
Institutional Financing and Nigeria Economic Growth from 1992 to 2022

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ABSTRACT

This paper investigated institutional financing and Nigeria's economic growth from 1992 to 2022. Using time series data collected from the Central Bank of Nigeria's Statistical Bulletin and the World Bank Database, the study analyzed the effects of explanatory variables (Bank of Agricultural Credit, Bank of Industrial Credit, Microfinance Bank Credit, and African Development Bank Credit) on the dependent variable (Gross Domestic Product). The Auto Regressive Distributed lag models (ARDL) was employed for the analysis, which indicated that while institutional financing variables had a positive effect, it was insignificant within the study period. The study recommends that Nigeria ought to formulate plans to extend their outreach to a broader spectrum of potential borrowers within their designated industries. Devise loan offerings tailored to suit the distinctive requirements of their intended customer base. Provide support through technical assistance initiatives and establish strong monitoring and assessment systems.

Keywords: *Institutional Financing and Nigeria's Economic Growth.*

1. INTRODUCTION

Institutional financing plays a pivotal role in the economic growth of nations by mobilizing resources and directing them towards productive investments. This form of financing is critical in bridging the gap between savers and borrowers, ensuring that capital flows to sectors where it is most needed and can generate substantial economic benefits. In Nigeria, a range of financial institutions have been established to provide the necessary capital for development, each with its own unique history and mandate. The Bank of Agricultural Credit, now known as the Bank of Agriculture (BOA), was originally incorporated in 1973 as the Nigerian Agricultural Bank (NAB) and later renamed the Nigerian Agricultural and Cooperative Bank (NACB) in 1978. It underwent further restructuring in 2000 to become the Nigerian Agricultural Cooperative and Rural Development Bank Limited (NACRDB) before adopting its current name in 2010. The BOA's primary mission is to provide low-cost credit to smallholder and commercial farmers, as well as small and medium rural enterprises, thereby supporting agricultural productivity and rural development (Adeniyi, 2021). The Bank of Industrial Credit, now the Bank of Industry (BOI), is Nigeria's oldest, largest, and most successful development financing institution. It was restructured from the Nigerian Industrial Development Bank (NIDB) in 2001, which was originally established in 1964. The BOI focuses on providing long-term financing to the industrial sector, promoting the growth of manufacturing and other industries that are vital for economic diversification and job creation (Oputu, 2008). Microfinance banks (MFBs) in Nigeria have emerged to address the financial needs of underserved and low-income populations (Ayayi, 2012).

The Central Bank of Nigeria (CBN) introduced the Microfinance Policy, Regulatory, and Supervisory Framework in 2005, which led to the proliferation of MFBs across the country. These institutions aim to provide microloans and other financial services to small businesses and entrepreneurs, promoting financial inclusion and poverty alleviation (CBN, 2005). The African Development Bank (AfDB), established in 1964, is a regional multilateral development bank focused on reducing poverty, improving living conditions, and promoting sustainable economic growth in Africa. The AfDB provides financing and technical assistance for a broad range of development projects, including infrastructure, agriculture, and social services, thereby supporting comprehensive economic development in member countries, including Nigeria (AfDB, 2020).

From 1992 to 2022, Nigeria has witnessed significant changes in its economic landscape, with these institutional financing bodies playing crucial roles in these transformations. The contributions of these institutions can be linked directly to Nigeria's gross domestic product (GDP) through their support of key economic sectors. Agriculture, industry, and small and medium enterprises (SMEs) are critical to the country's economic development, and the availability of targeted financial services is essential for their growth and sustainability.

Despite the presence of multiple institutional financing sources, Nigeria's economic growth has faced numerous challenges over the years. The country's GDP growth has been inconsistent, and the anticipated impact of financial institutions on economic development has not been fully realized. This raises critical questions about the effectiveness of institutional financing in driving economic growth in Nigeria. Specifically, it is unclear how well the Bank of Agricultural Credit, Bank of Industrial Credit, Microfinance Banks, and the African Development Bank have contributed to the country's GDP from 1992 to 2022. The problem is further compounded by issues such as inadequate access to financial services,

inefficient allocation of credit, high interest rates, and a lack of financial literacy among potential borrowers.

Empirical research conducted by various scholars indicates that institutional financing has a significant effect on economic growth (Okaro, 2016; Olowofeso, Adeleke, & Udoji, 2015; Ighoroje & Egedi, 2015; Demetriades and Hook, 2006; Afolabi's, 2013). Conversely, other studies suggest that institutional financing has an insignificant effect on economic growth (Effiong, 2015; Ayodele & Arogundade, 2014; Wu, Hou, & Cheng, 2010; Ogunbiyi & Monogbe, 2018; Udeh, Ugwu & Onwuka, 2016). This disparity implies that the empirical relationship between these two economic variables remains inconclusive, highlighting a gap in evidence. The differing results from these empirical studies prevent researchers from drawing a definitive conclusion on the matter, underscoring the need to re-examine the effect of institutional financing on Nigeria's economic growth from 1992 to 2022. The content of this paper is outlined into sections. In section one, a precise introduction was given, section two reviewed relevant literature. Section three theoretical framework. Section four detailed the methodological approach applied. Section five results and discussion of findings from data analysis and section six conclusion and policy implication of the study.

2. Literature Review

Institutional finance refers to the financial management practices and activities carried out by large organizations known as financial institutions. These institutions include banks, insurance companies, pension funds, mutual funds, investment firms, and other entities that manage large pools of capital. The primary goal of institutional finance is to optimize the allocation, management, and growth of financial assets to achieve the financial objectives of these institutions and their stakeholders.

