EFFECT OF FINANCIAL DEEPENING ON ECONOMIC GROWTH IN NIGERIA (1986-2020)

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Abstract
This study examined the effect of financial deepening on economic growth in Nigerian from 1986 to 2020 using data sourced from the CBN statistical bulletin (2020). The Nigerian financial sector is beleaguered with fissures that have frustrated its potential to facilitate economic growth, Funds accumulated by financial intermediaries are insufficient to cater for the desired level of economic growth. The objective of this study was to find out how financial deepening has influenced the economy. Financial deepening was measured by money supply to GDP, insurance premiums to GDP, Stock market capitalization to GDP and private sector credit to GDP while economic growth was represented by real GDP. The study adopted the ex-post facto research design in conducting the research. The data was subjected to statistical analysis using the Ordinary Least Square regression. The findings of the study revealed that money supply to GDP and Market capitalization to GDP has positive and significant relationship with economic growth in Nigeria while private sector credit to GDP and insurance premiums to GDP ratio had negative relationship with economic growth in Nigeria. The study recommends that Credit to private sectors should be channeled to the real sector of the economy which will lead to economic growth .The monetary authorities should also ensure adequate supply of money to facilitate economic transactions for economic growth to desired levels. The monetary authorities should develop policies that aids entry of more establishments into the capital market and Insurance policies should be made to ensure the relevance and increased patronage of insurance sector in Nigeria.
Keywords: *Economic Growth, Financial deepening, Nigeria.*

Introduction

Financial deepening is the means of developing and expanding financial institutions and services. It is also an increase in the delivery of financial assets in the economy. Banks and other financial institutions engage premeditated positions in the operation of any economic scheme and serve as the mechanism through which economic activities revolves. This supports the economic theory that the financial sector of any economy is an engine of growth and development. According to Nwakobi, Olekma and Ananwude (2016) the opportunity that is needed to sustain growth in an economy is lubricated by the dexterity of liquid money. The Nigerian financial and economic ambiance has witnessed substantial improvement. Growth is enhanced by the development of the financial system, which makes financial products/services accessible and affordable. Financial deepening is to improve economic conditions through increased competitive efficiency within financial markets thereby indirectly

benefiting non-financial sectors of the economy. Financial deepening also helps in increasing the provision and choices of financial services (Nwolisa & Cyril, 2019).In the Nigerian economy there are several financial institutions offering separate services to the general public. They include banks, insurance, capital market, pension and mortgage institutions. These institutions provide the incentive structure of an economy; as that structure evolves, it shapes the direction of economic change towards growth, stagnation or decline (Igwebuike, Udeh & Okonkwo, 2019). The financial sector performs critical activities such as the provision of securities markets, fund management, insurance, pension services and risk management. The target of every country is to achieve a sustainable economic growth that will lead to economic development in the long-run and many sectors of the economy contribute to the growth of a nation. Financial intermediaries supported the efforts of these sectors by mobilization and allocation of funds in order to boost their activities. Nigeria has been making economic policies in order to be part of global reality in developing the financial system. These activities encouraged mobilization and allocation of funds to various sectors of the economy. The relationship between financial deepening and economic growth has been an increasing inclination in the world and has incessantly remained a leading issue at any point in time. This attention is well-justified, since a better understanding of how the financial sector contributes to economic growth has important regulatory implications (Kolawole, Ijaiya, Sanni & Aina, 2019).

The Nigerian financial sector is plagued with fissures that have frustrated its potential to facilitate economic growth. A large portion of the Nigerian population are still financially excluded, Funds accumulated by financial intermediaries are insufficient to cater for the desired level of business growth Also, the insurance industry has a spun out indifference from the Nigerian populace due to mistrust, cultural and religious inclinations and delay in settling claims. In the stock market investors are drained of the low level of liquidity reflected on the low market capitalization to GDP ratio.

In respect to the challenges, efforts have been made by Nigerian monetary authority towards reforming the Nigerian financial sector. Despite structural, institutional and policy reforms to enhance the smooth functioning of the financial institutions to enhance the economy, the Nigerian financial sector has not been able to live up to its expectation as the boost of economic growth and development. The chief aim of the study is to determine the effects of the financial deepening on economic growth in Nigeria based on the relative contribution of the banking and non-banking financial Institutions.

