AGRICULTURAL TAXATION AND ECONOMIC DEVELOPLENT

IN

NIGERIA

AGRICULTURAL TAXATION AND ECONOMIC DEVELOPMENT IN NIGERIA

BY

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A dissertation submitted to the University of Essex in partial fulfilment of the requirements for the Degree of Masters of Arts in Economics.

(September) 1976.

ACKNOWLEDGEMENT

I am deeply indebted to Mr. P. N. Junankar not only for supervising this work but also for his method of teaching and bubbling enthusiasm which kindled my interest in this field of study.

My thanks also go to Professor Walter Elkan of the Department of Economics, University of Durham for his invaluable contribution in giving me sources of information and statistical materials. I am also grateful to the Commonwealth Universities Commission and Ahmadu Bello University Zaria Nigeria who financed my studies and all my lecturers of the Department of Economics of the University of Essex whose contributions are worth mentioning.

I am also grateful to Miss Christiana for typing the dissertation. She has taken pains to accommondate my writing errors.

Last but not least, I would like to thank my wife, Caroline, without whose help and encouragement I would not have undertaken this course. I would like to add that this piece of work is dedicated to my children, Fola, Bisi, Bunmi, and Dupe, their love for me is enough gesture to merit the dedication.

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CHAPTER 1: Introduction

1.1. Introduction

1.2. Aim and Scope of the dissertation

1.3. Outline of the dissertation

1.1. Introduction:-

Nigeria, like most LDCs, relies heavily on the agricultural sector for its economic development especially as this is the predominant sector, providing employment for about seventy-nine per cent (79%) of the population and contributing fifty-six per-cent (56%) to the GNP. Agricultural exports also contributes fifty-eight per cent (58%) of the total exports.(1)

One of the common characteristic of an LDC is what is referred to as "dualism". The term dualism has come to have a number of meanings but basically it refers to a persistent and increasing gap, on an international level between the developed and less developed countries, and within LDCs between the advanced, modern exchange sector and the traditional agricultural sector. Economic development in the context of the dual economy involves a major transformation of the economy from one which is dorminantly agricultural to one containing a large and growing urban industrial sector. See Fei and Ranis (15), Jorgenson (24), Lewis (29). Agricultural taxation is thus the chosen instrument charged with the vital task of transferring surplus food, labour and capital to the nonagricultural sector, as well as with reallocating resources within agriculture to increase the transferable surplus. Taxes on agriculture are also needed to restrain a rise in rural food consumption which would increase urban food prices and hence the rate of inflation.

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(1). Source: FAO 'The state of food and agriculture 1970'.

It is therefore not surprising that the Nigerian government depends heavily on this fiscal tool in its developmental effort, although the fact should be conceeded that its dependence on this source of revenue has been declining in recent years as a result of the discovery of petroleum which now becomes Nigeria's major source of revenue. Nevertheless, the continued contribution of the agricultural sector in order to maintain a balance between the agricultural sector and the nonagricultural sector must be emphasized since such balance in my opinion is necessary for 'optimal' [1] developmental results.

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(1). Fei and Ranis in their analysis stated that for successful development in LDCs, a 'balanced' investment program is required in the industrial and agricultural sector. Overinvestment in one sector and underinvestment in the other sector results in developmental constraints. For a detaited analysis, see (15) and (30) Pp 37-40.

1.2. Aim and Scope of the Dissertation:-

The aim of this dissertation is to undertake a study of the role of agricultural taxation in the economic development of Nigeria. There has not been any specific study done in this area in this form even though I must admit that previous related studies have concentrated only on the activities of marketing boards. In particular, P. T. Bauer's studies (5) and (6) of marketing boards were focussed on output effects of marketing board taxes, so also were studies made by G. K. Helleiner (19), Olatunbosun and Olayide (40), Olayide, Ogunfowora and Essang (42), Terba and Olakanpo [1] examined the fiscal, monetary and investment implications of the boards.

I believe that there is a need to reexamine the literature largely because of new facts and developments. In particular with respect to new literature, consider the impact of agricultural taxation on employment since unemployment is one of the major economic problems which Nigerians must address themselves to. While the writer relies heavily on existing and available literature in this field of study, I am able to bring in some original ideas which previous writers have inadvertently neglected or were not existing at the time of their writing.

The writer is not pretending in this dissertation to have provided an exhaustive and detailed exposition of existing literature but is providing a spadework upon which future theoretical and quantitative studies would be undertaken.

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(1). See 'Fiscal, Monetary and Investment Implications of the Marketing Boards' (Mimeo) Paper presented at International Conference on the Marketing Board system, Ibadan, 1971.

One of the immediate flaws noticeable in this dissertation is lack of recent data. The principal reason being my inability to obtain currecnt data from the most convenient sources in Britain. The time constraint also means that it is impossible to obtain them from Nigeria and submit the dissertation within the stipulated period. Nevertheless, these figures to the best of my knowledge, give an almost accurate picture of the existing situation and conclusions which would have been reached with more recent data are not adversely affected.

Obviously, a work of this nature cannot hope to cover the multitude of issues involved in the study of the role of agricultural taxation in the economic development of Nigeria. This is why one has to make a decision as to what aspects one feels are worthy of immediate exploration. This dissertaion is therefore concerned with an analysis of the effects of agricultural taxation on the output and employment of Nigeria and then consider some of the policy recommendations that can be given in the light of existing study.

1.3. Outline of the dissertation.

Since the major emphasis is on the role of agricultural taxation in the economic development of Nigeria, a logical starting point of Chapter 2 is to describe the various forms of agricultural taxation that have been used. In particular, I shall consider the structure and administration of land taxes, taxation of agricultural produce and taxation of income from agricultural land.

In considering the effect of agricultural taxation on output, in Chapter 3, it is relevant to start with some theoretical analysis. The fiscal role of NPMB particularly as their activities affect growth will be examined and the implication of export taxes on Nigeria's agricultural output will be discussed. A logical extension is to consider some non-tax factors affecting agricultural production.

Chapter 4 considers the effect of agricultural taxation on employment. In doing this, our attention will first of all be directed to the supply and demand for labour and examine how taxation affect their relevant variables. We shall then be in a good position to examine whether taxation has increased or reduced employment in agriculture or whether its impact on employment is neutral.

The concluding Chapter 5 shall be devoted to an appraisal of agricultural taxation in the light of the Nigerian experience and policy recommendation arising from this study.

CHAPTER 2: An Overview of Nigerian Agricultural Tax System.

2.1. Methods of Taxing Agriculture

2.2. The Structure and Administration of Agricultural Taxation

(a) Land Taxes

(b) Taxation of Agricultural Produce

(c) Taxation of Income from Agricultural Land.

2.1. Methods of Taxing Agriculture:-

There are basically three forms of taxing agriculture in Nigeria. For this purpose, taxation of agriculture is defined to include:-

(a) Taxation of agricultural land proper

(b) Taxation of agricultural produce. Fiscal monopolies, purchasing boards, and differential exchange rates are included in this definition because they involve concealed taxation of the agricultural sector and can be termed as taxation of agricultural produce.

(c) Taxation of income from agricultural land.

2.2. The Structure and Administration of Agricultural Taxation:-

The stucture and administration of agricultural taxation are tied up with the overall fiscal arrangement in Nigeria. While some forms of agricultural taxation are administered by the central government, for example export taxes, others are administered for the state governments by their agents (State Marketing Boards), others still are administered by the local authorities either for themselves or for the state governments. Let me now consider these forms of taxes in turn.

(a). Land Taxes

This principal means of taxing agriculture in LDCs is unfortunately relatively unknown in Nigeria. There are many ways of taxing agricultural land. An annual tax may be levied on the capital value of land or on the value of land plus improvement or its rental value. Alternatively, the gross income from land may be taxed, or, with some allowance for expenses, an attempt may be made to tax net land income. A quite different approach to taxing land is to levy periodic tax on increments in land value, or to impose betterment taxes or special assessments in connection with financing of public improvement.

A third approach is to tax land as part of a more general wealth tax or capital levy, on either an annual or periodic basis. Finally, transfers of agricultural land may either be subjected to special taxation or else fall within the scope of more general taxes on wealth transfers.

Most countries employ at least one or two of these approaches to land taxation, though with highly varying degree of rigor and effectiveness. (1)

In Nigeria where there is varied political, economic, social and religious backgrounds, there has been greater diversity in the taxation of agricultural land and this form of taxation has not been developed to the extent found in other LDC, for example Ghana. The property rate program is well developed in Lagos, and of minor consequences elsewhere; Ibadan and Abeokuta, which are two of the largest African cities have no property ratings at all. Rating is facilitated in Lagos by a relatively good property title and registry system whereas in the Eastern and Western States of Nigeria, the title situation is, for the most part chaotic, with a mixture of communial and private ownership. In the Northern States of Nigeria, on the other hand, record system of occupancy appear more satisfactory.

The Lagos property rates are based on annual value and taxes are paid by the landlords. In the other parts of the country not much use is made of land taxes. The communal lands are generally administered by Obas who may lease out part of the land to tenants. These tenants pay a fixed percentage of their output to the Oba.

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(1). Apart from improper documentation of land, assessment problem (i.e. whether land should be assessed by reference to capital value, gross value or some other variant) is considered as one of the reasons for the minor role which land taxation is playing in the tax structure of most contemporary LDC's. A. A. Ali in a recent article 'Landowners' behaviour under self-assessment' in Journal of Development Economics Volume 3, No2, July 1976, investigates some aspects of the self-assessment scheme which has been put forward as a solution to the assessment problem.

In general, the inadequacy of the existing property rate program except for Lagos is widely recognized, and urgent need for additional government revenue for development program is stimulating national interest in gaining additional sums from both property rates and rentals on land. Both represent a source of revenue that is likely to be less detrimental to development than continued increases in other taxes. Land taxes are normally fixed and therefore do not discourage increased production. This is because individual farmers would normally strive for greater output thereby reducing the burden of the land tax. If also land taxes are paid in cash, they may have the ancillary advantage of encouraging commercialization of production particularly in the production of food crops. When faced with the need for cash payment of taxes, subsistence farmers must increase their sales of commondities, make fuller contact with the market, feel the changing pressures of price relationships, and conform their production pattern to the dynamics of changing demand in a developmental context.

The Nigerian government has recently launched 'operation feed the Nation Campaign'. This is largely an attempt to enable people make maximum use of the abundant supply of land and discourage idleness. Land taxes if properly administered in Nigeria could go a long way towards achieving this desired goal of rapid agricultural production since owners of land would hasten to make good use of their land in order to meet tax payments.

(b). Taxation of Agricultural Produce.

