial services requires the establishment and strengthening of financial institutions, as well as the creation of markets and instruments that foster growth and investment (Ustarz & Fanta, 2021; Rana & Barua, 2015). A well-developed financial system offers different investment opportunities with varying levels of risk, returns, and maturities.

According to Agbo and Nwankwo (2018), the financial system cut across banking institutions, money markets, and brokers—playing a crucial role in economic renewal across many countries.

Attaining sustainable economic growth is a fundamental target for most nations (Abusharbeh, 2017). However, such development necessitates the fulfillment of specific prerequisites that address human needs and guide a nation toward its developmental objectives. These prerequisites frequently center on advancing the financial sector. Initiatives aimed at expanding the size, enhancing the stability and efficiency of financial markets, and improving accessibility for stakeholders are collectively described as financial system development (Guru & Yadav, 2019).

Financial sector development occurs when financial markets, instruments, and intermediaries operate efficiently to minimize information, enforcement, and transaction costs (Agbo & Nwankwo, 2018). Nnanna, Englama, and Odoko (2004) further asserted that financial development promotes economic growth through three primary channels: enhancing the efficiency of financial intermediation, increasing the productivity of capital, and stimulating private sector savings. This implies that as financial institutions fulfill their functions—particularly in credit creation—they make a substantial contribution to economic growth.

**Economic Growth**

The concept of economic growth has been defined in various ways. According to the IMF (2025), the growth rate of real GDP is commonly employed as an indicator of overall economic health, with increases in real GDP generally interpreted as evidence of favorable economic performance. Economic growth is thus described as an expansion in gross domestic product, measured by adjusting for the inflationary effects on the prices of goods and services produced. Bank-Ola and Adelakun (2021) further emphasized that economic growth can be examined in both the short run and the long run. In the short run, fluctuations in growth are linked to the business cycle, where periodic recessions are inevitable across economies. By contrast, long-run economic growth reflects a more fundamental trajectory that requires significant structural adjustments to achieve sustainable development. Moreover, growth in economic output can occur through two main channels: an increase in inputs and improvements in productivity. However, given the limitations of labour and capital, inputs cannot expand indefinitely without diminishing marginal returns, making technological innovation essential for long-term improvements in living standards.

**Money Supply Ratio GDP**

The ratio of money supply to real GDP reflects the depth and scale of financial intermediation, as it represents the total volume of money circulating within a given period. According to Odeniran and Udeaja (2010), as cited in Akintola, Oji-Okoro, and Itodo (2020), this ratio illustrates the extent to which an economy is monetized. It is widely used as a measure of financial sector depth, capturing the expansion of savings mobilization and payment capabilities within the economy.

Agbo and Nwankwo (2018) further contend that the ratio functions as an indicator of financial market sophistication, revealing the aggregate liquid liabilities of the financial system and, by extension, the overall scale of a country's financial market. Similarly, Samuel-Hope, Ehimare, and Osuma (2020) argue that the ratio incorporates all liquid instruments—such as deposits and cash—relative to the value of goods and services produced (GDP). Thus, the money supply–to–GDP ratio reflects an economy's ability to mobilize savings for investment, its potential for growth as expressed in real GDP, and its overall financial capacity.

**Demand-Following Theory**

The money supply–to–real GDP ratio serves as an indicator of the depth and scale of financial intermediation, capturing the total volume of money in circulation within a given period. As noted by Odeniran and Udeaja (2010), cited in Akintola, Oji-Okoro, and Itodo (2020), this ratio reflects the degree of monetization in an economy. It is widely applied as a measure of financial sector depth, signifying the growth of savings mobilization and payment capabilities. Agbo and Nwankwo (2018) further emphasize that the ratio signals the sophistication of financial markets by revealing the total liquid liabilities of the financial system and, consequently, the overall size of a nation's financial market.

Likewise, Samuel-Hope, Ehimare, and Osuma (2020) contend that the ratio accounts for all liquid instruments—including deposits and cash—in relation to the value of goods and services produced (GDP). Overall, the money supply–to–GDP ratio highlights an economy's capacity to mobilize savings for investment, its potential for real GDP growth, and its broader financial strength.

