EVALUATION OF BANK CREDIT IMPACT ON THE AGRICULTURAL SECTOR OF THE NIGERIAN ECONOMY

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Abstract
The study examined the evaluation of bank credit impact on the agricultural sector of the Nigerian economy. The data was secondary data which was sourced from CBN Statistical Bulletin. The study used multiple regressions of ordinary least square (OLS) analytical techniques. The findings from the regression analysis revealed that that Commercial Bank Credit has positive and significant impact on Agricultural Output/Production, while, Real Interest Rate has positive but non-significant impact on Agricultural Output/Production. The study therefor concludes that the higher the commercial bank credit to agricultural sector will lead to increase in productivity and contribute positively to the growth of the Nigerian economy. While a higher Real interest rate will reduce investment in agricultural ventures which will lead to low economic growth. The study there for recommend the following: that The CBN should as a matter of policy increase commercial bank credit or lending ceiling and such increase should be allocated to the agricultural sector, and that CBN should reduce and regulate the Real interest rate of commercial banks especially when it has to deal with agricultural lending, in order to encourage farmers to invest in agricultural ventures, when they borrow at a lower rate it will increase their productivity which will in turn contribute immensely to the growth of the Nigerian economy.

Keywords: Bank Credit, Agricultural Sector, Agricultural Credit Guarantee Scheme Fund, Nigerian Economy.

Introduction

The structure of the Nigerian economy is multi-sector in which the banks and the agricultural sector have roles to play. Long before now, the relationship between the banking industry and the agricultural sector in Nigeria has been a contentious issue. If one were to take a census of all the pronouncements on the matter by various governments since independence and classify them into those praising the efforts of the banking industry and those castigating them as regards granting credit to agricultural sector may likely to notice that the ratio of those in favour of the later will be in the ratio of four or more is to one. This could further be reflected in the legislation of government and the directives of quasi government institutions like the CBN on the issue. The setting up of a wholly government owned bank in the name of the Nigerian Agriculture, Cooperative and Rural Development Bank (NACRDB) with an aim of solely lending to agricultural sector endeavours on short, medium and long-term basis is predicated on the philosophy that the mainstream banking industry does not adequately cater for the urgent need of credit required for rapid transformation of the agricultural sector of the economy.

Agriculture was the most dominant sector, major source of livelihood for the majority of the populace and the main foreign exchange earner in Nigeria before the oil boom of the 1970s (Nwankwo, 1982). It accounted for about 70% of employment and in spite of this, Binswanger (1999) stated that the Nigerian agricultural sector has not been able to achieve the major objectives of agricultural development which the World bank (1997) identified to include; increase food production and firm incomes, provision of food, water and secure energy, and to restore and maintain the natural resources. Aku (1995) stated that the limitation to agricultural objectives is due to undercapitalization or lack of fund by the farmers.

However, since the availability of adequate credit is central to improvement in agricultural production in the economy, the Federal Government of Nigeria placed some priority in the sector and directed the Commercial banks through the Central Bank of Nigeria (CBN) to devout a certain percentage of their fund to the agricultural sector. To encourage the commercial banks, meet this target the CBN introduced the Agricultural Credit Guarantee Scheme (ACGS) in 1977 to guarantee credit disbursement by commercial banks to the sector. However, despite these initiatives by the CBN, the agricultural sector contribution to the Gross Domestic Product (GDP) is still low.

Furthermore, farming in Nigeria has mostly been left in the hands of the peasant farmers (who can hardly produce enough food for subsistence consumption). Commercial farming requires massive employment of modern technology and this on the other hand requires huge capital. The able bodies have moved from village for paid employment in the urban areas. Given the structure and size of the farm holdings which was relatively small, the average farmers relied mainly on sources for working capital such source for working capital were mainly borrowings from merchants/traders.