This is the most important form of agricultural taxation in Nigeria. There are basically three types of this form of taxation- marketing board price fixing (tax), produce sales tax and export taxes. The Nigerian Produce Marketing Boards (NPMB) are statutory monoposonies handling Nigeria's major agricultural exports. The boards have license buying agents (LBA) in all the major producing areas who buy up all the agricultural produce. They fix producer prices at which the produce are bought well below the world prices thereby accumulating huge reserves. These reserves are the share of the total earnings on exported produce which would have been distributed to Nigerian peasant producers. This role of NPMB fixing producer prices is an important role which is tantamont to taxation.

Nor is this all. Further amounts are withdrawn on state basis as produce sales taxes. Produce Sales Taxes are state taxes levied as specific duties upon each ton of produce sold to the marketing board. The rate of the duty vary between crops and even from year to year but all the states have established the same rates. The rates for 1966 as an example were as follows:- (1)

Sheanuts	£2.10/- per ton
Rubber	¼d per lb.
Cotton	1/10 per lb.
Cocoa	£4 per ton.
Palm Kernel	£1 per ton.
Hides	£22 per ton.
Groundnuts	£1 per ton.
Soya beans	2/6d per ton.

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1. Sources: Adebayo Adedeji, Nigerian Federal Finance Page 163
J. F. Due, Taxation and Economic Development in Tropical Africa Page 99.

The third type of this form of taxation is export duties imposed on exportable commodities. This form of taxes were introduced in 1916 but did not attain any significance until the post world war 2. It became significant when the prices of primary products rose very rapidly after the war. This was considered as a windfall to the exporters and the government decided to get at some of their excess profits. Taxes on windfall were considered not to have adverse effect on growth. Another reason for its introduction was that with rising income, the income of exporters would increase and as exporters have low marginal propensity to save it may lead to inflation. Export taxes were therefore used to stabilize prices.

There was also the consideration that most export producers were in the rural sector of the economy and income taxation could not easily reach them. This form of taxes therefore was meant to compliment the inadequacy of income taxation to reach at their income. Administratively, export taxes were efficient since all the produce are exported through the marketing board and the task of accurate accounting and levying the tax is greatly eased as a result.

Export taxes is now the third major source of revenue for the federation as a whole exceeded only by petroleum and personal income tax. In the early fifties, the total share of major export crops amounted to about seventy-five per cent (75%) of total export tax but with the growth of petroleum, they now account for about forty-eight per cent (48%). Nigerian export tax burden are

much higher than those of a number of countries of about the same level of income. The export tax burden in Ghana are higher than that in Nigeria.

On the question of equity, there is immediate discriminatory effect on export producers and exempting people engaged in the production for home economy. It does of course penalize a type of production that deserves a lot of encouragement. This discriminatory nature of export taxes means that the effect on production is not neutral. This matter is fast becoming an important issue since there has been a general decline in mixed farming and an increase in specialization of production among Nigerian farmers.

Table 1.

EXPORT TAXES

Year	Value £m	Share of total exports.	Export tax	Burden.
1950	24.6	46.1%	4.7%	27.8%
1954	28.1	38.3%	14.2%	19.2%
1960	22.3	19.1%	9.4%	13.5%
1962	23.5	14.9%	7.4%	14.3%

Table 2.

Major Export Crops Tax Burdens

Year	Cocoa	Palm Oil	Palm Kernel	Ground nuts	Cotton
1950	51.2%	28.4%	26.7%	59.4%	61.1%
1954	41.3%	7.6%	19.2%	18.1%	32.7%
1960	3.3%	20.9%	38.2%	19.4%	2.4%
1961	28.9%	20.9%	20.9%	12.2%	-
1947-1961	31.9%	21.0%	28.1%	24.9%	22.1%

(c). Taxation of Income from Agricultural Land.

The Nigerian Income tax system is tied with her political arrangement. (1) The first modern income tax was introduced in 1940, although there was a simplified type of tax dating back to 1927 and the Northern States of Nigeria was one of the first sections in Africa to use direct personal taxation, under the Fulani Emirs prior to the advent of the British. The colonial government before this made a rough estimate on what each person can earn, that is, caculated an average income. On this basis, an average tax was imposed known as poll tax. After this, in 1940 different categories of taxes were brought in. The basis of the present system of income taxation was enacted under the Income Tax Management Act of 1961. (2)

(1) For a comprehensive survey of Nigerian Fiscal Development, see P. N. C. Okigbo, Nigerian Public Finance .

(2) Nigeria, Income Tax Management Act, 1961.

The specific system operating in each state vary, but in general employees were taxed under the Pay As You Earn (PAYE) system while nonemployees with low incomes pay the community personal tax rather than the income tax.

Specifically, taxation of income from agricultural land in Nigeria refers to the 'personal tax', since over ninety per cent (90%) of those in this category are in the agricultural sector of the economy. The tax differ in its structure from state to state as this form of tax is under state jurisdiction. But they are basically very similar with the following major features:-

(1) Application of a minimum tax to all persons (more specifically in most instances, to all adult mates), except a small number of disabled, elderly, or destitute persons exempted by administrative discretion.

(2) There is in most cases a limited degree of graduation. Some jurisdiction employ a flat rate but there is a tendency in the last ten years towards use of progression. Rates are fixed amounts per bracket of income rather than percentages.

(3) Assessment is made by local committee- layment by direct assessment without the use of returns.

(4) There are no allowances and deductions as in income tax.

(5) The tax is generally collected for the state governments by the local authorities.

These taxes all developed from poll taxes imposed at uniform rates by the central government under the British colonial administration. The oldest of the system is that of the former Northern States of Nigeria. With respect to its administration,

in general for Nigeria, tax liability is not actually measured by income, but by very rough indices, in terms of wealth or consumption thereof. However, for farmers there is substantial reliance on figures of typical potential earnings for particular acreages and crops but in less scientific fashion. Under the present policy, the government is seeking to ensure that people are assessed on the basis of actual income and taxed at standard rates throughout the state. The collection is done on behalf of the state government by the local authorities but the actual work is done by the village head or Oba.

It must however be emphasized that there is considerable difficulties in administering and enforcing this tax. This is because a large proportion of income earners are in the rural sector and it is difficult to collect taxes from them. There is no effective means of calculating the incomes of the farmers for the purpose of taxation since the farmers do not keep account of their activities. To get an estimate of their incomes, the assessors have to make a calculation of the productivity of the various income yeilding sources, for an example get the productivity of the average yeild per acre of cotton which is then used to multiply the acre under cultivation to obtain a rough estimate of their incomes. Unfortunately, apart from the fact that accounts are not kept, acreage under cultivation are not documented and plots of farmlands are scattered in the areas. In the case of livestock, many farmers believe that if they are counted, a good number of them will die,

hence assessors generally make a rough estimate and in all cases the farmers are under-assessed.

There is also a great deal of tax evasion. The head of the family normally gives a false number of the adults in the family so that the tax assessed for the family is eventually shared by all thereby reducing the tax burden. In the case of livestock, the owners generally migrate to states where these taxes are not administered during the assessment period in order to evade tax payment. It has been estimated that about eighty per cent (80%) of the people evade tax payments in Nigeria. (1)

As a result of these administrative problems, this source of revenue to governments has not been as successful as it should be and the fact that each state has its separate tax law means that there is no basis of comparing the tax burden in the states. The multiplicity of the tax laws and the administrative problems enumerated above means that the taxation of agricultural income is not an important fiscal tool. These problems were observed by Adedeji (1) when he commented that 'Personal income taxation in Nigeria therefore suffers from a number of problems. Some of these are lagacies of the past, while others are political and administrative. Many of these problems have risen, however, because the income tax is regional (2) and not a federal tax, and also because the regions,

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(1) See Regional Tax Board, Western Nigeria Ministry of Finance.

(2) The Nigerian Federature government structure is no longer run on regional basis. At the moment, the country is divided into 19 states with the states performing essentially those functions previously performed by the regions.

with the exception of the East, have remained content to administer the income tax in conjuction with local authorities. Thus, if personal income taxation is to become an important and growing source of revenue in Nigeria, the government will have to break completely from the tradition of direct taxation, separate it from local government taxation, reduce the number and scale of personal allowances and reliefs, increase the tax rates, and improve administrative machinery. In other words, a uniform tax system is to be preferred'. (1) The present federal government has realised these problems and efforts have been made to put income taxation under the jurisdiction of the central government to ensure uniformity and equal tax burden throughout the federation. There is also a number of reforms which are being introduced in other to make this source of revenue contribute more to economic development as well as make it an effective fiscal tool of the government.

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(1) Adebayo Adedeji, Nigerian Federal Finance Pages 200-1.

CHAPTER 3: Effects of Agricultural Taxation on Output.

3.1. A theoretical approach to the effects of agricultural taxation on output.

3.2. The fiscal role of the Nigerian Produce Marketing Board.

3.3. Implication of export taxes on Nigeria's agricultural output.

3.4. Non-tax factors affecting agricultural output.

3.1. A theoretical approach to the effects of agricultural taxation on output.

In analyzing the various views, one must distinguish, for example, the effects on total production from those on marketed surplus and from those on a single crop, as well as consider the relevant time period (tree crops have longer gestation period and hence may respond more slowly).

The first question to be answered is the supply response of traditional farmers. This question about response is essentially an empirical one and most studies appear to support the hypothesis that farmers in developing countries respond significantly and substantially to economic incentives. (1) From a tax point of view, important factors in determing the nature and strength of such effects are the extent to which food crops are involved, the length of the gestation period, and the tenurial situation. If tenurial system provide no barrier to the operation of economic incentives and if price elasticity of marketed surplus is greater than that of total supply, a reduction in export taxes and hence in a rise in domestic price should lead to a response in marketed output. In general, as one would expect, the elasticity of supply is greater when other economically profitable crops can be grown, regardless of tenancy, or any other factor. (7)

This assessment is not generally accepted. It has, for example been argued that in some LDC's where two-third of

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1. The question of positive price incentive has been shown to be theoretically valid for developing countries. This has to be weighed with the specific tax structure of particular countries before any valid conclusion can be made, see also (40).

agricultural production is consumed within the agricultural sector itself, most farmers are still so poorly fed that their response to an increase in agricultural prices is likely to be to sell less and consume more. On the other hand, since nutritional deficiences are marked, more food intake will tend to increase production somewhat, so that the net effects of a change in prices on marketed output are far from clear even in this extreme case. (1)

Whatever the theoretical case may be, agricultural taxes alone will do little to increase production unless, at the same time, roads and marketing organization are improved, price policy is correctly structured, and necessary inputs, including credit are provided. Without these conditions, economically rational farmers cannot realistically be expected to believe that risk taking innovation would indeed improve their position in life.

