

## **An Impact Assessment of Financial Sector Development on Economic Growth in Nigeria, (1986 – 2018)**

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### **Abstract**

This study was carried out to determine and assess the impact of the financial sector on economic growth within the context of the Nigerian economy using gross domestic product, interest rate, Market capitalization and bank deposit as variable. Ordinary least square, Co-integration and ARDL are used as methodology and the study finding shows positive impact between GDP and BND. Thus an increase of (1.4%) in Bank deposit (BND) ceteris-paribus increased GDP by about (9.8%). Similarly, the coefficient of MCP (6.7399) also indicates a positive impact between GDP and the Market Capitalisation (MCP), increased GDP by about (7.3%). From long-run analysis, GDP at lag 1 has negative but statistically significance, BND has positive but insignificant and from the short run analysis ARDL GDP at lag 1 has negative but statistically significant, BND has positive but insignificant while at lag 1 it is negative and insignificant, interest rate is positive and insignificant likewise MCP but at lag 1 it is negative and insignificant MFE has positive but insignificant. The study recommended that, the monetary authority should give priority and monitor interest rate to ensure that it is relatively stable, Moreover, increase money in circulation that will boost bank deposit

**Keyword;** ARDL, Bank deposit economic growth, financial sector & Manufacturing export

### **Introduction**

The link between financial sector and economic growth has been debated in financial and economic literatures. Many researchers are of the view that there still exists great dichotomy regarding the role of financial intermediaries in facilitating sustainable economic growth in the long term. Earlier studies by Schumpeter (1911), Gurley and Shaw (1955), attest to this claim. Later studies like Levine and Zervos (1996) argue that financial systems do not promote economic growth rather respond to real sector development in an economy. According to the new growth theorists, a well-developed financial sector facilitates high and sustainable economic growth (Hicks, 1969)

The negative relationship between financial growth and the rate of economic growth has been a source of concern. Ceccihetti and Kharoubi (2015) did extensive work to study the relationship between financial growth and real growth. Unlike the level relationship where finance is good, the goodness of the financial growth was shown to be for a while after which a further growth in the financial sector only makes the economy worse off. What translate to this negative relationship between financial growth and real economic growth? Finance which by understanding remains fundamental to the life of an economy could do harm and so the gap is needed to be explored. The real economic growth could not be attributed to financial growth rather the need to

understand the ingredients of such financial growth vis-à-vis the channels of such financial accumulation by the financial sector need a thorough review. And most of the study neglect the issues of interest rate and bank deposit.

The global financial crisis of 2015/2016 has presented significant challenges for African Countries. It has also exposed weaknesses in the functioning of the global economy. The effects of the crisis became evident in Africa because it happened when the region was making progress in economic performance and management. In Nigeria, the financial systems as well as, the stock market have been affected by the global crisis, particularly banks with off-shore credit lines. The impact of financial sector on real sector activity has become increasingly evident, propagating beyond the wide spread belief that Nigeria would not be affected by the crisis of 2015/2016. The situation if not tamed could snowball into worse scenario economy. The objective of this paper is to assess the impact of the financial sector on economic growth in the context of Nigerian economy.

The paper is divided into section. Section one contains the introductions, section two literature reviews, section three methodology and section conclusion and recommendations

## **Conceptual review of literature**

### **Concept of Financial Sector Development**

Economists have long debated whether a more developed financial sector helps drive economic growth. King and Levine (1993) claimed “the predetermined component of financial development was a good indicator of long term growth.” Since then, changing circumstances have fueled arguments on both sides. To some, such as Ceccihetti and Kharoubi (2015) the 2008 global financial crisis suggested that an abundance of financial intermediaries and insufficient regulations can lead to economic collapse. However, during the same time period, increased access to financial institutions in developing countries has had a profound impact on growth-even though majority of these transactions have occurred through non-traditional means like mobile phones.