Financial deepening is decomposed to include; money supply to GDP ratio, private sector credit to GDP ratio, Insurance premiums to GDP ratio and stock market capitalization to GDP ratio. On the other hand real GDP is the selected proxy for

economic growth. In the light of these issues, the researchers formulated this under-mentioned hypothesis to navigate the investigation of the study:

Ho: Financial deepening does not significantly affect economic growth of Nigeria

The paper is organised as follows' the next section reviews relevant literature with regards to context justification and provide a theoretical background for the study, respectively. Next describes the sample data and empirical methodology. The last section summaries the main results, offers conclusion and recommendations.

Review of related Literature

Conceptual Review

Concepts of Financial Deepening and Economic Growth

Financial deepening entails the ability of financial institutions to facilitate financial intermediation, create and develop financial services and render these services at affordable rate in an economy to facilitate growth of business enterprises. (John and Ibenta 2017). According to Efanga, Ogochukwu and Ugwuanyi (2020), Financial deepening may be defined as the increase in the introduction and supply of financial assets or securities within the financial sector (financial market) of the economy. Kiprop (2013) sees financial deepening as the increased provision of financial services, and access to basic financial services such as credit, savings and insurance that is, theincrease in the size of the financial system and in its role of financing with a wider choice of service geared toward the development of all levels of society. But in the words of Akhator and Marcus (2018), financial deepening refers to the increased provision of financial services with a wider choice of services geared to the development of all levels of society.

In the study of Nwaolisa and Cyril (2019) financial deepening is defined as the ability of financial institutions in an economy to effectively mobilize savings for investment purposes. Financial deepening vigorously attracts the reservoir of savings and idle funds and allocates same to entrepreneurs, business, households and government for investments projects and other purposes with a view of returns which forms the basis for economic growth. According to the International Monetary Fund (IMF) financial deepening occurs when sectors and agents use a range of financial markets for savings and investment decisions; financial intermediaries and markets deploy larger volumes of capital and handle larger turnover while financial sectors create assets for risk-sharing purposes. This definition captures the whole process of financial deepening as it takes into account all means of financing, whereas money supply is provided through different financial institutions (bank and non-bank institutions) using different financial instruments in different markets (money market, capital market, debt market).

Economic growth is the increase in the amount of goods and services produced by an economy over a period of time. It is conventionally measured as the percentage rate of increase in real gross domestic product, or real GDP. Economic growth can be measured as a percentage change in the Gross Domestic Product (GDP) or Gross National Product (GNP). The major source of per capital output in any country; whether developing or developed, with a market economy or centrally planned is an increase in productivity. According to Kolawole, Ijaiya, Sanni and Aina. (2019), economic growth is measured by the increase in the amount of goods and services produced in a country. Economic growth occurs when an economy's productive capacity increases which, in turn, is used to produce more goods and services. Economic growth means the increase in a nation's real gross domestic product (an increase in a nation's output of goods and services) or the physical expansion of the nation's economy (Antwi, Mills & Zhao, 2013). According to Bakang (2014), there are two main measures used to measure economic growth. The first is Gross national product (GNP) that computes the total value of goods and services produced by all nationals within and outside the country over a given period, and the second is Gross Domestic Product considered as the broadest indicator of economic output and growth. It is designed to measure the value of production of those activities that fall within the boundary of the national accounts system. GDP measures economic growth in monetary terms and looks at no other aspects of development. GDP can be expressed in nominal terms which include inflation or in real terms which are adjusted for inflation.

Theoretical Review

Theory of Financial Intermediation

This study is anchored on theory of financial intermediation which was propounded by Schumpeter (1911) which advocates that financial intermediaries play a fundamental role of intermediation in the growth process by transferring financial resources from the net savers to net borrowers, thus influencing investment and thereby economic growth. The theory suggests that financial intermediaries can overcome a market failure and resolve an information asymmetry problem by transforming the risk characteristics of assets. These asymmetries in credit markets arise because borrowers generally know more about their investment projects than lenders do. Information failures lead to specific forms of transaction costs and financial intermediaries appear to overcome these costs, at least partially. The work of Schumpeter (1911) supports the view that well-functioning financial intermediaries can promote the overall economic efficiency. By pooling and allocating funds, financial intermediation promotes entrepreneurship and innovation which are necessary components for economic development.