Agricultural taxes may also influence the composition of production. The opportunities for such influence tend to be limited in economies dominated by a single crop or where the land is not readily adaptable to growing other crops. The possibility of redirecting agricultural output is especially great where cash crops are grown, because of the more market-oriented attitude of cultivators and their greater use of purchased inputs. Cocoa producers in Nigeria proved very responsive in this regard. Attempt to control food prices while allowing those of commercial crops to rise may sometimes result in an increase in the production of the latter at the expense of the former, which presumably is not the desired result. Others goals of agricultural tax policy may

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1. See Myrdal, Asian Drama Pp 2140-2158.

be to encourage crops (or other forms of agricultural output) which promise higher returns relative to the input of productive factors, or are a lucrative source of foreign exchange, or are needed to improve national dietary habits.

Almost any type of agricultural tax affords opportunities for favouring certain kinds of agricultural activity and penalizing others. A neutral tax would have to exact precisely the same proportion of net income from each product, thereby leaving undisturbed the relative attractiveness of different productive activities. When a tax exacts unequal proportions, it tends to encourage farmers to shift to more highly taxed products. It would also affect work-leisure choice. But in general, it is however difficult to specify how sizable tax differentials must be before such shifts will actually occur in specific circumstances.

With gross production or land area as the tax base, the tax may represent considerably different proportions of net income for crops that require relatively large outlays for seeds, fertilizer, irrigation, and hired labour than for crops that are easily cultivated, and the resulting differentials might be large enough to induce some shift of production. Marketing taxes also fall with an even weight on net earnings from different kinds of output. Rental value taxes, based on either annual rental value or capital value, probably are more neutral than most other types, since the rental value base allows for differences in the production capacity of land. The effects depends more on how the tax is administered than on the formal definition of tax base.

Some agricultural taxes may have some non-fiscal effect because of the light weight of the tax. Other factors like complementary inputs needed to increase production, the lack of marketing channels or the inability to innovate because of fear of losing in the 'game against nature' also usually outweigh the importance of tax effects. Nevertheless since tax effects on the composition of production do exist and are largely under the control of government, they should clearly be taken into account in the formation of agricultural and tax policy.

Another point worth mentioning is that agricultural taxes result in lower domestic prices for agricultural inputs to processing establishments than they would pay on world markets. This in effect constitute industrial subsidies. Export taxes are most likely to yeild this result. It has been argued that in Tanzania, for instance, relatively low levels of export taxation on primary products may be used to offset the disincentive to domestic processing afforded by the high rates of effective protection (owning to higher rates of duty on more highly processed goods) imposed in many importing countries.(1) The effective protection of one-hundred and sixty per cent (160%) in the European Economic Community for its processors of soyabean oil could for example, be offset by an export tax on soyabeans of only ten per cent (10%). This factor calls for careful re-evaluation of export tax policy.

The effect of agricultural taxes on agricultural production when not employed in the agricultural sector depend primarily upon

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1. G. K. Helleiner, Agricultural Export Pricing starting in Tanzania.

the relevant elasticities in the factor and product markets and secondly on the form of the tax. Most forms of such taxes in effect impose a short run marginal tax rate of zero on increased production, and since the income effect of the tax reduces in the normal case an attempt to recoup income, the production effect of the tax often is considered positive.

This view is naive for it can be seen that a tax will inevitably inpinge on investment and hence act as a deterrent to increasing production if one assumes that additional investment have to be incurred in order to increase production. In general, it is not possible to make any prediction of the effect of the tax on production, whether positive or nagative without a close examination of the particular circumstances in question.

The effects on marketed supply are similar. A tax levied on marketing discourages it and detrimental to development. Some writers have argued that such a tax may mean better-fed and healthier farmers- a desired end of development itself, but also it may lead to more marketed surplus.

I made a remark in the introductory part of this section that time is also an important element in the effect of agricultural taxation on production. This is particularly true of countries that have tree cash crops. A very good example is cocoa in Nigeria. It takes five good years to plant cocoa and mature eneough to produce cocoa pods. Any effect of taxation on its production will

take a longer time to have impact because the production cannot be adjusted within a short time. A positive effect of the tax can only take effect after about five years-the duration necessary for planting and maturity to bear fruits. The nagative effect of a tax may not affect output instaneously but will eventually affect it by discouraging replanting of bad trees and increased acreage of production.

3.2. The Fiscal role of the Nigerian Produce Marketing Board.

The Nigerian Produce Marketing Boards are statutory monopsonies handling Nigeria's major agricultural exports. The board was set up with express purpose of fulfilling five specific objectives.

(i) To stabilise producer prices by fixing legal minimum buying prices for a whole season at a time and by seeking to minimise price fluctuations between one season and the next.

(ii) To maintain and control an efficient organization for the purchase of produce, through the appointment of licensed buying agents who would undertake the handling of produce under the boards direction from the point of purchase to the point of delivery at the port of shipment.

(iii) To help maintain legally prescribed grades and standard of quality of export produce by all means.

(iv) To allocate funds to the appropriate authorities by means of grants, loans, investments and endowments for the purpose of economic development and research.

(v) To supply produce to local processors for processing their plants.

One of the main area of criticism of the NPMB since it was established in 1947 was its fiscal role in Nigeria's economic development. The NPMB fix producer prices well below the world prices thereby accumulating huge reserves. These reserves were their share of the total earnings on exported produce which would have been distributed to Nigerian peasant producers and this I shall call 'potential producer income'. This was not the only levy

on this potential producer income. Further amounts were withheld in the form of export duties and a state produce sales tax were levied as specific duties upon each ton of produce sold to a Marketing Board. Table 3 summarises these withdrawals during 1947/62.

It can be seen that during 1947/54 period over fourty-two per cent (42%) of potential producer income earned from cotton, fourty per cent (40%) of that from ground-nuts, over thirty-nine of that from cocoa, over twenty-nine per cent (29%) of that fr a palm-kernels and seventeen per cent (17%) of that from palm-oil were withheld by the Government through taxes and NPMB trading surpluses. By far the greatest share of this total in cash case except that of palm-oil, in respect of which, substantial trading losses were incurred in 1953 and 1954, was made up of Marketing Board trading surpluses. In peak years NPMB alone withheld over fourty, fifty and sixty per cent of potential incomes of producers of particular crops. See Tables 4-8.

The best way of analysing the effect of NPMB pricing (taxation) policy on the output of the agricultural sector is to examine the structure and contributions of the six major commodity exports- cocoa, palm-oil, palm-kernels, ground-nuts, rubber and cotton- to Nigeria's export earnings, as well as our share of world market transactions in these commodities. The major causes of downward trend in commodity export earnings were fluctuations in world commodity market prices, and a repressive domestic producers' price on production. In Table 9 I present data on the individual and

Table 3*

Government Withdrawals from Major Components of the Marketing Board Controlled Agricultural Export Sector in Nigeria, 1947-62

	Export duties		Marketing Board Trading Surplus.		Produce purchase Tax		Total withdrawals, £000's.	Potential producer income £000's.	Total withdrawals as a % of potential producer income.
	£000's.	% of potential producer income.	£000's.	% of potential producer income.	£000's.	% of potential procuder income.			
Cocoa									
1947/48 to 1953/54	27,565	17.6	33,797	21.6	390	0.2	61,752	165,829	39.4
1954/55 to 1961/62	36,917	17.9	12,841	6.2	4,163	2.0	53,920	206,216	26.1
Total	64,481	17.8	46,638	12.8	4,553	1.3	115,672	363,046	31.9
Groundnuts									
1947/48 to 1953/54	11,329	11.5	27,797	28.1	425	0.4	39,459	98,776	40.0
1954/55 to 1960/61	20,825	14.0	-2,050	-1.4	3,574	2.4	22,346	149,660	14.9
Total	32,154	12.9	25,743	10.4	3,998	1.6	61,895	248,436	24.9
palm Kernels									
1947/54 . .	11,872	9.4	25,096	19.9	—	—	36,968	126,438	29.2
1955/61 . .	15,125	13.1	11,883	10.3	4,327	3.7	31,335	116,558	27.1
Total	26,997	11.1	36,978	15.2	4,327	1.8	68,303	242,996	28.1
Palm Oil									
1947/54 . .	7,356	9.0	6,544	8.0	—	—	13,899	81,608	17.0
1955/61 . .	9,646	13.3	4,305	5.9	4,592	6.3	18,543	72,421	25.6
Total	17,002	11.0	10,849	7.0	4,592	3.0	32,442	154,028	21.0
Cotton									
1949/50 to 1953/54	2,687	11.7	6,969	30.3	70	0.3	9,726	23,014	42.3
1954/55 to 1960/61	5,771	13.5	-1,696	-4.0	722	1.7	4,796	42,753	11.2
Total	8,458	12.9	5,272	8.0	792	1.2	14,522	65,767	22.1

* Recent data are not immediately available. The data presented here although outdated, do not change the conclusions that would have been reached by more dated data.

Table 4 *

Cocoa

	Export duties.		Marketing Board Trading surplus.		Produce purchase tax.		Total with drawals, £000's.	Producer income, £000's.	Potential producer income £000's.	Total with drawals as % of potential producer income.
	£000's.	% of Potential producer income.	£000's.	% of Potential producer income.	£000's	% of Potential producer income.				
1947/48 . . .	307.1	2.2	9,201.8	66.2	—		9,508.9	4,380.4	13,889.0	68.5
1948/49 . . .	700.1	5.1	420.6	3.1	—		1,120.7	12,589.3	13,710.0	8.2
1949/50 . . .	608.1	3.4	6,479.4	36.2	—		7,087.5	10,729.4	17,879.9	39.6
1950/51 . . .	4,461.8	15.2	10,549.6	36.0	—		15,011.4	14,316.6	29,328.0	51.2
1951/52 . . .	5,494.2	21.9	1,438.7	5.7	—		6,932.9	18,164.5	25,097.4	27.6
1952/53 . . .	4,527.5	19.6	87.3	0.4	—		4,614.8	18,435.1	23,049.9	20.0
1953/54 . . .	11,466.0	33.8	5,620.0	16.6	389.7	1.2	17,475.7	16,398.9	33,874.6	51.6
Subtotal, 1947/48 to 1953/54 . .	27,564.8	17.6	33,797.4	21.6	389.7	0.2	61,751.9	95,077.2	156,829.1	39.4
1954/55 . . .	5,569.8	21.0	5,025.8	19.0	334.3	1.3	10,929.9	15,540.5	26,470.4	41.3
1955/56 . . .	3,844.5	19.0	-4,169.0	-20.6	423.9	2.1	99.4	20,101.4	20,200.8	0.3
1956/57 . . .	3,223.1	14.8	-1,266.0	-5.8	513.7	2.4	2,470.8	19,231.1	21,701.9	11.4
1957/58 . . .	4,153.3	20.8	4,916.3	24.6	294.6	1.5	9,364.2	10,583.8	19,948.0	46.9
1958/59 . . .	7,504.5	21.4	7,830.6	22.4	526.1	1.5	15,861.2	19,116.0	34,977.2	45.3
1959/60 . . .	5,484.7	18.5	1,098.6	3.7	585.4	2.0	7,168.7	22,471.3	29,640.0	24.2
1960/61 . . .	3,938.5	14.1	-3,752.9	-13.5	222.7	2.6	913.3	26,952.3	27,865.6	3.3
1961/62 . . .	3,198.1	12.6	3,157.2	12.4	757.5	3.0	7,112.8	18,299.7	25,412.5	28.0
Subtotal, 1954/55 to 1961/62 . .	36,916.5	17.9	12,840.6	6.2	4,163.2	2.0	53,920.3	152,296.1	206,216.4	26.1
Total	64,481.3	17.8	46,638.0	12.8	4,552.9	1.3	115,672.2	247,373.3	363,045.5	31.9

* Recent data are not immediately available. The data presented here although outdated, do not change the conclusions that would have been reached by more dated data because the pricing policies of NMB remain the same.