The case for a linear relationship between financial development and economic growth originated with Joseph Schumpeter (1911). Schumpeter stated “well-functioning banks spur technological innovation by identifying and funding entrepreneurs.” Furthermore, Schumpeter argued, that a developed financial system will mobilize productive savings, allocate resources efficiently, improve risk management, and reduce information asymmetry, all of which facilitate innovation and entrepreneurship. Following Schumpeter’s theory, we would expect that as access to financial intermediaries increases, a country’s economic growth increases. Levine (1993) famously tested this relationship 20 years ago and found “a positive, significant, and partial correlation between the average annual rate of real per capita GDP growth and the average level of financial sector development” (King and Levine 1993).

The developing nature of the Nigerian financial sector has been a thing of worry, due to the feeble institutional framework. The inability of the institutions to perform its functions in protecting the property right of the investor has further deteriorated investor’s confidence in the sector (Manasseh et.al, 2012). The aversions of the pivotal role of developed financial system in resource mobilisation and allocation, as well as the enhancement of equity flow have been

punctuated. Amidst, the vulnerability of systemic distress inherent in weak regulatory framework, poor judiciary system, rule of law, corruption and insecurity, which have made it almost difficult for investors to tap from the benefits inherent in the sector (Kama, 2006). Many investors in Nigeria, mostly micro-entrepreneurs have been subjected to unnecessary severe financial constraints, denying them the opportunity to participate fully in the economic life of the country (UN, 2006; Anayiotos and Toroyan, 2009; Sanusi, 2012). For instance, following 2005 United Nation World Summit, it was recorded that 46.3 per cent of Nigeria's population is still financially excluded compared to South Africa, Kenya, and Botswana with 26 per cent, 32.7 per cent and 33 per cent, respectively (Sanusi, 2012). In addition, due to the inept of the institutional framework in the enforcement of law and prosecution of the offenders, corruption becomes intensified in the country

### **Concept of Economic Growth**

Economic growth is an objective of financial inclusion, which includes political, economic and social inclusion (Nalini *et al*, 2012). Enhancing financial innovation and Access (EFIA, 2013) defines Financial Inclusion as the provision of a broad range of high quality financial product such as savings, credit insurance, payment and pensions which are relevant appropriate and affordable for the entire adult population, especially the low-income segment of the economy. It could also be said to be the delivery of financial services at affordable costs to the unbanked and low-income segments of the society. It is the opposite of financial exclusion where those services are neither available nor affordable to a certain category of economic agents, particularly the low income members of the society (Umaru, 2014).

Over the past decade, the Nigerian economy enjoyed steady growth and her Gross Domestic Product (GDP) averaged a growth rate of 7%, for the past 5 years. Nigeria is the biggest economy in West Africa, contributing 41% to the sub-region's GDP and is regarded as Africa's third largest economy, (Nalini *et al*, 2012 after South Africa and Egypt, contributing 14% to the continent's GDP. Nigeria was ranked 31st in 2012 in terms of purchasing power parity and as the 8th largest producer of petroleum, (Sanusi, 2012). with oil reserves estimated at about 36 billion barrels. Nigeria also has the 6th largest deposit of natural gas with reserves estimated at a minimum of 100 trillion cubic feet (Usman, 2010). About 34 solid minerals, including significant uranium deposits, have been discovered in Nigeria. Abundant arable land and over 44 exportable commodities are also available.

Nigeria is ranked as the 7th richest country because of her oil revenue which accounts for 95% of foreign exchange earnings and about 80% of budgetary revenues. The population of the country was estimated at approximately with approximately 200 million people in an area of 920,000 km<sup>2</sup> (360,000 sq mi) (Usman, 2010; CIA World Fact Book, 2013). Despite all the resources, the country is challenged by a disproportionate distribution of income, which has widened the disparity between the rich and the poor. More than half of the country's wealth is shared by only 10% of the population (Awe and Olawumi, 2012). In 2012, 67.1% of the Nigerian population was reported to be living below poverty level, despite continuous growth in GDP (NBS, 2012). Ironically, economic analysts have described the rise in GDP as "exclusive," since it has not translated into any real socio-economic gain in terms of employment opportunity, poverty reduction and improvement in the general living conditions of the citizenry. This uneven growth has resulted in the exclusion of 57% of the country's adult population (Awe and Olawumi, 2012)

