

AGRICULTURAL CREDIT GUARANTEE SCHEME AND FOOD SECURITY IN NIGERIA

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It is known that more than 80 per cent of Nigeria population engaged in one type of agriculture or the other in the 1960s and agricultural sector has contributed about 65 per cent of nation's Gross Domestic Product (GDP) but the contribution of agriculture most especially food crops have been on the decline since oil was discovered in commercial quantity in the 1970s. To revive the sector, the Federal Government of Nigeria established the Agricultural Credit Guarantee Scheme (ACGS) in 1977. Using a time subscript and a difference-in-indifference estimator that describes the changes in food crops as a function of changes in Agriculture Credits Guarantee Scheme, the result obtained shows that only the initial level of ACGS on food security has helped improved food security more than the changes experience in recent time. It is therefore, recommended that government should put in place an effective legislation that would establish a reliable ground rules for consistent and equitable application of Agricultural Credit Guarantee Scheme and stable macroeconomic policies that would sustained it.

1. INTRODUCTION

The current interest in food security in Nigeria is hardly surprising because Nigeria land-mass estimated at 923,768 km² has about 80 per cent fertile agriculture land-mass made of *Altisols*, *utisols* and *Entisols*, while *Vertisols* constitute only 8 per cent (see Esu, 2005). Apart from the above natural resources, the human resources (estimated at 140 million people) if effectively managed, the nation would be food abundant. Saliu and Omotola (2005) however noted that with these potentials, Nigeria is till food insecure. Reports of Food and Agricultural Organization (FAO, 1992) indicates that there is enough food for all globally, but more than 780 million people are chronically under nourished while millions of people in developing world most especially sub-Saharan Africa are confirmed to have a major problem of food insecurity (see Okuneye, 2001, and Smith, Alderman and Aduayom, 2006).

In Nigeria, more than 80 per cent of Nigeria's rural populations are engaged in one type of agriculture or the other between 1963 and 1964, and the agricultural sector

has contributed about 65 per cent of the nation's Gross Domestic Product (GDP). However, the contribution of agriculture, most especially, food crops have been on the decline and this is attributed to some extent to lack of agricultural credit. (see Aku, 1995; Yesufu, 1997; and Anyanwu *et al.*, 1997). Since food is the basic of human needs for survival, health and productivity, the Federal Government of Nigeria established the Agricultural Credit Guarantee Scheme (ACGS) in 1977 with a capital base of three billion Naira (N3 billion) to guarantee credit extension to Nigerian farmers. Whether this Scheme has successfully achieved its set objective over the years is yet to be seen. The thrust of this paper, therefore is to examine the influence of changes in ACGS loan on food crops output over the years, using a time subscript and difference-in-difference estimator.

2. CONCEPTUAL OVERVIEW: AGRICULTURE, CREDIT AND FOOD SECURITY

2.1 Agriculture and Agricultural Credit: Meaning, Types and Effect

Anyanwu, Oyefusi, Oaikhenan and Dimomo (1997) and Okuneye (2001) define agriculture as involving the cultivation of land, raising and rearing of animals for the purpose of production of food for man, feed for animals and raw materials for industries. It also involves cropping, livestock and forestry, fishing, processing and marketing of these agricultural products. Essentially, agriculture is composed of food production, livestock, forestry and fishing (see also Ijaiya and Ijaiya, 2005).

Ijaiya and Abduraheem (2000) define credit as financial resources obtained at certain period of time with an obligation to repay at a subsequent period in accordance with the term and conditions of the credit obtained. Credit could come from financially able bodies like banks, government or individuals (see also Pearce, 1992; Qureshi *et al.*, 1996). Agriculture credit on the other hand, are loans extended to farmers for production, storage, processing and marketing of farm products. Such credits can be short, medium or long term depending on its duration. The purpose of agriculture credit may also be categorized as livestock production credit, food crop production credit and cash crops production credit depending on the purpose for which the credit is meant (see Aku, 1995, CBN, 2004).

