Bank Credit to the Real Sector: A Panacea for Revamping a Recessed Economy. Evidence from Nigeria

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Abstract
The study focused on the impact of deposit money bank credit to the real sector on economic growth in Nigeria. The main objective of the research was to determine the impact of bank credit to the real sector in revamping a recessed economy. Time series data covering the period of 1990 to 2016 sourced from the Central Bank of Nigeria Statistical Bulletin were utilized in the study. The Autoregressive Distributed Lag (ARDL) approach to co-integration analysis was used to analyze the data. The study found that deposit money bank credit to agriculture sector significantly affects economic growth in Nigeria. In addition, the study found that deposit money bank credit to manufacturing, mining and quarrying sectors does not significantly contribute to economic growth in Nigeria within the period under review. Given that banking system credit is critical for economic growth, the study thus recommends amongst others that government and concerned agencies should evolve policies that encourages increased bank credit to the real sector. Also, credit should be channeled at concessionary costs to the real sector as their activities stimulate economic growth.
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1.0 Introduction

Obviously, Nigeria's economy has gradually shifted from the level of economic buoyancy to the level of economic recession due to the totality of certain factors. The situation if not well handled, the economy will gradually shift from economic recession to total economic meltdown which can be catastrophic, heartbreaking and deadly in nature. Nigeria, the hub of West Africa's economy has remained stagnant, following the declaration of global financial crisis. The global economic and financial crisis has become a major concern for political leaders, economists and managers of financial institutions across the globe. Addressing the global financial crisis is expedient because it is the foundation and backbone for developing economy with Nigeria inclusive. Moreover, things turned particularly austere in 2016, when the long impregnated recession was given birth to. Its unemployment rate has drastically risen and looks relatively worst. Prices of goods and services continually increase by over 100% meanwhile the purchasing power of the naira was devalued. There have been a number of high-profile company failures, and the most alarming is that multinational companies relocated their production facilities out of Nigeria to neighbouring countries.

The quest for economic growth and development to ensure overall improvement in individual well-being of citizens has been the preoccupation of every nation. The role of the real sector in developing an emerging economy has assumed a major significance since the era of industrialization in such economies. The real sector constitutes a major segment of the economy because activities in the sector influence economic sustainability due to its productive capacity to meet aggregate demand in the economy. It is made up of economic agents that contribute to a nation's Gross Domestic Product (GDP). This explains the reason why the performance of the real sector is a gauge to compare progress among nations. The real sector of the economy forms the main driving force of the economy. It is the engine of economic growth and development. In spite of its importance, the performance of the real sector in terms of production and growth rate has been unacceptably low; its contribution to the GDP which is between 45% and 51% has not made any reasonable increase over the years (Central Bank of Nigeria, 2000).

The banking sub-sector which is a major player in the financial sector constitutes an agent of innovation and development in the provision of financial services. This development and innovation paves way for both investors and savers to take advantage of new opportunities that may arise in the financial intermediation process. The services provided by financial institutions are required by entrepreneurs to promote economic growth.

The banking sector in a typical economy is saddled with the responsibilities of financial resources mobilization and intermediation as well as to raise the level of investment and efficient capital accumulation. It engages in the redeployment of funds from the surplus (savings) units to the deficit (spending) units. In order words, the banking sub-sector provides funds used as capital input by producers in other sectors of the economy as well as the financial sector.

The banking sub-sector plays a very important role in the development of any economy especially the third world economies where the capital market is yet to develop well (Bakare, Akano and Kazeem, 2015). This is especially in the area of credit extension to the real sector as an important avenue of achieving sustainable

economic growth.

The growth and development of any nation's economy is largely dependent on the ability of such a nation to produce enough goods and services necessary to improve the standard of living of its growing population. In the context of developing countries such as Nigeria, promoting economic growth and development requires the rapid development of the real sector. This sector is seen as capable of contributing to sustainable economic development (Ade and Yusuf, 2007). The importance and relevance of the real sector is manifested in numerous dimensions including; enhancing capacity building and utilization, employment generation, helping to achieve a relatively high value - added operations and enhancing entrepreneurship status of the citizenry.

The mutual dependence between the real sector and the financial sector can better be appreciated from the primary role of the financial sector which is to assist in channeling funds from the surplus economic to the deficit economic units to facilitate production and economic growth in the country.