Empirical Review

In an attempt of determining the effect of financial deepening on economic growth, many scholars have carried out related studies from which some are reviewed.

Efanga, Ogochukwu and Ugwuanyi (2020) investigated the impact of financial deepening on the Nigerian economy between 1981 and 2018. Data employed for this study was obtained from Central Bank of Nigeria Statistical Bulletin. This study employed real gross domestic product as proxy for economic growth in Nigeria, while ratio of money supply to gross domestic product, ratio of private sector credit to gross domestic product and ratio of market capitalization to gross domestic product were adopted as regressors. The co-integration test and Fully Modified Least Squares (FMOLS) Model were utilized to analyze data. Inferential results generated indicated that financial deepening had positive impact on the Nigerian economy within the period under review. Eke, Okoye and Evbuomwan (2020), carried out a study on entrepreneurship and financial deepening in selected African economies from 1995- 2014 and evidence from the augmented Toda-Yamamoto technique , the result shows that human capital does not have long run causal effect on entrepreneurship , and financial deepening. Samuel-Hope, Ehimare and Osuma (2020) explored the effect of financial deepening on Nigeria's growth for 38 years covering 1981- 2018. The main research goals were to investigate the linkages among time and savings deposit of commercial banks, money supply and credit to the private sector on the economy's growth. Data was obtained from CBN Bulletin different issues and analyzed using Autoregressive Distributed Lag. From the result of analysis, the long run relationship existed but no regressor was found to be significant. Credit to the private sector to GDP was inversely related to GDP growth whereas money supply to GDP had positive relations with economic growth rate, time and savings deposits in commercial banks negatively affected national growth. Gisaor (2020) investigated the impact of financial deepening on economic growth in Nigeria between 1986 and 2017 using annual time series data in an Auto regressive Distributive Lag Model and Granger Causality Test. The result shows that an increase in MSS leads to a reduction in GDP in Nigeria. Thus, money supply constitutes a negative motivator of economic growth and development in Nigeria. Yousuo and Ekiou (2020) investigated the impact of financial deepening on economic growth in Nigeria for a period of thirty-eight years from 1981 to 2018, with four specific objectives; examining the effects of the monetized, credit, savings and stock markets criteria on the economic growth taking cognizance of the impact of administrative regimes. Time series data were employed sourced from the Central Bank of Nigeria statistical bulletin of 2018 edition, the classical least square of multiple regressions with the application of dummy variable to capture the effects of the various Regimes was adopted in analyzing the data. The results show that financial deepening has both short and long-term effects on economic growth, the

estimated regression line is significance as confirm by the f-statistics. The stock market, credit criteria have positive and significant effect on economic growth, savings criteria has negative and significant effects on economic growth, while the monetized criteria have positive and insignificant effects on growth in the short run. Nwakobi, Oleka and Ananwude (2019) investigated the effect of financial deepening on economic growth in Nigeria: A Time Series Appraisal (1986-2018). The model estimation followed the Auto-regressive Distributive Lag (ARDL) approach with the effect estimated in line with the granger causality analysis and found that economic growth in Nigeria is not affected by financial deepening.