However, this study dwells on the; existing policies and institutional network for agricultural credit in Nigeria, assessment of the impact of bank credit on agricultural performance, identification of some major constraints that dwarf the growth of this sector to achieve its desired goals and expectations in the Nigerian economy. Therefore, the main aim of this study is to evaluate the impact of bank credit to the agricultural sector in Nigeria.

Presently in Nigeria with her expanse of rich soil, a sizable number of her citizens suffer from hunger and starvation as a result of neglect of agriculture. Few agro-industries around depend greatly on importation of necessary raw materials in their production and many of the Nigerian youths' roam about unemployed. It is of note that various policies have been made to solve these problems in which the banks have been targeted to provide the pivotal roles in the area of funding through provision of credits. However, the facts remain that the banks precisely the commercial banks have not come to grapple with the problem as much has not been felt in the area of credits to agriculture. The accusation was that commercial banks prefer granting credit to commerce or trading to agriculture and where the credit was allowed, the interest payable seems outrageous with some tight securities, which place restrictions and scare many prospective farmers. On the contrary, where the credits are ready to be granted, some of the farmers or clients are unable to furnish the necessary collateral and honesty required by the banks as guarantee to cushion the effects of leakages or unforeseen exposures that leads to default. Also, there are fears of diversion of the loans to non-agricultural projects as it is attitude of some people to embrace luxurious household family spending thereby suffocating the purpose for which the credit was given. Clearly, some good clients that can be insulated from this accusation are unavoidably weighed down by uncontrollable factors such as changes in policies, rules, regulations and certain difficulties in obtaining official permit.

Furthermore, the nature of agricultural production in Nigeria makes it rather a difficult sector for commercial banks to fund. It is characterized by a majority of illiterate farmers who have small and fragmented holdings. Iwedi (2010) stated that the problems militating against the funding of agriculture as perceived by the commercial banks includes the following; Lack of adequate security, Illiteracy of farmers, Poor management of funds by farmers, Inadequate banking facilities in rural areas, High rate of loan default by farmers, High administration cost, High rate of loan delinquency and Government policies.

Based on the above highlighted problems, this study will examine the efforts of some stakeholders such as the commercial banks, government policy with respect to the Agricultural Credit Guarantee Scheme Fund in Nigeria, her financial allocation to agriculture and the farmers in relationship to the agricultural production/output. It is therefore, against this background that this study is undertaken.

Objective of the Study

The main objective of this study is to evaluate the impact of bank credit on the agricultural sector of the Nigerian Economy.

More specifically this study is undertaken to:

1. To evaluate the impact of credit disbursed by the commercial banks to the agricultural sector output of the Nigerian economy.
2. To examine the impact of Real Interest Rate on the agricultural sector output of the Nigerian Economy.

Review of Related Literature

Conceptual Framework

The Meaning of Agriculture

According to the United Nations Food and Agricultural Organization production year book, agriculture was defined to include cereals, starchy roots, sugar, edible oil, crops, nuts, fruits, vegetables, wine, cocoa, tea, coffee, livestock and livestock products. Also, included in the group are industrial oil seeds, tobacco, fibre, vegetable and rubber. Stamp (1970) defined agriculture as the cultivation of land and rearing of livestock. While, Anyanwu (1979) defined agriculture as the cultivation of the land for the purpose of producing food for man, feed for animals and fibre or raw materials for industries. It also includes the processing and marketing of crops. The agricultural sector in Nigeria is concerned with the production, distribution and storage of agricultural crops, livestock, forestry and fishing. May (1991) reported that countries that put more emphases on the agricultural sector end up with faster industrial growth than those focuses on industries alone hence agriculture may be regarded as the fastest means to industrialization.

With regard to the above viewpoint, the central role of agriculture in the individual and the country's life at large cannot be overemphasized.

