Effects of Economic Liberalization on the Flow of Commercial Banks Credit to Farmers in Rivers State, Nigeria.

E.A. Allison-Oguru* & Daba Ibifubara Bob-Manuel

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Summary

This study focuses on assessment of the effect of government's economic liberalization policy on the flow of commercial banks credit to farmers in Rivers State. The empirical analyses are based on information obtained from a sample of 25 out of the over 30 commercial banks operating in the State. Results from the analyses indicate that despite the deregulation of interest rates associated with economic liberalization, commercial banks in the State are unable to meet one-half of the loan requests of farmers. The flow of loanable funds can therefore not be said to have been enhanced by interest rates deregulation. It is argued that simply removing restrictions on interest rates is not a sufficient condition for enhanced flow of commercial bank credit to farmers in the State. Such a policy must be complemented with programmes of sharing initial risks and administrative costs between government and the private sector.

Résumé

Effets d'une libéralisation économique sur l'octroi des crédits bancaires aux agriculteurs de Rivers State au Nigéria

Cette étude évalue l'influence de la politique gouvernementale de libéralisation économique sur l'octroi des crédits bancaires aux agriculteurs de Rivers State au Nigeria.

Les informations ont été collectées dans 25 banques parmi les 30 que compte la région. Les résultats obtenus montrent que les demandes des fermiers ne sont pas satisfaites. Malgré l'ajustement des taux d'intérêts par rapport à l'offre et à la demande, les banques ne peuvent pas obtenir le remboursement de la moitié des crédits octroyés suite aux fluctuations. La simple élimination des restrictions des taux d'intérêt ne suffit pas à augmenter le flux des crédits et il faudrait pour cela une politique associant le partage des charges liées aux risques et aux coûts administratifs entre le gouvernement et le secteur privé.

Introduction

Over the years, lending by commercial banks to the agricultural sector of the Nigerian economy has been deplorable (20, 21). This is attributable to factors such as the biological nature of agriculture and the associated risks involved which could lead to either crop failure or cut back in anticipated output thereby disrupting loan repayment schedules of lending institutions. Because commercial banks in the country prefer to lend where returns are surer and less disposed to risk, the industrial and services sectors, which compete with the agricultural sector for loanable funds, enjoy better patronage from commercial banks. The resulting inadequate supply of credit to the agricultural sector has accordingly been identified as one of the major constraints to increased agricultural productivity in the country (5, 6, 7, 14).

In order to ameliorate this deplorable situation, the Federal Government of Nigeria evolved policies aimed at encouraging commercial bank lending to the agricultural sector. Notable among these policies is the Agricultural Credit Guarantee Scheme (ACGS) which was promulgated via Decree 20 of March, 1977 to

provide guarantee in respect of loans and advances granted to the agricultural sector. Under this scheme, the Federal Government of Nigeria guarantees loans given by commercial banks to farmers up to the tune of 75%. Commercial banks were also required to lend at least one-half of their financial resources to enterprises in the agricultural sector. In addition, interest rates for agricultural projects were regulated. For example, it was pegged at between 6 and 7 percent in 1984, between 8 and 9 percent in 1985.

However, with the advent of government's economic liberalization policy in 1986, interest rates became deregulated. Consequently, interest rates for agricultural projects increased from 9 percent in 1985 to between 14-39 percent in 1988. This policy has been in force for the past eight years, but little is known about its effect on the flow of credit to the agricultural sector in Nigeria as a whole and to farmers in Rivers State in particular.

The object of this study is therefore to empirically assess the demand for an supply of credit to the agricultural sector in Rivers State prior to and during the

^{*} Senior author to whom all correspondence concerning this article should be addressed. Department of Agricultural economics, Rivers State University of Science & Technology. Port Harcourt. Received on 16.01.96 and accepted for publication on 31.01.97.

advent of economic liberalization with a view to ascertaining whether the policy has salutory or non-salutory effects on the flow of commercial bank credit to the agricultural sector of the State.

Theoretical Framework and Methodology

1. Theoretical Framework

Economic theory postulates that interest rate, the payment for the use of capital, is one of the key determinants of the demand for and supply of credit (1, 13, 15, 16). The higher the interest rate, the more favourably disposed lenders are to supplying credit and the less favourably disposed users of credit are for demanding it, and vice versa (13, 18, 25). Consequently, in order to increase farmers' access to formal credit, governments of low-income countries have repeatedly resorted to policies of fixing low nominal interest rates on agricultural credit and even lower rates on loans designated for the rural poor (22). These rates are usually below those charged on loans for other businesses and also lower than the rate of inflation (2, 3, 4).

