BANK CREDIT AND AGRICULTURAL DEVOLOPMENT IN NIGERIA

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Abstract

The study examines the impact of bank credit and agricultural development in Nigeria using multiple regression analysis and spanning from the period of 1990 to 2020 using least square method. The study used data of the dependent and independent variables which data were collected from the Central Bank of Nigeria CBN statistical bulletin (2020). Such data forms the basis of the population of the study. The result indicated that money supply, government expenditure and agricultural credit guarantee scheme fund are a good measure to agricultural development of which shows a positive significant effect on the agricultural gross domestic product. Also, the probability value of f-statistics for testing overall model fitness shows that all explanatory variables employed in the study are important factors to explain variations in the growth of gross domestic product. The researchers recommend that that government should make deliberate efforts to expand its agricultural expenditure by increasing its financial grants to agricultural firms and small scale farmers and banks should be available in granting credit and support in technical service area so as to encourage and promote agricultural development.

Keywords: Economy, Agriculture, Gross Domestic Product, Bank Credit, Government Expenditure, Agricultural Output

Introduction

Agricultural sector has been an important sector and also an engine that contributes to the growth and development of the Nigerian economy in the past decades. It was the mainstay of the economy and the dominant contributor to the Gross Domestic Product (GDP), before the period of oil boom. The nation Nigeria is endowed with different natural resources, tremendous and gainful farmland, different range of crops, and rivers among others. Agriculture is described as the cultivation of land, rearing of livestock, for sale or for consumption purposes in order to produce food and other basic necessities to sustain life. It is said to constitute the subsistence and the commercial agriculture where the commercial agriculture involves the cultivation of agricultural produce in large quantities for sales while the other involves the cultivation of agricultural produce in small quantities for consumption, little or none for sale. Nigeria is enriched with numerous extensive of fertile lands, rivers, streams, forests and grasslands, as well as a large active population that can enhance highly productive and profitable agricultural produce which can ensure self-sufficiency in food and raw materials for the populace, industrial sector as well as providing gainful employment for the teeming population, generate foreign exchange and contribute to the growth of the economy. CBN (2015)

Agriculture holds the potential in accelerating the pace of economic growth and development of several countries of the world. It is the largest single employer and contributor to GDP in most of African countries. International Fund for Agricultural Development (IFAD, 2001)

Similarly, So many problems have been envisage towards agricultural development of which one is the lack of adequate finance or credit to the sector which has hinder the growth and as well resulted to poor performance. banks on other hand entertain fear that the funds might not be judiciously used and not retuned because of the high rate of risk involve in agricultural business, risk such as theft, pest attack, farmland destructions by herdsmen and natural disaster like drought (dry season), flooding and also diseases which brings about low agricultural return. Also the issue of loan been redirected (diverted) to other things other than those cultivating exercises. Some of the farmers make use of loan granted to them to increase the numbers of their wife's instead of investing the money on farming business. Some farmers particularly the illiterates ones are faced with challenges of accessing the credit. Also some farmers are not fully engaged in mechanized farming system. And also government policies and political factors has hinder the growth of the agricultural sector whereby political groups are been biased of granting access of agricultural input such as land, grants, fertilizers, seeds, farming tools and machineries to only those that belong to their group. Therefore, the need to examine the impact of bank credit and agricultural development in Nigeria. The broad objective of this study is to evaluate the impact of bank credit and agricultural development in Nigeria and the specific objectives are: to assess the effect of money supply, to examine the effect of government expenditure, examine the impact of Agricultural Credit Guarantee Scheme Fund on agricultural output in Nigeria. The period

under investigation is 30years which ranges from the period of 1990 to 2020. Data on the indicators were collated from CBN statistical bulletin (2020).

Literature Review

Recognizing the importance of the agricultural sector, successive governments have developed and implemented a number of financial programs, all of which aim to ensure the availability of funds to the agricultural sector in order to boost real sectors, thereby enhancing economic growth and development. Among the various financial schemes are: the establishment of the Nigerian Agricultural Cooperative Bank (NACB) in 1973, the establishment of the Agricultural Credit Guarantee Scheme Fund (ACGSF) in 1977, the introduction of mandatory sectoral allocation to agriculture in 1972, the launch of the rural banking Scheme in 1977, the launch of the Commercial Agriculture credit Scheme in 2009, the launch of the Agricultural Credit Support Scheme (ACSS), and the mechanization of agriculture. Nigeria Agricultural Cooperative and Rural Development Bank (NACRDB) in 2000. A number of government policies and programs have been developed to facilitate the flow of credit to farmers in order to mechanize and strengthen agricultural activities, which should ultimately increase food sufficiency, farmers' income, and agricultural productivity, provide essential raw materials for local agro-based industries, and reduce agricultural product importation in the economy. To do this, the CBN has issued directions to commercial banks, which are part of the financial institutions tasked with mobilizing loans for the agricultural sector. A bank's primary function is financial intermediation, which involves channeling funds from surplus spenders to deficit spenders. Banks are established to perform various functions that contribute to the growth and development of her economy.Adekanye, (1986).Savings and deposit mobilization, credit generation, functioning as an agent in the payment system, investing directly in productive sectors, financing employment-generating activities, and providing agricultural loans to farmers are some of these responsibilities and duties. Unfortunately, agriculture's contribution to economic growth has been diminishing since the discovery of oil. Several reasons contribute to Nigeria's agriculture sector's low performance. These include the sector's virtual neglect, limited access to contemporary inputs and technology, and a lack of optimal credit supply (Enyim, Ewno & Okoro, 2013). Aside from a lack of access to contemporary technologies, a key impediment to agricultural growth in Nigeria is a lack of adequate credit facilities.