Explaining the effect of agricultural credit on agricultural output, Hagqblade and Hazell (1989) said that agricultural credit can have a secondary spillover effect on non-farm household via input, labour and output linkages. When farmers face a credit constraint, additional credit supply can raise input use, investment and hence output, this they refer to as liquidity effect. Where agriculture still remains a risky activity, better agricultural credit facilities can help farmers smooth out consumption, and therefore, increase the willingness of risk adverse farmers to take risks and make agriculture investments, this they refer to as consumption smoothing effect. Hence, a better agriculture credit may lead to a higher volume of food output, if the increase credit is used to increase fertilizer, private investment in machines and food crops (see also Rosenzweig and Beinswanger, 1993; Binswanger and Khandor, 1993).

Studies have shown that government interventions in form of price control, trade restrictions or "tied" state credit have removed farmers impediments to profit making.

and this has impacted positively on food production (see Trezeciak – Duval, 2003). Qureshi *et al.*, (1996) also observed that an increase in credit to agriculture by governments can also increase food production and farmers' income because as the demand for credit increases, farmers output also increases and consequently improve their well being (see also Ijaiya and Ijaiya, 2005).

2.2 Food Security: Meaning and Determinants

Ojo (1997) defines food security as a situation in which majority of the populace have access to domestically produced food at affordable prices at all times. The World Bank (cited in May 2001) defines food security as access by all people at all times to enough food for an active and healthy life. This definition has two main elements, first the availability of food, through production, storage or Imports; and second, access of people to food, by having the income to buy it or the financial and other resources to grow it.

IFAD (2007) infers that food security is a combination of two distinct problems: a problem of acquirement and a problem of utilization. As the name implies, acquirement refers to the ability of a household and its members to acquire enough food through production, exchange or transfer. However, the capacity to acquire all the food items may not always transform to the ability to utilize the capacity to the fullest. Therefore, a household can be said to be food secure only if it is secure in terms of both the acquirements and the utilization of food.

Discussing the determinants of food security, IFAD (2007) identifies four levels of food security determinants, these are: the ability to improve and maintain the level of acquirement; the ability to cope with shocks to acquirement; the ability to improve and maintain the level of utilization, and, the ability to cope with shocks to utilization. The level of acquirement is described as the endowment set and entitlement mapping. The endowment set consists of all the resources a household owns or over which it had usufructuary rights, whether legal, or convectional. The resources include tangible resources, such as land, animals, machinery, water resources, trees, forests, and common property resources, and intangible resources, such as household's labour power and the rights attached to membership in a community. Using these resources, a household can acquire food either directly through production, or indirectly through exchange and transfer. The richer the endowment set, the better the access to food. While entitlement mapping refers to the rate at which the resources of the endowment set can be converted into food. There are three main components of entitlement mapping: a production component consisting of various input-output ratios or production functions; an exchange component made up of the rates of exchange involved in a trading and a transfer component which could be social security benefits or the free distribution of food grain to the poor through funds. Hence, the endowment set and entitlement mapping together determines a household ability to acquire food. The ability to cope with shocks to acquirement come from several sources, including crop failure, unemployment, higher cost of food, and so on. Some household are better able to cope with these shocks than others. The ability of the household to cope with these shocks will determine their access to food. Besides a certain basic level of food acquirement, a household's food security level would also depend on how well this food was utilized.

The utilization of food encompasses both preparation and storage. The difference in the quality of preparation or storage will yield different levels of food security given the same level of acquirement. For instance, most rural household that produce their own food (and also some that do not) store food for at least a part of the lean season. In most cases, the storage facilities are woefully inadequate, resulting in substantial losses both in the quality and the quantity of food. The efficiency of these preparation and storage facilities will also determine the household access to food at all times. The fourth determinant is anchored on the ability to cope with shocks of utilization. Women play a key role in proper utilization of food and a wife sudden illness is an obvious example of such a shock, therefore the availability and the quality of women's health-care facilities and the existence of a support network that can provide help to women in the performance of domestic chores, will determine the household access to food.

Mano, Isaacson and Dardel (2003) also avert that sound strategic grain reserve policies and agricultural development strategies especially where policy makers recognize the weakness of past agricultural strategies, macro-economic policies, domestic marketing and pricing policies and regional trade regulations, as well as policy environment that favours smallholder rural development, soil fertility and more intensive and diverse land use, based on the domestication of indigenous trees to produce high value products while increasing agroecosystem resilience will transform smallholder farming in Africa into productive and sustainable enterprises and will contribute greatly to food security (see also Sanchez and Leakey, 1997).