However, nominal interest rates on agricultural loans in some low-income countries are pegged too low for lenders to cover their loan transaction costs and still earn profit. Such rates have been pegged without taking into account the relationships that exist between risks, interest rate policy and the allocation of financial resources by lending agencies. The result is the apathy shown by formal and non-governmental lending agencies towards allocation of loanable funds to the agricultural sector.

Bottomley (9), Donald (11), Madami (19) and Osakwe and Ojo (23) have argued that since interest rate, as the payment for the use of capital, includes reward for risk taking; and the greater the risk element, the higher the interest rate chargeable, lending for projects in the agricultural sector should attract commercial interest rates since agriculture is considered a high risk venture.

A more common argument for low interest rate is that they are necessary to induce farmers to make productive investments and to use new technologies. This is a way for governments to share in the risks of adopting new technologies. Cheap credit as a source of positive influence on entrepreneural behaviour is a simple extension of the keynesian view on interest rates enunciated during the 1930s when real rates of interest were generally very high. Although the extremely high real interest rates during the 1930s undoubtedly discouraged investments, it is much less certain that negative real interest rate currently and widely found in low-income countries, are very necessary to induce socially desirable investments (22).

Datey (10), Ladman (17) and Pablo (24) have argued that many farmers in the low-income countries are insensitive to changes in nominal interest rates because interest payments make up a small part (less than 5%) of their cash expenses. One should therefore not expect these farmers to be highly sensitive to changes in interest rate especially if the quality of loan service is improved. This probably explains the reason why a

large number of rural households regularly borrow from informal credit sources and pay interest rates as high as, if not higher than, those charged by formal lenders. With regard to economic liberalization, it has generally been recognized in development literature that opening an economy to the rest of the world is an integral part of any economic reform and development efforts (12). Consequently, a key element in the structural adjustment strategy adopted by many developing countries, including Nigeria, is the implementation of farreaching trade and financial reforms based on economic liberalization. Such policies in the case of Nigeria include deregulation, the opening up of the domestic economy to external forces, and the adoption of outward-oriented development policies (8). Theoretically, these measures are designed to eliminate distortions in the allocation of resources, increase competition, and encourage productivity in order to achieve higher and sustained rates of economic growth.

A major feature of Nigeria's economic liberalization policy is the restructuring of the financial sector of the economy. This entails relaxation of regulations, elimination of interest rate ceilings, and opening up the nation's capital account by reducing the restrictions on international capital mobility. The theoretical expectation is that the resulting free flow of funds in the financial sector is expected to increase the availability of financial resources, induce interest rate arbitrage, and reduce cost of credit to the private sector. The pertinent question is: how far have these expectations aided the flow of credit to farmers in Rivers State?

2. Methodology

2.1. Data Used for the Study.

The data used for this study were principally collected through secondary sources such as government and commercial banks publications, journal articles, and seminar/conference papers. These data were supplemented with information obtained from interviews with bank officials. The data comprised lending rates, number of applications for credit, amount (in Naira) of credit request through such applications, number of applications approved, and the amounts of money disbursed between 1980 and 1991. The data were collected from a sample of 25 out of over 30 commercial banks operating in Rivers State, Nigeria.

A combination of purposive and random sampling techniques was employed in drawing the sample. Purposive sampling technique was employed in selecting the commercial banks to be included in the study based on how long they have been in operation and whether or not they have a well established agricultural credit department. This was done in order to exclude some of the "new generation" commercial banks without long standing experience in agricultural financing. Out of the about 30 commercial banks so selected, random sampling technique was employed in selecting the 25 eventually studied. Use was made of random numbers in this exercise. Data collection was done through the use of structured questionnaire administered to the commercial banks concerned.

2.2. Hypotheses.

In order to empirically assess whether or not the policy of interest rates deregulation associated with governments economic liberalization has had any significant effect on the demand for and supply of credit in Rivers State, Nigeria, the following statistical hypotheses are proposed.

1. There is no significant difference between the aggregate amount of loans demanded by farmers in Rivers State prior to and during the advent of economic liberalization. Mathematically, this is stated thus:

$$\begin{array}{ll} \text{H}_{\text{o}}\text{: }\overline{X}_{1}=\overline{X}_{2} & \quad \text{Null Hypothesis} \\ \text{H}_{\text{A}}\text{: }\overline{X}_{1}\neq\overline{X}_{2} & \quad \text{Alternative Hypothesis} \end{array}$$

Where \bar{X}_1 = Mean volume of aggregate loans requested by farmers in Rivers State prior to the advent of economic liberalization.