As a result of the development above, the significance of investigating the influence of the variables from both the banking sector and the real sector becomes imperative, as there are contradictions that call for empirical investigation. Contradictions stemming from the fact that despite the importance of the real sector to the economy, its performance seems to be unreasonably low. This is necessary in order to have an evidence - based research on the issues between these variables and how such relationship can revamp a recessed economy. Based on the identified problem above, the broad objective of this study was to examine the impact of real sector credit in revamping the Nigerian economy.

2.0 Review of Related Literature

The financial sector is the largest in the world in terms of earnings (Sutton & Jenkins, 2007). It is the most regulated due to its economic relevance and act as a backbone for other sectors in the economy. The primary role of this sector is to move funds from the surplus units or idle users of funds to the deficit units. The financial sector transforms savings mobilized into credit. It ensures that savings are allocated optimally for investment. The financial sector comprises of the capital market and the money market. The money market, otherwise called the banking sector and it is an avenue to seek funds on a short term basis. The banking sector in Nigeria is dominant and the most vibrant sector of the financial sector and difficulties experienced in the sector affects the economy at large.

The banking sector plays a major important role in any economy especially the third world economies that require proper management of funds and efficient credit process which could stimulate growth in such feeble economies (Ibrahim, Akano and Kazeem, 2015).

A Bank is a financial institution established according to the enabling laws for the purpose of accepting deposits from the public and paying back to the depositors on demand with or without prior notice of withdrawal from the depositor to the bank.

Nnanna (2001) observed that bank credit is important for the take - off and efficient performance of any enterprise, be it small or large because it requires provision of funds for its capitalization, working capital and rehabilitation needs, as well as for the creation of new investments. Apart from the entrepreneur, funds are required to bring together the other factors of production - land, labor and capital before production can take place, and this is why credit is very important in any economy.

Bank credit, according to CBN (2003) is the amount of loans and advances given by the banking sector to economic agents. Bank credit is often accompanied by some collateral that help to ensure the repayment of the loan in the event of default. Credit channels savings into productive investments thereby encouraging economic growth. Thus the availability of credit allows the role of intermediation to be carried out, which is important for the growth of the economy. The total domestic credit can be divided into two: credit to the private sector and credit to the public sector.

These definitions above give a quite limited idea of credit. They concentrate more on the fund based concept of credit. A more comprehensive definition of credit is the one given by the Prudential Guidelines (1990) which defines credit as "the aggregate of all loans, advances, overdrafts, commercial papers, bankers' acceptances, bills discounted, leases, guarantees and other loss contigencies connected with a bank credit risks. Spencer (1977), sees credit to imply a promise by one party (borrower) to pay another party (lender) for money borrowed or goods and services received.

Credit therefore is the extension of money from the lender to the borrower and cannot be separated from the banking sector as banks serve as intermediaries between the surplus (savings) units and the deficit (spending) units of the economy.

The surplus units make deposits to the banks as savings while the deficit units borrow from the banks for productive purposes for a rate of interest. Credit channels savings into productive investment thereby encouraging economic growth. Indeed, the role of bank credit is considered important to economic growth and development (Khan and Senhadji, 2000). Generally, we could conclude that bank credit includes all commitments by a bank that has risk exposure and that may result in financial loss to the bank.

Economic Recession and Causes

Economic recession is the combination of two different words "economic" and "recession". According to Merriam-Webster Dictionary, the word 'economic' deals with managing the production, distribution and consumption of goods and services. According to the same dictionary, recession is the period of reduced economic activities. The economic activities are production, distribution, and consumption. According to Study.com, a recession is a general downturn in an economy. It is associated with high unemployment, slowing gross domestic product and high inflation. Economic recession can also be referred to as economic crisis or financial crisis; it is a period of economic slowdown that is characterized by declining productivity and devaluing of financial institutions often due to reckless and unsustainable money lending (Wikitionary). Economic recession is a period of general economic decline and is typically accompanied by a drop in the stock market, increase in unemployment and a decline in housing market (Study.com).

According to Kimberly (2006), recession is when the economy declines significantly for at least six months. It means there is a drop in the following economic indicators:
1. Real Gross Domestic Product (GDP);
2. Income level of individual and revenue generation of government;
3. Employment;
4. Manufacturing and
5. Retail sales.