Igwebuike, Udeh and Okonkwo (2019) examined effects of financial deepening on the economic growth of Nigeria (1981 to 2016) through two of the basic arms of the financial industry (Insurance companies and Banking Industry). Secondary data from CBN statistical bulletin and Global Financial Development bulletin, 2017 as provided by the World Bank were utilized. The study adopted an ex-post facto research design. The analytical tool used was Ordinary Least Squares (OLS). It was found that insurance industry premium to GDP has positive but no significant effect while credit to private sector by commercial banks to GDP has positive and significant effect on economic growth in Nigeria. Amaefula (2019) evaluated if economic growth was enhanced by financial deepening. The variables employed in the study were gross domestic product (GDP), money supply (M2) and credit to private sector (CPS). This study covered theperiod between 1981 and 2016. Multiple regression analysis model and Auto-Regressive Distributed Lag (ARDL) Model results showed that financial deepening indicators had no effect on economic growth but when they considered the pooled additive effect on economic growth, it was discovered to have a positive and significant effect at 1% level of significance. The ARDL result revealed that there was no evidence of short-run relationship that existed between financial deepening and economic growth, but the long-run equilibrium relationship was recorded to be only significant at 10% level ofsignificance. Nwolisa and Cyril (2019) examined the impact of financial deepening on the growth of Nigerian -economy 1990-2016. The main objective of this study is to evaluate the effect of private sector credit, money supply and market capitalization on economic growth in Nigeria. The sources of data for this study are CBN statistical Bulletin and National Bureau of Statistics. The data obtained were analyzed using ordinary least square regression (OLS). The result of the analyses showed that the three independent variables of the study all have significant effect on Nigerian financial deepening. Ogbonna (2018), examines the impact of financial deepening on economic growth in Nigeria between 1970 and 2015, using Vector Error Correction Model, Impulse Response Function, and Forecast Error Variance Decomposition, with a distinction between size and activity variables of financial deepening. The results show that financial deepening and economic growth have a

stable long-run relationship, and that activity variables of the financial deepening have more stimulating effect on economic growth than the size variables.

Werigbelegha and Ogiriki (2018) investigated the relationship between financial deepening and the growth of Nigerian economy; for the period (1990-2017). The study used Gross Domestic Product as proxy for growth of Nigerian economy and employed as dependent variable; Total Bank deposits, Market Capitalization and Credit to the Private Sector were used as the explanatory variables to measure financial deepening. Hypotheses were formulated and tested using timeseries econometrics model. The study concluded that financial deepening had a causal relationship with the growth of Nigerian economy. John and Ibenta (2017) examined the relationship between financial deepening and entrepreneurial growth in Nigeria from 1986 to 2016. The study employed Pearson Correlation in establishing relationships between the variables. The results revealed that the ratio of money supply to Gross Domestic Product (M2/GDP) has a positive but not significant relationship with entrepreneurial growth; the ratio of credit to private sector to GDP (CPS/GDP) has a positive (not significant) relationship with entrepreneurial growth; and the ratio of deposit money banks' branches to GDP (DMBB/GDP) has a negative and significant relationship with entrepreneurial growth. In view of this, study showed that money supply and credit to private sector are better indicators of financial deepening that can affect entrepreneurial growth positively in Nigeria.. Olawumi, Lateef and Oladeji (2017) examined the effect of financial deepening on the profitability of selected commercial banks in Nigeria using secondary data. Findings revealed that each component of financial deepening indicators has a strong relationship and are statistically significant. This provides empirical evidence that financial deepening made positive contributions to the level of profitability of the selected commercial banks in Nigeria. Karimo and Ogbonna (2017) examined the direction of causality between financial deepening and economic growth in Nigeria for the period 1970–2013. The study adopted theToda–Yamamoto augmented Granger causality test and results showed that the growth-financial deepening nexus in Nigeria follows the supply-leading hypothesis. This shows that it is financial deepening that leads to growth and not growth leading financial deepening. Adan (2017) examined the effect of financial deepening on economic growth in Kenya from 2000 to 2016. The study used credit to private sector, market capitalization and broad money to proxy financial deepening, while GDP was used to measure economic growth. The Pearson Product Moment Correlation was used to analyze the data. The findings of the study revealed that money supply had a negative relationship with economic growth while private sector credit and market capitalization had a positive relationship with economic growth. Paul (2017) examined the impact of financial deepening on economic growth in Nigeria,using data from secondary sources, (1986-2015). He employed the ordinary Least Square (OLS) technique, Co integration, and Error correction model (ECM) as estimation

tools. Specifically,both the Augmented Dickey-Fuller (ADF) and Philips-Perron (Pp) tests were conducted to ascertain the stationarity of the variables. His results revealed that economic growth in Nigeria inthe long-run is influenced by the indices of financial depth. Also financial deepening is positively and significantly related to economic growth. Muhsin and Şerife(2016) examined the role of financial development on entrepreneurship by employing panel data estimation methods for 17 emerging markets economies over the period 2004-2009. In order to determine the linkages among the variables, two different measures for financial development and three institutional factors were utilized in the analysis. Empirical findings indicated that while financial development and per capita income level have significantly and positively impact on entrepreneurship theoretically.