 \overline{X}_2 = Mean volume of aggregate loans requested by farmers in Rivers State during the advent of economic liberalization.

2. There is no significant difference between aggregate amount of loans granted to farmers in Rivers State by commercial banks operating in the State prior to and during the advent of economic liberalization. Mathematically, this is stated thus:

$$H_o: \overline{Y}_1 = \overline{Y}_2$$
 Null Hypothesis $H_a: \overline{Y}_1 \neq \overline{Y}_2$ Alternative Hypothesis

Where \overline{Y}_1 = Mean volume of aggregate loans granted by commercial banks to farmers in Rivers State prior to the advent of economic liberalization.

 \overline{Y}_2 = Mean volume of aggregate loans granted by commercial banks to farmers in Rivers State during the advent of economic liberalization.

The student t-statistics employed in testing the above stated hypotheses are given as:

$$t_1 = \frac{\overline{X}_1 - \overline{X}_2}{S\overline{x}_1 - S\overline{x}_2} \text{ for Hypothesis 1}$$

and
$$t_2 = \frac{\overline{Y}_1 - \overline{Y}_2}{S_{\overline{Y}_1}^- - S_{\overline{Y}_2}^-}$$
 for Hypothesis 1

Where \overline{X}_1 and \overline{X}_2 ; and \overline{Y}_1 and \overline{Y}_2 are as defined previously while $\overline{S}x_1$ and $\overline{S}x_2$ and $\overline{S}y_1$ and $\overline{S}y_2$ are the estimated standard errors of the difference between two set of means \overline{X}_1 and \overline{X}_2 ; and \overline{Y}_1 and \overline{Y}_2 .

Results and Discussion

1. Commercial Banks' Lending Procedure.

All the commercial banks studied require formal application and a project feasibility report as basic requirements for granting loan to farmers in the State.

The application is made either in writing on a prescribed sheet of paper provided by the bank or on an ordinary paper of the applicant's choice. Following receipt of such formal application, the bank pays an inspection visit to the farm concerned, if it is an existing one; or the proposed site, if it is a new farm about to be developed. The purpose of such visit is to enable the bank's credit officers confirm the basic claims made by the applicant for credit in the feasibility report and loan application.

Armed with first hand information obtained from the field inspection visit, the bank's credit officers then carry out a thorough appraisal of the financial and economic viability of the investment proposal before them with a view of determining whether or not it is worth financing. At the end of this exercise, a comprehensive report is written about the loan application and forwarded to the bank's credit Committee which finally decides whether the loan application should be granted or not based on the recommendations contained in the appraisal report.

Besides project viability, commercial banks in the State were observed to insist on prospective loan beneficiaries providing any or a combination of the following securities: Landed property, Central Bank of Nigeria Guarantee, Life and Accident Policies, Personal Guarantee, joint guarantee in the case of cooperative society, etc.

Disbursement of loans to farmers is done in accordance with disbursement schedules prepared by the banks. Disbursement is done either in cash or kind or both. To enable the farmer receive cash disbursements, he is required to open an account with the bank extending the credit facility so that such cash disbursements are merely credited to his account with the bank concerned.

Although, loan disbursement schedules are usually prepared by the commercial banks studied, they are hardly followed to the letter. The result is frequent incidents of delays in loan disbursements.

All the commercial banks studied supervised loans granted to farmers in the State. Loan supervision assumes several dimensions in the banks studied. These dimensions include:

- monitoring of projects financed by the respective banks.
- provision of advisory services to farmers to whom credit facilities have been provided.
- assisting farmers in procuring needed farm inputs, etc.

2. Prevalent Interest Rates.

Following the policy of government to ensure that commercial banks provide cheap credit to farmers in the country in order to encourage them to adopt modern agricultural production technologies, interest rates for agricultural loans were fixed at levels lower than what obtained in other sectors of the economy prior to the advent of economic liberalization. The rate was observed to range between 6 and 10 percent during this era. However, with the advent of economic liberalization, interest rates in the economy became deregulated - the rates being determined by the forces of demand and supply. As a result, interest rates for agricultural lending became generally higher than what they were prior to the advent of economic liberalization.