and 50.1 million people from formal finance services. This was identified as a key cause of poverty, due to lack of access to productive assets, and inadequate healthcare (Khan, 2012). Nigeria's real growth can only be assured if steps are taken to ensure that her social and economic development is all-inclusive. Sanusi (2010) opined that economic growth would be achieved at a faster rate, if all segments of the population have access to financial services. Nigeria is a middle income, mixed economy and emerging market, with expanding financial, service, communications, and entertainment sectors. It is ranked 30th in the world in terms of GDP as of 2011, emergent, though currently underperforming manufacturing sector is the third Producing a large proportion of goods and services for the West African region, previously hindered by years of mismanagement, economic reforms and economic potential. Nigerian GDP at purchasing power parity more than doubled from \$170.7 billion in 2005 to \$413.4 billion in 2011, (Sunusi 2010), although estimates of the size of the informal figures) put the actual numbers closer to \$520 billion. Correspondingly, the GDP per capita doubled from \$1200 per person in 2005 to an estimated \$2,600 per person in 2011 (again, with the inclusion of the informal is estimated that GDP per capita hovers around \$3,500 per person). It is the largest economy in the West African Region, 3rd largest economy in Africa (behind South Africa and Egypt) and on track to becoming one of the 20 largest economies in the world by 2025.

## **Theoretical Framework**

Many scholars have given various theories to explain economic crisis or financial crisis. Kaldor (1940) built a model of trade cycle based on the Keynesian terminology of savings and investment. The author further showed that trade cycle is the result of pressure that pushed the economy towards the equality of anticipated, expected, or planned (ex-ante) saving and investment. Kaldor (1940) shows the stability and instability conditions in the form of linear diagrams, though the cycle is only possible when investment and savings are non-linear. The forces that bring about lower turning point are not so certain at the higher level. A boom left to it is certain to come to an end but depression might get into a position of stationeries and remain there until external changes (the discovery of new markets) come to rescue. Thus the cycles in this model are not necessarily symmetrical, as a matter of fact, they depend on the slopes of investment and savings curves and the rate at which they shift in each phase of the cycle.

## **New Classical Macroeconomics Theory**

Hoover (2013) believes that the New Classical macroeconomics suggests a rejection of the Keynesian economics and a revival of classical economics. The new Classical school began with Lucas (1981) who attempted to provide micro foundations for the Keynesian labour market. Lucas (1981) applied the rule that equilibrium in a market occurs when quantity supplied equals quantity demanded. This turned out to be a radical step. Because, involuntary unemployment is exactly the situation in which the amount of labour supplied exceeds the amount demanded, their analysis leaves no room at all for involuntary unemployment.

Keynes's view was that recessions occur when aggregate demand falls largely as a result of a fall in private investment causing firms to produce below their capacity. Producing less, firms require fewer workers, and thus employment falls. Firms, for reasons that Keynesian economists continue to debate, fail to cut wages to as low a level as job seekers will accept, and so involuntary unemployment rises. The new classical rejects this step as irrational. Involuntary unemployment

would present firms with an opportunity to raise profits by paying workers a lower wage. If firms fail to take this opportunity, then they would not be optimizing.

Employed workers should not be able to resist such wage cuts effectively since the unemployed stand ready to take their places at the lower wage. Keynesian economics would appear, then, to rest either on market imperfections or on irrationality, both of which Keynes denied. The new classical school popularized the rational expectations, because economic decisions are forward-looking. To know whether today is a day for work or for leisure, we need to decide whether tomorrow will be more or less productive than today. In short, we must have an expectation of the future. The mathematical derivations of Dynamic Stochastic General Equilibrium (DSGE) models and new Keynesian Phillips curves (NKPCs), both of which incorporate “rational expectation” fail to recognize that when there are unanticipated changes, conditional expectations are neither unbiased nor Minimum Mean-Squared Error (MMSE) predictors, and that better predictors can be provided by robust devices. Further, given the prevalence of such changes, learning about the post-change scenario is both difficult, and itself generates further non-stationarities (Ersan and Aykut, 2010).