The Concept of Bank Credit

Essang and Olajida (1974) define commercial bank as a monetary institution owned by either government or private businessmen for the purpose of profit. In pursuit of profit, the bank undertakes a number of functions. One of these functions is the acceptance of deposits from the public these deposits are in turn given as credit to trade, industry, and other sectors which lead to more production and employment (Stephen and Osagie,1985; Ekezie, 1997; Ijaiya and Abdulraheen, 2000).

Meanwhile, credit is the extension of money from the lender to the borrower. Spencer (1977) noted that credit implies a promise by one party to pay another for money borrowed or goods and services received. Credit cannot be divorced from the banking sector as banks serve as a conduit for funds to be received in form of deposits from the surplus units of the economy and passed on to the deficit units who need funds for productive purposes. Banks are therefore debtors to the depositors of funds and creditors to the borrowers of funds. Bank credit is the borrowing capacity provided to an individual, government, firm or organization by the banking system in the form of loans.According to CBN (2003) the amount of loans and advances given by the banking sector to economic agents constitute bank credit. Bank credit is often accompanied with some collateral that helps to ensure the repayment of the loan in the event of default. Credit channels savings into productive investment 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 bank credit can be divided into two: credit to the private sector and credit to the public sector. In the same vein, Aryeetey (1996) sees credit as the amount extended out with a future date of repayment. While the NDIC prudential guideline of 1990 however, provides a wider definition of credit to include aggregate of all loans, advancses, overdraft, commercial papers, bankers' acceptance, bill discounted, leases and guarantees (NDIC, 1990).

Bank credit to agriculture on the other hand could be defined as credit granted to farmers' ranch operations to assist in planting and harvesting of crops to support the feeding and care of livestock. Bank credit to agricultural sector could take the form of an overdraft, short-term, medium-term or long-term depending on the purpose and gestation period of the project. Most times such credit granted to farmers to purchase input are paid directly to the supplier who must furnish the bank with evidence of delivery, this is done to avert diversion of fund, which is common with Nigerian farmers (Adekanye, 1986; Nzotta, 1999).

SOURCES OF AGRICULTURAL CREDIT

The sources of credit available to farmers in Nigeria can be divided into two broad categories: informal and formal sources. The informal sources otherwise referred to as private or non-institutional sources are credit from friends, relatives, private moneylenders, and merchant traders. They constitute an important source of credit to small holder farmers accounting for over 35% by value of loans in many rural communities (Miller, 1975; Aneke, 1981; Asaba, 1981; Abe, 1981). This is because of easy accessibility and minimal formalities in obtaining the credit. Generally, credits from friends and relations attract little or no interest rates, but money lenders charge exorbitant interest rates.

The formal sources or institutional credit consist of public and private institutions such as commercial banks, government-owned agricultural credit corporations, federal and state ministers of agriculture, cooperatives and credit societies, River Basin and Rural Development Authorities (RBRDAS), Agricultural Development Projects (ADPs), Monetary Financial Institutions (MFIs) and similar institutions. These constitute an important source of credit to medium and long-scale farmers who are expected to be the major producer of foods and fibre in Nigeria in the medium and long-term.

The Role of Commercial Banks in Financing Agricultural Projects

Before now, commercial banks played significant roles in the activities of the marketing Board which are the agents of the farmers by making credit available to them and licensed Buying Agents. Financing of agricultural projects by banks are of three types. Firstly, the long-term capital usually provided by development banks is the type used for land purchase, land development and building and has a long maturity period of up to seven years. Secondly, the medium-term capital is used for the purchase of livestock and machinery the tenure varies from two to seven years. Lastly, the short-term capital or working capital which is used mainly for the purchase of seeds, fertilizers, feeds, fuel, repair, labor and livestock. This type of loan is the

Most the farmers benefit from and it is mostly supplied by commercial banks. It has shorter maturity period than others.

Problems of Funding Agriculture by Commercial Banks

The nature of agricultural production in Nigeria makes it rather a difficult sector for commercial bank to fund. It is characterized by a majority of illiterate farmers who have small and fragmented holdings.