Studies on food security in India show that many people have become permanent or attached labourers in rural India of Amrepalle and Shirmpur in order to feed their families, while some tie their stomach with a cloth and go to sleep so that they would not feel hungry (see Cung, Haddad, Ramakrishna and Riley, 1997).

2.3 Agriculture Credit Guarantee Scheme (ACGS) and Food Security in Nigeria: The Trend and Constraints

Despite the 80 per cent fertile agricultural land-mass and human resources estimated at about 140 million people, Nigeria is still food insecure (Esu, 2005; Salu and Omotola, 2003). To arrest this problem of food insecurity, the Federal Government of Nigeria established the Agriculture Credit Guarantee Scheme (ACGS) in 1977 to guarantee credit disbursement to agriculture in the country. However, since food security is reduced to a problem of production and national self-sufficiency in food (see Korf and Bather, 2002), this section discusses the trend of AGCS and food security in Nigeria. The trend of ACGS to food production as indicated in Table I shows that the percentage of ACGS to food production were low between 1978 and 1987, and this low credit is reflected on total food production between 1978 and 1987. However, from 1988 to 2005 there has been an increase in credit disbursement to food production, and this increase is reflected on total food production for the country in the period. This increase was attributed to the effect of the enlightenment campaigns adopted by the Central Bank of Nigeria (CBN) to improve credit delivery; the implementation of the special programme on food security, aimed at attaining self-sufficiency with a US \$42.5 million Unilateral Trust Fund (UTF); the construction of several multi-purpose irrigation dams,

and the approval in 2003 of the recommendations of the presidential committee on how to boost agricultural production and marketing of agricultural products in Nigeria (see CBN, 2003).

Apart from the above factors that improve food production, agriculture production in Nigeria had been constrained by poor credit delivery and even where it is delivered; it does not get to the poor farmers but rather to the rich farmers who divert the loan to other activities that would not benefit food production (see Aku, 1995; Ijaiya and Ijaiya, 2005). The stagnation in food production is also blamed on bad governance. The inadequate supply of fertilizer and farming inputs as well as the time lag between the supply and distribution of agricultural inputs and planting period is erratic, weather and national disasters such as drought and floods, insects and diseases experienced in some states (CBN 1992; 1996).

Table 1
Agricultural Credit Guarantee Scheme (ACGS), to Food Crops and Total Food Crops Production 1998-2005

Year	Total ACGS loan (N'000)	Total ACGS loan to food crops (N'000)	Total food crops output ('000 tones)
1978	11,284.4	2,868.2	51.6
1979	33,596.7	7,456.1	49.9
1980	30,945.0	5,176.3	51.1
1981	35,642.4	7,444.7	52.0
1982	31,763.9	5,706.4	53.2
1983	36,307.5	8,202.6	50.3
1984	25,154.9	3,606.4	55.6
1985	44,242.1	12,498.0	57.5
1986	68,417.4	33,405.3	61.8
1987	102,152.7	56,906.6	49.6
1988	118,611.0	77,949.9	52.4
1989	129,300.3	100,013.1	94.4
1990	98,493.4	79,869.6	100.0
1991	82,107.4	64,944.8	118.0
1992	91,953.0	76,260.7	129.6
1993	80,845.9	70,252.0	133.9
1994	91,821.1	82,072.4	138.5
1995	163,938.6	121,067.6	141.9
1996	243,608.0	171,836.3	150.0
1997	244,025.2	187,491.6	154.8
1998	217,699.0	175,764.8	160.0
1999	246,993.5	204,058.0	165.5
2000	357,832.0	303,677.0	171.0
2001	810,821.1	605,525.7	177.1
2002	1,062,391.8	925,734.7	184.1
2003	1,894,281.4	1,015,194.6	196.2
2004	3,308,704.3	1,807,667.7	168.7
2005	3,066,723.5	2,615,181.1	180.3

Source: Central Bank Statistical Bulletin, 2005

3. DATA SOURCE AND METHODOLOGY

3.1 Data Source

Time series data for the period 1978 to 2005 on the total loan provided by the Agricultural Credit Guarantee Scheme (ACGS) to food security proxy by the total food crops production in Nigeria were used. These data were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin for year 2005.