Nwanna and Chinwudu (2016) examined the effect of financial deepening on economic growth in Nigeria from 1985 to 2014. They aimed at revealing the impact of stock market and bank deepening variables such as money supply, market capitalization, private sector credit and financial savings have on economic growth of Nigeria. The ordinary least square (OLS) econometric technique was adopted. The result of the analysis reveals that both bank based and stock market financial deepening proxies has significant and positive effect on economic growth and that the banking sector and stock market in Nigeria has an important role in the process of economic growth.

Wairagu (2016) studied the effects of financial deepening on entrepreneurial growth in Kenya. The financial deepening indicators comprised of credit received by entrepreneurs/SMEs, the affordable nature of interest rates, savings culture coupled with the financial sector regulation. The study employed a descriptive survey design and data were derived from both primary and secondary sources. The collected data were afterwards coded before the actual analysis with the useful aid of the Statistical Package for Social Sciences (SPSS). Major study findings indicated that the growth rate of the loans accessed by entrepreneurs/SMEs was on an unchanging progress in the period between 2006 and 2016. The four notable determinants (credit access, interest rates affordability, savings culture together with financial sector regulation) also had a confirmatory correlation with the expanded (growth) rate of entrepreneurs/SMEs.

Oyeleye (2016) examined the effect of financial depth on GDP between 1985 and 2014 in Nigeria. The focus of the study was on stock market and bank deepening variables. The selected variables included money supply, private sector credit, market capitalization and financial savings. The findings indicate the existence of a positive significant effect between financial depth and GDP growth rate. Igwe, Edeh and Ukpere (2016) determined the impact of financial deepening on economic growth in Nigeria. The supply leading hypothesis was adopted as the theoretical framework of the study. Data for analysis was for the period 1981-2012 were

obtained from the Central Bank of Nigeria Statistical Bulletin. The explanatory variables were logged values of broad money supply/GDP and credit to the private sector/GDP. The times series data were tested for stationarity using the ADF unit root tests of stationarity and were found to be stationary at first difference. The Engle-granger co-integration technique and Error correction model was used for the test of long-run relationship. Findings revealed that money supply (MS) was positive and weakly significant in determining economic growth. Alrabadi and Kharabsheh (2015) examined financial deepening and economic growth using the case of Jordan economy from 1992 to 2014. The variables used include; GDP per capita, lending interest rate, total amount of exports and imports, total deposits, consumer price index, private sector credit, money supply and government expenditures. The study employed the Granger causality and Johansen cointegration tests in analyzing the data. The results revealed a long run equilibrium existed between financial deepening and economic growth. Victor and Samuel (2014) examined empirically, the implications of financial development for economic growth in Nigeria, using time series data covering the period between 1990 and 2011 from Nigeria. The co integration technique with its implied Error Correction Mechanism (ECM) was applied. This commenced with the ADF unit root test, followed by the Johansen co integration test. The variables included Real Gross Domestic Product, Financial deepening which is a ratio of money supply to Gross Domestic Product, liquidity ratio, interest rate and credit to the private sector. Financial sector development has not significantly improved private sector development. The minimum capital base and liquidity ratio has improved the level of economic growth in Nigeria. The Johansen co integration test suggests a long run relationship among the variables and the significant ECM which is negatively signed supports the long run relation among the variables and indicates a satisfactory speed of adjustment. Adu, Marbuah and Mensah (2013) studied financial deepening and economic growth in Ghana: The study investigate the long-run growth effects of financial deepening in Ghana using one indicator at a time among a set of controls variable. The financial deepening variables used are private sector credit ratio to GDP, money supply ratio to GDP, total domestic credit to GDP and total bank deposit liabilities to GDP and set of control variables namely inflation rate, trade openness, real gross government expenditure. The study test the variable using the ordinary least square method and found out that all the measure of financial deepening have a positive effect on economic growth in Ghana except broad money supply to GDP.