In the case of Poland, Škare et al. (2019) demonstrated that finance exerts a significant influence on the country's growth potential, underscoring the importance of regulatory oversight in ensuring that banks' credit structures are effectively managed to enhance access to credit. Similarly, Kapaya (2021), in a study of the Tanzanian economy, examined the role of financial sector development in fostering economic progress. The findings indicated that while financial depth positively contributed to economic growth, the efficiency and liquidity of the financial system exerted a negative impact on Tanzania's growth performance.

**Methodology**
**Theoretical Framework**

According to the **supply-leading theory**, also referred to as the **finance-led theory** or the **bank-based theory**, economic growth is driven by the expansion of financial services. This theory, originally proposed by Patrick (1966), emphasizes the importance of financial institutions and the services they provide within an economy. It argues that financial development precedes and stimulates economic growth by supplying financial services through well-functioning financial markets and institutions.

**Model Specification**

To examine financial sector development (FSD) and economic growth in Nigeria, the study adopted Agbo and Nwankwo (2018) model expressed as follows:

$$GDPGR = f\left(BSC, \frac{M2}{GDP}, \frac{CPS}{GDP}, \frac{MC}{CPS}, EXR, FDI, MRR\right) \ldots\ldots\ldots\ldots equ1$$

Where:

| | | |
|---|---|---|
| GDPGR = | Real per Capital Gross Domestic Product Growth Rate | |
| BSC | = | banking Sector Credit |
| $\frac{M2}{GDP}$ | = | Ratio of Money Supply to Gross Domestic Product |
| $\frac{CPS}{GDP}$ | = | Ratio of Credit to Private Sector to Gross Domestic Product |
| $\frac{MC}{CPS}$ | = | Ratio of market Capitalisation of Stock of Credit to Private Sector |
| MRR | = | Marginal Rediscount Rate |
| EXR | = | Exchange Rate |
| FDI | = | Foreign Direct Investment |
| $f$ | = | Functional Notation |

Furthermore, a **unit root test** was employed as a diagnostic tool. According to Granger and Newbold (1974), using non-stationary series can lead to incorrect estimations. To address this concern, the study applied the **Augmented Dickey-Fuller (ADF)** unit root test to determine the order of integration of the variables used. Data for the study were sourced from the **Central Bank of Nigeria (CBN, 2023)**, covering the period from **1986 to 2023**. The starting year, 1986, was specifically chosen to capture the impact of economic reforms initiated with the Structural Adjustment Programme (SAP) introduced in that year.

**Results of Data Analysis**

The analysis began with a **descriptive examination of the variables**, using measures such as the mean, standard deviation, skewness, kurtosis, minimum value, and the probability of the **Jarque-Bera statistic** to assess the normality of the variables included in the model. A summary of these results is presented in the table below.

**Table 1: Descriptive Statistic of Variables**

| | RGDP | MSGDP | PSCGDP |
|---|---|---|---|
| Mean | 10.41865 | 2.704070 | 2.373464 |
| Median | 10.36437 | 2.572130 | 2.153685 |
| Maximum | 11.18462 | 3.214677 | 3.124778 |
| Minimum | 9.631547 | 2.135849 | 1.758920 |
| Std. Dev. | 0.547302 | 0.339596 | 0.454902 |
| Skewness | 0.120147 | 0.174045 | 0.379294 |
| Kurtosis | 1.452498 | 1.576934 | 1.458769 |

**Source: Author's Computation (2025)**

Table 1 presents the descriptive statistics for financial sector development (FSD) and economic growth in Nigeria. The table shows the mean values for RGDP, MSGDP, and PSCGDP as 10.41865, 2.704070, and 2.373464, respectively. Skewness describes the degree of asymmetry in the distribution of the variables, and the results indicate that RGDP, MSGDP, and PSCGDP all exhibit a long right tail. The kurtosis values for real gross domestic product, the ratio of credit to the private sector to GDP, and the ratio of money supply to GDP are all less than 3, suggesting a distribution that is flatter than the normal distribution.

**Model Analysis**

Since time series data are involved, it is essential to establish that all variables used in analyzing financial sector development (FSD) and economic growth are stationary. This test is crucial, as it informs the selection of appropriate analytical techniques. The results of the stationarity test are presented in Table 2.