There are two main causes of recession. Economic recession caused by global economic and financial crisis and Economic recession caused by other factors with particular refrence to Nigeria.

i. Economic recession caused by global economic and financial crisis. Current global crisis started as a financial crisis but now a global economic crisis. The crisis is unprecedented in severity of credit contraction (credit crunch & capital crunch). The roots are in banking rather than in securities market or foreign exchange. The crisis started in the U.S (due to certain laxities in the US financial system), spread to Europe, developing countries and has become global. Even countries not affected by the financial crisis are now affected by second-round effects as the crisis now becomes economic issues (Oladapo and Fabayo, 2012).

The global financial crisis followed a period of economic boom between 2003 and 2007. During that period, the world economy was growing at an average of 5% per annum. However, the current crisis was precipitated by a combination of factors including emergence of subprime rates in the USA housing sector, deepening crisis in the financial markets, rising crude oil prices and surges in commodity prices which triggered-off series of bankruptcies, forced mergers, loss of employment, firm closures and concerns in the corridors of economic policy analysts in the USA and major capitalist economies. In the course of the financial crisis, the world economic growth rate has dropped to about 1% between the fourth quarter of 2007 and third quarter of 2008 (World Bank, 2009). The impact of the sub-prime crisis spread well beyond United States causing a widespread squeeze in liquidity and credit. And price hikes in primary commodities, fueled partly by speculation that has shifted from financial instruments to commodity markets, added to the challenge for policy makers' intent on avoiding a recession while at the same time keeping inflation under control. The Global Development Finance 2009 revealed the negative effects of the global financial crisis that have caused liquidity and other assets flow into developing countries like Nigeria to fall by 41% in 2008. From a peak of $1.2 trillion in 2007, the development finance coming into developing countries dropped sharply to $707 billion in 2008.

ii. Economic recession caused by other Nigerian factors (oil boom)

The massive increase in oil revenue as an aftermath of the Middle-East war of 1973 create unprecedented, unexpected and unplanned wealth for Nigeria, and then began the dramatic shift of policies from a holistic approach to benchmarking them against the state of the oil sector. Furthermore, in order to make the business environment conducive for new investments, the government invested the new in socioeconomic infrastructures across the country, especially in the urban areas. As well, the services sector grew. The relative attractiveness of the urban centres made many able-bodied Nigerians to migrate from the hinterland, abandoning their farm lands for the cities and hoping to partake in the growing and prosperous (oil-driven) urban economy. This created social problems of congestion, pollution, unemployment and crimes. Economically, the national currency, (Naira)strengthened as foreign exchange inflows outweighed outflows, and foreign reserves were built up. Until 1985,the Naira was stronger than the US Dollar; this encouraged import-oriented consumption habit that turned Nigeria into a perennial net importer, which became a major problem when oil earnings decreased with lower international oil prices (Oladapo and Fabayo,2012).

Composition and Overview of the real sector in Nigeria

The real sector is a constituent of the economy which consists of individuals and corporate entities that engage in activities aimed at producing goods and services to satisfy public demand (Adeusi and Aluko, 2015). It is one of the major components of the Nigerian economy. The sector is made up of the manufacturing and services industry. These include housing, agriculture, manufacturing industry, mining infrastructure and services. According to

Lawal and Sanusi (2011), the real sector is where production of goods and services take place through the combined use of raw materials and factors of production and it is the driving force of the economy.

Ibadin, Moni and Eikhomun(2014) is of the view that the real sector is one of the sectors that is capable and vibrant in fast-tracking economic growth and development coupled with the high level of massive employment creation. The output of the real sector indicates the level of productivity in the economy. When the production capacity of the real sector increases, the economy experiences growth. Financing the real sector is an issue of main concern considering the slow pace of growth in the financial sector which is further aggravated by the incessant money market (banks') collapses, caused by the malfeasance of corporate insiders. In order to ensure that the real sector operates at its full capacity, there must be an efficient financial sector to support it (Lawal and Sanusi, 2011). The performance of the real sector is a gauge to compare progress among nations.

The Industrial Sector: The industrial sector basically comprises the manufacturing and the mining sector. The mining sector is the largest segment of the industrial sector and has become a vital sector in Nigeria due to the fact that it accounts for oil production in the economy (Adeusi and Aluko, 2015). The period of oil boom witnessed in the 1970s led to the neglect of the agricultural and non - oil tax revenue sub - sectors (Agbaeze, Udeh and Onwuka, 2015) since the beginning of the 21st century, the industrial sector took center stage and has been contributing more than 15% to the GDP. The oil sector, which is a prominent component of the industrial sector has accounted for more than 50% of total exports in the last few decades.