Table 5

Groundnuts

	Export duties.		Marketing Board trading surplus.		Produce purchase tax.		Total withdrawals, £000's.	Producer income, £000's.	Potential producer income, £000's.	Total withdrawals as % of potential producer income.
	£000's.	% of potential producer income.	£000's.	% of potential producer income.	£000's.	% of potential producer income.				
1947/48 . . .	873.6	8.3	4,267.2	40.5	—		5,140.0	5,376.0	10,516.0	48.8
1948/49 . . .	1,065.9	8.0	6,137.0	45.7	—		7,202.9	6,201.6	13,404.5	53.7
1949/50 . . .	620.4	8.8	2,444.0	34.6	—		3,064.0	3,985.6	7,049.6	43.4
1950/51 . . .	675.9	10.9	3,002.7	48.5	—		3,678.6	2,513.5	6,192.1	59.4
1951/52 . . .	2,524.5	14.4	4,851.3	27.6	—		7,375.8	10,185.7	17,561.5	42.0
1952/53 . . .	2,638.9	13.0	3,505.8	17.9	—		6,144.7	13,449.7	19,594.4	31.4
1953/54 . . .	2,929.9	12.0	3,588.6	14.7	424.6	1.7	6,943.1	17,515.0	24,458.1	28.4
Subtotal, 1947/48 to 1953/54 . .	11,329.1	11.5	27,796.6	28.1	424.6	0.4	39,549.1	59,227.1	98,776.2	40.0
1954/55 . . .	2,633.0	16.6	-133.1	-0.8	372.8	2.4	2,873	12,969	15,842	18.1
1955/56 . . .	3,314.0	14.3	1,075.5	4.6	530.2	2.3	4,920	18,303	23,223	21.2
1956/57 . . .	2,554.0	13.6	3,075.0	16.3	357.9	1.9	5,987	12,812	18,799	31.8
1957/58 . . .	3,059.0	13.6	-4,041.5	-18.0	714.7	3.2	-268	22,686	22,418	-1.2
1958/59 . . .	3,195.0	13.6	-1,970.2	-8.4	533.4	2.3	1,758	21,675	23,433	7.5
1959/60 . . .	2,686.0	13.2	828.4	4.0	445.4	2.2	3,960	16,464	20,424	19.4
1960/61 . . .	3,384.0	13.3	-887.4	-3.5	619.1	2.4	3,116	22,405	25,521	12.2
Subtotal, 1954/55 to 1960/61 . .	20,825.0	14.0	-2,053.3	-1.4	3,573.5	2.4	22,346	127,314	149,660	14.9
Total	32,154	12.9	25,743.3	10.4	3,998.1	1.6	61.895	186,451	248,436	24.9

* Recent data are not immediately available. The data presented here although outdated, do not change the conclusions that would have been reached by more dated data because the pricing policies of NMB remain the same.

Table 6 *

Palm Kernels

	Export duties.		Marketing Board. trading surplus.		Produce purchase tax.		Total withdrawals, £000's.	producer income, £000's.	Potential producer income £000's.	Total withdrawals as % of potential producer income.
	£000's.	% of potential producer income.	£000's.	% of potential producer income.	£000's.	% of potential producer income.				
1947	347.6	4.4	2,433.2	30.7	—		2,780.8	5,150.8	7,930.9	35.1
1948	784.8	7.9	2,550.6	25.5	—		3,335.4	6,638.1	9,973.5	33.4
1949	827.2	5.5	4,512.0	29.8	—		5,339.2	9,776.0	15,115.2	35.3
1950	1,080.4	7.9	2,553.7	18.7	—		3,634.1	10,000.3	13,634.4	26.7
1951	1,805.1	10.3	4,818.2	27.5	—		6,623.3	10,901.1	17,534.4	37.8
1952	2,361.0	11.0	4,044.5	18.9	—		6,405.5	14,963.5	21,369.0	30.0
1953	2,280.1	11.4	2,538.4	12.7	—		4,818.4	15,096.5	19,915.0	24.2
1954	2,385.7	11.4	1,645.1	7.8	—		4,030.8	16,944.3	20,975.1	19.2
Subtotal, 1947 to 54	11,871.9	9.4	25,095.7	19.9	—		36,967.6	89,967.6	126,437.5	29.2
1955	1,874.7	12.9	523.1	3.5	595.0	4.1	2,990.8	11,573.4	14,564.2	20.5
1956	2,123.3	13.1	260.6	1.6	657.5	4.1	3,041.4	13,131.5	16,172.9	18.8
1957	1,734.6	11.9	-257.9	-1.7	596.3	4.1	2,073.2	12,393.1	14,466.3	14.3
1958	2,286.5	14.2	635.0	3.9	647.9	4.0	3,569.4	12,508.9	16,078.3	22.2
1959	2,864.8	13.4	5,780.4	27.1	620.0	2.9	9,265.2	12,050.7	21,315.9	43.5
1960	2,292.7	12.0	4,379.2	23.0	611.5	3.2	7,283.4	11,774.7	19,058.1	38.2
1961	1,948.3	13.1	562.1	3.8	601.2	4.0	3,111.6	11,790.8	14,902.4	20.9
Subtotal, 1955 to 61	15,125.1	13.1	11,882.5	10.3	4,327.4	3.7	31,335.0	85,223.1	116,588.1	27.1
Total	26,997.0	11.1	36,978.2	15.2	4,327.4	1.8	68,302.6	174,693.7	242,996.3	28.1

* Recent data are not immediately available. The data presented here although outdated, do not change the conclusions that would have been reached by more dated data because the pricing policies of NMB remain the same.

Table 7 Palm Oil

	Export duties.		Marketing Board trading surplus.		Produce purchase tax.		Total withdrawals, £000's.	Producer income, £000's.	Potential producer income, £000's.	Total withdrawals, as % of potential producer income.
	£000's.	% of potential producer income.	£000's.	% of potential producer income.	£000's.	% of potential producer income.				
1947	75.6	1.8	995.4	23.7	—		1,071.0	3,124.8	4,195.8	25.5
1948	347.5	4.4	3,169.2	40.3	—		3,516.7	4,336.8	7,853.5	44.8
1949	660.1	6.8	2,511.6	26.1	—		3,171.7	6,440.0	9,611.7	32.9
1950	694.4	7.3	1,996.9	21.1	—		2,691.3	6,792.9	9,484.2	28.4
1951	1,167.1	10.5	2,301.3	20.7	—		3,468.4	7,643.7	11,112.1	31.2
1952	1,752.8	10.7	2,508.3	15.3	—		4,262.1	12,081.4	16,343.5	26.1
1953	1,285.1	11.8	-4,647.1	-42.7	—		-3,362.0	14,247.2	10,885.2	-30.9
1954	1,371.9	11.3	-2,292.0	-18.9	—		-920.1	13,041.8	12,121.7	-7.6
Subtotal, 1947/54	7,355.5	9.0	6,543.6	8.0	—		13,899.1	67,708.6	81,607.7	17.0
1955	1,350.0	13.3	377.7	-3.7	658.4	6.5	1,630.7	8,511.9	10,142.6	16.1
1956	1,736.3	14.3	1,669.8	13.7	634.6	5.4	4,060.7	8,094.7	12,155.4	33.4
1957	1,426.8	12.9	1,694.8	15.4	616.9	5.6	3,738.5	7,300.3	11,038.8	33.9
1958	1,343.9	13.3	263.5	2.6	667.9	6.6	2,275.3	7,816.2	10,091.5	22.5
1959	1,416.3	13.6	853.1	8.2	678.9	6.5	2,948.3	7,453.7	10,402.0	28.3
1960	1,270.0	13.6	6.0	0.00064	676.6	7.3	1,953.3	7,377.5	9,330.8	20.9
1961	1,102.4	11.9	195.7	2.1	638.4	6.9	1,936.5	7,323.0	9,259.5	20.9
Subtotal, 1955/61	9,646.4	13.3	4,305.2	5.9	4,591.7	6.3	18,543.3	53,877.3	72,420.6	25.6
Total	17,001.9	11.0	10,848.8	7.0	4,591.7	3.0	32,442.4	121,585.9	154,028.3	21.0

* Recent data are not immediately available. The data presented here although outdated, do not change the conclusions that would have been reached by more dated data because the pricing policies remain the same.