Generally, the problems of funding agriculture by commercial banks are of two main sources; from farmers and from banks. Problems associated with the farmers include inability to meet banks stringent measures with respect to provision of collateral and fulfillment of other preconditions laid down by banks, illiteracy among farmers, poor management of funds, risk and uncertainty faced by farmers. While on the part of the banks there are problems of limited rural branches to cater for numerous farmers scattered over, inadequate staffing (in quantity and quality) in the Agricultural Finance Department and interest rate structure (Okerie, 1992).

Problems Arisng from Government Policies

Government policies are formulated with the intention of influencing economic activities. However, some of these polices give rise to ineffective commercial banks' lending to the agricultural sector. For instance, government policies in 1979 that restricted the importation of maize and liberalized the importation of frozen chicken had adverse effect on poultry production and pricing of locally produced chicken respectively. This caused a lot of losses to the local farmers, who therefore, could not meet their commitments to banks. Thus, fewer credits were given out by the banks the following year (CBN, 1990). The increasing diversion of credits meant for agricultural production to other sector of the economy is as a result of the non-competitive low interest rate fixed by the CBN on agricultural credits.

Nigerian Agricultural Insurance Corporation

The establishment was informed by the need to provide a form of risk management to the Nigerian farmers. Prior to the establishment of this specialized organization, there was no insurance cover available to farmers. The conventional insurance regards agricultural venture as extra hazardous, for it was not commercially viable for them (Nigerian Agriculture Journal, 1999). Consequently, the Federal government said the vacuum created by the unwillingness on the part of the conventional insurance to provide cover for agricultural risk and then deem it necessary to set up an insurance company.

NAIC has a mandate to provide total insurance cover to the Nigerian farmers the main focus predominantly being the ordinary peasant farmers and of course not the exclusion of the medium and large scale ones. The mandate is to provide insurance cover against the recurring nature of risks that are affecting agricultural production which include risk of flood, drought, pest attack, and livestock mortality. It also aims at ensuring free flows of credit to the agricultural sector to ensure that farmers are not abandoned in their farms. The establishment of NAIC have aided in the sustenance of agricultural investments. In spite that commercial banks were reluctant in granting credits to the agricultural sector because of the big risk involve in the venture, are now willing to lend to the sector as NAIC are ready to indemnify the farmers in the event of losses.

Development of the Agricultural Research Institutions

The development of agricultural research institutions has been an effective move toward agricultural promotion in Nigeria. The developments of appropriate technology, crop planting, harvesting, processing and storage as well as pest control are the goals of these institutions. Examples of such institutions include: National Cereal Research Institution, Agricultural Extension Research Liaison Services (AERLS). The National Root Crops Research Institute in Umudike, Cocoa Research Institution of Nigeria, Rubber Research Institute, the Forestry Research Institute, the National Institute of Oceanography and Marine Research and many others established since years ago have contributed immensely in agricultural development in Nigeria. According to CBN (1998) these institutions have immensely contributed to the improvement and development of their respective agricultural products. However, poor funding and inadequate infrastructural facilities for research were the major problems that hindered most of the research institutions. The unsatisfactory remuneration given to qualifies, technical and experienced staff was reported to have seriously constrained research activities.

In spite of these problems, the institutions have recorded considerable improvements. For example, the National Root Crops Research Institute has recorded progress on its yield promoting research programs for cassava, yam, Irish potato, sweet potato, cocoyam, ginger and others with such extensive impact on the development of agricultural productivity will be realized as to alleviate the food problems in Nigeria.