The Agricultural Sector: The agricultural sector in Nigeria is concerned with the production, distribution, storage of agricultural crops, livestock's, forestry and fishing. The export crops used to provide the major foreign exchange needs of the country but the discovery of oil has made the government to overlook the contribution of the sector, and its backward as well as forward linkages to the development of the economy. These linkages, Vogel (1994) observed are stronger in development and plays a key role in agricultural-led industrialization.

Agriculture (including hunting, forestry and fishing) contributed an estimated 32% of Gross Domestic Product (GDP) in 1998 alone. The principal cash crops are cocoa (which accounted for only 0.7% of total merchandise export in 1995), rubber and oil palm. Staple foods include rice, maize, yams, cassava, sorghum and millet. Timber production, the raising of livestock (primarily goats, sheep, cattle and poultry).

Credit to the Real Sector and Economic Growth

It is generally accepted that there is a link between bank credits to the real sector and the level of economic activities in any economy. It affects what is to be produced, who produces them and how much is to be produced. This derives essentially from the intermediation role of the banks i.e. links between the surplus units and the deficit units of the economy. Bank credits affect and alter the money supply aggregates of a country. Thus, the monetary authorities seek to influence the volume and cost of credit and thus moderate inflationary trend in the economy. This is premised on the fact that excessive credit expansion affects money supply which ultimately affects the level of inflation and aggregate economic performance. Also, bank credit is the most important aspect of bank income. It affects a bank's profitability and long-term growth prospects. It is also the most important aspect of bank's assets and in fact the largest portion of the asset base.

Credit promotes the activities of bank and non-bank financial institutions and thus influences the level of growth of the financial system. It also affects aggregate output and productivity, the pattern of production, the level of entrepreneurship, the realization of aggregate economic performance and economic growth.

Over the years in Nigeria, the volume of credit into the economy has continued to increase. Thus according to Oni, Akinlo and Oladepo (2014), the volume of credit to the private sector increased from mere N6,234.23 million in 1980 to N29.21 billion in 2010. Credit to the private sector as a percentage of Gross Domestic Products (GDP) increased from 12.56% in 1980 to 18.59% point in 1993. The figure according to Oni et al (2014) increased to 37.78% from 2010.

This credit behavior in general term to any economy is expected to assist in leveraging economic agents, augment their vulnerability to economic growth. However, over the years, the economic growth has remained very low except for the last four years when marginal increases were recorded. This puzzle has raised concern as to the impact of bank credit to the real sector on economic development.

Empirical Review

Most scholars have agreed that there is relationship between bank lending and economic growth. However, scholars have differed on the direction of causality between bank lending and economic growth. Mohd (1997) broadly categorized the causality into demand-following relationship and supply following relationship. The proponents of demand-following hypothesis argued that economic growth is a causal factor for bank lending, not the reverse. Oluitan (2009) is of the opinion that policy makers should focus less on measures leading to increase in bank lending and concentrate more on legal, regulatory and policy reforms that boost the functioning of markets and banks. Muhsin & Eric (2000) in their study on Turkey concluded that economic growth lead to financial sector development. However, the proponents of supply-leading hypothesis are of the opinion that bank lending is a