**Table 2: ADF Unit Root Test**

| Variables | ADF Test at Level | Critical Values at 5% | ADF Test at FD | Critical Values at 5% | Decision |
|---|---|---|---|---|---|
| RGDP | -0.992803 | -2.954021 | -3.076754 | -2.954021 | I(1) |
| MSGDP | -0.874265 | -2.951125 | -5.387998 | -2.954021 | I(1) |

**Source: Author's Computation, (2025)**

Table 2 presents the unit root test results conducted at both level and first difference, depending on the integration order of the series. The results show that RGDP and MSGDP have ADF test statistics that are greater in absolute value than the 5% critical level. Based on this, the null hypothesis ($H_0$) of non-stationarity was rejected, and the alternative hypothesis ($H_1$) of stationarity was accepted for these variables.

**Test for Co-integration**

**Table 3 Unrestricted ARDL Model**

| Variable | Coefficient | Std. Error | t-Statistic | Prob.* |
|---|---|---|---|---|
| C | 1.246677 | 0.314238 | 3.967306 | 0.0007 |
| RGDP(-1) | 0.850415 | 0.042063 | 20.21743 | 0.0000 |
| MSGDP | -0.107182 | 0.053122 | -2.017639 | 0.0560 |
| MSGDP(-1) | 0.227005 | 0.046905 | 4.839679 | 0.0001 |

**Source: Author's Computation, (2025)**

**$R^2$ =** 0.998958; **Adjusted =** 0.998436; **F-statistic** = 1916.596; **Prob. (F-statistic)** = 0.000000

Table 3 revealed the unrestricted result on ARDL model to ascertain FSD and economic growth in Nigeria. However, this estimation was conducted to provide a room for the analysis of ARDL bound test. This test prepared the analysis of short and long-run relationship of the model.

**ARDL Short Run Result for FSD and Economic Growth of Nigeria**

**Table 4 ARDL Short Run Result**

**Series: *RGDP, MSGDP and PSCGDP***

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| D(MSGDP) | -0.082108 | 0.035075 | -2.340954 | 0.0287 |
| D(PSCGDP) | -0.043240 | 0.026269 | -1.646028 | 0.1140 |
| CointEq(-1) | -0.145595 | 0.010930 | -13.321006 | 0.0000 |

**Source: Author's Computation, (2025)**

Table 4 presents the short-run estimated model for financial sector development (FSD) and economic growth in Nigeria. Specifically, in the short run, MSGDP exhibits a significant negative coefficient of -0.082108 units, indicating that a unit increase in the ratio of money supply to GDP would result in a decrease of 0.082108 units in economic growth. Similarly, the coefficient for private sector credit to GDP is -0.043240 units, suggesting that a unit increase in the ratio of private sector credit to GDP would lead to a 0.043240 unit decrease in economic growth.

**Table 5: Co-integration Bound Test for RGDP**

| **F- Statistic** | 28.15661 | |
|---|---|---|
| **Significance** | **I0 Bound** | **I1 Bound** |
| 10% | 1.99 | 2.94 |
| 5% | 2.27 | 3.28 |
| 2.5% | 2.55 | 3.61 |
| 1% | 2.88 | 3.99 |

**Source: Author's Computation, (2025)**

Table 5 indicates that the estimated model for financial sector development (FSD) and economic growth confirms the existence of a long-run relationship, as the F-statistic value from the bounds test exceeds all critical significance levels. Consequently, the study concludes that a long-run relationship exists in the model. With this validation, the analysis proceeds to present the long-run results, as shown in Table 6.

**Table 6 ARDL Co-integration Regression for RGDP**

**Series: *RGDP, MSGDP and PSCGDP,***

| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
|---|---|---|---|---|
| C | 8.334244 | 2.030074 | 4.105389 | 0.0005 |
| MSGDP | 0.801039 | 0.341603 | 2.344941 | 0.0285 |
| PSCGDP | -0.096333 | 0.292300 | -0.329567 | 0.7448 |

**Source: Author's Computation, (2025)**

Table 6 shows that if the independent variables (MSGDP and PSCGDP) are held constant, the value of the dependent variable (RGDP) would increase by 8.334244 units. Similarly, the coefficient of MSGDP is both statistically significant and positively related to economic growth, with a value of 0.801039. This implies that a one-unit increase in the ratio of money supply to GDP results in a 0.801039-unit increase in economic growth. On the other hand, PSCGDP has a coefficient of -0.096333, indicating that a one-unit increase in the ratio of private sector credit to GDP leads to a 0.096333-unit decrease in economic growth.