Collateral Securities as a Base for Bank Credit Consideration in Nigeria

Credit or loan and advances department of banks, is a sensitive department which gives the most profit out of its operations. Due to default of borrowers, bankers make some considerations before lending is affected. These considerations are:

a) Capacity of the borrower, will be examine by looking into the ability expertise and the knowledge of the borrower
b) Capital which is regarded as the cushion of safety
c) Character of the borrower by looking into the reputation and integrity of the borrower
d) Condition of the lending will be considered by taking cognizance of outside influence which may affect the normal function of the borrower
e) Collateral which are security for the credit, must be considered
f) Control is concerned with the post approval and monitoring of the credit facility, to ensure that each credit remain qualitatively satisfactory during the tenure of the credit.

In order to minimize the occurrence of bad debts, consideration should be extended to the broader characteristic of the borrower such as personal characteristics, amount to be loaned, purpose of the credit and duration and repayment of the credit.

According to Nzotta (2004) bankers should try to base their security consideration on positive attributes that is letting the borrower to offer collateral just from the promise to repay the loan. To him, security consideration should not be looked upon as the most important criteria for extending credit neither it is to be the obvious source of repayment. In a situation, whereby security is taken as an obvious source of repayment, it is taken that such collateral is conceived negatively. Furnishing adequate collateral does not remove the necessity of proper evaluation of a given credit proposal. Therefore, commercial banks should be prepared to accept any security which the farmer can be able to offer, such securities as insurance policies, stocks and shares, guarantee land, certificate of occupancy and debenture certificates.

Banks should try in taking cognizance of the developing nature of the economy, by making considerations for lending to the farmers to reject their standard in the society and since most of them are small-scale producers and therefore does not require large amount to finance, instead consideration of lending to them should be based on the character or any other security as a contribution towards the development of agricultural sector and its productivity.

Agricultural Credit Guarantee Scheme Fund

The Agricultural Credit Guarantee Scheme Fund (ACGSF) was formed under the military government in 1977 with an initial capital base of N100 million distributed between the federal government (60% equity) and the Central Bank of Nigeria –CBN (40%). The ACGSF is exclusively managed by a board set up under the supervision of the CBN (management agent). The fund is set up with the sole purpose of providing guarantee in respect of loans granted by any bank for agricultural purposes (Central Bank of Nigeria, 1990). Nwosu (2010) noted that the ACGSF was formed solely with the objective of encouraging financial institutions to lend funds to those engaged in agricultural production as well as agro-processing activities with the aim of enhancing export capacity of the nation as well as for local consumption. This is solely exclusive for large scale farming (Somayina, 1981).

Most often, financial institutions require huge collateral from customers before loans are granted to them. This is detrimental to farmers' efforts that may require such loans to enhance their production. The ACGSF is aimed at reducing this dearth by guaranteeing these farmers or other individuals involved in agricultural production when seeking for loans from the banks. In case ofa breach in contract, the fund bears the liability of 75% of the amount in default, net of any amount realized by the banks in the sale of the security pledged by the customer. This has made most financial institutions interested and secured in granting loans to agricultural ventures.

Considering the ACGSF, the fund has guaranteed several sums for agricultural related outfit. For example, from inception, there has been tremendous increase in the number of loans guaranteed by the scheme from 341 loans (N11.28million) in the first year of operation in 1978 to 3,571 loans (N 218.60 million) as at 2006 (Nwosu, 2010). Other incentive put forward by the scheme to achieve its objectives includes the increase in the limit of the guarantee granted to individuals and corporate bodies. For example, the limit granted to individuals was increased from N5, 000 to N20, 000 for individuals without collateral required. With collateral, the limit of the guarantee was increased from N100, 000 to N500, 000. For corporate bodies and corporative societies, the guarantee limit was increased from N1 million to N5 million. The above measures were geared towards the development of the agricultural sector.

Furthermore, the ACGSF enforces the attainment of its objective by mandating commercial banks to set aside a fraction of (10%) of their profit before tax to farmers as loans and must have a certain percentage of their branches set up in rural areas. This will enable effective reach to the target audience/beneficiaries. The Central Bank in Nigeria is supposed to ensure and enforce the compliance of the banks to these stipulations. Success story was accounted from these stipulations. These include that as at 2004, 11 out of 25 commercial banks in the country are already participating in this scheme, while 669 eligible micro credit institutions have joined the scheme. Despite all these, the loan to the agricultural sector by commercial banks still remains minute.