### **Empirical literature review**

Yakubu and Affoi (2014) recognized banks’ conventional roles to incorporate financing of agriculture, manufacturing and syndicating of credit to gainful segments of the economy, in which profit is also realized by the banks within the economy.

In previous studies many scholars established negative impact (Fadare, 2010) on economy growth owing to restructuring in determining factor of financial performance and some discovered no or bad response compared to different sorts of financial sectors comprising banking sectors. In the best of knowledge there is a few evidence accessible on this theme all around the world, however in the event that we glance around in Jordan setting, could not discover enough reviews particularly in connection with banking performance determinants. There is a need for research in this casing of work to investigate the effect of profitability, deposit, investments, and credit. The banking sector is the backbone of the economy of any country, but, as stated by the current scenario, the banking sector is facing some difficulties. The central bank has enough reserves, but foreign currency reserve is decreased in last year’s.

Moreover, Neba (2008), conducted a study on evaluating the role of micro finance institutions (MFIs) in the growth of Cameroon’s economy. One of the key reasons of this study was to help government and other agents involved in the growth of the economy to develop a good developmental strategy and policies. The work also intended to help micro financial institutions to improve on their services or to implement advanced measures, so as to enhance economic growth in the economy. The Author made use of time-series experiment design in the collected data on two variables, loans provided by micro finance institutions and GDP per capita from 1996 to 2007. Loans provided by MFI were taken to be the independent variable while GDP was the dependent variable; the Author concluded that credit granted by MFIs has a significant effect on the growth of the GDP per capita.

Odiambho (2004), investigates the role of financial sector development and economic growth in Nigeria. Time series data from 1990-2009 were fitted into the regression equation using

various econometric techniques such as Augmented Dickey Fuller (ADF) test, Johansen multivariate co-integration test, ordinary least square regression and Vector Error Correction Model (VEC). The result shows that development in financial sector variables viz: banking sector credits, total market capitalization and foreign direct investment positively affect economic growth variables – Real Gross Domestic Product. This result is consistent with a number of earlier studies reviewed in the literature that found financial sector variables are positively affect real gross domestic product, as Nikolson, 2008 recognized that financial crisis which initiated in United States has now become a global phenomenon.

Fatima (2004) examined the casual relationship between financial deepening and economic growth in Morocco for the periods, 1990-2000. The ratio of liquid liabilities (M3) to GDP, ratio of domestic credit provided by the banking sector to GDP and domestic credit were the financial debt indicators used. Using the granger causality test, the study found a short - run relationship between financial deepening and economic growth. Ang (2007) examined to what extent financial development contributed to output expansion during the period 1960 to 2013. Using augmented neoclassical growth framework to provide an evaluation of the impact of financial sector development on economic development and the Autoregressive Distributed Lag Model (ARDL) bounds procedure, the researcher found that aggregate output and its determination are co-integrated in the long run, suggesting that financial development whereas the accumulation of public capital appears to curtail output expansion in the long run.

Balago (2014) examines the relationship between Financial Sector Development and Economic Growth in Nigeria. Time series data from 1990-2009 were fitted into the regression equation using various econometric techniques such as Augmented Dickey Fuller (ADF) test, Johansen Multivariate Co-integration Test, Ordinary Least Square Regression and Vector Error Correction Model (VEC). The result shows that development in financial sector variables viz: banking sector credits, total market capitalization and foreign direct investment positively affect economic growth variables – Real Gross Domestic Product. This result is consistent with a number of earlier studies reviewed in the literature that found financial sector variables are positively affect real gross domestic product, as Nikolson (2008) recognized that financial crisis which initiated in United States has now become a global phenomenon.