Onwumere, Ibe, Ozoh and Muonanu (2012) examines the impact of financial deepening on economic growth in Nigeria for the period of 1992 - 2008 and adopted the supply-leading hypothesis using variables such as broad money velocity, money stock diversification, economic volatility, market capitalization and market liquidity as proxies for financial deepening and gross domestic product growth rate for economic growth. They found that broad money velocity and market liquidity

promote economic growth in Nigeria while money stock diversification, economic volatility and market capitalization did not within the period studied.

Research Methodology

This study adopted the *ex-post facto* research design in examining the effect of financial deepening on economic growth. This research design is most suitable for this study because of the kind of data available (time series data). The time series data on GDP, market capitalization, insurance sector premium, private sector credit to GDP and money supply to GDP were all obtained from the CBN statistical Bulletin (2021).

Model of the Study

This study adopts a similar model with the one used in the study of Nwaolisa and Cyril (2019) in which GDP growth rate was expressed as a function of private sector credit to GDP, Market capitalization to GDP and money supply to GDP ratio. In this study however, GDP is measured as a function of insurance premiums to GDP ratio (INPG), Private Sector Credit to GDP ratio (PSCG), Market Capitalization to GDP ratio (MCG) and Money Supply to GDP ratio (MSG).

The functional model is expressed in equation 1 thus;

$GDP = f(PSCG, MSG, MCG, INPG)$ 1

The econometric model of the study, which accounts for econometric parameters is shown in equation 2

$GDP = \alpha_0 + \alpha_1 PSCG + \alpha_2 MSG + \alpha_3 MCG + \alpha_4 INPG + \mu_t$.................... 2

α_0 is the intercept or the constant term; which is the value of the left-hand variable irrespective of the right-hand variable. α_1, α_2, α_3 and α_4 are the coefficients of the regression. μ_t is the error term of the regression.

Instruments for Data Analysis

P-value: The p-value procured by the OLS regression estimates will be used to test the research hypothesis. The p-values show the significance of the relationship between the independent variable and the dependent variable.

Decision Rule: The decision rule is to accept the null hypothesis of no significant effect if the p-value is greater than the chosen level of significance, which is 5% (0.05), otherwise reject the null hypothesis and accept the alternate hypothesis.

DATA PRESENTATION AND ANALYSIS

Data used in the analysis are shown in table below

Table 4.1: Time Series Data for RGDP, MSG, PSCG, INPG and MCG

Year	RGDP (₦'Billion)	MSG (%)	PSCG (%)	INPG (%)	MCG (%)
1986	15238	12.02	7.70	1.92	3.36
1987	15263.9	11.27	8.62	1.87	3.29
1988	16215.4	12.15	8.66	1.73	3.12
1989	17294.7	11.06	7.33	1.54	3.05
1990	19305.6	9.59	6.78	1.31	3.26
1991	19199.1	12.78	7.01	1.22	3.88
1992	19620.2	12.26	6.42	0.92	3.43
1993	19928	13.15	10.11	0.71	3.77
1994	19979.1	13.02	8.11	0.39	3.76
1995	20353.2	9.32	5.81	0.38	6.23
1996	21177.9	8.46	5.84	0.54	7.56
1997	21789.1	9.35	7.16	0.40	6.86
1998	22332.9	10.16	7.32	0.41	5.72
1999	22449.4	11.47	7.86	0.39	5.65
2000	23688.3	12.44	7.51	0.34	6.85
2001	25267.5	15.41	9.29	0.35	8.14
2002	28957.7	13.09	8.09	0.37	6.75
2003	31709.4	14.41	8.09	0.29	10.22
2004	35020.5	11.76	7.84	0.30	12.20
2005	37474.9	11.41	7.95	0.32	13.02
2006	39995.5	12.50	7.54	0.50	17.87
2007	42922.4	14.79	10.58	0.52	39.95
2008	46012.5	21.63	19.77	0.51	24.42
2009	49856.1	22.29	22.75	0.51	15.88
2010	54612.3	20.01	18.96	0.48	18.16
2011	57511	19.82	15.07	0.45	16.32
2012	59929.9	21.35	18.31	0.38	20.64
2013	63218.7	23.14	17.85	0.39	23.82
2014	67152.8	22.65	18.59	0.41	18.95
2015	69023.9	21.94	19.64	0.44	18.06
2016	67931.2	23.65	20.50	0.49	15.95
2017	68491	24.90	19.55	0.44	18.58
2018	69799.9	23.07	17.54	0.44	17.61
2019	71387.8	23.52	17.63	0.41	17.95
2020	70014.4	23.35	18.83	0.33	25.33