The question that comes to mind is whether the declining share of agricultural loan from commercial banks can be traceable to the challenges that encumbered ACGSF. For example, Nwosu (2010) identified three major problems associated with the ACGSF scheme, which includes increasing incidence of loan defaulters, bank related problems and the inclusion of the term "personal guarantee". Nwosu et al stresses that the term is subjective in interpretation especially as the decree forming ACGSF was not able to explain this. Therefore, banks utilize personal judgment and circumstantial framework to interpret this. This will hinder the achievement of the objective of the scheme.

The ACGSF is aimed at guaranteeing agricultural outfit that specializes in the following;

engaging in the establishment and management of plantation for cash crop produce like rubber production, oil palm extracting, cocoa plantation etc., engaging in the cultivation and production of food crops like fruit of all kinds, tubers of yam, cereals and all other food crops, and involving in the large-scale production of animal husbandries.

Rural Banking Scheme (RBS)

In addition to the Agricultural Credit Guarantee Scheme (ACGS), the Federal Government introduced the rural banking scheme aimed at the development of rural banking habits. The RBS was directed at making more banks available to all rural inhabitants including farmers, thereby removing one of the constraints often alleged to be inhibiting banking habits among farmers and other rural dwellers. The constraint is the non-availability of banks, resulting in farmers having to wait in the bank for several hours to be attended to due to congestion.

Empirical Review

The importance of bank credits to agricultural production is well established in many countries.In thestudy by Sohail (1991) on the relationship between bank credits and agricultural out puts in Pakistan, they found out that a statistical significant relationship existed between bank credit in Pakistan and the agricultural outputs.

Moreover, Yaron (1997) also argued that directed credit programs were associated with the adoption of modern technologies such as green-houses in Morocco and tube wells in North West Bangladesh and these innovations were associated with increase in production gains in the agricultural sector see (Ijaiya and Abdulraheem, 2010).

May (1970) reported that countries that emphasized the agricultural sector ended up with faster industrial growth than those that focused on industries alone. Hence, agriculture may therefore be the fastest road to industrialization.

Emmanuel (2008) carried out a study on the impact of macroeconomics environment on agricultural sector growth in Nigeria. The macroeconomic policies included in the model are:- credits to the agricultural sector, nominal interest rates on the loan, exchange rate, world prices of agricultural produce, foreign private invest-government expenditure and inflation rate. Using multiple regression analytical technique (ordinary least square), he discovered that nominal interest rate is positively related to the index of agricultural production. This implies that at higher nominal interest rate, more credit facilities are made available to the operators of the Nigerian agricultural sector, but at lower nominal interest rate, credit facilities are no more widely available. The index of agricultural output is also positively related to world prices of Nigeria major agricultural commodities. This implies that better world prices enhance agricultural output growth in Nigeria. Similarly, the index of agricultural production was positively related to government expenditure on agriculture. Moreover, it was discovered that the index of agricultural production is negatively related to the level of inflation, implying that as inflation becomes high, the index of agricultural production declines. He thus recommends that macroeconomic policies that enhance favourable exchange rates make agricultural credit widely available at low interest rate, reduce the rate of inflation, increase foreign private investment in agriculture, would not fortify government investment in the sector but would be invaluable in supporting agricultural output growth in Nigeria.

The experience of Japan shows that appropriate expenditure by government (on agricultural research, extension credit and roads) can have spectacular effects on the output of peasants and that agriculture instead of acting as a brake on the rest of the economy, can be turned into a leader generating demand for other sectors, and also providing them with capital.