Table 8 *

Cotton

	Export duties.		Marketing Board trading surplus.		Produce purchase tax.		Total withdrawals, £000's.	Producer income, £000's.	Potential producer income, £000's.	Total withdrawals as % of potential producer income
	£000's.	% of potential producer income.	£000's.	% of potential producer income.	£000's.	% of potential producer income.				
1949/50 . . .	-		1,185.9	48.4	-		1,185.9	1,266.6	2,452.5	48.4
1950/51	386.0	9.6	2,077.6	51.5	-		2,463.6	1,569.1	4,032.7	61.1
1951/52 . . .	713.7	13.6	1,028.5	19.6	-		1,742.2	3,509.5	5.251.7	33.2
1952/53 . . .	812.2	16.1	1,440.0	28.5	-		2,252.2	2,795.2	5,047.4	44.6
1953/54 . . .	775.1	12.4	1,236.6	19.9	70.3	1.1	2,082.0	4,147.3	6,229.3	33.4
Subtotal 1949/50 to 1953/54 . .	2,687.0	11.7	6,968.6	30.3	70.3	0.3	9,725.9	13,287.7	23,013.6	42.3
1954/55 . . .	813.6	10.3	1,672.1	21.2	92.1	1.2	2,577.8	5,303.1	7,880.9	32.7
1955/56 . . .	1,058.2	17.6	500.7	8.3	75.4	1.3	1,634.3	4,378.9	6,103.2	27.2
1956/57 . . .	751.1	15.1	230.7	4.6	68.1	1.4	1,049.9	3,934.3	4,984.2	21.1
1957/58 . . .	756.3	11.4	-949.5	-14.4	115.6	1.8	-77.6	6,687.6	6,610.0	-1.2
1958/59 . . .	918.8	19.4	-983.3	-20.7	81.5	1.7	17.0	4,729.8	4,746.8	0.4
1959/60 . . .	693.6	15.4	-990.5	-22.0	80.2	1.8	-217.6	4,726.7	4,510.0	-4.8
1960/61 . . .	779.4	9.7	-1,176.5	-14.7	208.7	2.6	-188.4	8,196.5	8,008.1	-2.4
Subtotal, 1954/55 to 1960/61 . .	5,771.0	13.5	-1,696.3	-4.0	721.6	1.7	4,796.3	37,956.9	42,753.2	11.2
Total	8,458,0	12.9	5,272.3	8.0	791.9	1.2	14,522.2	51,244.6	65,766.8	22.1

* Recent data are not immediately available. The data presented here although outdated, do not change the conclusions that would have been reached by more dated data because the pricing policies of NMB remain the same

aggregate earnings of these commodity exports for the period 1948/67. The table shows a fluctuating downward trend in the contributions of cocoa, palm-oil, plam-kernel, ground-nuts, and cotton over the twenty-year period whilst rubber presented a fluctuating upward trend up to 1960 and then followed a downward trend in its contribution to export earnings. On the aggregate, the six commodity exports also followed a downward trend in contribution to earnings from all exports, starting with seventy-nine per cent (79%) of all export earnings in 1948 and progressively falling to the lowest figure of fourty-one per cent (41%) in 1966. During the decade 1958/68, the mean annual contributions to all export earnings by cocoa, palm-oil, palm-kernel, ground-nuts, rubber, cotton are 18.5, 6.2, 10.9, 16.5, 5.3, 3.7, and 61.1% of £204 million respectively. During the entire twenty year period, these mean annual contributions are 20.2, 9.0, 13.9, 16,9, 4.9, 3.9, and 68.8% of £159.6 million respectively. (1)

A careful assessment of Olatunbosun and Olayide ('70) throws light on the fortunes of Nigeria's commodity exports with respect to the trends in our share of world market demand for the commodities, cocoa faced an upward trend in demand and this leads to Nigeria becoming the second largest world producer. In the case of palm-oil there has been a progressive falling share of world market demand. The picture presented by ground-nuts is one of general rising market share and Nigeria is the third largest producer of this commodity surpassed only by India and China. Palm-kernels present another

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1. Federal office of statistics; Annual Absract of Statistics, Lagos, Nigeria.

Table 9 *

Nigeria: Contributions to export earnings by main cash crops (£N million)

YEAR	VALUE OF ALL EXPORTS	COCOA	PALM OIL	PALM KERNEL	GROUND-NUT	RUBBER	COTTON	AGGREGATE OF THE SIX AS PERCENT OF ALL EXPORTS
1948	62.5	17.9	9.1	11.5	9.8	0.7	0.5	79.1
1949	81.1	14.7	11.9	16.9	18.9	0.6	1.5	72.4
1950	90.2	19.0	12.1	16.7	15.2	2.8	3.0	76.2
1951	120.1	31.4	13.0	20.1	9.3	7.5	4.0	71.5
1952	129.5	28.7	17.1	22.8	22.1	4.1	6.7	78.5
1953	124.2	24.9	13.0	22.2	24.9	3.3	5.5	75.5
1954	149.5	39.3	13.4	22.8	29.9	2.9	7.4	77.5
1955	132.5	26.2	13.2	19.2	23.1	5.0	9.4	73.6
1956	134.6	24.0	14.9	20.4	27.8	6.4	7.1	74.9
1957	127.5	26.0	13.8	18.0	20.1	7.0	6.3	71.5
1958	135.6	26.7	12.7	20.5	27.0	7.6	7.9	75.4
1959	163.5	38.3	13.8	25.9	27.5	11.6	7.3	76.1
1960	169.7	36.8	13.2	25.1	22.6	14.2	6.2	70.8
1961	173.6	33.7	13.2	19.9	32.2	11.0	11.1	69.8
1962	168.5	33.4	8.9	17.0	32.4	11.4	5.9	64.5
1963	189.7	33.4	9.4	20.8	36.6	11.8	9.5	63.3
1964	214.7	40.1	10.8	21.0	34.3	12.2	6.1	58.0
1965	268.3	42.7	13.6	26.5	37.8	11.0	3.3	50.3
1966	284.1	28.3	11.0	22.4	40.9	11.6	3.4	40.7
1967	271.0	54.7	1.3	7.8	35.4	6.4	6.5	54.7
Mean 1958/67	204.0	36.7	10.9	20.7	32.7	10.9	6.7	61.1
Mean 1948/67	159.6	30.9	12.0	19.9	26.4	7.5	5.9	68.8

Sources: Annual Abstracts of Statistics, Lagos, Nigeria.

* Recent data are not immediately available. The data presented here although outdated, do not change the conclusions that would have been reached by more dated data because the pricing policies of NMB remain the same.

indication of falling share of market demand which has made Nigeria the largest producer in Africa and sixth world producer. In the case of cotton, there has been a rising share up to 1963 after which there was a phase of falling shares due to growth of domestic textile-mills. The aggregate export earnings from the six commodities averaged £109.8 million annually or 68.8% of all export earnings during the period 1948/67. This is a case of rising total export earnings by the six although contributions to aggregate national export earnings, as shown in the last column of table 9 followed an oscillating downward trend.

An examination of calculated rates of growth of supplies of these commodities from export data in Table 10 during the twenty-year period presents an interesting picture of significant effect on exports as well as revenue. The mean annual rates of growth of supplies of cocoa, palm-oil, palm-kernel, ground-nuts, rubber and cotton during the period are 7.9, 2.9, 4.1, 10.5, 15.6, and 4.8 per cent respectively. On the revenue side, the mean annual rates of growth based on world market prices for these commodities during the period are 9.7, 7.2, 5.1, 2.7, 30.9, and 23.3 per cent respectively; when valued at producer prices, the mean annual rate of increase in producer revenue are 11.7, 5.2, 0.4, 17.3, 28.9, and 14.9 per cent respectively. During this period producer earnings were considerably lower than country's earnings due to monopolistic pricing of these commodities, with the exception of rubber. In Table 11 I present the prices paid to producers of these commodities as well as the percentage of world prices for the twenty year period.

Table 10

Nigeria: Exports of main commodities (thousand tons)

YEAR	COCOA	PALM OIL	PALM KERNEL	GROUNDNUT	RUBBER	COTTON
1948	91.0	139.0	327.0	245.0	8.0	4.6
1949	103.6	170.0	276.0	378.0	6.9	20.0
1950	99.9	173.0	410.0	317.0	13.4	12.6
1951	121.5	150.0	347.0	341.0	20.9	15.4
1952	114.7	167.0	374.0	360.0	18.3	19.3
1953	104.7	201.0	403.0	327.0	21.3	17.7
1954	98.4	208.0	464.0	248.0	20.8	26.0
1955	88.4	182.0	433.0	397.0	30.4	33.2
1956	117.1	185.0	451.1	448.1	38.2	27.9
1957	135.3	166.0	406.2	302.4	39.9	25.2
1958	87.7	171.0	441.2	513.2	41.2	33.7
1959	142.8	184.0	430.6	498.2	53.3	36.9
1960	154.2	183.0	418.0	331.9	57.2	27.0
1961	183.9	165.0	410.6	493.9	55.1	46.4
1962	194.7	118.0	366.6	529.6	59.6	23.2
1963	174.6	126.0	398.3	614.2	63.2	40.2
1964	196.8	134.0	394.2	544.4	72.1	25.0
1965	255.3	150.0	415.5	512.0	67.9	13.5
1966	190.2	143.0	394.0	573.0	70.3	14.9
1967	244.3	16.0	162.5	539.7	47.9	33.0
Mean 1958-67	182.4	139.0	383.2	515.0	58.8	29.4
Mean 1948-67	145.0	156.6	391.1	419.7	40.3	24.3

Sources: Annual Abstracts of Statistics, Lagos, Nigeria.

* Recent data are not immediately available. The data presented here although outdated, do not change the conclusions that would have been reached by more dated data because the pricing policies of NMB remain the same.

Table 11 *

Nigeria: Producer prices and their percentages of world prices

YEAR	COCOA		PALM OIL		PALM KERNEL		GROUNDNUT		COTTON		RUBBER*
	£N/ton	%	£N/ton	%	£N/ton	%	£N/ton	%	£N/ton	%	£N/ton
1948	77.0	32.0	32.0	53.8	21.0	60.0	16.0	48.0	99.1	96.5	90.0
1949	120.0	98.4	43.0	55.8	26.0	57.8	19.0	39.6	102.7	70.9	86.0
1950	100.0	50.0	43.0	59.7	26.0	63.8	21.0	32.3	44.9	19.6	208.0
1951	120.0	46.9	55.0	59.1	32.0	40.0	21.0	22.8	37.3	11.6	359.0
1952	170.0	68.5	61.0	72.6	36.0	65.6	36.0	45.7	56.0	16.0	226.0
1953	170.0	70.8	58.0	93.5	34.0	53.1	36.0	43.3	56.0	18.0	155.0
1954	170.0	43.3	50.0	71.4	34.0	64.0	36.0	45.5	55.1	19.5	139.0
1955	200.0	67.5	43.0	52.4	31.0	59.6	37.8	50.0	56.0	19.8	184.0
1956	200.0	96.2	43.0	46.2	31.0	58.4	36.0	46.1	56.0	21.9	168.0
1957	150.0	72.1	43.0	46.7	31.0	60.7	33.0	54.0	51.9	20.6	176.0
1958	150.0	48.0	43.0	51.8	30.0	53.5	33.0	50.7	56.0	24.1	185.0
1959	150.0	55.1	43.0	55.8	30.0	42.8	30.0	41.0	56.0	27.8	217.0
1960	160.0	76.9	43.0	53.1	30.0	49.1	45.0	63.3	57.0	24.8	249.0
1961	112.0	95.2	43.0	53.8	31.0	64.6	47.0	79.7	57.0	23.8	200.0
1962	100.0	59.5	35.0	46.1	26.0	56.5	43.0	79.8	49.0	19.4	190.0
1963	105.0	62.5	35.0	46.7	26.0	50.0	40.0	72.7	44.8	18.8	187.0
1964	110.0	62.5	36.0	45.0	28.0	52.8	40.0	67.7	44.8	18.3	169.0
1965	120.0	100.0	36.0	39.6	28.0	44.4	42.0	63.6	48.5	19.9	162.0
1966	65.0	47.7	36.0	46.8	28.0	49.5	43.0	68.3	49.5	21.6	172.0
1967	90.0	48.9	36.0	43.9	28.0	54.9	42.0	66.7	47.6	24.1	168.0
Mean 1958/67	116.2	65.6	38.6	48.3	28.5	51.8	40.5	65.1	51.0	22.3	189.9
Mean 1948/67	132.0	65.1	42.9	54.7	29.4	55.1	35.3	53.5	56.3	26.8	184.5