At present, not only in United States but across Asia and Europe, stock exchanges crashed; collective losses of the London, Paris and Frankfurt markets alone amounted to more than 350 billion Dollars. Stock Exchange 100 index closed more than 323 points down in January 2008 (Times online 2008). This crisis apart from affecting the capitalist economies has distressed the Socialist economy like Russia as well; in May 2008 Russian stock market was fallen by 50% and the Russian central bank had to buy rouble in massive amount to prevent the severe falling against US Dollar and Euro. About the cause of current crisis Bartlett (2008) said that crisis was started with the downfall of US sub-prime mortgage industry, the intensity of this collapse was significant; “Mark-to-market losses on mortgage backed securities, collateralized debt obligations, and related assets through March 2008 were approximate \$945 billion.” the author further stated that it is “The largest financial loss in history”, as compared to Japan’s banking crisis in 1990 about \$780 billion, losses stemming from the Asian crisis of 1997-98 approx \$420 billion and the \$380 billion savings and loan crisis of the U.S itself in 1986-95. Yilmaz (2008) charged U.S subprime mortgage industry to be the major reason of current global financial crisis, he also stated that the total losses estimated initially up to \$300 to \$600 billion are now considered to be around \$1 trillion.

While enlightening the factors that why this US sub-prime mortgage crisis turn into global banking crisis, Khatiwada and McGirr (2008) stated “Many of these sub-prime mortgages actually never made it on the balance sheets of the lending institutions that originated them”; and they were made attractive to foreign banks by high investment grading, “When sub-prime borrowers failed to repay their mortgages, the originating institution needed to finance the foreclosure with their own money, bringing the asset back to its balance sheet. This left many banks in a financially-unviable situation, in a rather short, unmanageable time frame”. However Hyun-Soo (2008) argues that it was the “Trust Crisis” which caused this global predicament. DeBoer (2008) believes that it was a series of events, which caused the crisis; it began with the collapse of currencies in East Asia in 1997 and became edgy due to the financial crisis of Russia in 1998. Next, in USA was the “dot-com” stock collapse in 2001, and the final stroke was again in USA, when after a swift decline in housing prices and “rapid contraction in credit, it fell into recession.

Rasmus (2008) has the same thoughts while discussing the reasons for economic recession of US said “the ‘real’ ailments afflicting the US economy for more than a quarter-century now include sharply rising income inequality, a decades-long real pay freeze for 91 million non-supervisory workers, the accelerating collapse of the US post war retirement and healthcare systems, the export of the US economy’s manufacturing base, the near-demise of its labour unions, the lack of full time permanent employment for 40 per cent of the workforce, the diversion of massive amounts of tax revenues to offshore shelters, the growing ineffectiveness of traditional monetary and fiscal policy, and the progressive decline of the US dollar in international markets.

Creel *et al.* (2015) test whether financial stability has a causal effect on economic performance and its subcomponents: consumption, investment and disposable income on different samples of EU countries. The benchmark period was 1998–2011 and they used proxy data to extend the analysis from 1960. The authors used different financial instability indicators that measure the macro and micro dimensions of financial stability: the Composite Indicator of Systemic Stress (CISS), aggregate prudential ratios for domestic banks for each country, stock market volatility and own statistical index constructed on the basis of principal component analysis. Creel *et al.* (2015), found that financial instability has a negative effect on economic performance. Their results also suggest that the level of financial depth in the EU is relatively advanced and finance effects are not favourable to economic growth. On the contrary, the deepening of finance bears so through the negative effects induced by financial instability. It suggests that the argument by bank lobbies, i.e. that regulating the size and growth of the financial sector would negatively influence economic growth, is not supported by the EU data. The financial system can and often does positively influence economic growth but it can also be the barrier to growth. Too much of its development can create the risk for its effective functioning. It will also contribute to the increased risk of the large-scale financial crisis. Opportunity to realize high profits, in connection with human giddiness, can induce temptation of moral hazard. It seems then, that the conclusion can be made that some results of the current financial crisis can be attributed to the consent of supervisors to too dynamic development of the financial system. Its size has to strictly correspond with the needs of the economy.