3.2 The Model

In specifying the model, emphasis is placed on whether the changes on the loans provided by the Agricultural Credit Guarantee Scheme on food crops production has any significant influence on the changes in food security in Nigeria.

Having established the link, the first equation is formulated as follows:

$$FS_t = f(ACGS_t) \quad (1)$$

Following Barro and Sala (1995), Grootaert, Kanbur and Oh (1995), Ijaiya and Ijaiya (2005) methods of analysis that uses a time subscript (t) and a difference-in-indifference estimator (Δ), we therefore model the relationship between the changes in food security proxy by food crop production and the changes in the loan provided by ACGS on food security as follows:

$$\Delta FS_t = f(\Delta ACGS_t) \quad (2)$$

Equation (2) thus describes the changes in food security as a function of changes in loans provided by ACGS.

The introduction of the initial level of the loan provided by ACGS on food security in Nigeria i.e. (FS_t) into equation (2) therefore gives the following equation:

$$\Delta FS_t = f(\Delta ACGS_t, ACGS_t) \quad (3)$$

The transformation of equation (3) into linear equation then becomes:

$$\Delta FS_t = \beta_0 + \beta_1 ACGS_t + \beta_2 \Delta ACGS_t + U \quad (4)$$

Where:

FS_t = the initial level of food security in Nigeria (proxied by food crop production).

ΔFS_t = the changes in the level of food security in Nigeria (proxied by changes in food crop production).

$ACGS_t$ = the initial level of loans provided by Agricultural Credit Guarantee Scheme on food security (in million Naira).

$\Delta ACGS_t$ = the changes in the loans provided by Agricultural Credit Guarantee Scheme on food security (in million Naira).

β_0 = the intercept

β_1 and β_2 = the parameter estimates that stands for the speed of convergence of the loans provided by ACGS, on food security in Nigeria, with a positive value indicating convergence of total loan provided by ACGS, on food security while a negative value indicates a divergence.

U = the term.

To estimate the model, a multiple regression analysis is used in order to reflect the explanatory nature of the variances. To verify the validity of the model, two major evaluation criteria were used: (i) the a-priori expectation criteria which is based on the signs and magnitudes of the coefficients of the variables under investigation; and (ii) statistical criteria which is based on statistical theory, which in other words is referred to as the First Order Least Square (OLS) consisting of R -square (R^2), F -statistic and t -test. The R -Square (R^2) is concerned with the overall explanatory power of the regression analysis, the F -statistic is used to test the overall significance of the regression analysis and the t -test is used to test the significance contribution of the independent variables on the dependent variables (Oyeniyi, 1997).

Drawn from the model, the a-priori expectations or the expected pattern of behaviour between the dependent variable ΔFS , and the independent variables ACGS, and $\Delta ACGS$, are: $ACGS_i > 0$, $\Delta ACGS_i > 0$. Indicating that an increase in the initial level of loans provide by ACGS on food security and a positive change on the loans provided by ACGS, on food security are expected to increase food security in Nigeria.

4. RESULTS AND DISCUSSION

The Results of the regression analysis are presented in Table 2

Table 2
Regression Results of ACGS and Food Security in Nigeria

Explanatory variables	Co-efficient and t-values
Intercept	-12,454.05
(t)	(-0.74)
ACGS _i	0.25
(t)	(11.5)*
$\Delta ACGS_i$	-0.10
(t)	(-1.75)
R^2	0.88
F	95.2

t-values in Parentheses. *statistically significant at 5 per cent level of significance.

A look at the model shows that it has an R^2 of 0.88 which in other words means that 88 per cent variation in the dependent variable (ΔFS_i) is explained by the independent variables ($ACGS_i$ and $\Delta ACGS_i$), while the error term take care of the remaining 12 per cent, which are variables in the study that cannot be included in the model because of certain qualitative features. At 5 per cent level of significance, the F -statistic shows that the model is useful in determining the influence of changes in the loans provided by ACGS on food security in Nigeria as the computed F -statistics which is 95.2 is greater than the tabular F -statistics valued at 5.49.

