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Trends in budgetary expenditure on the agricultural sector in Nigeria (1977-2004)

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The study estimated trend equations for budgetary expenditure on Nigeria agricultural sector between 1977 and 2004. Secondary data in the form of budgetary expenditure records were obtained from various publications of Central Bank of Nigeria (CBN) and Federal of Statistics (FOS). Results from the fitted trend equations showed that budgetary expenditures on agriculture were generally low and insignificant (p>0.05). Annual compound growth rate of expenditure on the sector was also low (1.02%) and fluctuating for the entire period under review. Furthermore, the fitted quadratic equations in time variable showed the absence of either significant acceleration or deceleration in expenditure growth on agriculture. This, therefore, confirms that expenditure growth on agriculture had been stagnant, suggesting a case of financial neglect of the sector. Based on these findings, the study recommends deliberate efforts by Government to increase funds to agriculture in order to boost self-sufficiency in food production and reduce poverty in Nigeria.

Key words: Trends, budgets, agriculture, expenditure, Nigeria.

INTRODUCTION

Government pronouncements over the years have indicated that the agricultural sector occupies a priority position in national development programmes. In fact, the large number of agricultural institutions such as the Agricultural Development Projects, River Basin Development Authorities, Agricultural Development Banks and others, as well as the series of government campaigns and slogans directed at the sector in recent years may be cited as evidence of government's concern for the development of the sector. Despite the institutions, campaigns and slogans, farm production has failed to keep pace with food demands (Obadan, 1998; NISER, 2003). Apart from the commonly stated problems of poor input distribution, inefficient marketing, low level of farm technology and poorly coordinated extension systems, there is the need to also consider the magnitude of funds actually spent on agricultural programmes. The successive development plans of countries find expression in the annual budgets, which make financial provisions for public investments in enterprise and infrastructure. Thus, the budget speech at the beginning of each year attracts considerable political attention particularly in developing countries where peoples' expectations rise spontaneously based on new allocations

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in the budget for improving their living standards within the short run (Ayoola and Oboh, 2000).

However, the annual budget as a policy instrument for implementing poverty reduction programmes in the plan has been criticized frequently as biased against agriculture in preference to other sectors of the Nigerian economy (Oboh, 2001). This criticism reflects in the popular explanation of the poor performance of developing economies in terms of a chronic "neglect" of the agricultural sector. It is expected that the current rising revenues derived from petroleum should be invested largely in agriculture and agro-industrial development in increasing both the productive and absorptive capacity of the sector.

Inspite of the re-echoing of the problems of inadequate funding of agriculture by several experts, an in-depth and long-term trend analysis of expenditure on the agricultural sector was yet to be carried out. This study is, therefore, designed to estimate trend equations for the actual budgetary expenditure on the agricultural sector in Nigeria between 1977 and 2004.

METHODOLOGY

Data

Secondary data in form of budgetary expenditures on the agricultural sector were obtained from various issues of the statistical bulletin of the Central Bank of Nigeria (CBN) and abstracts of statistics published by the Federal Office of Statistics (FOS) covering 1977 to 2004.

Method of data analysis

Annual compound growth rates of budgetary expenditure on the agricultural sector were computed by fitting exponential equations in time variables to the data as follows:

$$Q = a_e\, bt \quad (1)$$

Which when linearised in logarithms becomes

$$\text{Log } Q = a + bt \quad (2)$$

Where Q is budgetary expenditure on the agricultural sector, t is the time trend variable and 'a' and 'b' are the regression parameters to be estimated.
The annual compound growth rate (r) in budgetary expenditure on the agricultural sector is given as

$$r = (e^b - 1) \times {}^{100}/_{1} \quad (3)$$

Where e is Euler's exponential constant (2.71828). The estimating Equation (2) was fitted to the budgetary expenditure data on agriculture for three periods as follows:

Period 1: 1977 – 1985(Pre-economic reform period)
Period 2: 1986 – 2004(Economic reform period); and
Period 3: 1977 – 2004 (Entire period).

In order to confirm the existence of acceleration or deceleration or stagnation in budgetary expenditures, quadratic equations in time variables are fitted to the data for the three periods as follows:

$$\text{Log } Q = a + bt + ct^2$$

According to the above specification, the linear and quadratic time terms define the secular path in the dependent variables (Q), while the quadratic time term (t^2) allows for the possibility of acceleration or deceleration or stagnation in growth during the period of study (Sawant, 1981; Onyenweaku, 2004; Onyenweaku and Okoye, 2005). Significant positive value of the coefficient of t^2 confirms significant acceleration in growth, significant negative value of t^2 confirms significant deceleration in growth while non-significance of the coefficient of t^2 implies stagnation or absence of either acceleration or deceleration in the growth process.

RESULTS AND DISCUSSION

Estimated trend equations

The estimated trend equations for budgetary expenditure on the agricultural sector are presented in Table 1 for the three periods under review. The coefficient of the time trend (b) is positive and statistically non-significant across the three periods. This implies that government budgetary expenditure on agriculture remained the same (low and insignificant) during the pre-reform period, reform period as well as the entire period.