Methodology

This study examined the evaluation of bank credit impact on the agricultural sector of the Nigerian economy. The data was secondary data sourced from CBN Statistical Bulletin. The study used multiple regression of ordinary least square (OLS) analytical techniques.

Model Specification

Under model specification this study adopted the model used by Ijaiya and Abdulraheem, (2010). Below is the model:

AOP = f (CBC, RIR) …………………………………………………………. Equation 1

$Y = \alpha o + \beta_1 X_1 + \beta_2 X_2 + \mu$………………………………………………………………………. Equation 2
$AOP = \alpha o + \beta_1\ CBC + \beta_2\ RIR + \mu$…………………………………………………………. Equation 3

Where:
AOP= Agricultural Output or Production
X= Independent variable
Y= Dependent variable
CBC=Commercial Bank Credit
RIR=Real Interest Rate

$\beta_1 - \beta_2$ = Coefficients of the independent variables
αo = The intercept constant value of the equation
μ = Stochastic variable or error term

Explanation of Variables

Variable	Meaning
AOP	This is the value (tones) of agricultural products. According to the classification by the united nations food and agricultural organization (FAO) production Year-Book, agriculture includes cereals, starchy roots, sugar, pulses, edible oil crops, nuts, fruits, vegetables, wine, cocoa, t coffee, livestock and livestock products. Also included in the group are industrial oilseeds, tobacco, fibres, vegetable and rubber. But National Bureau of statistics grouped all these into, staples, livestock, fishery and forestry. However, an increase in these products will bring better economic growth (GDP).
CBC	This is the value (amount) of money disbursed to agricultural development by commercial bank in form of credit or loan and advancement. An equal increase in this is expected bring Nigeria agricultural productivity to its desired level that will bring about the needed growth in the entire economy.
RIR	A higher real interest rate, is expected to discourage investment in one way but in the other ways, it encourages saving. Though it was widely argued that it is impediment to economic growth.

Source: Author's survey, 2017.

The data used for the analysis

Year	AOP	CBC	RIR
1996	47015	3066.7	-42.34
1997	52772	3470.5	-29.07
1998	55964	4221.4	14.6
1999	67581	5012.7	7.4
2000	75085	6978.9	-22.71
2001	78691	10753	-33.18
2002	81802	17888.8	-42.03
2003	84286	25278.7	-58.85
2004	88080	33264.1	-15.86
2005	90817	27939.3	-3.21
2006	93401	27180.7	2.12
2007	96789	118518.3	5.97
2008	102646	146504.5	3.73
2009	88266.8	200856.2	-8.89
2010	91927.5	227617.6	3.61
2011	98568.4	242185.7	-0.99

2012	104695.3	261558.6	-1.69
2013	111780.7	262005.5	-7.03
2014	120470.7	49393.4	0.11
2015	121247.7	149578.9	3.34

Source: CBN Statistical Bulletin, 2015.

Regression Results/ Discussion of Findings

Dependent Variable: AOP
Method: Least Squares
Date: 03/13/17 Time: 00:25
Sample: 1996 2015
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	79291.37	6511.823	12.17652	0.0000
CBC	0.113767	0.042738	2.661931	0.0164
RIR	183.8879	210.0159	0.875590	0.3935

R-squared	0.406867	Mean dependent var	87594.30
Adjusted R-squared	0.337087	S.D. dependent var	20681.11
S.E. of regression	16838.45	Akaike info criterion	22.43820
Sum squared resid	4.82E+09	Schwarz criterion	22.58756
Log likelihood	-221.3820	Hannan-Quinn criter.	22.46736
F-statistic	5.830684	Durbin-Watson stat	0.435412
Prob(F-statistic)	0.011798		

Source: E-view Statistical software package, 9.0.