**Granger Causality Test**

**Table 7: Granger Causality Test**

| **Causality Direction** | **Obs** | **F-Statistic** | **Prob.** |
|---|---|---|---|
| No directional link exists between MSGDP and RGDP | 35 | 0.06628 | 0.7985 |
| No directional link exists between RGDP and MSGDP | | 9.04352 | 0.0052 |
| No directional link exists between PSCGDP and RGDP | 35 | 0.06582 | 0.7992 |
| No directional link exists between RGDP and PSCGDP | | 7.42917 | 0.0105 |

**Source: Author's Computation, (2025)**

Table 7 depicted the causality between FSD and economic growth. The result revealed that unidirectional relationship exists between MSGDP and PSCGDP. This directional link flow from RGDP to MSGDP, from RGDP to PSCGDP

**Diagnostic Tests**

To confirm the suitability of the model built for this estimation. Three post estimation tests were carried out.

**Test for Heteroskedasticity**

**Table 4.10: Heteroskedasticity Test**

| | | | |
|---|---|---|---|
| F-statistic | 1.668247 | Prob. | 0.1478 |
| Obs*R-squared | 15.46254 | Prob. | 0.1623 |
| SS | 6.190877 | Prob. | 0.8603 |

**Source: Author's Computation, (2025)**

Table 4.10 presents the heteroskedasticity test, where the null hypothesis states that no heteroskedasticity is present. Based on the F-statistic, the probability associated with the observed $R^2$ is 0.1623, which is greater than the 5% significance level. Therefore, the study concludes that the model is free from heteroskedasticity issues that could potentially affect the validity of the results.

**Summary of Findings**

**The summary of the finding goes as follow:**

i. The study established long-run relationship between FSD and economic growth
ii. In the short-run, significant negative relationship was found between MSGDP and RGDP while the long-run showed significant positive relationship.
iii. In both short and long-run PSCGDP depicted insignificant negative relationship with real gross domestic product.
iv. A one-way directional causality link exists between MSGDP and PSCGDP.
v. This directional link flow from RGDP to MSGDP and from RGDP to PSCGDP

**Implication of Findings**

The empirical findings from this study offer significant insights into the relationship between financial sector development (FSD) and economic growth in Nigeria. In the short run, the ratio of money supply to GDP (MSGDP) demonstrated a significant negative relationship with economic growth. However, this pattern changed in the long run, where MSGDP exhibited a significant positive relationship with real GDP (RGDP). This long-run relationship supports the a-priori expectations of the study and is consistent with the findings of Iwedi, Barisua, and Zaagha (2021), Ustarz and Fanta (2021), and Puatwoe and Piabuo (2017), although it contrasts with the results reported by Mwang'onda, Mwaseba, and Ngwilizi (2018). The implication of this positive long-run association is that Nigeria's financial system possesses a moderate level of depth, and the increasing volume of money supply can effectively promote economic growth.

Conversely, the ratio of private sector credit to GDP (PSCGDP) was found to exert a negative influence on economic growth. This contradicts the study's a-priori expectations and the empirical evidence presented by Eta and Anabori (2015) and Bidemi and Abidemi (2014). Although this relationship was statistically insignificant, its negative nature suggests that credit allocated to the private sector may not be efficiently utilized in driving economic growth. This outcome could be attributed to the lending behavior of Nigerian banks, which often prioritize the energy sector at the expense of other productive private enterprises. These findings suggest that FSD in Nigeria has yet to reach its full potential, thereby limiting its overall contribution to sustainable economic development.