The above is reflected in the studies by Deidda and Fattouh (2002), Arcand *et al.* (2012), and Cecchetti and Kharroubi (2015). These authors, on the basis of empirical research, demonstrate that the correlation between the financial sector and economic growth is not linear but adopts the shape of letter U, upside down. Researchers have not identified the positive

correlation between the size of the financial sector and economic growth in the case of countries with very large financial sector presence. Such a correlation is however positive (but only to ascertain point) in countries where the financial sector is small or medium. From one side too much finance can increase the frequency of booms and busts and leave countries ultimately worse off and with lower real GDP growth. From the other side too much finance can lead to a diversion of talent and human capital away from productive sectors and toward the financial sector. Some economists argue that a very large financial sector may rent extraction from other sectors, which would lead to a misallocation of resources.

## **Methodology**

This section describes the overall methodology of this study to investigate the impact of financial sector in the context of Nigeria economy crisis. It consists of a, research design, sources of data, method of data analysis as well as the description of data.

### **Research Design**

This work is design to measure the extent to which financial sector impact the Nigerian economy. The period which study intends to cover is 31 years i.e. (1986-2016) respectively. The choice of the period is informed by the economic condition to which the country found itself in the 1986, and the introduction of policy called Structural Adjustment Programmes (SAP).

### **Sources of Data**

Conventionally, for a time series, analysis secondary data is normally employed to establish the necessary link or otherwise among the variables of interest; hence, this study followed the same step. The data is sourced from the National Bureau of Statistics (NBS) publications, Central Bank of Nigeria (CBN) Annual Report and Statistical Bulletin, World Bank and International Financial Statistics (IFS) of the IMF.

### **Technique of Data Analysis**

Unit root test will be carried out with a view to determining the stationarity and order of integration of the data used. If the variables of interest are found to be co-integrated, an error correction (ECM) test will be employed to supplement the long-run relationship, otherwise, Vector Autoregressive model (VAR) will be adopted to analyse the short run dynamics among the variables, diagnostic checks and robustness of the model Unit Root Test.

Dickey fuller equation model is adopted because it minimised Heteroscedasticity and serial correlation (ADF) is specified as

$$\Delta y_t = \alpha_0 + \alpha_1 + \delta y_{t-1} + \sum_{i=1}^{k\beta} \beta_1 \Delta y_{t-1} + \varepsilon_t \quad (3.1)$$

Where  $\alpha_0$  and  $\alpha_1$  are constant and deterministic trend,  $\Delta$  is differencing operator,  $\varepsilon_t$  is serially uncorrelated error process and it requires that  $\delta < 1$ , if  $\delta = 1$  then there is a unit root in the variable.

### **ADF Unit Root Test**

The ADF unit root test was done at levels and at first difference as presented in Table 4.3. The result shows that INTR, BND and MFE is stationary at levels; this suggests the need to



difference the other variable to achieve stationarity. Upon taking first difference, the other variable became stationary. This means that INTR, BND and MFE are integrated at 1(0) while GDP and MCP is integrated at 1(1). We can therefore conclude that the series is significantly reliable for co-integration analyses

**Table 1: ADF Unit Root Test Results**

Variable	LEVELS		FIRST DIFFERENCE		Order of Integration
	ADF	Prob.	ADF	Prob.	
<b>GDP</b>	-2.116	0.5165	-3.3051 0.0847**		I (1)
<b>INTR</b>	-3.3736	0.0735**	-	-	I (0)
<b>BND</b>	-3.6595	0.0413**	-	-	I (0)
<b>MCP</b>	-2.9100	0.1732	-5.9925	0.0002*	1 (1)
<b>MFE</b>	-4.5459	0.0054*	-	-	1(0)