Key Components of Institutional Finance includes Capital Allocation: Financial institutions invest their capital in a mix of assets—such as stocks, bonds, real estate, and alternative investments—to achieve optimal returns while managing risk (Jorion, 2012). This involves creating a diversified portfolio and employing strategies like asset allocation, diversification, and rebalancing. Risk Management: Institutions identify and manage various risks, including market, credit, operational, and liquidity risks. They implement strategies like hedging, diversification, and insurance to minimize potential losses. Financial Intermediation: Institutions act as intermediaries between savers and borrowers. For instance, banks collect deposits and lend these funds out. They also provide trading platforms and brokerage services. Corporate Governance: Ensuring compliance with laws and regulations to maintain transparency, integrity, and trust. This includes upholding ethical standards to ensure responsible financial management and protecting client and stakeholder interests (Akinsla, 2024). Financial Services: Offering a range of services including savings accounts, loans, mortgages, payment processing, advisory services, asset and wealth management, and various types of insurance. Financial Markets and Instruments: Operating in different financial markets such as equity, bond, and derivatives markets and using instruments like stocks, bonds, options, futures, and swaps for investment and risk management purposes.

Importance of Institutional Finance

Economic Stability: By efficiently allocating resources and managing risks, financial institutions help maintain stability in the financial system and the broader economy. Capital Formation: Institutional finance plays a crucial role in mobilizing savings and channeling them into productive investments, facilitating economic growth and development. Liquidity Provision: Financial institutions provide liquidity to markets, enabling individuals and

businesses to access funds when needed. Innovation: Institutions often drive financial innovation by developing new financial products and services that meet the evolving needs of clients and markets.

Gross Domestic Product (GDP)

Gross domestic product (GDP) is a critical economic indicator that measures the total value of all goods and services produced within a country's borders over a specific period, typically a year or a quarter. It serves as a comprehensive measure of a nation's economic activity and provides a snapshot of its economic health.

Key Components of GDP: Consumption: This is the total value of all goods and services consumed by households. It includes expenditures on durable goods (e.g., cars, appliances), nondurable goods (e.g., food, clothing), and services (e.g., healthcare, education) (Samuelson & Nordhaus, 2010). Investment: This refers to the purchase of goods that will be used for future production. It includes business investments in equipment and structures, residential construction, and changes in business inventories (Mankiw, 2019). Government Spending: This encompasses government expenditures on goods and services that directly benefit the public, such as defense, education, and public infrastructure. It does not include transfer payments like pensions and unemployment benefits (Case, Fair, & Oster, 2012). Net Exports: This is the value of a country's exports minus its imports. A positive net export indicates that a country exports more than it imports, contributing positively to GDP, while a negative net export has the opposite effect (Krugman & Wells, 2018). GDP is a vital indicator for policymakers, economists, and investors, as it provides a clear picture of a country's economic performance and helps guide economic policy and investment decisions. A growing GDP signifies a healthy and expanding economy, while a declining GDP indicates economic problems (Krugman & Wells, 2018).

Effect of Institutional Financing on Nigeria's Economic Growth:

1. **Access to Capital:** Financial institutions in Nigeria provide critical access to capital for businesses and individuals. This access enables investment in infrastructure, industry, and services, driving economic growth.
2. **Risk Management:** By offering various financial products like insurance and derivatives, Nigerian financial institutions help manage economic risks, fostering a more stable economic environment conducive to growth.
3. **Financial Inclusion:** Efforts to increase financial inclusion in Nigeria, through mobile banking and microfinance, have brought more people into the financial system. This inclusion is crucial for mobilizing savings and enabling investments at the grassroots level, thus stimulating economic growth.
4. **Infrastructure Development:** Institutional financing supports large-scale infrastructure projects in Nigeria, such as roads, power plants, and telecommunications networks. These projects are vital for economic development and improving the quality of life.
5. **Corporate Governance and Regulatory Environment:** Effective corporate governance and a robust regulatory framework ensure that financial institutions in Nigeria operate efficiently and transparently. This promotes investor confidence and attracts foreign direct investment, further spurring economic growth.

3. Theoretical Framework

Financial Intermediation Theory: Financial Intermediation Theory was significantly developed by economist Douglas W. Diamond. In his influential paper "Financial Intermediation and Delegated Monitoring," published in 1984, Diamond established the foundation for understanding how financial intermediaries reduce the costs of monitoring borrowers and address information asymmetry issues. Financial Intermediation Theory elucidates the essential role of financial institutions, such as banks, in the economy by acting as intermediaries between savers and borrowers. These institutions facilitate the flow of funds, enabling savers to invest securely and productively while providing borrowers with the capital necessary for activities like business expansion, home purchases, and other investments. Douglas W. Diamond's research highlighted that financial intermediaries, especially banks, are better equipped to monitor borrowers and enforce contracts compared to individual lenders. His theory demonstrates how banks act as delegated monitors, minimizing monitoring costs by utilizing their expertise and resources. Diamond's analysis underscores the efficiency gains and economic benefits of the intermediation process, validating the crucial role of financial intermediaries in contemporary economies. Diamond's Financial Intermediation Theory offers a comprehensive understanding of the existence of financial intermediaries and their role in enhancing the efficiency of capital allocation within the economy. By addressing information asymmetry, risk diversification, and economies of scale in monitoring, the theory provides a solid framework for examining the function and significance of financial institutions.

Implications of Financial Intermediation Theory on the Study of Institutional Financing and Nigeria's Economic Growth

The Financial Intermediation Theory, developed by Douglas W. Diamond in 1984, has profound implications for understanding the role of institutional financing in Nigeria's economic growth. By explaining how financial intermediaries enhance the efficiency of capital allocation and mitigate various risks, the theory offers insights into the critical functions of financial institutions in fostering economic development. Here are the key implications:

1. Enhanced Capital Allocation: The theory underscores the importance of financial institutions in efficiently allocating capital. In Nigeria, financial intermediaries such as banks and microfinance institutions mobilize savings from households and channel them into productive investments. This efficient capital allocation is vital for funding infrastructure projects, industrial development, and entrepreneurial activities, which are essential drivers of economic growth.