veritable tool for attainment of economic growth and development. The hypothesis was originally credited to the works of Schumpeter (1934). Schumpeter strongly believed that efficient allocation of savings by means of identification and funding of entrepreneurs who invest such funds in innovation and production of goods and services, thus leading to economic growth. This view was supported by other scholars like McKinnon (1973) and Greenwood & Jovanic (1990). Studies conducted across countries and continents have also supported the postulations of the supply-leading hypothesis. King and Levine (1990) conducted a study involving seventy-seven countries made of developed and developing economies using cross-country growth regression. The objective of the study was essentially to find out the correlation between bank lending, capital accumulation, economic growth and efficiency. The result of the study indicated that bank lending leads to economic growth and efficiency. Diego (2003), came out with similar result from his study of fifteen European Union economies, using panel estimation technique to assess the mechanisms through which policy changes have influence the economic growth of the countries. Habibullah and Eng (2006) conducted causality testing analysis on 13 Asian developing countries and also found that bank lending promotes economic growth. Similarly, the IMF 2008 Global Financial Stability Report indicated a statistically significant impact of credit growth on GDP growth. Specifically, it was revealed that a credit squeeze and credit spread evenly over three quarters in USA will reduce GDP growth by about 0.8% and 1.4% points year-on-year respectively assuming no other supply shocks to the system" (Oluitan, 2009). In addition studies were conducted to test the old Schumpeterian hypothesis, for example; Jao (1976) used crosssection data averaged over 1967-72 in 44 developing countries and 22 developed economies, to study the relationship between bank lending and economic growth. The study found that the money balance-GDP ratio and growth of per capita real money balances (proxy of financial intermediation variables) had a strong positive relationship with economic growth (Tang, 2003). Fritz (1984) examined the direction of causation between economic development and financial intermediation. Using data from the Philippines, the study discovered that financial intermediation brings about economic development at the early stage of economic growth/development and the direction of causation was reversed at a later stage. This assertion is supported by the work of Rousseau and Wachtel (1998), who examined the links between the intensity of financial intermediation and the economic performance of five industrialized countries. The duo discovered that intermediation played an important role in the rapid industrial transformations of those countries (Tang, 2003). According to Lang and Nakamura (1993) bank lending alone cannot lead to economic growth. They believe that other monetary policies of central banks are equally important in making bank loans to make the desired impact on economic growth. This is an important contribution to the discourse on supply-leading hypothesis. A more recent research work by Swiston (2008) conducted in USA detected quantitatively, the significance of bank lending on economic growth. He posited that credit availability is an important driver of the business cycle, accounting for over 20% of the typical contribution of financial factors to growth. He further argued that a net tightening in lending standards of 20% reduces economic activity by 0.75% after one year and 1.25% after two years. The key findings of all the studies are that financial intermediaries (proxy deposit money banks (DMBs), have significant positive impact on productivity of factors of production which leads to increase in real GDP and economic growth.

Methodology
The Ex-post facto   research design was used in this study. The data typology is time series data sourced from the Central Bank of Nigeria Statistical Bulletin, covering the period 1990 – 2016. The Autoregressive Distributed Lag (ARDL) approach to cointegration analysis was used to analyze the data.

Model Specification

$$\Delta GDP_t = a_{1,1} * b_{1,1} GDP_{t-1} + b_{1,2} DmbAGCREDIT_{t-1} + b_{1,3} + c_{1,1}\Delta GDP_{t-1}$$
$$+ c_{1,2}\Delta DmbMACREDIT_{t-1} + c_{1,3} + c_{1,4}DmbMQCREDIT_t$$
$$+ e_t \dots \dots \dots \dots \dots \dots . \dots \dots \dots \dots \dots \dots .1$$

Where:
RGDP – Real Gross Domestic Product
DMBAGCREDIT – deposit money bank credit to Agricultural sector
DMBMACREDIT - deposit money bank credit to manufacturing sector
DMBMQCREDIT - deposit money bank credit to mining and quarrying sector
c_6= Constant term
$c_{1 \text{ to } 5}$ = partial Slope
e_t = Error term

4.0 Data Presentation, Analysis and Results
4.1 Data Presentation
Table 1: Array of data on Deposit Money Banks Sectoral Loans and Real Gross Domestic Product from 1990 to 2016

Years	Real Gross domestic product ₦'Billion	Deposit money bank credit to agricultural sector ₦'Billion	Deposit money bank credit to mining and quarrying sector ₦'Billion	Deposit money bank credit to manufacturing sector ₦'Billion
1990	499.68	4.2	0.4	7.9
1991	596.04	5.0	0.5	10.9
1992	909.80	7.0	0.8	15.4
1993	1,259.07	10.8	1.4	23.1
1994	1,762.81	17.8	NA	34.8
1995	2,895.20	25.3	12.1	58.1
1996	3,779.13	33.3	15.0	72.2
1997	4,111.64	27.9	20.6	82.8
1998	4,588.99	27.2	22.8	96.7
1999	5,307.36	31.0	24.7	115.8
2000	6,897.48	41.0	32.3	141.3
2001	8,134.14	55.8	70.5	206.9
2002	11,332.25	59.8	70.2	233.5
2003	13,301.56	62.1	96.0	294.3
2004	17,321.30	67.7	131.1	332.1
2005	22,269.98	48.6	172.5	352.0
2006	28,662.47	49.4	251.5	445.8
2007	32,995.38	149.6	490.7	487.6
2008	39,157.88	106.4	846.9	932.8
2009	44,285.56	135.7	1,190.7	993.5
2010	54,612.26	128.4	1,178.1	987.6
2011	62,980.40	255.2	1,295.3	1,053.2
2012	71,713.94	316.4	1,771.5	1,068.3
2013	80,092.56	343.7	2,155.9	1,179.7
2014	89,043.62	478.9	18.2	1,647.5
2015	94,144.96	449.3	11.7	1,736.2
2016	101,489.49	525.9	21.3	2,215.7

Source: Central Bank of Nigeria Statistical Bulletin, 2016.