β_1 and β_2 = the parameter estimates that stands for the speed of convergence of the loans provided by ACGS, on food security in Nigeria, with a positive value indicating convergence of total loan provided by ACGS, on food security while a negative value indicates a divergence.

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Drawn from the model, the a-priori expectations or the expected pattern of behaviour between the dependent variable ΔFS , and the independent variables ACGS, and $\Delta ACF S$, are: $ACGS_i > 0$, $\Delta ACF S_i > 0$. Indicating that an increase in the initial level of loans provide by ACGS on food security and a positive change on the loans provided by ACGS, on food security are expected to increase food security in Nigeria.

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The estimated parameters of the variables (initial level of the loans provided by ACGS on food security and changes in the loans provided by ACGS, on food security are positively and negatively related to food crops production respectively. An indication that the initial level of the loans provided by ACGS on food security induces an increase in food security than the changes witnessed in the loans provided by ACGS on food production in Nigeria: By mere prediction, this result implies that at a point of estimate of 100 per cent, a reduction in the loans provided by ACGS on food security, would have a cumulative effect in reducing food security in Nigeria by 10 per cent in the following year.

5. CONCLUSION AND RECOMMENDATIONS

Using a time subscript (t) and difference-in-difference estimator (Δ) that includes the initial level of the loans provided by ACGS, on food security to the changes in the loans provided by ACGS, on food security, this paper explored the relationship between the changes in the loans provided by ACGS, on food security and changes in food security in Nigeria.

From the results, our findings indicate that the initial level of the loans provided by ACGS on food security has helped improved food security more than the changes experienced in recent times. To improve this, it is essential the following policy measures are put in place:

- The need to build a strong institutional framework for agriculture financing. To achieve this, there is need for an effective legislation that would establish a reliable ground rules for consistent and equitable application of agricultural loans since most of the ACGS, loans in recent times hardly get to the farmers. Besides, there is need for a well-functioning and well-integrated markets for agricultural inputs, (like fertilizer, tractors, harvesters, etc) commodities and processed goods in order to improve food security.
- The government should play an important role in contract enforcement in agricultural development by ensuring timely and just recourse against the failure to meet contract obligations or other abuses in agricultural policies most on especially food production. There is also the need for sustainable macroeconomic policies that would provide a favourable environment for savings and investment in food production as well as transparent incentives for consumers and farmers, this measure will improve food security in the country.
- Financial institutions, most especially banks that are mostly use by the Central Bank of Nigeria to implement the ACGS funds should be made accountable in case there are diversions in the application of the loans. The Central Bank of Nigeria should also ensure that loans get to the farmers at reasonable interest rate as at when due. For effective disbursement, the banks should create specialized units within the banks with the help of non-governmental organizations the newly established micro-finance banks and farmers' co-operations so as to reduce the problem of loan diversion.