The data presented in Table 11 lead to the universal conclusion that the monopolistic pricing of NPMB has been designed to accumulate substantial trading surplus as well as serve as a vehicle for the collection of taxes for the government whilst the price and income stabilization objectives have not been carried out in any significant manner. A number of other studies on the role of the NPMB concluded similarly that its policy of withdrawing large sums of money from the farmers was inimical to increased production. Olakanpo and Teriba [1] contended in their study that 'The NPMB manupulating producer prices under a declining world market situation succeeded in imposing additional tax on export produce and this engendered serious disincentive effects on long run acreage-production response.' Dupe Olatunbosun (39) commented that 'The share of agriculture in GDP has fallen from 55.8% in 1966/67 to just below 42% in 1971/72. . . . . this reflects the diminishing rate of growth of production of export crops resulting from low producer prices paid by various marketing boards.'

These comments were largely based on analysis presented in tabular form like that of Table 11. Such analysis may be misleading hence emperical estimates of supply functions for commodity exports become very important as the most appropriate method of investigating the fiscal role of NPMB on output. Let us examine some of the few emperical work done in this area.

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1. Olakanpo and Teriba, O: 'Fiscal, Monetary and Investment Implications of the marketing boards' (Mimeo) Paper presented at the conference on marketing board system, Ibadan, 1971.

Olayide S. O. (41) used ordinary least squares (OLS) regression technique to develop three types of price elasticities of supply for six commodities - cocoa, palm oil, palm kernel, groundnut, rubber, and cotton. Price elasticities of product supply were estimated with the general purpose of determining whether reponse in product might be large or small in relation to price changes and in the presence of monopolistic policies of NPMB. For example, highly elastic supply functions meant that a policy which resulted in lower commodity prices would have a highly significant effect in reducing crop output substantially. On the other hand, low elastic supply functions meant that a considerable drop in commodity prices would have only a very small effect in reducing output and consequently factor use. The specification of the supply functions used is given as

$$Qt = f(Pdt\text{-}i,\ Pwt\ A,\ At\text{-}i,\ Wt,\ Dt,\ T,\ Qt\text{-}i) \quad (1)$$

where

Qt = the quantity of the commodity supplied in any given year in thousand long tons.

Pdt-i = the domestic producer price with the 'appropriate' lag in £N/tons.

Pwt = the current average world price of the commodity.

At-i = acreage actually in production with the 'appropriate' lags.

Wt = weather variable computed as an index of rainfall and humidity for the appropriate production season

with due congnisance of biophysiographic crop requirements.

Dt = index of disease variable, which is very relevant for commodities such as cocoa.

T = the trend variable measured in years.

Qt-i = quantity supplied in the last crop year as a proxy for stock adjustments.

Two variants of this function were considered. The first is the case where the world price of the commodity was not included, whilst the second is the case where it was included. This is to capture the changes in price elasticity of supply. The third model is to see the extent to which world price influences producer response. Indirectly, it influences what the NPMB pays producers. Thus model of the following implicit form was considered realistic:

$$Pdt = f(Pwt-1, \ T, \ T^2) \qquad (2)$$

On the basis of these three models he was able to estimate three types of supply elasticities. The first is that of the model where world prices were excluded from the estimating equations. This is given as:

$$E_1 = \frac{dQ}{dPd} \cdot \frac{Pd}{Q} \qquad (3)$$

The second is the case where world price is included in the estimating equations. The elasticity coefficient is of the form.

$$E_2 = e_1 + e_2 = \frac{dQ}{dPd} \cdot \frac{Pd}{Q} + \frac{dQ}{dPw} \cdot \frac{Pw}{Q} \qquad (4)$$

The third is the product of the first elasticity (E_1) and that obtained from equation (2). This is of the form:

$$E_3 = E_1 e_3 = \frac{dQ}{dPd} \cdot \frac{Pd}{Q} \cdot \frac{dPd}{dPw} \cdot \frac{Pw}{Pd} = \frac{dQ}{dPw} \cdot \frac{Pw}{Q} \qquad (5)$$

The price elasticities estimated are presented in the Table below.

Table 12.

Nigeria: Price elasticities of export supply.

	Model 1		Model 2		Model 3	
	E_1	e_1	E_2	e_2	E_3	e_3
Cocoa	0.197	0.158	0.596	0.438	0.038	0.195
Palm kernel	0.048	0.050	0.095	0.045	0.002	0.036
Palm oil	0.220	0.258	0.502	0.244	0.051	0.231
groundnut	0.295	0.240	0.725	0.485	0.002	0.007
Cotton	0.032	0.0002	0.0402	0.040	0.024	0.738
Rubber	0.170	0.235	0.441	0.206	—	—

Source: Olayide S. O. (41) Pp.274.

From the study, E_1 show highly in-elastic response to producer prices paid by the NPMB during the period under study (1948-67). This explains the worsening production situations in Nigeria's export economy. E_2 are larger in magnitude than E_1 and can be interpreted to mean greater response of producers. This study confirm the disincentive effects of the pricing policy of NPMB.

In another study by Olayide, Ogunfowora and Essang (42) using simulation experiment, they concluded that 'The results signify the need for a complete review of the structure and conduct of NPMB, since this body handles the overseas sales of Nigeria's commodity exports. The organization, functions and foreign as well as domestic sales policies of the NPMB would have to be completely overhauled if the crop economy is to benefit from higher producers' prices as well as redistribute surpluses due to the blend of 'spot' and 'future' sales policies' (1)

All the studies made by academicians point out to the depressing role of NPMB on agricultural production. Nevertheless, it is a credit to the NPMB that their huge surpluses were used for development purposes and in granting loans to Regional Finance and Development Corporations and in investments in private companies notably most successful manufacturing enterprises. See Table 13. Some of the surpluses were used to improve the quality of Nigerian export crops. The most dramatic improvement in quality was achieved in groundnut exports where the percentage of the first grade rose from zero to one-hundred (100) between 1951 and 1963. This remarkable improvement in quality is largely attributed to the maintenance of NPMB of grade-price differentials sufficiently large to induce the production of high grade produce.

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1. Olayide, S. O. 'On the typology of agricultural policies' AER No. 72. 1 Pp 69-75. June 1972.

Financial Operations of the Marketing Boards, 1961-5

(£ million)

Year	Income	Expenditure*	Surplus or Deficiency (-)	Contribution to Regional Government Capital Funds
WESTERN REGION MARKETING BOARD				
1961/2	33.63	29.90	3.73	4.83
1962/3	33.39	28.04	5.35	8.36
1963/4	46.42	39.42	7.00	–
1964/5	42.52	39.12	3.40	
EASTERN REGION MARKETING BOARD				
1961/2	18.77	18.75	.02	4.00
1962/3	14.59	12.89	1.70	2.00
1963/4	17.16	13.98	3.18	3.00
1964/5	17.15	14.69	2.46	2.00
NORTHERN REGION MARKETING BOARD				
1961/2	43.40	44.66	-1.26	–
1962/3	50.83	50.40	0.43	–
1963/4	45.00	45.00	–	–
1964/5	44.00	44.00	–	–

* Including reimbursements made for all services provided by the regional governments, but excluding contributions to the regional governments' capital funds.

SOURCES: Marketing boards' Annual Reports; regional governments' Estimates, various years.

A careful study of figures of agricultural production in Table 10 show in general an upward trend. The rise in production is partly due to the stabilization policy of NPMB who used their huge reserves in reducing fluctuations in producer prices. These are credits which should not be ignored. However, the deteriorating rate of production of recent years should not be attributed to the NPMB price-fixing alone. Many farmers are not educated and do not generally consider taxation in their production decisions. Also, the effect of price-changes would be assymetric particularly with respect to tree crops. An increase in price would result in small price-elasticity of supply because output cannot be adjusted upwards instantaneously. For example, it takes between five to seven years for cocoa to be planted and bear their first fruits. A fall in price could result in larger price-elasticity of supply since farmers could refuse to harvest the crop. But in general, this will not be the case because tree crops like cocoa are irreversible investment. When planted, they continue to bear fruits with little cost in clearing and spraying of insecticides. It is therefore unfair to put all the blames of the depressing trend in the production of export crop on the pricing policies of the NPMB alone.

There are also statistical difficulties in the estimation of price elasticity of supply in Nigeria. One of such problems which Olayide S. O. rightly recognised is that of dynamic specification of parameters which should be included in the supply function. Different specification depending on the variables which the individual

consider important to be included may yeild wide varying results. There is also the consideration of large error term arising as a result of disease, pests and weather conditions and also data which are sparse and unreliable. Such large error term generally results in the poor precision of parameters. In the case of data problem, we need a set of long-run data for better estimates. This is why future estimates are likely to yeild more reliable results than the present one. It might also be more appropriate to use a weighted average of past prices rather than use yearly prices. Farmers are more likely to respond to a set of average prices rather than individual yearly prices.

These considerations mentioned above and the statistical difficulties of estimating price elasticity of supply mean that the results of the studies made must be viewed with great caution, even though it is an approach in the right direction. However, some of the criticism of NPMB are legitimate. First is the assumption that the most appropriate development strategy was one which concentrated on the development of the urban sector. The urban orientation strategy of development has greatly increased rural-unemployment problem. Second is the fairness of withdrawing large amount of money from the farmers' income. My criticism of the studies made on the role of NPMB lay largely on the degree at which the depressing trend in agricultural export production was blamed entirely on its price-fixing activities. Third is the structure of NPMB which is run on state basis. The recent division of Nigeria

into 19 states means that there will be 19 states marketing boards resulting in unnecessary duplication of activities and high overhead costs.