2. Risk Mitigation and Management: Financial intermediaries in Nigeria play a crucial role in managing risks through diversification and expertise in credit evaluation. By pooling resources and spreading risk across a wide range of investments, these institutions reduce the vulnerability of individual savers and borrowers to economic shocks. This risk mitigation fosters a more stable economic environment conducive to sustained growth.

3. Addressing Information Asymmetry: The Financial Intermediation Theory highlights how financial institutions reduce information asymmetry between borrowers and lenders. In Nigeria, this function is particularly important given the challenges of limited financial transparency and credit information. By effectively screening and monitoring borrowers,

financial institutions ensure that funds are allocated to the most creditworthy and promising projects, thereby enhancing overall economic efficiency.

4. Promoting Financial Inclusion: In a developing economy like Nigeria, financial intermediaries are instrumental in promoting financial inclusion. By providing access to financial services such as savings accounts, credit, and insurance, these institutions bring underserved populations into the formal financial system. Increased financial inclusion leads to higher savings rates, greater investment, and more robust economic growth.

5. Facilitating Economic Stability: The ability of financial intermediaries to manage liquidity preferences and perform maturity transformation helps maintain economic stability. In Nigeria, where economic volatility can be high due to factors such as fluctuating oil prices, the stability provided by effective financial intermediation is crucial for long-term growth.

6. Encouraging Private Sector Development: Access to finance is a key constraint for private sector development in Nigeria. Financial intermediaries facilitate business growth by providing the necessary funding for expansion, innovation, and competitiveness. This access to capital is essential for developing a vibrant private sector that can drive economic diversification and reduce dependency on oil revenues.

7. Policy Implications: The insights from Financial Intermediation Theory suggest that policies aimed at strengthening financial institutions and improving their functioning can significantly impact economic growth. In Nigeria, this includes measures to enhance regulatory frameworks, improve financial literacy, and support the development of financial infrastructure. Effective regulation and supervision can ensure that financial intermediaries operate efficiently and transparently, boosting investor confidence and attracting foreign investment.

8. Infrastructure Development: Financial intermediaries play a pivotal role in funding large-scale infrastructure projects, which are critical for economic development. In Nigeria, the availability of long-term financing from banks and other financial institutions can support the construction of roads, power plants, and telecommunications networks, facilitating trade, investment, and overall economic activity.

3.3 Empirical Review

Okaro (2016), evaluated the effects of credit on economic growth and development in Nigeria (1981-2015). Theories of financial liberalization holds that economic growth in a developing economy rest on an efficient financial sector that pools domestic savings and mobilizes foreign capital for productive investments. The specific objectives of the study are to: examine the relationship between credit to private sector and the real Gross Domestic Product (RGDP) in Nigeria; access the relationship between credit and infrastructural development in Nigeria and; to determine the relationship between total credit and real GDP in Nigeria. The study adopted multiple regression approach on an annual time series data spanning from 1981 to 2015 and estimated single equation models using Ordinary Least Square (OLS) regression framework. The study also investigated the stochastic nature of the time series by conducting stationarity test using Augmented Dicker-Fuller (ADF) test. The existence of long run relationship between economic growth (proxy by RGDP), economic development and credit using Philip-Qualiris co-integration framework was also conducted successfully. The findings of the study indicate that total credit to all sectors of the economy

is positively and significantly related with economic growth and development. However, while credit to private sector drives growth, credit to public sector frustrates growth due to crowding out effect.

Olowofeso, Adeleke, and Udoji (2015), examined the impacts of private sector credit on economic growth in Nigeria using the Gregory and Hansen (1996) co-integration test that accounted for structural breaks and endogeneity problems. The method was applied to quarterly data spanning 2000: Q1 to 2014: Q4, while the fully modified ordinary least squares procedure was employed to estimate the model coefficients. The study found a co-integrating relationship between output and its selected determinants, albeit, with a structural break in 2012 Q1. Amongst others, findings from the error correction model confirmed a positive and statistically significant effect of private sector credit on output, while increased prime lending rate was inhibiting growth. In view of the financial intermediation roles of deposit money banks, the paper supports the ongoing efforts of the Central Bank of Nigeria (CBN) in promoting a sound and real sector-friendly financial system. Also, the commitment of the CBN to the gradual reduction in interest rates is meaningful for the country's growth objectives.

Effiong (2015), investigated the effect of institutional credit on economic growth, as conditional on the level of institutional quality for a panel of 21 Sub-Saharan African countries for the period 1986-2010. A standard growth regression is estimated with linear interaction between financial development and institutional quality. The study findings indicate that financial development has not significantly contributed to SSA economic growth, contrary to the significant positive effect of institutional quality. The interaction effect of both financial and institutional development is positive but insignificant. This evidence suggests the existing institutions have not enhanced the finance-growth relationship in the region. Therefore, improving institutions relevant to the financial sector is desired.

Ighoroje and Egedi (2015), examined the implication of financial institutions on economic performance in Nigeria. Two variables were selected by the researcher to explain the roles of financial institutions in the development of the economy. The analytical tool used was the simple linear regression involving the use of the ordinary least square [OLS]. Data for the period of [2001-2011] was used. From the result of the regression, the study found out that there is significant relationship between the roles of financial institution [credit to the private sector] and the development of the Nigeria economy because about 65% variation in Gross Domestic Product [Y] was explained by the total bank loans to the private sector [X] while about 35% of the variation was unexplained due to some internal and external factors listed in the work.