References

- Aku P. S. (1995), Comparative Analysis of NACB and ACGSF Loan Disbursement to Agriculture in Nigeria, *Journal of Social and Management Studies*, 2, 99-108.
- Anyanwu J. C., Oyefusi A., Oaikhem H., and Dimowo F. A. (1997): The Structure of Nigerian Economy (1960-1997) Onitsha: Joanee Educational Publisher.
- Barro A., and Sala I. M. (1995), *Economic Growth*, London: McGraw Hill Inc.
- Bates R. H. (1981), *Markets and States in Tropical Africa: The Political Basis of Agricultural Policies*, Berkeley.
- Central Bank of Nigeria (2005), *Statistical Bulletin*, Abuja CBN.
- Central Bank of Nigeria (CBN) (1992), *Annual Report and Statement of Account for the Year Ended 1992*, Lagos CBN.
- Central Bank of Nigeria (CBN) (1996), *Annual Report and Statement of Account for the Year Ended 1996*, Lagos CBN.
- Chung K., Haddad L., Ramakrishna J., and Riely F. (1995), Alternative Approaches to Locating the Food Insured, Qualitative and Quantitative Evidence from South India, International Food Policy Research Institute, Washington. D.C.
- Encarta Encyclopedia (2005), *Agriculture* Microsoft CD.
- Esu I. (2005), "Characterisation, Classification and Management Problems of the Major Soil Orders in Nigeria", *Text of Inaugural Lecture, University of Calabar*, April.
- Grootaert C., Kanbur R., and Oh G. (1995), Dynamics of Poverty-Why Some People Escape and Others Don't: An African Case Study, *World Bank Policy Research Working Paper No. 1499*.
- IFAD (2007), *Food, Poverty and Women: Lessons from Rural Asia*, <http://www.ifad.org>.
- Ijaiya G. T., and Abdullaheem A. (2000), Commercial Banks Credits to the Agricultural Sector and Poverty Reduction in Nigeria: A Calibration Analysis, *Nigerian Journal of Agricbiz and Rural Development*, 1(1), 143-157.
- Ijaiya M. A., and Ijaiya G. T. (2005), The Impact of Agriculture Finance on Agricultural Output in Nigeria, In: *Jugale (Ed.) Poverty Globalization and Human Development*, Serials Publications, New Delhi.
- International Food Policy Research Institute (IFPRI) (2005), *IFPRI's Strategy: Toward Food and Nutrition Security: Food Policy Research, Capacity Strengthening, and Policy Communications*, Updated Washington, D.C. IFPRI.
- Koning N. (2002), Should Africa Protect its Farmers to Revitalize its Economy? International Institute for Environment and Development, *Gatekeeper Series No. 105*.
- United States Agency for International Development (USAID) (1995), *Food Aid and Food Security*, Washington D.C. United States Agency for International Development.
- Mano R., Isaacson B., and Dardel P. (2003), *Identifying Policy of Determinants of Food Security Response and Recovery on the SADC Region: The Case of the 2002 Food Emergency; being Paper Prepared for the FANRPAN Regional Dialogue on Agricultural Recovery, Food Security and Trade Policies in Southern Africa* Gaborone, Botswana, 26-27 March.
- May D. H. (1991), *Agricultural Growth in Africa: Africans Take Charge*, The World Bank, *EDI World Papers*, The World Bank, Washington, D.C.
- Okuneye P. A. (2001), Rising Cost of Food Prices and Food Insecurity in Nigeria and its Implication for Poverty Reduction, *CBN Economic and Financial Review*, 39, 4.
- Okunmadewa F. (1997), "Poverty and Income in Nigeria Measurements and Strategies for Reform, Paper Presented at the Vision 2010 Workshop, April, Abuja.

- Oyeniya T. A. (1997), *Fundamental Principles of Econometrics*, Lagos: Cader Publication.
- Qureshi S., Nabi I., and Faaruqee R. (1996), *Rural Finance for Growth and Poverty Alleviation*, *World Bank Policy Research Working Paper No. 1593*.
- Saliu H. A., and Omotola J. S. (2006), *Food Insecurity and National Question in Nigeria*, In: Saliu H. A., et al., (Eds), *The National Question and Some Selected Topical Issues on Nigeria*, Ibadan: Vantage Publishers.
- Sanchez P. A., and Leakey R. P. B. (1997), *Land Use Transformation in Africa: Three Determinants for Balancing Food Security with Natural Resource Utilization*, *European Journal of Agronomy*.
- Smith L. C., Alderman H., and Aduyaom D. (2006), *Food Insecurity in Sub-Saharan Africa: New Estimates from Household Expenditure Surveys*, International Food Policy Research Institute, *Research Report No. 146*.
- Trzeciak-Duval A. (2003), *Agriculture Finance and Credit Infrastructure-Conditions*, *Policies and Channels Institute of Agricultural Economics, Czech*, 3, 106-112.
- World Bank (1986), *Trade and Pricing Policies in World Agriculture*, *World Development Report*, New York: Oxford University Press.
- World Bank (1996), *Nigeria in the Midst of Plenty, The Challenges of Growth and Inclusion*, *Report No. 14733 UNI*, The World Bank, Washington D.C.
- World Bank (1997), *Rural Development: From Vision to Action, A Sector Strategy Paper*, Washington D.C. The World Bank.
- World Bank (1998), *Human Development Report*, The World Bank, Washington D.C.
- Yesufu T. M. (1996), *The Nigerian Economy Growth without Development*, Benin: Benin Social Sciences Series for Africa.