Besides, different banks charged different interest rates

Table 1
Annual Average Interest Rates charged by Commercial Banks on Agricultural Loans in Rivers State (1980-1990)

	Lending Rates of Commercial Banks (%)		
Year	Minimum	Maximum	
Pre-Economic Liberalizaton Era :			
1980	7.5	10.5	
1981	7.5	10.5	
1982	7.5	10.5	
1983	9.50	13.00	
1984	10.00	13.00	
1985	11.00	13.00	
Economic			
Liberalization Era:			
1986	11.00	15.00	
1987	12.00	18.00	
1988	13.00	19.25	
1989	20.00	25.00	
1990	26.00	30.00	

Source: Various Issues of Central Bank of Nigeria's Annual Report and Statement of Accounts.

on loans granted to the agricultural sector depending on the forces of demand and supply and/or how favourably disposed they are toward lending for agricultural purposes. Such rates were also observed to vary from year to year depending on government's monetary and fiscal policies. For the commercial banks surveyed, the annual average interest rate charged for agricultural loans during the period 1980-1990 is shown in Table 1.

Generally, the nominal interest rates charged by Commercial banks in the State were observed to be lower than the rates of inflation (Table 2). This was the case prior to and during the advent of economic liberalization. On average, therefore, it can be argued that real interest rates charged by the commercial banks surveyed were negative during the period under consideration. Though it is expected a priori that with the perceived high inflation rate (i.e. the general increase in price level in the economy) that is associated with deregulation of nominal interest rates, real interest rates should be negative during the economic liberalization regime, the information in Table 2 states otherwise. Real interest rates were negative only in 1988 and 1989.

Curiously, real interest rates were also negative in 1980, 1981, 1983 and 1984 prior to economic liberalization. These results suggest that inflation is a common feature of the Nigerian economy, a feature that can not be attributed solely to government's economic liberalization policy.

3. Demand for and Supply of Agricultural Credit.

In terms of number of loan requests made by farmers in Rivers State during the period 1980-1990, the commercial banks studied were observed to have met less than one-half of them. Out of 3,759 loan requests made during this period; only 1,247 representing 33.17% were granted. Specifically, prior to the era of economic liberalization a total of 1,104 farmers requested for

Table 2
Inflation and Real Interest Rates on Agricultural Loans in
Rivers State (1980-1990)

Year	Inflation Rate	Mean Nominal Interest Rate	Mean Real Interest Rate
Pre-Economic			
Liberalization Era	a:		
1980	9.9	9.0	-0.9
1981	20.9	9.0	-11.9
1982	7.7	9.0	+2.7
1983	23.2	11.25	-11.75
1984	39.6	11.50	-28.1
1985	5.5	12.0	+6.5
Economic			
Liberalization Era	ı :		
1986	5.4	13.0	+7.6
1987	10.2	15.0	+4.8
1988	38.3	16.0	-22.3
1989	40.9	22.5	-22.4
1990	7.5	28.0	+21.5

Source: Computed from Data obtained from various Issues of Central Bank of Nigeria's Statistical Bulletin.

commercial bank loans out of which only 433 representing 39.22% were granted loans by the commercial banks studied. During the period of economic liberalization, a total of 2,655 farmers requested for bank loans out of which only 814 representing 30.66% were granted loans (Table 3). These results indicate that despite the increase in nominal rate of interest occasioned by government's economic liberalization policy, more farmers in the State requested for agricultural loans from commercial banks in the State.

This probably indicates that farmers in the State are insensitive to the increase in nominal interest rates occasioned by government's economic liberalization policy. This conforms to earlier observations made by Datey (10), Ladman (17) and Pablo (24).

Also, in terms of the aggregate amount of loan in Naira requested by farmers in the State, the commercial banks studied hardly met one-half of such requests. For example, prior to the era of economic liberalization, aggregate amount of loan requested by farmers in the State was estimated at N79.3 million out of which only N33.5 million, representing 42%, was approved and disbursed by the commercial banks concerned. Conversely, out of an aggregate amount of loan request of N33 million made by farmers in the State during the advent of economic liberalization, only N13 million representing 40% was approved and disbursed by commercial banks in the State (Table 4).