Wu, Hou, and Cheng (2010), investigated the dynamic impacts of financial institutions on economic growth based on a panel data set comprised of 13 countries in European Union (EU) over the period of 1976–2005. The study found several important results. First, there existed a long-run equilibrium relationship among banking development, stock market development and economic development, and stock market capitalization and liquidity have positive long-run effects on economic development. Second, financial depth may have a negative long-run effect on real output, but improving risk diversification and information services of commercial banks results in stable economic development. Finally, stock market liquidity has a negative short-term influence on economic growth.

Demetriades and Hook (2006), evaluated how financial institutions funding affects economic growth using data from 72 countries for the period 1978-2000. The study observed that financial development has larger effects on growth when the financial system is

embedded within a sound institutional framework. This is particularly true for poor countries, where more finance without sound institutions is likely to fail in delivering more growth. For these countries, the study observed that improvements in institutions are likely to deliver much larger direct effects on growth than financial development itself. They are also likely to have positive indirect effects through the financial system, particularly when the latter is already providing large amounts of credit to the private sector. The study similarly observed that financial development is most potent in delivering extra growth in middle-income countries. Its effects are particularly large when institutional quality is high. Institutional improvements can also deliver more growth in these countries, especially when the financial system is well developed. Finally, the study observed that while the effects of financial development in high-income countries are much smaller than in middle-income countries, even in these countries financial development has larger effects on growth when institutional quality is high.

Ayodele and Arogundade (2014), examined the impact of microfinance on economic growth in Nigeria over the period of 1992 to 2007. The study utilized the multiple regression model using the ordinary least square estimation technique. Emphasis was made on the primary role of microfinance institutions in Nigeria which is poverty reduction and small scale enterprise financing. Assets, Deposit Liabilities, Loans & advances microfinance banks were used to proxy the activities of microfinance institutions in Nigeria while Gross Domestic Product was used as a proxy for economic growth. Using secondary data and applying ordinary least square of multiple regressions, it was revealed from the findings that Asset base and deposit liability has an insignificant impact on economic growth while Loan and Advances to the public has a significant impact on economic growth in Nigeria. However, the overall significance of the model shows that the activities of the microfinance banks cannot be overemphasized in the pursuance of a sustained economic growth in Nigeria.

Udeh, Ugwu and Onwuka (2016), worked on ascertaining the impact of external credit on economic growth in Nigeria adopting an ex-post facto research design for the period 1980-2013 using Ordinary Least Square. From their findings, external credit had a positive relationship with Gross Domestic Product in the short run, but a negative relationship in long run. However, the external credit service payment had negative relationship with Gross Domestic Product

Ogunbiyi and Monogbe (2018), empirically examined the contribution of Development Banks to the growth of Nigerian economy between the periods 1992 to 2016. The Development Banks' credits considered in the study include Bank of Industry credit, Federal Mortgage Bank credit and Bank of Agricultural credit while Gross Domestic Product was used as a measure of economic growth. The study employed Auto Regressive Distribution Lag approach in ascertaining the empirical long run relationship that could exist among variables under investigation. Findings revealed that the operation of Development Banks have not significantly contributed to the growth of Nigeria economy in the long run. Findings further showed that the inability of the Development Banks' credit to stimulate economic growth could be attributed to moral hazard, financial indiscipline, fund diversion and misappropriation of funds. Sequel to this, study then recommended that policy makers should embark on funds monitoring and supervision strategy where allocated credit to each sector of the economy will be well monitored to ensure that fund are not diverted and thus used towards the appropriate channel in order to attain sustainable level of expected economic growth in the long run.

Afolabi's (2013), study focused on the effect of commercial financing on economic growth in Nigeria, between 1980 and 2010. Ordinary Least Square (OLS) method was used to estimate the multiple regression models. Analysis revealed that SMEs output proxy by wholesale and retail trade output as a component of gross domestic product, commercial banks' credit to SMEs and exchange rate exerted positive influence on economic development proxy real gross domestic product, while lending rate is found to exert negative effects on economic growth. In terms of partial significance and using t-statistic as a test of evaluation, SMEs output and commercial banks' credits to SMEs were found to be significant factors enhancing economic growth in Nigeria at 5% critical level. From the findings, the study proffered that the monetary authority should create an enabling environment for SMEs development.

4. METHODOLOGY

The study obtained data from Central Bank of Nigeria Statistical Bulletin 2022. The data used in the study covers a period of 1992 to 2022 and the study adopted an ex-post facto research design. The study adapted and modified the model by Akinpelumi, Nwakanma & Ikechukwu, 2021, who modeled Misery Index (MXI) as a function of Deposit Money Banks Credit (DMC), Bank of Agriculture credit (BAC), Bank of Industry Credit (BIC) , Primary Mortgage Institution Credit (PMC), Microfinance Bank Credit (MFC), African Development Bank (ADC), World Bank Credit (WBC) on the study impact of institutional finance on economic development in Nigeria. The model of Akinpelumi, Nwakanma & Ikechukwu, (2021) is expressed as follows;

$$MXI_t = f(DMC_t, BAC_t, BIC_t, PMC_t, MFC_t, ADC_t, WBC_t) \dots \dots \dots \text{eq. 1}$$

The model for this study will be

$$GDP_t = f(BOAC_t, BOIC_t, MFBC_t, AFDBC_t) + \epsilon_t \dots \dots \dots \text{eq. 2}$$

In equation 2, we re-specify equation 1 as

$$GDP_t = \alpha_0 + \alpha_1 BOAC_t + \alpha_2 BOIC_t + \alpha_3 MFBC_t + \alpha_4 AFDBC_t + \mu_t \dots \dots \dots \text{eq. 3}$$

μ_t is the error term. The a priori expectation is such that $\alpha_1; \alpha_3; \alpha_4; > 0$ and $\alpha_2 < 0$

- Where: GDP = Gross Domestic Product
 BOAC = Bank of Agricultural Credit
 BOIC = Bank of Industrial Credit
 MFBC = Microfinance Bank Credit
 AFDBC = African Development Bank Credit