Source: *CBN, Statistical Bulletin, 2020*

The table reveals that real GDP has recorded steady improvement over the review period recording an all-time high in 2020. The only occurrence of a decline was in 2016 when GDP was valued at 67,931billion naira from a previous 69,023 billion naira in 2015. To aid further description of the trends, the descriptive statistics is employed as shown in table 4.2.

Table 4.2: Descriptive Statistics

	RGDP	PSCG	MSG	MCG	INPG
Mean	38574.98	11.90285	15.80608	12.27478	0.640117
Median	31709.45	8.616549	13.09368	10.21907	0.444108
Maximum	71387.83	22.75484	24.89526	39.95008	1.919697
Minimum	15237.99	5.806165	8.464230	3.053435	0.288778
Std. Dev.	20476.78	5.596864	5.409021	8.634904	0.470564
Skewness	0.438826	0.562027	0.401069	0.985437	1.752000
Kurtosis	1.576325	1.576468	1.520643	3.993661	4.621111
Jarque-Bera	4.079137	4.797830	4.129888	7.104568	21.73795
Probability	0.130085	0.090816	0.126825	0.028659	0.000019
Sum	1350124.	416.5997	553.2127	429.6174	22.40409
Sum Sq. Dev.	1.43E+10	1065.046	994.7552	2535.093	7.528634
Observations	35	35	35	35	35

Source: *Eviews 11.0 Descriptive Statistics Output, 2021*

As shown in table 4.2, RGDP averaged 38,574.98 billion naira over the period under review, with its highest figure standing at 71,387billion naira. On the average, private sector credit was 11.9% of Nigeria's GDP, with a minimum value of 8% and a maximum of 22.75%. Money supply is about 15% of Nigeria's GDP on average and is maxed at 24.89% with its lowest value at 8.46%. Market capitalization also averages 12.27% of Nigeria's economic growth and peaks up to 39.97% while falling to as low as 3.05 over the studied period. However, insurance sector has not performed anywhere as high as the other examined sectors as it averaged 0.64% of Nigeria's GDP and has its highest value below 2% (1.91%).

Data Analysis

Ordinary Least Square Regression

The result of the ordinary least square regression is shown in table 4.3;

Table 4.3: OLS Regression

Dependent Variable: RGDP
Method: Least Squares
Date: 11/29/21 Time: 08:44
Sample: 1986 2020
Included observations: 35

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PSCG	-64.78535	717.9612	-0.090235	0.9287
MSG	2878.187	756.4721	3.804749	0.0007
MCG	476.7652	184.5244	2.583752	0.0149
INPG	-5996.683	2641.131	-2.270498	0.0305
C	-8160.338	5289.026	-1.542881	0.1333

R-squared	0.915231	Mean dependent var	38574.98
Adjusted R-squared	0.903929	S.D. dependent var	20476.78
S.E. of regression	6346.858	Akaike info criterion	20.48087
Sum squared resid	1.21E+09	Schwarz criterion	20.70306
Log likelihood	-353.4152	Hannan-Quinn criter.	20.55757
F-statistic	80.97580	Durbin-Watson stat	1.019462
Prob(F-statistic)	0.000000		

Source: *Eviews 11.0 Regression Output, 2021*

PSCG and GDP: Based on the regression coefficient of -64.785, it can be envisaged that every percentage increase in the private sector credit to GDP ratio will coincide with a 64 billion naira decline in GDP. This result however, shows statistically insignificant with a p-value above 0.05. The results of the OLS regression reveals that private sector credit negatively effect economic growth in Nigeria.