Furthermore, the causality test results revealed a unidirectional causality running from RGDP to both MSGDP and PSCGDP. This directional influence indicates that economic growth drives financial sector development rather than the other way around. These findings are in line with the conclusions of Jung (2017) and Ogunyiola (2013), but contrast with the bidirectional relationships documented by Qamruzzaman and Jianguo (2018) and Odeniran and Udeaja (2010).

Overall, the evidence underscores the importance of targeted policy interventions to deepen the financial sector, enhance the efficiency of credit allocation, and ensure that the financial system effectively supports long-term economic development in Nigeria.

## Conclusion and Recommendations

This study focused on the relationship between financial sector development (FSD) and economic growth in Nigeria. To achieve this aim, the study pursued two key objectives: (1) to evaluate the effect of the ratio of money supply to GDP (MSGDP), and (2) to assess the effect of the ratio of private sector credit to GDP (PSCGDP). Annual time series data spanning the period from **1986 to 2023** were utilized, covering the following variables: real gross domestic product (RGDP), ratio of money supply to RGDP (MSGDP), and ratio of private sector credit to RGDP (PSCGDP). To ensure a comprehensive analysis, the study incorporated conceptual, theoretical, and empirical literature from previous research. The analytical methods employed included **descriptive statistics** to assess the normality distribution of the variables, followed by the **Augmented Dickey-Fuller (ADF) unit root test** to examine the time series properties of the data and determine the appropriate estimation technique. To explore causal relationships among the variables, the **Granger causality test** was applied. This model was used alongside the **Autoregressive Distributed Lag (ARDL)** model, which confirmed the existence of a long-run relationship and the significance of the variables. Upon establishing long-run dynamics, the Granger causality test helped determine the direction of causality among the variables. For robustness, post-estimation diagnostic tests—such as normality, serial correlation, and heteroskedasticity tests—were conducted. Based on the findings, the study concludes that there is a **mixed relationship between FSD indicators and economic growth** in Nigeria. Specifically, MSGDP demonstrated a significant negative relationship with RGDP in the short run but a significant positive relationship in the long run. This suggests that while money supply may initially hinder growth, its impact becomes growth-enhancing over time. The study supports the relevance of **demand-following, supply-leading, and feedback theories** in explaining the dynamics of financial sector development in Nigeria. It concludes that for sustainable economic growth to be achieved, an efficient financial system must foster a balanced interaction between both **bank-based** and **market-based** financial structures.

## References

Abusharbeh, M. T. (2017). The impact of banking sector development on economic growth: Empirical analysis from Palestinian economy. *Journal of Emerging Issues in Economics, Finance and Banking (JEIEFB)*, *6*(2), 2306–2316.

Agbélénko, F. A., & Kibet, K. S. (2015). Financial development and economic growth in West African Economic and Monetary Union (WAEMU). *African Journal of Business Management*, *9*(17), 624–632.

Agbo, E. I., & Nwankwo, S. N. P. (2018). Effect of financial sector development on economic growth: A case of Nigeria. *Journal of Economics and Sustainable Development*, *9*(20), 80–91.

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

Alkhuzaim, W. (2014). Degree of financial development and economic growth in Qatar: Co-integration and causality analysis. *International Journal of Economics and Finance*, *6*(6), 57–68.

Bank-Ola, R. F., & Adelakun, O. J. (2021). Financial sector reforms and economic growth in Nigeria. *Sapientia Foundation Journal of Education, Sciences and Gender Studies*, *3*(1), 135–145.

Bidemi, A. S., & Abidemi, O. I. (2014). Financial sector development and economic growth: The Nigeria experience. *Scholarly Journal of Business Administration*, *4*(5), 124–131.

Bist, J. P. (2018). Financial development and economic growth: Evidence from a panel of 16 African and non-African low-income countries. *Cogent Economics & Finance*, *6*(1), 1–17.

Bogari, A. (2019). Financial development and economic growth nexus: The role of Saudi Arabian financial institutions. *European Journal of Business and Management Research*, *1*(6), 1–7.

Diekmann, K., & Westermann, F. (2010). Financial development and sectoral output growth in 19th century Germany. *Working Paper No. 3283*, Monetary Policy and International Finance, 1–22.

Eta, A. E., & Anabori, M. B. (2015). Financial sector reforms and economic growth in Nigeria. *International Journal of Economics, Commerce and Management*, *3*(9), 150–171.