Computed annual compound growth rate

Table 2 showed the computed annual compound growth rate of budgetary expenditure on agriculture across the three periods. During the pre-reform period, expenditure grew at a compound rate of 12.16% per annum, declined to 0.13% during the reform period while it grew at a rate of 1.02% for the entire period. The decline in expenditure growth rate during the reform period means that the structural adjustment efforts of government did not translate into any improvement in expenditure growth on the agricultural sector (CBN/NISER, 1992).

Estimated quadratic equations

The estimated quadratic equations in time variable for budgetary expenditure on Nigerian agriculture is shown in Table 3. The coefficient of t^2 for the three periods (pre-reform. reform and the entire period) were statistically insignificant. This result confirms the absence of any significant acceleration or deceleration in the growth of budgetary expenditure on Nigerian agriculture. In other words, expenditure on agriculture for the periods under review has been stagnant. This suggests that the agricultural sector has been consistently neglected in terms of funding as observed by Imoudu (2005). This stagnation in the annual growth of expenditure on agriculture betrays credibility gap between the usually stated priority status accorded agriculture and the

Table 1. Estimated trend equations for budgetary expenditure on agriculture in Nigeria (1977 – 2004).

Budgetary expenditure per period	Estimated parameter			
	a	b	r^2	F
Pre-reform period	1.958	1.698	0.484	5.621
(Period 1)	(0.654)	(2.371)		
Reform period	9.273	0.165	0.019	0.344
(Period 2)	(2.966)	(0.586)		
Entire period	6.125	0.228	0.075	2.106
(Period 3)	(2.804)	(1.451)		

t – ratios are in parentheses; *** significant at 1%.

Table 2. Compound growth rates of budgetary expenditure on agriculture in Nigeria (1977 – 2004).

Periods	Growth rate
1	12.6 (3.261)
2	-0.13 (-0.122)
3	1.02 (1.451)

t – ratios are in parentheses.

Table 3. Estimated quadratic equations in time variables for budgetary expenditure on Agriculture in Nigeria (1977 – 2004).

Actual expenditure for period	Estimated parameter				
	a	b	c	R^2	F
1	0.132	0.346	-0.032	0.831	12.259
	(0.888)	(3.478)	(-2.377)		
2	0.942	-0.127	0.003602	0.163	1.661
	(8.266)***	(-1.817)	(1.818)		
3	0.635	0.04043	-0.0011	0.123	1.745
	(4. 047)***	(1. 502)	(-1.165)		

t – ratios are in parentheses,*** significant at 1%.

willingness of government to release adequate funds to develop the sector. The implication is that, new projects and programmes may suffer implementation since there is no significant increase in expenditure on agriculture.

Conclusion

The results of this study have confirmed stagnation in budgetary expenditure on the agricultural sector. This is an evidence of lack of financial commitment to the agricultural sector, which is the mainstay of Nigerian economy. From the foregoing, agriculture appeared marginalized as exemplified by the non-significant budgetary expenditure on the sector before and during the reform periods. There is, therefore, the need for Government to deliberately increase the funding of the agricultural sector. This may help to implement new projects and programmes aiming at boosting food self-sufficiency and reducing poverty in Nigeria.

Conflict of Interests

The authors have not declared any conflict of interests.

REFERENCES

Ayoola GB, Oboh VU (2000). A model of public expenditure to reveal the preference for agriculture in the budget. AJ. Rural Econ. Develop. 14:56-73.

Central Bank of Nigeria: Statistical Bulletin, CBN Lagos, Various Issues

CBN/NISER (1992). Impact of Structural Adjustment Programme (SAP) on Nigerian Agriculture and Rural Life Federal Office of statistics: Annual Abstract of Statistics, Various 1:18-20.

Imoudu PB (2005). Government Policies towards the sustainability of agricultural rebirth in Nigeria: Challenges and opportunities. Lead Paper Presented at the 39th Proceeding of the Annual Conference of the Agric. Society of Nigeria (ASN) held at University of Benin, Edo State, Nigeria between 9th – 13th October, pp. 24–33.

National Institute for Social and Economic Research (NISER) (2003). Review of Nigerian Development Policy 2001/2002: Understanding Poverty in Nigeria. Ibadan.

Obadan M (1998). Managing the Nigerian Economy in the next Millennium: Strategies and Policies. Journal of Economic Management. Vol. 5, No. 1 National Centre for Economic Management and Administration, Ibadan.

Oboh VU (2001). The preference for agriculture in public expenditure: An Empirical Evidence from Nigeria (1970 – 1995) M.Sc. thesis submitted to Dept. of Agric. Econs, University of Agriculture, Makurdi. pp. 28-51.

Onyenweaku CE (2004). Stagnation, Acceleration and deceleration in Agricultural Production in Nigeria, 1970 – 2000. J. Agric. Food Sci. 2(2):131-140.

Onyenweaku CE, Okoye BC (2005). Trends in Cassava output, area and productivity in Nigeria 1960/1961 – 2003/2004. Proceedings of the 39th Annual Conference of the Agric. Society of Nigeria (ASN) held at University of Benin, Edo State, Nigeria between 9th – 13th October, pp. 19-21.

Sawant SD (1981). Investigation of the hypothesis of deceleration in Indian Agriculture. Indian J. Agric. Econ. 36(3):475-496.