Test of Hypotheses

Ho1: Commercial Bank Credit has no positive and significant impact on Agricultural Output/ Production

Variable	Coefficient	t-statistic	Prob.
CBC	0.113767	2.661931	0.0164

T-tabulated = 1.76

Source: Extracted from regression result table

The table above indicates that the critical value of 2.661931 is greater than the T-tabulated value of 1.76 and the coefficient value is 0.113767 while the probability value = 0.0164 all at 5% level of significant. Since the critical value is greater than the T-tabulated value and the coefficient value is positive and the probability value is less than 0.05% level of significant therefore, the null hypothesis one is rejected. This implies that Commercial Bank Credit has positive and significant impact on Agricultural Output/ Production. Which means that the higher the commercial bank credit to agricultural sector will lead to positive increase in agricultural out or productivity which will contribute positively to the growth of the Nigerian economy.

Ho2: Real Interest Ratehas no positive and significant impact Agricultural Output/ Production

Variable	Coefficient	t-statistic	Prob.
RIR	183.8879	0.875590	0.3935
T-tabulated = 1.76			

Source: Extracted from regression result table

The table above indicates that the critical value of 0.875590 is less than the T-tabulated value of 1.76 and the coefficient value is 183.8879 while the probability value =0.3935 all at 5% level of significant. Since the critical value is less than the T-tabulated value and the coefficient value is positive while the probability value is greater than 0.05% level of significant therefore, the null hypothesis two is accepted. This implies that Real Interest Ratehas positive but non-significant impact on Agricultural Output/ Production. This is because the higher the Real Interest Rate to the agricultural sector will lead to insignificant impact to the agricultural out or productivity which will contribute less to the growth of the Nigerian economy. A higher real interest rate, is expected to discourage investment which is an impediment to economic growth. This statement is in agreement with the study's result.
However, the study's F-statistic value of 0.011798indicates that the overall model is statistically significant at 5% level. The study therefore conclude that Commercial Bank Credit has positive and significant impact on Agricultural Output/ Production. Which means that the higher the commercial bank credit to agricultural sector, will lead to positive increase in agricultural out or productivity which will contribute positively to the growth of the Nigerian economy. While, Real Interest Ratehas positive but non-significant impact on Agricultural Output/ Production. This is because the higher the Real Interest Rate to the agricultural sector, will lead to insignificant impact to the agricultural out or productivity which will contribute less to the growth of the Nigerian economy. A higher real interest rate, is expected to discourage investment which is an impediment to economic growth. This statement is in agreement with this study's result.

Summary of Findings

Below is the summary of findings from the study:

a) That Commercial Bank Credit has positive and significant impact on Agricultural Output/ Production.
b) Interest Ratehas positive but non-significant impact on Agricultural Output/ Production.

Conclusion

The fundamental obligation of commercial bank is to make profit. This obligation is often achieved through credit extension to customers. The policy measures here centered on how the commercial banks can fund agricultural sector in Nigeria with a view of increasing the sector's productivity or output that leads to GDP of the economy. The study therefore conclude that Commercial Bank Credit has positive and significant impact on Agricultural Output/ Production. Which means that the higher the commercial bank credit to agricultural sector, will lead to positive increase in agricultural out or productivity which will contribute positively to the growth of the Nigerian economy. While, Real Interest Ratehas positive but non-significant impact on Agricultural Output/ Production. This is because the higher the Real Interest Rate to the agricultural sector. It will lead to insignificant impact to the agricultural out or productivity which will contribute less to the growth of the Nigerian economy. A higher real interest rate, is expected to discourage investment which is an impediment to economic growth. This statement is in agreement with this study's result.

Recommendations

Based on our findings, we therefore recommend that:

a) The CBN should as a matter of policy increase commercial bank credit or lending ceiling and such increase should be allocated to the agricultural sector.

b) CBN should reduce and regulate the Real interest rate of commercial banks especially when it has to deal with agricultural lending, in order to encourage farmers to invest in agricultural ventures, when they borrow at a lower rate it will increase their productivity which will in turn contribute immensely to the Nigerian economic growth.

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