5. RESULTS AND DISCUSSION

Table 1: Descriptive statistics results

| | GDP | BOAC | BOIC | AFDBC | MFBC |
|--------------|----------|-----------|-----------|-----------|-----------|
| Mean | 55425.57 | 27.67065 | 1.469032 | 8722.867 | 48.27323 |
| Median | 34318.67 | 6.310000 | 1.550000 | -7.490000 | 26.29000 |
| Maximum | 199336.0 | 355.6200 | 9.150000 | 254573.0 | 381.9600 |
| Minimum | 897.1200 | -55.10000 | -5.090000 | -99.93000 | -64.16000 |
| Std. Dev. | 57829.70 | 68.12534 | 2.284776 | 45653.76 | 83.75973 |
| Skewness | 0.943715 | 3.727914 | 0.230978 | 5.285141 | 2.395407 |
| Kurtosis | 2.778424 | 18.66916 | 8.394653 | 28.96764 | 9.715896 |
| Jarque-Bera | 4.664840 | 388.9361 | 37.86610 | 1015.313 | 87.90459 |
| Probability | 0.097061 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Sum | 1718193. | 857.7900 | 45.54000 | 270408.9 | 1496.470 |
| Sum Sq. Dev. | 1.00E+11 | 139231.8 | 156.6061 | 6.25E+10 | 210470.8 |
| Observations | 31 | 31 | 31 | 31 | 31 |

Source: Computer analysis using E-views 12.0

The descriptive characteristics of the variables are presented in Table 1. The mean values of the GDP, BOAC, BOIC, AFDBC and MFBC are 55425.57, 27.67065, 1.469032, 8722.867 and 48.27323 while their median are 34318.67, 6.310000, 1.550000, -7.490000 and 26.29000 respectively. The series depicts the maximum values of 199336.0, 355.6200, 9.150000, 254573.0 and 381.9600 for GDP, BOAC, BOIC, AFDBC and MFBC respectively. The minimum values are 897.1200 for GDP, -55.10000 for BOAC, -5.090000 for BOIC, -99.93000 for AFDBC and -64.16000 for MFBC. Gross Domestic Product, Bank of Agricultural Credit, Bank of Industrial Credit, Microfinance Bank Credit and African Development Bank Credit are positively skewed towards normality as evidenced by the positive sign of the skewness. The Jarque-Bera suggests that most of the variables are normally distributed as the p-values are significant at 5% level of significance.

Augmented Dickey-Fuller (ADF) unit root test was used to determine the stationarity of the variables. Tables 2, 3 and 4 show that some of variables were stationary at level, 1st diff and 2nd diff meaning there is mixed integration hence the need to use ARDL as method of data analysis.

The attainment of stationarity by variable(s) is necessary in model estimation due to the influence of non-stationarity on regression output. To this effect, the Augmented Dickey-Fuller (ADF) unit root test was used to prove that the data were stationary.

Table 2: Result of ADF Unit Root Test at Level

| Variables | ADF Test Statistic | Test Critical Value at 1% | Test Critical Value at 5% | Remark |
|-----------|----------------------|---------------------------|---------------------------|----------------|
| GDP | 10.39750(1.0000) | -3.670170 | -2.963972 | Not Stationary |
| BOAC | -5.269686(0.0002) ** | -3.670170 | -2.963972 | Stationary |
| BOIC | -4.993484(0.0003) ** | -3.670170 | -2.963972 | Stationary |
| MFBC | -5.278817(0.0002) ** | -3.670170 | -2.963972 | Stationary |
| AFDBC | -5.506701(0.0001) ** | -3.670170 | -2.963972 | Stationary |

Source: Author's Computation

Table 3: Result of ADF Unit Root Test at 1ST DIFF

| Variables | ADF Test Statistic | Test Critical Value at 1% | Test Critical Value at 5% | Remark |
|-----------|----------------------|---------------------------|---------------------------|----------------|
| GDP | -0.283734(0.9158) ** | -3.679322 | -2.967767 | Not Stationary |
| BOAC | -8.215087(0.0000) ** | -3.679322 | -2.967767 | Stationary |
| BOIC | -6.173956(0.0000) ** | -3.679322 | -2.967767 | Stationary |
| MFBC | -10.32906(0.0000) ** | -3.679322 | -2.967767 | Stationary |
| AFDBC | -9.062846(0.0000) ** | -3.679322 | -2.967767 | Stationary |

Source: Author's Computation

Table 4: Result of ADF Unit Root Test at 2ndDIFF

| Variables | ADF Test Statistic | Test Critical Value at 1% | Test Critical Value at 5% | Remark |
|-----------|----------------------|---------------------------|---------------------------|------------|
| GDP | -7.139870(0.0000)** | -3.689194 | -2.971853 | Stationary |
| BOAC | -9.889730(0.0000)** | -3.689194 | -2.971853 | Stationary |
| BOIC | -7.174605(0.0000) ** | -3.689194 | -2.971853 | Stationary |
| MFBC | -11.60803(0.0000) ** | -3.689194 | -2.971853 | Stationary |
| AFDBC | -11.48837(0.0000) ** | -3.689194 | -2.971853 | Stationary |

Source: Author's Computation

The Augmented Dickey-Fuller (ADF) unit root test in tables 2, 3, and 4 indicate that BOAC, BOIC, AFDBC and MFBC were stationary at level implying that the variables should be differentiated further. Again, only BOAC, BOIC, AFDBC and MFBC were stationary at the first difference, according to Table 3. Table 4 shows that at the second difference, all the variables including GDP were stationary. This is due to the fact that their ADF test statistic value is greater than the Mackinnon critical value of 5% in absolute terms. As a result, Autoregressive Distributed lag models (ARDL) as a method of data analysis was required.

With the determination of ARDL as a method of data analysis especially short run relationship there is a need to determine the long run relationship using ARDL Co-Integration Relationship.