Theoretically, the study is underpinned by the Balance Sheet Credit Channel Theory which stressed that external finance premium facing a borrower depends on borrower's net worth, the lower the external finance premium and overall term of credit. The theory further stated that the quality of borrower's sheet similarly affects their investment and spending decisions. The balance that channel arose due to shift from central bank's policy not only affect interest rate but also the financial position of borrowers. And;

Loan Pricing Theory

This theory connotes that banks are interested in putting the lending rate high to enable them earn high income and make the highest profit. However, according to Olokoyo, (2011), fixing too high interest rate may prompt unfavourable selection problems. It is therefore advisable that banks should desist from setting too high interest rates.

Empirically, Nnamocha and Eke (2015) examine the relationship between bank credit and agricultural output in Nigeria between 1970 and 2013. Using an Error Correction Model (ECM), their empirical findings revealed a long-run relationship between bank credit and agricultural production. The findings also revealed that only industrial output influenced agricultural output in the short run.

Kareem, Bakare, Raheem, Olagumela, Alawode and Ademoyewa (2013), investigate the factors influencing agricultural output in Nigeria and the relationship between agricultural output and macroeconomic variables The study used regression analysis, and the findings demonstrated that foreign direct investment, commercial bank loans, interest rates, and food import value all had a positive link with agricultural production.

Athanasius (2017) investigate the relationship between bank credit and agricultural sector performance in Nigeria from 1980 to 2014 using the Ordinary Least Square (OLS), Error correction model (ECM). The study found that apart from interest rate that has a negative but significant relationship; bank credit to agriculture, foreign exchange rate, government expenditure on agriculture and money supply have a positive and significant relationship with Agricultural Gross Domestic Product (AGDP).

Methodology

Ex-post facto research design is adopted for the study which allows for testing of hypothesis about relationship and/or causal effect between two economic series. The data employed in this study is secondary in nature which was sourced

from the Central Bank of Nigeria Statistical Bulletin, 2020 and it is important to note here that for uniformity purpose all data has a period ranging from the period of 1990 to 2020.
The model for the study is given as;
AGDP = F (MS, GEX, ACGSF) …… Equ 1
To hold firm the influence of the random variable, the equation is explicitly transformed into mathematical form written as:
AGDP = $\beta_0 + \beta_1$ MS $+\beta_2$ GEX $+\beta_3$ ACGSF + μ …… Equ 2
Where;
AGDP = Agricultural Output Share of Gross Domestic Product
MS = Money Supply
GEX = Government Expenditure
ACGSF = Agricultural Credit Guarantee Scheme Fund
β_0 = Constant term
β_1- β_3 = Coefficient of explanatory variables
μ = Error term
Further, within the framework of regression analysis at 5% level of significance, this study analyses data on variables of interest using multiple regression analysis with the aid of Ordinary Least Square (OLS) method as one of the main econometric tools in E-views 9.

Results

The main result of the study which was obtained via multiple regression analysis is presented in Table 1 below as:

Dependent Variable: AGDP
Method: Least Squares
Date: 06/12/22 Time: 16:26
Sample: 1990 2020
Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	900.6531	381.6618	2.359820	0.0258
MS	0.838052	0.038524	21.75380	0.0000
ACGSF	0.000231	7.45E-05	3.106285	0.0044
GEX	22.40763	18.64045	1.202097	0.2398

R-squared	0.984843	Mean dependent var	9918.793
Adjusted R-squared	0.983159	S.D. dependent var	10379.54
S.E. of regression	1346.998	Akaike info criterion	17.36906
Sum squared resid	48988934	Schwarz criterion	17.55409
Log likelihood	-265.2204	Hannan-Quinn criter.	17.42937
F-statistic	584.7756	Durbin-Watson stat	1.072824
Prob(F-statistic)	0.000000		

Source: E-view 9 output 2022

Discussion of Result

The table aboveshows the least square regression analysis of selected variable of bank credit and agricultural development using Agricultural gross domestic product (GDP) as proxy for measure. Important findings emerged which shows that the three explanatory variables indicate a positive effect on the agricultural development in Nigeria which implies that a decrease in any of these coefficient variables will result to a decrease in the agricultural output. Also, the finding shows that 98% variation in the agricultural gross domestic product in Nigeria is influenced by money supply, agricultural credit guarantee scheme fund and government expenditure. In terms of overall goodness of the model, the probability of *f-statistics* indicates the study explanatory variables are adequate enough to explain / determine variations in the agricultural output in Nigeria with the value not exceeding the value of level of significance.

Conclusion

The study examines the impact of bank credit and agricultural development in Nigeria economy using data from Central Bank of Nigeria (CBN) Statistical Bulletin (2020) spanning between 1990 and 2020. From the analysis of the study, the researchers affirm that money supply, agricultural credit guarantee scheme fund and government expenditure as a good measure of agricultural output exert a positive and significant effect on the development of agricultural sector in Nigeria economy, it was concluded that by reiterating that sustainable food security and growth of the Nigerian economy cannot be obtained without the deliberate concerted effort of the government and banks. Based on the study findings, the researchers recommended that government should make deliberate efforts to expand its agricultural expenditure by increasing its financial grants to agricultural firms and small scale farmers and banks should be available in granting credit and support in technical service area so as to encourage and promote agricultural development.

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