Table 2: Unit Root test output

Variable	Order of integration	Prob value
Deposit money bank credit to agriculture sector	I(1)	0.0001
Gross domestic product	I(1)	0.0701
Deposit money bank credit to manufacturing sector	I(1)	0.0175
Deposit money bank credit to mining and quarrying sector	I(0)	0.0001

Source: Eviews 10 output

4.2.2 Cointegration Test

Given that some of the variables of interest are of orders I(0) and I(1), it provides a means through which fundamental relationship can be established amongst the variables. The test for this is called the bounds test. Table 3 Shows that the variables are cointegrated as indicated by F-statistic of 12.80162, which is greater than the critical value of the upper bound (I(1)) of 3.695at 10% level. Given that cointegration exists, the relationship will be estimated using the error correction model and not just an Autoregressive Distributed Lag (ARDL) model.

Table 3: Models cointegration output

F-Bounds Test   Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	12.80162	10%	2.63	3.35
K	2	5%	3.1	3.87
		2.5%	3.55	4.38
		1%	4.13	5
		Finite Sample: n=30		
Actual Sample Size	25			
		10%	2.915	3.695
		5%	3.538	4.428
		1%	5.155	6.265

Source: Eviews 10 output

ARDL Error Correction Regression
Dependent Variable: D(GDP)
Selected Model: ARDL(1, 1, 1)
Case 2: Restricted Constant and No Trend
Date: 11/18/18   Time: 14:41
Sample: 1990 2016
Included observations: 25

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(AGCREDIT)	-23.61479	7.677864	-3.075698	0.0065
D(MACREDIT)	2.239798	2.156265	1.038740	0.3127
MQCREDIT	0.362563	0.626020	0.579156	0.5697
CointEq(-1)*	0.342763	0.044346	7.729223	0.0000

R-squared	0.885762	Mean dependent var		4019.443
Adjusted R-squared	0.869443	S.D. dependent var		3324.146
S.E. of regression	1201.104	Akaike info criterion		17.16552
Sum squared resid	30295656	Schwarz criterion		17.36054
Log likelihood	-210.5690	Hannan-Quinn criter.	17.21961	
Durbin-Watson stat	2.178356			

* p-value incompatible with t-Bounds distribution.
Source: EVIEWS 10 output.

The result is expected as the error correction term has a positive sign and a significant probability value. The error correction term indicates the rate of adjustment toward equilibrium. The positive sign indicates that the term drags the economy up to a point of rest. Similarly, not all the variables are significant. A static analysis of the interest rate indicates that though a negative relationship exists between bank credit to the agricultural sector and economic growth, but credit extension to the agricultural sector within the time period had a significant impact on economic growth. On the other hand, there exist a positive relationship between credit to the manufacturing, mining and quarrying and economic growth but the effect of the said bank credits was insignificant. This may be attributed to high cost of servicing borrowed funds from the bank amongst other factors.

Diagnostic tests
Autocorrelation
Autocorrelation was checked using Breusch – Godfrey Serial Correlation LM test. The probability value of the chi – Square (0.6463) accepts the null hypothesis, thus suggesting no first or higher order autocorrelation among

successive residual.
Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.144445	Prob. F(1,17)	0.7086
Obs*R-squared	0.210629	Prob. Chi-Square(1)	0.6463

Source: EVIEWS 10 output.

Model Stability and Adequacy

The stability of the model was tested using the CUSUM test. The graph is presented below in figure 1. Given that the blue line is in between the red lines we conclude the model is stable.