**Source:** Computed and Compiled by the Researcher using E-Views 10 (2018)

The asterisks \*, \*\*, indicate rejection of null hypothesis at 1% and 10% respectively

**Model specification**

$$GDP = f(Gdp\ Int\ bdp\ mct)$$

The econometric model stated below;

$$GDP = \beta + \beta GDP + \beta INT + \beta bdp + \beta mct + u_t$$

From the above model specification

GDP = Gross domestic product

INT= Interest rate

BDP = bank deposit

MCT = market capitalization

U = Error term

**Co-integration test**

This test is conducted to ascertain whether long run relationship exists among the variables of interest, and it serves as a road map to methodology. The criteria for choosing test lies on the behaviour of the data. Co-integration refers to the existence of long run equilibrium relationship between two or more time series variables, which are individually non-stationary at level (Gujrati,1995). A number of co-integration techniques are available to test the existence of long run relationship among variables. The most popular co-integration technique is (Johansen and Jeselius) approach to co-integration (Johansen, 1990), (Engle-Granger 1987) and ARDL model.

**Table 2 Johansen cointegration test Co-integration Test**

<b>Hypothesized</b>		<b>Trace</b>	<b>0.05</b>	
<b>No. of CE(s)</b>	<b>Eigenvalue</b>	<b>Statistic</b>	<b>Critical Value</b>	<b>Prob.**</b>
<b>None *</b>	<b>0.825040</b>	<b>109.5584</b>	<b>69.81889</b>	<b>0.0000</b>
<b>At most 1 *</b>	<b>0.568366</b>	<b>57.26248</b>	<b>47.85613</b>	<b>0.0051</b>
<b>At most 2 *</b>	<b>0.442584</b>	<b>32.05717</b>	<b>29.79707</b>	<b>0.0270</b>
<b>At most 3</b>	<b>0.337810</b>	<b>14.52389</b>	<b>15.49471</b>	<b>0.0696</b>
<b>At most 4</b>	<b>0.069401</b>	<b>2.157819</b>	<b>3.841466</b>	<b>0.1418</b>

**Trace test indicates 3 cointegratingeqn(s) at the 0.05 level**

**\* denotes rejection of the hypothesis at the 0.05 level**

**\*\*MacKinnon-Haug-Michelis (1999) p-values**

**Unrestricted Cointegration Rank Test (Maximum Eigenvalue)**

<b>Hypothesized</b>		<b>Max-Eigen</b>	<b>0.05</b>	
<b>No. of CE(s)</b>	<b>Eigenvalue</b>	<b>Statistic</b>	<b>Critical Value</b>	<b>Prob.**</b>
<b>None *</b>	<b>0.825040</b>	<b>52.29595</b>	<b>33.87687</b>	<b>0.0001</b>
<b>At most 1</b>	<b>0.568366</b>	<b>25.20531</b>	<b>27.58434</b>	<b>0.0978</b>
<b>At most 2</b>	<b>0.442584</b>	<b>17.53328</b>	<b>21.13162</b>	<b>0.1483</b>
<b>At most 3</b>	<b>0.337810</b>	<b>12.36607</b>	<b>14.26460</b>	<b>0.0976</b>
<b>At most 4</b>	<b>0.069401</b>	<b>2.157819</b>	<b>3.841466</b>	<b>0.1418</b>

**Max-eigenvalue test indicates 1 cointegratingeqn(s) at the 0.05 level**

**\* denotes rejection of the hypothesis at the 0.05 level**

**\*\*MacKinnon-Haug-Michelis (1999) p-values**

From the table above, it shows that the critical value at 5% is less than the trace statistics and max-Eigen value, the null hypothesis of no cointegration can be rejected, this implies that there is presence of cointegration among the variables of interest.