These criticism have led to a reorganization of the structure of NPMB. The reoganization decided upon comprise a Price Fixing Authority and seven commodity boards which will operate on a nation-wide basis, with the headquarters of each board as near as possible to the area of greatest production of major commodity in question. The object of the new system is to encourage production and improve the marketing of major agricultural commodities, to provide the maximum benefit for farmers and to satisfy domestic needs and finally meet export demand. The seven boards, which will cover key food crops as well as traditional export crops are:

(1) Cocoa Board - also responsible for coffee and tea;

(2) Groundnut Board - also responsible for soya-beans, beniseeds, shea nuts and ginger;

(3) Cotton Board - also responsible for kenaf and similar fibres;

(4) Palm Produce Board - palm kernel, palm oil and copra;

(5) Rubber Board

(6) Grain Board - all food grain

(7) Root Crops Board - which will deal with tibers and root crops.

These reoganizations, I believe will go a long way to correcting the criticism levied on NPMB and make it perform its principal roles of a marketing and stabilizing agent rather than its present role of oppression and malaministration.

3.3. Implication of export taxes on Nigeria's agricultural output.

Export taxes create a disincentive effect to export expansion. The effective income (depending on quantity response) of the producers are reduced and the rate of return on ivestment falls. However, it has been explained that price and technological factors are important variables determining agricultural output in Nigeria. From this analysis one can see that while export taxes tend to reduce output, technological change increases output. We are now faced with two variables working in opposite directions in agricultural output. This issue raises serious economic implication for to what extent could it have been possible to finance the expenditure which stimulates export growth without export taxes? There is no doubt that although export taxes tend to reduce agricultural output, the revenue derived from this source has been channelled to the promotion of the agricultural sector and in providing cooperative factors for agricultural development in general in Nigeria. If export taxes have provided funds for growth, the conclusion drawable is that export taxes have not constituted a major deterrent to export production and economic growth.

Despite this conclusion, there is relatively little scope for further gains in export tax revenue for the present tax burdens are high eneough. This being so, the federal government has therefore decided to reduce the tax burden in order to encourage the farmers to increase production especially as other sources of revenue have

become open to the Nigerian government. In the 1976/77 budget export duties on various export commodities have been reduced. For example, the duty on groundnut has been reduced from 33 to 20 per cent (1)

Export taxes have of recent affected the distribution of output between different kinds of crops and between crops and livestock in Nigeria. There has been a shift from export commodity production to the production of domestic food crops. Two factors are responsible for this shift in production. First, export taxes affect only farmers engaged in exportable produce and those farmers who engage in domestic food crops are not taxed. This discriminatory nature of the tax means that farmers have been moving from export production to domestic food crop production. Apart from this, the export producers pay higher income taxes than those farmers engaged in domestic production because the incomes of export producers are more easily determined. This nature of the Nigerian tax system is highly inequitable since it penalizes export producers and neglects domestic producers. Second, many farmers who previously were mixed farmers, producing both export crops and domestic crops now specialized in the production of either export crops or domestic crops alone. In this situation, farmers who now specialized in export production became buyers of food crops just like the non-farming population of the country. The fall in domestic crop production araising from the specialization of export producers increased the prices of food-crops

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1. See West African Magazine No. 3068 19th April 1976, Page 527.

and the price incentive effect stimulated domestic food production particularly for markets in the urban centres. However, the increased food production is not sufficiently large eneough to reduce the price of food crops substantially and this is causing great concern to the government. The refusal of the younger members of the generation to cultivate the land has not helped this problem either. The recent government's efforts in reorganising the marketing board system and the 'feed yourself' campaign[1] are meant to boost both export and food-crop production. Such measures while encouraging agricultural output in general are also geared towards curbing inflation in domestic food-crop production.

There is also the consideration for livestock industry in Nigeria. Although farmers who engage in livestock production are not affected by export taxes since livestock is not exported by Nigeria, there has been a relative increase in livestock production especially as farmers are able to evade the personal tax. These farmers, move from state to state during assessment period in order to evade tax payments. This means that although export taxes may not in general be injurious to economic growth and agricultural production, it has far reaching implication for the distribution of output between different kinds of crops and between crops and livestock. This sectoral distribution of production is bound to have economic implication in shifting the distribution of income as well as affecting

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1. See West African Magazine No. 3068 19th April 1976, Page 527.

personal income taxation as a source of revenue. Since those farmers in the livestock and food-crop areas are more likely to evade personal taxation, the finances of the government are bound to be affected in the long run. This calls for the government to introduce measures whereby those farmers who engage in food-crops and livestock production to be effectively taxed, not only for equity consideration but also for the revenue loss that a redistribution of production is likely to create.

3.4. Non-tax factors affecting agricultural production.

Mixed farming is traditionally practised by Nigerian farmers. Immediately after the second world war, the rise in prices of certain exportable primary products particularly cocoa necessitated some farmers who were favoured by climatic conditions to concentrate on the production of these products. This is the basis of a sort of specialization in agricultural production in Nigeria. This means that world prices is an important determinant of agricultural production and helped to increase the production of cocoa, palm produce, cotton, and groundnuts from the early fifties until the late sixties when world prices started to decline. Since farmers were very sensitive to prices paid for their agricultural products,[1] it was not surprising that production fluctuated with the world prices. The incomes of the farmers become dependent upon external world prices and climatic conditions of the particular year. This factor largely necessitated the creation of marketing boards whose functions included the stabilization of producer prices in which case agricultural production was no longer impaired by the fluctuating world price. Also, the government which depended heavily on export taxes as a major source of revenue was guaranteed a steady revenue and government expenditures no longer had to be dictated by the fluctuation in revenue arising from the fluctuation in production brought about by world price fluctuations.

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1. See Helleiner G. K. (19) Page 600.

The price incentive effect on agricultural production is one of the theoretical justification for agricultural taxation as a tool of economic development in LDC (4), (5), and (6). It is believed that higher price induces peasant farmers to increase agricultural production. Although higher prices act as an inducement to larger acreage, one of the major factors which has increased production in Nigeria particularly of export crops is the introduction of high yeilding varieties (HYV). Cocoa has benefited most from its introduction

The other major factor is what I shall refer to as variable inputs (other than labour). These include fertilizer, physical capital, irrigation, spray for weed control and chemicals for insect and animal control. In the case of each of these inputs, per capita agricultural output increased with respect to the rate of its utilization. This is where the role of governments and marketing boards become very significant for they provided, the credit facilities, which enabled the farmers to purchase these inputs and established farm settlement schemes where the farmers laernt how to use some of the equipments.

One other key factor affecting agricultural production in Nigeria is lack of adequate storage facilities. Farmers who produce in large quantities find it exremely difficult to preserve their produce when they are harvested and are in abundant supply till the next planting season when output is in short supply. As a result of this, prices are generally very low during the harvesting

period because of the abundant supply and in the planting period, prices increase rapidly because of the relative scare supply. It is estimated that about thirty per cent (30%) of total agricultural output is wasted due to poor storage facilities. Because of the inadequate storage facilities, agricultural production particularly the cultivation of domestic food crops like yams, cassava, beans and vegetables have been greatly affected. Farmers generally cultivate those quantities which they consider they will be able to sell before they go bad and this factor means that agricultural production has been greatly impared by lack of storage facilities. Efficient storage facilities when established will ensure a steady flow of produce to the market according to the expected demand, prevent unwanted seasonal variability of produce prices as well as prevent the loss of income to the farmers due to spoilage. The governments and the marketing boards have realised this immediate problem and in the government's current budget, have devoted substantial amount of money for the provision of adequate storage facilities for the farmers.

The existing land tenure system is also not adequate and it needs reformation. This problem although not peculiar to Nigeria is inhibiting agricultural production in many LDCs. Most of the agricultural land is privately owned and this is passed on to children after the death of the father. This has resulted in general to fragmentation of agricultural land in which case some farmer's production is restricted by the available land inherited

from their dead father. Apart from this, some farmers who have inherited large portions of agricultural land may be unable to develop the land and make maximum use of it. This means that scarcity of agricultural land isfound side by side with abundant supply of land. This repugnant system to increased agricultural production needs to be changed. All agricultural land should be taken over by the governments and local governments should be empowered to administer the land. Each farmer or potential farmer should be given a fixed number of acres of land in whatever area is preferred and whoever needs more land than this give number should apply to the state government who will treat each application according to its merit.

A situation which if not discouraged is depleting agricultural production is the emergence of middlemen in the marketing of domestic food crops. These crop of middlemen have steadily been increasing in numbers because of large scale unemployment. They normally buy up agricultural foodcrops from the farmers in their farms, at relatively low prices and sell them in the urban centres at very high prices sometimes making a gain of about three-hundred per cent (300%) on some items. This means that large incomes which should have acrued to the farmers as a just reward for their efforts are now being drained away by the middlemen. There is no doubt that higher prices serve as an incentive to larger agricultural production but the activities of middlemen in eroding the farmers' income have become a menace to the cultivation of food crops. This new development should be frowned at by the government.

CHAPTER 4: Agricultural Taxation and Employment Consideration.

4.1. The supply and demand for agricultural labour.

4.2. The impact of agricultural taxation on employment.

4.1. The supply and demand for agricultural labour.

Unemployment and underemployment of labour resources are currently serious problems of social and economic significance in Nigeria. This means that it becomes necessary to study in great detail some effects of national policies as a basis of resolving certain issues particularly those related to unemployment and underemployment. One of the many approaches is to consider the factors determining the supply and demand of labour in the Nigerian agricultural sector. Such an analysis becomes relevant because our knowledge of the impact of agricultural taxation on such variables will help us to know whether agricultural taxation increases or decreases employment.

Let me first of all consider the supply side of labour. Conventional economic analysis predicts that the wage rate is determined at the point where the supply of labour equal the value of its marginal product with the modification that in LDCs up to some point, higher wages will enable workers to increase their productivity through a better diet. In these circumstances, wages and employment will be set at levels reflecting the degree of monopoly in the produce market and monopsony in the labour market. It is argued that because of geographical isolation and feudal nature of the labour force, wages may be so low that calorie intake is insufficient for workers to be productive, or there may be substantial underemployment of both labour and cultivated land. The arguement still supports the fact that the supply curve of labour is normally sloped

or some feel that it is backward sloping because workers work until they reach a fixed target income.(1)

It would seem likely that the supply curve of labour is forward sloping in most rural areas today, even in countries with allegedly 'unlimited supplies' of labour, it was argued that since increases in the demand for that labour undoubtedly raises its reserve price, from the employer's or landlord's point of view, as the number of workers increases, the wage offered should decrease because the marginal value of production per worker will decrease. (7)

When wages are thus optimized, the rents are of course maximised. If social pressures or government legislation were to force landlords to employ more people than this equilibrium amount, both wages and rents would fall. If wages are artificiallykept higher than equilibium then employment must fall.