A visual comparison of the aggregate amount of loan requests by farmers in the State prior to and during the advent of economic liberalization indicates a sharp drop in amount of loan requisition, although the number of loan applications filed increased significantly. For instance, prior to economic liberalization, farmers in the State requested for an aggregate loan of 79.3 million while the corresponding amount requested during the advent of economic liberalization is only 33 million. This represents a shortfall of about 67%. This shortfall in aggregate amount of loan request in the face of increase

Table 3
Demand for and Supply of Farm Credit as Measured by Number of Loan Requests and Approvals (1980-1990)

Year	Number of Loan Requests	Number of Requests Granted	Percentage of Loan Requests Granted
Pre-Economic			
Liberalization			
1980	237	137	57.81
1981	214	84	39.25
1982	194	83	42.78
1983	182	72	39.56
1984	153	35	22.88
1985	124	22	17.74
Economic			
Liberalization	Era:		
1986	100	46	46.00
1987	284	76	26.76
1988	323	176	24.49
1989	1167	310	25.79
1990	781	215	27.53
Total	3759	1,247	

Source: Survey Data, June 1993.

in number of loan applications could be attributed to farmers' sensitivity to the increase in nominal rate of interest. With the increase in nominal rate of interest, farmers in the State might have thought that they would be better off requesting for smaller amounts of loan in order to minimise cash outlay on interest.

A sharp drop in the aggregate amount of loan approved and disbursed by the commercial banks studied prior to and during the advent of economic liberalization was similarly observed. For instance, prior to economic liberalization, the commercial banks approved and disbursed N33 million while during the advent of economic liberalization only N13 million was approved and disbursed. This represents a shortfall of about 40% (Table 4).

The observed difference between aggregate amount of loan requested by farmers in the State prior to and during the advent of economic liberalization was subjected to statistical analysis. The calculated t₁-value (7.81) was observed to be significantly different from the table t-value (3.25) at the 1% level of significance with 23 degrees of freedom. The null hypothesis is therefore rejected and the alternative hypothesis accepted. It can therefore be inferred that there is signigicant difference between the aggregate amount of loan requested by farmers in the State prior to and during the advent of economic liberalization.

Similarly, the difference between aggregate amount of loans approved and disbursed by commercial banks to farmers in the State prior to and during the advent of economic liberalization was subjected to statistical analysis. The calculated $\rm t_2$ -value (6.13) was significantly greater that the table t-value (3.25) at the 1% level of significance with 23 degrees of freedom. The null hypothesis is similarly rejected and the alternative hypothesis accepted. It can therefore be inferred that there is significant difference between the aggregate amount of loans approved and disbursed by commercial banks to farmers in the State prior to and during the advent of economic liberalization.

Table 4
Demand for and Supply of Farm Credit as measured by Amount of Loan Requisited by and Granted to Farmers in Rivers State (1980-1990)

Year	Amount of	Amount of	Percentage
	Loan Requisited (N)	Loan Disbursed (N)	Short-fall
	ricquisited (14)	Disbursed (14)	
Pre-Econ	omic		
Liberaliza	tion Era:		
1980	23,150,000	10,545,000	45.55
1981	24,850,000	9,379,500	37.74
1982	15,065,000	7,337,000	48.70
1983	6,456,000	2,214,000	34.29
1984	4,420,000	1,900,000	42.99
1985	5,310,000	2,065,000	38.88
Economic			
Liberaliza	tion Era:		
1986	1,020,000	850,000	83.33
1987	4,978,000	2,385,000	47.91
1988	5,130,000	1,505,000	29.34
1989	10,210,000	5,673,000	55.56
1990	11,590,000	2,900,000	25.02
Total	112,209,000	46,563,500	_

Source: Survey Data, June 1993.

These results suggest that mere deregulation of interest rates does not guarantee enhanced flow of agricultural credit to farmers in Rivers State. Deregulation of interest rates must be complemented with policies and programmes aimed at improving the quality of loan delivery by commercial banks if the flow of credit to farmers in the State is to be enhanced.

Conclusion

This study has shown that despite the deregulated rates of interest charged by commercial banks during the era of economic liberalization, the flow of credit to farmers in Rivers State have not improved significantly compared to the situation prior to the era of economic liberalization. Although the demand for credit by farmers in the State as expressed by aggregate amount of loan (in naira) requests have declined considerably in response to increases in nominal interest rates, commercial banks in the State have hardly met one-half of such loan requests. Whereas farmers in the State could be said to have responded to the economic stimulus of increased interest rates by considerably reducing the aggregate amount of loan requests, commercial banks do not seem to have responded by making more credit facilities available to the farmers.

It can therefore be argued that simply removing restrictions on interest rates as was the case during the era of economic liberalization is not a sufficient condition for enhancing the flow of loanable funds to farmers in the State. Deregulation of interest rates must therefore be complemented with programmes aimed at sharing the initial risks and administrative costs associated with agricultural lending between the public and private sectors. In addition, there is the need for general improvement in the quality of loan service if deregulation in interest rates is to enhance flow of loanable funds to farmers in the State.