**Table 3. Short Run Analysis**

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LGDP(-1)*	-0.161678	0.069782	-2.316892	0.0298
LBND(-1)	-0.025739	0.094268	-0.273036	0.7873
LINTR**	0.030568	0.090075	0.339359	0.7374
LMCP**	0.137874	0.056916	2.422402	0.0237
LMFE(-1)	-0.020671	0.064647	-0.319760	0.7520
D(LBND)	0.045356	0.078875	0.575038	0.5708
D(LMFE)	0.025916	0.054742	0.473430	0.6404

**Source:** Computed and Compiled by the Researcher using E-Views 10(2018)

**Table4; Long Run Analysis**

Variables	Coefficient	Std. Error	t-Statistic	Prob.
BND	-0.159197	0.562222	-0.283157	0.7796
INTR	0.189067	0.575228	0.328682	0.7454
MCP	0.852767	0.277708	3.070732	0.0054
MFE	-0.127856	0.402217	-0.317877	0.7534
CointEq(-1)*	-0.161678	0.042733	-3.783434	0.0010

**Source:** Computed and Compiled by the Researcher using E-Views 10(2018)

From table above shows negative and statistically insignificant between BND and gross domestic product in Nigeria, interest rate has positive but insignificant impact on gross domestic product, MCP has positive and statistically significant impact on gross domestic product in Nigeria, and MFE has negative and statistically insignificant effect on gross domestic product in Nigeria.

The error correction term (ECT) is negative and less than one, it indicates that 16.16 % of disequilibrium will be adjusted back in the long run.

**Table 5. Bound Test**

		1%	2.5%	5%	10%
<b>F-statistic</b>	<b>5.959706</b>				
	<b>(0) BOUND</b>	<b>3.29</b>	<b>2.88</b>	<b>2.56</b>	<b>2.2</b>
	<b>(1) BOUND</b>	<b>4.37</b>	<b>3.87</b>	<b>3.49</b>	<b>3.09</b>

**Source:** Computed and Compiled by the Researcher using E-Views 10(2018)

The table above shows that the F statistics of the bound test is 5.95 which is greater than upper and lower bound test at all level, this indicates that there is exist a long run and it pave ways to employ ARDL.

**Table 6 ; Heteroscedasticity Test: Breusch-Pagan-Godfrey**

<b>F-statistic</b>	<b>0.656325</b>	<b>Prob. F(7,23)</b>	<b>0.7058</b>
<b>Obs*R-squared</b>	<b>5.161309</b>	<b>Prob. Chi-Square(7)</b>	<b>0.6403</b>
<b>Scaled explained SS</b>	<b>7.419539</b>	<b>Prob. Chi-Square(7)</b>	<b>0.3865</b>

**Source:** Computed and Compiled by the Researcher using E-Views 10(2018)

The result from the above table indicates that the model is strong enough as it passed the heteroskedasticity test because the P- value associated with chi-square is greater than 5%.

### **Conclusion**

From the various econometric tests carried out, it was revealed that Bank deposit, interest rate and market capitalization had significant impact on the economic growth in Nigeria. The implication of this result is that, the emphasis by the monetarists on the relative effectiveness to control interest, in order to increases investment.

From long run analysis of ARDL shows negative and statistically insignificant between BND and gross domestic product in Nigeria, interest rate has positive but insignificant impact on gross domestic product, MCP has positive and statistically significant impact on gross domestic product in Nigeria, and MFE has negative and statistically insignificant effect on gross domestic product in Nigeria. While the error correction term (ECT) is negative and less than one, it indicates that 16.16 % of disequilibrium will be adjusted back in the long run.

### **Recommendations**

Since Bank deposit, interest rate and market capitalization have positive relationship with GDP, hence are important determinants of Economic growth, the government should put more emphasis on regulation on them. The monetary authority should as a matter of priority monitor interest rate to ensure that it is relatively stable. And increases money in circulation that will boost bank deposit. And to ensure improvement in the industrial sector there need to reduce interest rate in and improve financial sector performance in Nigeria

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