Figure 1: CUSUM Test
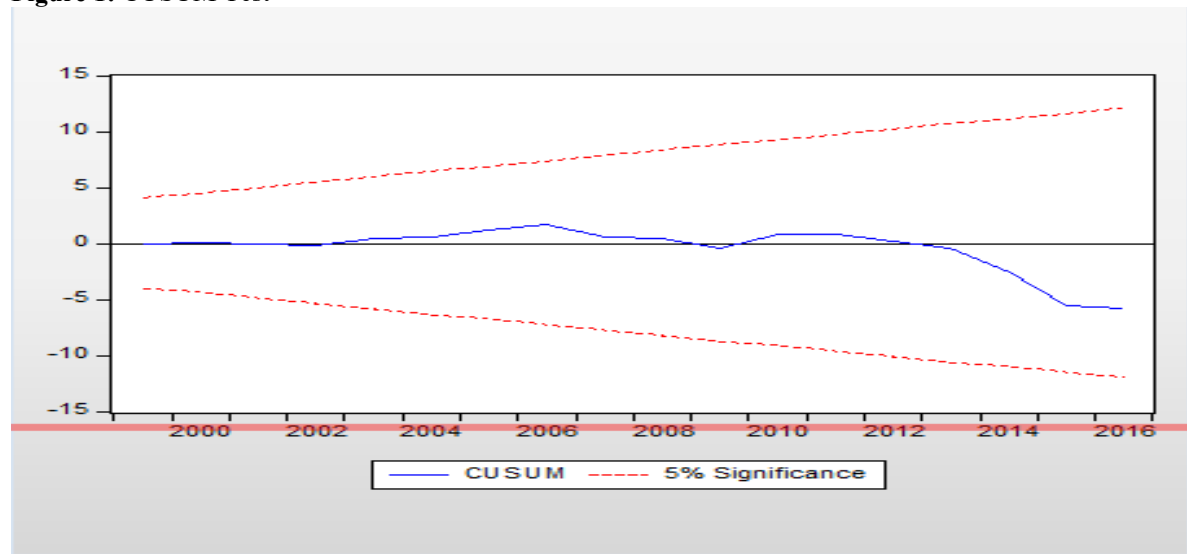
Source: EVIEWS 10 output.

Discussion of findings

The study found that deposit money bank credit to agriculture sector significantly affects economic growth in Nigeria. Agriculture has huge role in transforming both the social and economic frame work of an economy. Agriculture has been the main source of gainful employment from which Nigeria nation can feed its population, providing the nation's industries with local raw materials and as a reliable source of government revenue. Similarly, the study found that deposit money bank credit to manufacturing sector does not significantly affect economic growth in Nigeria. The manufacturing sector focus on productions of goods and services through combined utilization of raw materials and other production factors such as labor force, land and capital or by means of production process. In advanced economies, it is a leading sector in many respects. It is an avenue for increasing productivity related to import replacement and export expansion, creating foreign exchange earning capacity; and raising employment and per capita income which causes unique consumption patterns. Furthermore, it creates investment capital at a faster rate than any other sector of the economy while promoting wider and more effective linkages among different sectors. In terms of contribution to the Gross Domestic Product (GDP) in recent times, the manufacturing sector was not dominant and has been overtaken by the services sector, hence the insignificant result.

The adjusted coefficient of determination and coefficient of Determination indicates that 87% of the variation in economic growth is explained by the model. Thus the model is adequate and plausible. Finally, the study found that deposit money bank credit to mining and quarrying sector does not significantly affect economic growth in Nigeria.

Conclusion and Recommendations

This study investigated the impact of the deposit money bank credit to the real sector and economic growth in Nigeria. It covered the period of 1990 – 2016. The study found that deposit money bank credit to agriculture sector significantly affects economic growth in Nigeria. Similarly, the study found that deposit money bank credit to manufacturing sector does not significantly affect economic growth in Nigeria. Same result was also the case in mining and quarrying sector. Based on the major findings the following conclusions are drawn: Agriculture has huge role in transforming both the social and economic frame work of an economy before, during and after

recession. On the other hand, the manufacturing sector is a leading sector in many respects. It is an avenue for increasing productivity related to import replacement and export expansion, creating foreign exchange earning capacity; and raising employment and per capita income which causes unique consumption patterns. In terms of contribution to the Gross Domestic Product (GDP), the manufacturing sector is not dominant in Nigeria and has been overtaken by the services sector; hence the insignificant result.

Recommendations

The following recommendations were made based on the findings of the study.

1. Government and regulatory authorities should evolve policies that encourages increased flow of bank credit to the agricultural sector in view of their strategic and important role as supported by the statistical evidence.
2. Government and concerned authorities should initiate policies that encourages the channeling of bank credit to the manufacturing, mining and quarrying sectors at concessionary costs.
3. Monetary authorities should ensure the pursuance of guided deregulation as opposed to intensive regulation of bank credits to the real sector of the economy.

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