Literature

- Adams D.W., 1971. Agricultural Credit in Latin America: A Critical Review of External Funding Policy. American Journal of Agricultural Economics 53(2): 163-172.
- Adekanye T.O., 1983. Agricultural Credit in Africa: Implications of the Nigerian Experience. Agricultural Administration 14(2): 203-211.
- Agu C.C., 1983. Rural Banking: A Strategy for Rural Development in Nigeria - An Appraisal. Savings and Development 2(3): 104-112.
- Ajakaiye M.B., 1984. The Role of Banks in Financing Private Sector Investments in Agriculture. In the Private Sector and Nigeria's Agricultural Development. Adeniyi O. (ed), ARMTI, Illorin.
- Asika N.M. & Nwachukwu R.O., 1988. The Role of Nigerian Commercial Banks in Agricultural Financing. Nigerian Journal of Business Administration 1(2): 10-15.
- Balogun E.D., 1986. "Sources of Finance to Agriculture" Paper Presented at the Allied Bank National Workshop on Nigerian Agriculture, Conference Centre, University of Ibadan, Ibadan.
- Balogun E.D. & Otu M.F, 1991. Credit Policies and Agricultural Development in Nigeria, Central Bank of Nigeria Economic and Financial Review No. 29.
- Blejer M. & Sagari S., 1988. Sequencing the Liberalization of Financial Markets. Finance and Development 25(1): 18-20.
- Bottomley A., 1975. Interest Rate Determination in Underdeveloped Rural Areas. American Journal of Agricultural Economics, May 1975, pp. 279-291.
- Datey C.D., 1978. The Financial Cost of Agricultural Credit: A case study of Indian Experience. World Bank Staff Working Paper No. 296, Washington, D.C.
- Donald G., 1976. Credit for Small Farmers in Developing Countries. Westview Press.
- Edwards S., 1987. Sequencing Economic Liberalization in Countries. Finance and Development 24(1): 26-29.
- Howell J. Ed., 1980. Borrowers and Lenders: Rural Financial Markets and Institutions in Developing Countries. Overseas Development Institute, London.

- Ihimodu I.I., 1986. Financing Increased Food Production: The Role of Financing Institutions. Paper Presented at the Allied Bank National Workshop on Nigerian Agriculture, Conference Centre, University of Ibadan, Ibadan.
- Jhingan M.L., 1977. Micro-Economic Theory, New Dehli, Vikas Publishing House, pp. 549-551.
- Koutsoyiannis A., 1979. Modern Micro-Economics, 2nd edition; New York, Macmillan Press. p. 161
- Ladman J.R., 1984. Political Economic of Agricultural Credit. American Journal of Agricultural Economics 61(1): 66-72.
- Lipton M., 1976. Agricultural Finance and Rural Credit in Poor Countries. World Development 4(7): 543-553.
- Madami D., 1986. An Address Presented on the First Bank Launching of N100 million Community Farming Scheme. First Banker 2(3): 19-21.
- Ogwuma P.A., 1985. The Role of Banks in Agricultural Financing, Bullion: Central Bank of Nigeria Publication, 9(4): 10-15.
- Ojo M.O. & Akanji O.O, 1983. A Preliminary Assessment of the Agricultural Credit Guarantee Scheme in Nigeria. Central Bank Economic and Financial Review, 21(3): 30-34.
- Okerenta S.I., 1993. Demand for and Supply of Agricultural Credit to Farmers in Rivers State. Unpublished M.Sc. Thesis, Department of Agricultural Economics, RSUST; Port Harcourt.
- Osakwe J.O. & Ojo M.O, 1987. An Appraisal of Public Sector Financing of Agricultural Development in Africa, CBN Economic and Financial Review 24(2): 18-24.
- Pablo R., 1979. Lending Activities Among Groups of Small Farmers in Banao Area of the Dominican Republic. Unpublished M.Sc. Thesis, Ohio State University.
- Roumasset J.A., Boussard J.M. & Singh I.. 1979. Eds. Risk, Uncertainty and Agricultural Development. Agricultural Development Council, New York.

E.A. Allison Oguru, Nigerian, M. Phil., Agricultural Economics, Senior Lecturer, Dept. of Agric-Econs & Ext., RSUST, PMB 5080, PHC. Daba Ibifubara Bob-Manuel, Nigerian, Bsc Agricultural Economics & Extension, Final Year Undergraduate Student of Agricultural Economics & Extension, RSUST, PMB 5080, PHC.