Granger, C. W. J., & Newbold, P. (1974). Spurious regression in econometrics. *Journal of Econometrics*, *2*, 111–120.

Guru, B. K., & Yadav, I. S. (2019). Financial development and economic growth: Panel evidence from BRICS. *Journal of Economics, Finance and Administrative Science*, *24*(47), 113–126.

International Monetary Fund. (n.d.). Gross Domestic Product; An Economy's All. Retreved May 5, 2025, from *https://www.imf.org/en/Publications/fandd/issues/series/Back-to-Basic/gross-domestic-product-GDP(IMF)*

Iwedi, M., Barisua, S. P., & Zaagha, A. S. (2021). A re-examination of the nexus between financial sector development and economic growth in Nigeria. *Contemporary Journal of Banking and Finance*, *2*(2), 1–16.

Jung, S. M. (2017). Financial development and economic growth: Evidence from South Korea between 1961 and 2013. *International Journal of Management, Economics and Social Sciences*, *6*(2), 89–106.

Kapaya, S. M. (2021). Financial development and economic growth in Tanzania: An ARDL and bound testing approach. *Asian Journal of Economics and Banking*, *5*(1), 46–65.

Mwang'onda, E. S., Mwaseba, S. L., & Ngwilizi, D. N. (2018). Impact of financial sector development on economic growth: Evidence from Tanzania. *International Journal of Economics and Financial Research*, *4*(8), 258–265.

Nicholas, O. (2010). Finance-investment-growth nexus in South Africa: An ARDL-bounds testing procedure. *Economics of Change and Restructuring*, *43*(3), 205–219.

Nnanna, O. J., Englama, A., & Odoko, F. O. (2004). *Financial markets in Nigeria*. Kas Arts Services.

Odeniran, S. O., & Udeaja, E. A. (2010). Financial sector development and economic growth: Empirical evidence from Nigeria. *Central Bank of Nigeria Economic and Financial Review*, *48*(3), 91–123.

Ogunyiola, A. J. (2013). Financial development and economic growth: The case of Cape Verde. *Munich Personal RePEc Archive*, 1–14.

Olushola, O. A., & Uzoma, M. E. (2018). Financial sector development and economic growth in Nigeria: An econometric analysis, 1981–2017. *International Journal of Economics and Financial Management*, *3*(3), 35–50.

Patrick, H. (1966). Financial development and economic growth in underdeveloped countries. *Economic Development and Cultural Change*, *14*(1), 174–189.

Puatwoe, J. T., & Piabuo, S. M. (2017). Financial sector development and economic growth: Evidence from Cameroon. *Financial Innovation*, *3*(25), 1–25.

Puryan, V. (2017). The causal relationship between economic growth, banking sector development and stock market development in selected Middle East and North African countries. *International Journal of Economics and Financial Issues*, *7*(3), 575–580.

Qamruzzaman, M. D., & Jianguo, W. (2018). Investigation of the asymmetric relationship between financial innovation, banking sector development, and economic growth. *Quantitative Finance and Economics*, *2*(4), 952–980.

Rana, R. H., & Barua, S. (2015). Financial development and economic growth: Evidence from a panel study on South Asian countries. *Asian Economic and Financial Review*, *5*(10), 1159–1173.

Rashti, N. A., Araghi, E. S., & Shayeste, M. (2014). Relationship between financial development and economic growth: Evidence from the financial crisis. *Asian Economic and Financial Review*, *4*(7), 930–940.

Samuel-Hope, D. C., Ehimare, O. A., & Osuma, G. O. (2020). The impact of financial deepening on economic growth in Nigeria (1981–2018). *WSEAS Transactions on Business and Economics*, *17*, 977–986.

Škare, M., Sinkovic, D., & Porada-Rochon, M. (2019). Financial development and economic growth in Poland, 1990–2018. *Technological and Economic Development of Economy*, *25*(2), 103–133.

Ustarz, Y., & Fanta, A. B. (2021). Financial development and economic growth in sub-Saharan Africa: A sectoral perspective. *Cogent Economics & Finance*, *9*(1), 1–21.