ARDL Co-integration Relationship

The confirmation of the stationarity of the data through the unit root test of ADF allows for the determination of the co-integration relationship between the dependent and explanatory variables in the models. The ARDL was chosen as against the traditional Johansen co-integration because it is structured in such a way that it takes into account the different order of integration of financial time series data.

Co-integration test For Long-run Effect

ARDL Co-Integration Test

The confirmation of the stationarity of the data through the unit root test of ADF allows for the determination of the co-integration relationship between the dependent and explanatory variables in the models. The ARDL was chosen as against the traditional Johansen co-integration because it is structured in such a way that it considers the different order of integration of financial time series data. The bound test follows the critical criterion at the lower bound and upper bound value for decision at the three levels of significance in 1%, 2.5%, 5%, and 10%. Given a computed F statistics Value of 198.5159 which is greater than the lower and upper critical bound values at 2.5%, 5% and 10% respectively, thus indicating

the existence of a steady-state long-run relationship among the variables. This suggests that the various selected variables have a long-run relationship with economic growth.

Table 5. ARDL bounds tests for cointegration

| F-Bounds Test | | Null Hypothesis: No levels relationship | | |
|----------------|----------|---|------|------|
| Test Statistic | Value | Signif. | I(0) | I(1) |
| F-statistic | 198.5159 | 10% | 2.2 | 3.09 |
| K | 4 | 5% | 2.56 | 3.49 |
| | | 2.5% | 2.88 | 3.87 |
| | | 1% | 3.29 | 4.37 |

Source: Author's Calculation employing E-Views 12 Software

Given a computed F statistics Value of 198.5159 which is greater than the lower and upper critical bound values at 1%, 2.5%, 5% and 10% respectively, thus indicating the existence of a steady-state long-run relationship among the variables. This suggest that the various selected variables have a long run relationship with gross domestic product in Nigeria.

Decision rule: We reject null hypothesis of the co-integration relationship to accept the alternative that there is Co-integration. We thus, conclude that institutional financing as represented by Bank of Agricultural Credit, Bank of Industrial Credit, Microfinance Bank Credit and African Development Bank Credit has a long-run effect on Nigeria economic growth within the period of the study.

Nature of Long Run Relationship/ARDL Error Correction Model

The ARDL result has proven that Gross Domestic Product, Bank of Agricultural Credit, Bank of Industrial Credit, Microfinance Bank Credit and African Development Bank Creditare co-integrated/related in the long run. Consequently, the determination of the nature of the long run relationship becomes necessary as well as the speed of the adjustment to equilibrium.

Table 6: ARDL Co-integrating and Long Run Form for GDP→BOAC +BOIC+MFBC+AFDBC

| Cointegrating Form | | | | |
|-----------------------|-------------|------------|-------------|--------|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| GDP(-1) * | 0.183417 | 0.013344 | 13.74504 | 0.0000 |
| BOIC** | -38399.49 | 8175.701 | -4.696783 | 0.0033 |
| BOAC** | -46.08195 | 72.80849 | -0.632920 | 0.5501 |
| MFBC** | -67.30015 | 95.73757 | -0.702965 | 0.5084 |
| AFDBC** | 0.960555 | 0.100830 | 9.526473 | 0.0001 |
| CoInt Eq(-1)* | -0.183417 | 0.003925 | 46.72980 | 0.0000 |
| Long Run Coefficients | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| BOIC | 32.46488 | 104.0780 | 0.311928 | 0.7657 |
| BOAC | -1.969046 | 3.881495 | -0.507290 | 0.6301 |
| MFBC | 2.089254 | 3.157602 | 0.661658 | 0.5328 |
| AFDBC | -0.069680 | 0.008542 | -8.156994 | 0.0002 |
| C | -12249.92 | 3309.982 | -3.700902 | 0.0101 |

Computer Output Data using E-views 12.0

The ARDL result has proven that Gross Domestic Product, Bank of Agricultural Credit, Bank of Industrial Credit, Microfinance Bank Credit and African Development Bank Creditare co-integrated/related in the long run. Consequently, the determination of the nature of the long-

run relationship becomes necessary as well as the speed of the adjustment to equilibrium. The result in Table 6 shows that BOIC has a negative and significant relationship with GDP, BOAC have negative and insignificant effect on GDP, MFBC has negative and insignificant effect on GDP while AFDBC has positive and significant effect with GDP. In terms of the speed of adjustment, Table 6 reveals that the model moves toward equilibrium following disequilibrium in the explanatory variables. The ECM is negatively signed with a coefficient of -0.183417, a suggestion that -18.3417% of error generated in the previous period is corrected in the current period and is statically significant.

Diagnostic Test

Table 7 Test for heteroskedasticity and serial correlation LM test

| | F-statistics | Probability |
|-----------------------------|--------------|-------------|
| Serial Correlation LM Test: | 0.091548 | 0.9144 |
| Heteroskedasticity Test | 0.108446 | 0.9999 |

Source: Author's Calculation employing E-Views 12 Software

Test for heteroskedasticity and serial correlation LM test In line with the classical linear regression assumption, the model was subjected to diagnostic analysis of serial correlation LM test and heteroskedasticity test. The p-values of 0.9144 and 0.9999 for serial correlation LM test and heteroskedasticity test are insignificant at a 5% level of significance. This implies that the model has no serial correlation LM test and heteroskedasticity test problem

Table 8: Ramsey Reset Test

| | Value | Df | Probability |
|-------------|----------|--------|-------------|
| t-statistic | 1.537860 | 5 | 0.1847 |
| F-statistic | 2.365014 | (1, 5) | 0.1847 |

Source: Author's E-view 12 computations

The result of the Ramsey RESET test shows that the p-value of about 18.47% (0.1847) are greater than the critical value of 0.05. This shows that there is no apparent non-linearity in the regression equations and it would be concluded that the linear models are appropriate.