In a more general framework, the supply of labour depends upon preferences for leisure and income. Leisure demands depend upon social status and arrangements and income depends upon availability of cash crops, financial commitments, family size(2) and so forth. In terms of this model, the higher the demand for cash and less strong is the extended family system, and less demanding the social organization in terms of time for social functions, the greater the income effect of a tax is likely to be in relation to the substitution effect. (13) That is, the economic analysis stressed earlier is sound,

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1. See Richard, M. Bird, Taxing Agricultural Land in Developing Countries, Harvard University Press, Cambridge, Massachussets. Page 187.

2. Family size and considerations are important in the determination of individual supply of labour. Many of the farmers rely heavily on family labour. The richer and more extensive is their agricultural land, the less likely is labour to be hired out whatever the external wage rate.

but it must always be remembered that it operates within a socioligical framework which affects the magnitudes of relevant variables.

Let us now consider how agricultural taxation will affect the variables on the supply side in the context of Nigeria. It has been explained earlier that there is a high degree of personal tax evasion in Nigeria, as high as eighty per cent (80%) and because of under assessment and poor administration, this form of tax has no significant impact on individual income leisure choice. Also, tax considerations do not generally affect family size and social status. We can therefore safely conclude that agricultural taxation has a neutral effect in so far as the supply side of labour is concerned. This being so, we are left to consider the impact of taxation on the demand side.

The demand for labour in the agricultural sector looked in another way is the supply of agricultural output. Paul Zarembka (50) in his theoretical analysis of the supply of agricultural output, showed that the major determinant of increased employment in the agricultural sector is increased output either due to a growth in the total area under crops, high yeilding varieties, better marketing arrangements and technical change. This means that if we have to study the impact of agricultural taxation as it relates to the demand side of labour, we have to study its impact on the supply of agricultural product which effectively means the impact on output.

4.2. The impact of agricultural taxation on employment.

In this section, our attention is directed to whether agricultural taxation has increased or decreased employment or whether its effect is neutral.

In Chapter 4.1, it was concluded that to know the effect of agricultural taxation on employment, we must first of all consider its impact on output. Assume a production function for an individual farmer written as $Y = f(N, L, H, T)$ . . . . . (i)

where

Y = output

N = labour utilization

L = land under cultivation

H = the degree at which H Y V are utilised

T = technical change.

In the Nigerian context, since agriculture is still largely practised in its traditional form, we can safely assume that in the short-run L, H, T, are fixed. In other words,

$$Y = f(N) \quad . . . . (ii)$$

$$\frac{dY}{dN} > 0$$

Increased output is a function of labour utilization alone. An increase in output means that labour utilization must increase and a fall in output means a fall in labour utilization.

In the earlier analysis about the impact of agricultural taxation on output, a number of studies showed that output has fallen. This being so, the effect of agricultural taxation has reduced employment in the agricultural sector,

Despite these theoretical considerations, a number of economic and social factors are very relevant in the consideration of employment in the agricultural sector of the economy. Firstly, while it is true that agricultural taxation helps to reduce agricultural output particularly exportable products, many of the farmers generally do not consider tax factor in the determination of output. Many of them do not have detailed knowledge of the tax system and hence do not generally recognise the tax burden. With particular reference to cocoa farmers, taxation may not adversely affect production as theorised because these are tree crops which bear fruits yearly and high burden of taxes cannot make farmers chop down the plants. Tree crops are different from usual crops. There is an asymmetry involved because of the irreversible investment. Taxation however can affect increased acreage cultivation in the long-run.

Related to this point is the fact that most of the forms of agricultural taxes are indirect in nature. Indirect taxes generally have less disincentive impact in LDCs than direct taxes.(1) This means that although theoretically agricultural taxation leads to a reduction in employment, the reduction is not as effective as it should be because farmers are ignorant of the tax system and also

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1. From statistical evidence, LDCs rely more heavily on indirect taxes than direct taxes; See J. F. Due (12) Page 2. It can be argued that one of the reasons for LDCs reliance on indirect forms of taxes is because there is little or no shifting and revenue from this source can be guaranteed. This coupled with the fact that most farmers are ignorant of the tax measures mean that its disincentive impact is minimal. One can also observe that despite high duties imposed on imported goods in LDCs, the volume of import rather than decrease usually increase, depicting its minimal disincentive impact.

as a result of the indirect nature of the tax. Even in the case of direct taxes (in particularly personal income taxes), the high degree of evasion, under-assessment and administrative problems which have been referred to mean that the tax burden is very low and therefore its impact is minimal.

Secondly, employment in the agricultural sector has been greatly affected by social problems. The usual low wage rates common in the agricultural sector of LDCs means that hired labour is not readily available. There is a high degree of migration to the urban centres for better pay and city life.

The situation is also not helped as a result of the introduction of free primary education. Under this scheme all children of primary school age are eligible to be admitted into primary schools without the payment of school fees. Many farmers used this opportunity to send their children to schools and effectively reduced the number of people who would have been employed in the agricultural sector. These children after their primary education considered themselves too superior to go 'back to the land' even when there are no job opportunities for them in the other sector of the economy. This has led to massive government efforts at inducing people to go 'back to the land ' with marginal results.

The introduction of minimum wage rate means that farmers generally could not afford hired labour and have to depend in most cases on family labour. In the cocoa producing areas of Ondo State, many of the cocoa farmers are able to pay for hired

labour which often comes from the Eastern States. They are able to pay for hired labour firstly because of the higher income from cocoa. Secondly, many of the labourers are generally underpaid, well below the minimum wage level and there is no way by which the government can enforce minimum wage payments particularly in the rural areas.

Another factor which affects the utilization of hired labour is connected with rising food prices. The rapid rise in food prices means that workers who depend on the market for their food are spending a considerable proportion of their income on feeding. Since there is abundant supply of land, particularly in the rural areas, many workers now have large gardens or small farms where they grow some of their food crops and do not as a result have to depend entirely on purchase from the markets. This development means that the little scope by which more labour would have been needed if more farmers produce for the market is no longer available. Farmers in the rural areas generally produce only for their immediate families and a little extra for sale. It is only in areas near to large urban centres that farmers are able to increase production substantially for sale. In such cases, hired labour may be needed but not to a significant degree.

All these economic and sociological factors prove that although theoretical analysis suggests that agricultural taxation reduces employment in the agricultural sector, the actual situation cannot be easily predicted. This calls for econometric studies to determine

the actual impact of agricultural taxation on employment. Such a study apart from its academic importance, will be useful to the government in formulating tax policy.

In general, the considerations of employment and urbanization suggest strongly that this is not the time to attempt to get large revenues out of agriculture for the more successful the effort, the greater the impact of migratory flows. On the other hand, employment in the rural areas may be increased by encouraging the use of taxes to provide necessary complements to increase agricultural production such as access roads, water, fertilizer, machinery and education. The rapid mechanization of agriculture will surely bring those who regard agriculture as dirty job back to the land. If a person does not regard working with machines in factories as dirty, such a person will also be delighted to use machines on the farms. It is the use of crude agricultural implements that make agriculture very burdensome, tiresome, a dirty job and a poor enterprise. Increased production will definitely mean that more labour will be required during the planting and harvesting seasons. The totality of these policies will help increase employment within the agricultural sector as well as increase employment in complementary areas to agricultural production.

CHAPTER 5: APPRAISAL AND POLICY RECOMMENDATION.

CHAPTER 5: APPRAISAL AND POLICY RECOMMENDATION

Nigeria's use of agricultural taxation in its developmental program needs a careful re-examination. The heavy reliance on marketing board taxes and export taxes should be discontinued as many studies have pointed out overwhelmingly to the discriminatory and disincentive effect on output. Export taxation constitutes an extra burden for one type of productive activity which is not borne by others. This inequality in the burden of the tax calls for a re-examination of tax policy. Land taxes which has not been effectively utilised could be a useful source of revenue for development and also could be an effective means of compelling landowners to make a more profitable use of their property.

The tax structure needs to be re-examined in order to make agricultural taxation a more proficient fiscal tool of government. This is particularly true of personal income tax where a high degree of tax evasion, administrative and social problems have made nonsense of this form of taxation. There is therefore the need for tax experts to make a careful study of the issues involved and devise means whereby these problems can be solved.

Nigeria's tax policy which is mainly geared towards the transfer of resources to the non-agricultural sector of the economy should be discouraged. Such an action has resulted in massive migration to the urban centres while the depopulated rural areas are left with poor amenities and inability to get the required labour with which to increase their agricultural

output. A policy of the development of the rural sector is called for in order to reduce the social evils of urbanization, encourage people to remain in the rural areas and embark on immediate action towards the mechanization of the agricultural sector for increased output.

Much as revenue from agricultural taxation is an important source of funds for development, the disincentive effect on production and the fact that petroleum has become a useful revenue source, call for a general reduction in its rates so as to encourage farmers to increase output. However, I am not advocating for its total abolition because the employment of the revenue collected is in some sense preferable to the consumption and investment expenditures which would have taken place in their absence. The direct contribution of farmers to capital formation is negligible and the richer they become, the more is their likehood to develop tastes for foreign produced goods which increase import bills and affect balance of payment equilibrium. Also much of the money may be channelled towards marrying more wives, undertaking expensive and wasteful parties for grand and great grand-relatives and engaging in unwarranted lawsuits in order to enhance their social status.

In order to encourage farmers to greater output, a system of tax credit could be devised whereby a farmer whose output is more than a given minimum is given tax rebate. The required minimum output and rates used should be revised periodically according to the circumstances. Tax credit system could help increase

output if farmers struggle to produce more than the required minimum necessary to obtain the credit. The administrative problems in its implementation and the inequitability of such tax measure which effectively is regressive are different issues which can be taken care of. Such tax measures are best administered at the local level where output can easily be identified. To the protagonist of the fairness of such a tax measure, the realization that this is a temporary and incidental measure and the fact that no tax measure however good intentioned is totally fair are enough comfort to water their challenge.

The system of relative low import duty on imported agricultural machinery and raw materials has not worked the desired wonders of accelerated mechanization of agriculture. Farmers should be encouraged to form cooperative unions and the tax credit system mentioned above could be tied to it. Also cooperative unions who plough back their resources to buy up modern agricultural tools should be given further tax concessions. The direct involvement of the farmers in the tax system would make them realise what they have to loose in tax concessions if output is low and crude implements are continually utilised. Such knowledge could make farmers work harder and the desired increase in agricultural output and the rapid mechanization of agriculture for increase productivity could be realised in a shorter period than hither to anticipated.

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