MSG and GDP: On the other hand, money supply to GDP was found to be positive. With a coefficient of 2,878.81, percentage increases in money supply is expected to coincide with 2.88 trillion naira increase in the value of real GDP in Nigeria. With the corresponding p-value below 0.05, the result is statistically significant.

MCG and GDP: On the other hand, market capitalization to GDP was found to be positive. With a coefficient of 476.76, percentage increases in market capitalization to GDP ratio is expected to coincide with 476 billion naira increase in the value of real GDP in Nigeria. With the corresponding p-value below 0.05, the hypothesis is statistically significant.

INPG and GDP: Insurance sector has a negative influence on economic growth in Nigeria. It follows that with a coefficient of -5996.68, any percentage increase can

be alongside a decline of 5.99 trillion naira in Nigeria's real GDP. This prediction is also statistically significant as the probability value is 0.031 which is below 0.05. The F-statistic is 80.97 and the probability value of 0.000 reveals that the overall relationship between economic growth and financial deepening in Nigeria is significant. The R-squared value further reveals that 91% of the trend behaviour of Nigerian economic growth can be explained by the combined variations of private sector credit to GDP, Money supply to GDP, market capitalization to GDP and insurance premiums to GDP.

Discussion of the Findings

The study examined the effect of financial deepening on economic growth in Nigeria using econometric evidence from 1986 to 2020. Economic growth was measured using real GDP while financial deepening indicators used in this study was made to include; stock market capitalization to GDP ratio, private sector credit to GDP ratio, money supply to GDP ratio and insurance premiums to GDP ratio. The data were all obtained from the CBN statistical bulletin and subjected to statistical analysis.

The results showed that private sector credit to GDP has a negative relationship with economic growth in Nigeria. It shows that the amount of credit extended to the private sector negatively effects the level of economic growth. The prediction was however found to be statistically insignificant. This findings is quite similar to the findings of Osasere, Bashiru and Ehis (2020) who found that there is a negative and insignificant relationship between the ratio of credit to private sector to gross domestic product (CPS_GDP) and gross domestic product (GDP).

The results showed that money supply to GDP has a positive relationship with economic growth in Nigeria in line with priori expectations. It shows that the volume of money which facilitates economic transactions positively effects the level of economic growth. The result was also found to be statistically significant. This finding is also in line with the findings of Okafor, Bowale, Onabote, Afolabi and Ejemeyovwi (2021) as well as that of Samuel-Hope, Ehimare and Osuma (2020) which revealed that money supply to GDP had positive relations with economic growth rate.

The results showed that stock market capitalization to GDP has a positive relationship with economic growth in Nigeria in line with priori expectations. It shows that depth of the Nigerian capital market positively effects the level of economic growth. The result was also found to be statistically significant. This finding confirms the recent findings of Kolawole, Ijaiya, Sanni and Aina (2019) and Nwolisa and Cyril (2019) who found that capital market related financial deepening variable is a positive and significant determinant of economic growth in Nigeria.
The results of the analysis also showed that insurance premiums to GDP has a negative relationship with economic growth in Nigeria. It shows that the amount of

premium accumulated by the insurance sector negatively effects the level of economic growth. The prediction was also found to be statistically significant.

Conclusion and Recommendations

Based on the findings of the study, the financial deepening in Nigeria has not fully effected economic growth to desired effects, based on the findings of this study, the researcher makes the following recommendations;

1. To reduce the incidence of non performing credits, Credit to private sectors should be granted with better conditions such as convenient interest rates, ensure that private sector credits are channeled to the real sector of the economy which will lead to economic growth
2. The monetary authorities should ensure adequate supply of money to facilitate economic transactions for economic growth to desired levels
3. The monetary authorities should develop policies that aids entry of more establishments into the capital market so as to ensure their standardization and further boost economic productivity.
4. Insurance policies should be made to ensure the relevance and increased patronage of insurance sector in Nigeria thereby improving its role to economic growth.

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