CUSUM and CUSUM of squares tests of stability

The stability test results are shown in figures 2 and 3. The CUSUM and CUSUM of squares are the tests used to check stability within the model. The results of stability test show evidence that the model is stable. This is indicated by a movement of blue lines located within the critical lines (two-red dotted lines) in the figures. Therefore, at 5% level of significance, the CUSUM and CUSUM of squares stability tests confirm good performance of the model.

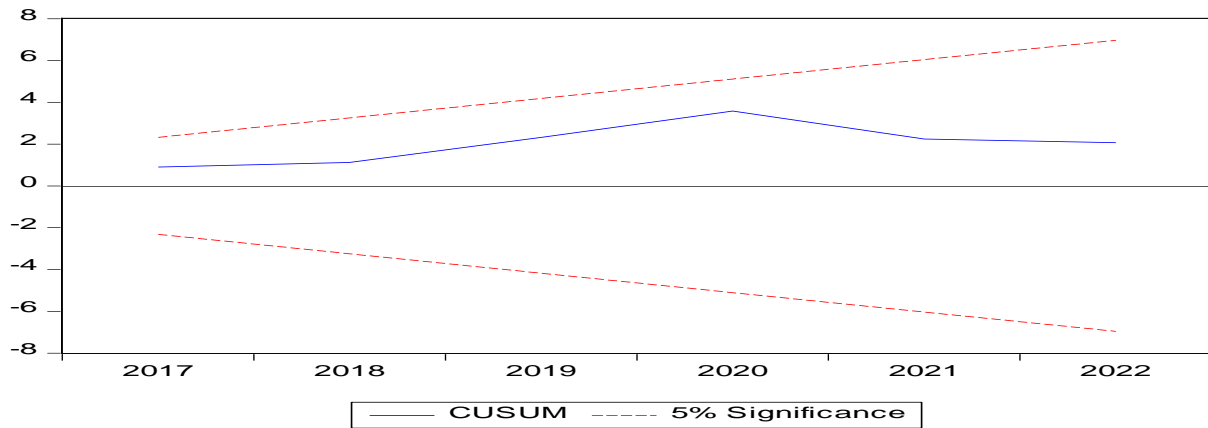


Fig. 1: CUSUM Text
Source: E-views 12.0 version data output

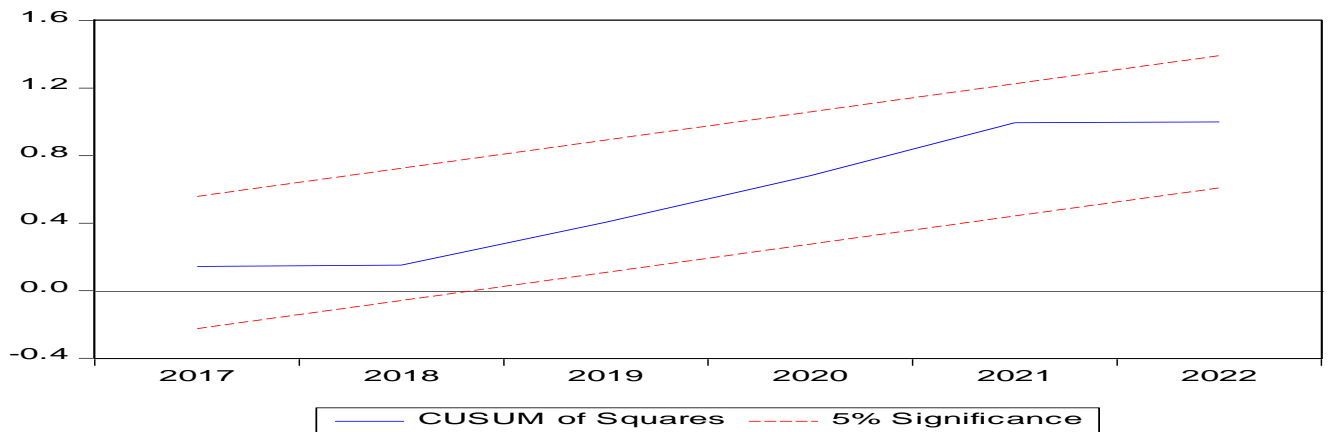


Fig. 2: CUSUM of Squares Text
Source: E-views 12.0 version data output

Short Run OLS Relationship

In analysing the short run nexus between Institutional financing and economic growth, the OLS regression was applied and the result shown in Tables 9. The outputs were interpreted using the coefficients of the individual variables, Adjusted R-square, f-statistic and Durbin Watson.

Table 9: OLS Regression: Institutional Financing and Gross Domestic Product

| Dependent Variable: GDP | | | | |
|--|-------------|-----------------------|-------------|----------|
| Method: ARDL | | | | |
| Date: 05/29/24 Time: 20:24 | | | | |
| Sample (adjusted): 1996 2022 | | | | |
| Included observations: 27 after adjustments | | | | |
| Maximum dependent lags: 2 (Automatic selection) | | | | |
| Model selection method: Akaike info criterion (AIC) | | | | |
| Dynamic regressors (4 lags, automatic): BOIC BOAC MFBC AFDBC | | | | |
| Fixed regressors: C | | | | |
| Number of models evaluated: 1250 | | | | |
| Selected Model: ARDL(1, 4, 4, 4, 3) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.* |
| GDP(-1) | 1.183417 | 0.013344 | 88.68374 | 0.0000 |
| BOIC | 32.46488 | 230.7656 | 0.140683 | 0.8927 |
| BOIC(-1) | 404.7244 | 297.6630 | 1.359673 | 0.2228 |
| BOIC(-2) | 1133.345 | 551.9755 | 2.053252 | 0.0859 |
| BOIC(-3) | 3191.641 | 870.0126 | 3.668500 | 0.0105 |
| BOIC(-4) | 2280.949 | 277.6930 | 8.213924 | 0.0002 |
| BOAC | -1.969046 | 6.054034 | -0.325245 | 0.7560 |
| BOAC(-1) | 18.00679 | 5.327096 | 3.380225 | 0.0149 |
| BOAC(-2) | -0.376135 | 5.256361 | -0.071558 | 0.9453 |
| BOAC(-3) | 2.448448 | 4.345891 | 0.563394 | 0.5936 |
| BOAC(-4) | -9.657835 | 4.591683 | -2.103332 | 0.0801 |
| MFBC | 2.089254 | 6.098850 | 0.342565 | 0.7436 |
| MFBC(-1) | 2.424639 | 6.145227 | 0.394557 | 0.7068 |
| MFBC(-2) | 14.78128 | 6.825135 | 2.165713 | 0.0735 |
| MFBC(-3) | -0.835637 | 4.192939 | -0.199296 | 0.8486 |
| MFBC(-4) | -6.115541 | 4.451339 | -1.373866 | 0.2186 |
| AFDBC | -0.069680 | 0.027264 | -2.555722 | 0.0432 |
| AFDBC(-1) | -0.142925 | 0.023256 | -6.145738 | 0.0009 |
| AFDBC(-2) | -0.042135 | 0.019016 | -2.215704 | 0.0686 |
| AFDBC(-3) | 0.078558 | 0.021867 | 3.592484 | 0.0115 |
| C | -12249.92 | 3309.982 | -3.700902 | 0.0101 |
| R-squared | 0.999863 | Mean dependent var | | 63378.89 |
| Adjusted R-squared | 0.999408 | S.D. dependent var | | 57875.64 |
| S.E. of regression | 1408.619 | Akaike info criterion | | 17.39008 |
| Sum squared resid | 11905238 | Schwarz criterion | | 18.39796 |
| Log likelihood | -213.7661 | Hannan-Quinn criter. | | 17.68978 |
| F-statistic | 2194.264 | Durbin-Watson stat | | 1.620737 |
| Prob(F-statistic) | 0.000000 | | | |

Source: Author's E-view 12 computations

Text of Probability

The constant parameters in the study exhibit a negative effect with GDP. This is evidenced by a negative coefficient of -12249.92, indicating that in the short term, GDP is expected to decrease by 12249.92 units when all explanatory variables remain constant. The probability value of 0.0101, which is below 5%, and the t-statistics value of 3.700902, which exceeds 2, confirms the significance of the constant parameters. Thus, it can be inferred that when all variables are held constant, the constant (C) has a negative and significant effect on GDP.

The probability value for AFDBC is 0.043, indicating significance below the 5% threshold, signifying that AFDBC has a significant effect on GDP. However, the probability values for BOIC, BOAC, and MFBC are 0.8927, 0.7560, and 0.7436, respectively, which exceed 5%. This suggests that these variables have an insignificant effect on GDP.

These findings highlight that despite advancements in credit, the Bank of Agricultural Credit, Bank of Industrial Credit, and Microfinance Bank Credit have an insignificant effect on GDP. This may be due to their limited reach, as they might cater to a smaller portion of total economic activity. Additionally, there is a substitution effect, where loans from these institutions may not necessarily lead to new economic output but rather replace existing credit sources, resulting in limited net growth in GDP. In contrast, the African Development Bank (AfDB) has a significant effect on GDP. This indicates that the AfDB operates on a larger scale, supporting various development projects across Africa. Its loans and investments can have a more substantial impact on GDP for several reasons: The AfDB often finances infrastructure projects like roads, bridges, and power plants. These infrastructure improvements can create new economic opportunities, leading to increased production and economic activity across various sectors, ultimately boosting GDP. The AfDB promotes regional integration projects that facilitate trade and investment between African countries. This broader economic activity can significantly impact the combined GDP of participating nations.

6. SUMMARY, CONCLUSION AND POLICY IMPLICATION

Institutional financing entities are thought to possess considerable financial assets, allowing them to offer substantial funding for extensive projects, expansions, or investments requiring significant capital. They have proficiency in assessing loan requests and credit reliability. This proficiency enables them to distribute capital effectively to projects with the greatest potential for beneficial economic outcomes. However, empirical investigations have yielded contradictory results. In light of this, the study aims to examine the effect Institutional financing on Nigeria economic growth from 1992 to 2022.

The analysis began by assessing the stationarity of the variables, revealing integration at orders $I(0)$, $I(1)$, and $I(2)$. Consequently, the study employed auto-regressive distributed lag (ARDL) models. The findings indicate that while Institutional financing has a positive effect, it is statistically insignificant on the gross domestic product of Nigeria. The results suggest that institutional credit still faces challenges such as risk of excessive debt accumulation or potential biases in loan allocation. As a result of these findings, the study makes the following recommendations: **Expand Outreach:** Develop strategies to reach a wider range of potential borrowers within their target sectors. This could involve utilizing mobile banking technologies, simplifying loan application processes, and establishing partnerships with local community organizations. **Loan Products Tailored to Needs:** Design loan products specifically catering to the unique needs of their target clientele. For example, microfinance loans with flexible repayment schedules or agricultural loans with extended repayment periods aligned with harvest cycles. **Technical Assistance:** Offer technical assistance programs alongside loans to equip borrowers with the skills and knowledge necessary to utilize the funds effectively and maximize their economic activity. **Focus on Sustainability:** Prioritize projects that promote sustainable development, considering environmental and social factors alongside economic ones. This ensures long-term benefits and avoids potential negative consequences. **Monitoring and Evaluation:** Implement robust monitoring and

evaluation frameworks to assess the impact of AfDB projects on GDP growth and make adjustments to strategies as needed.

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