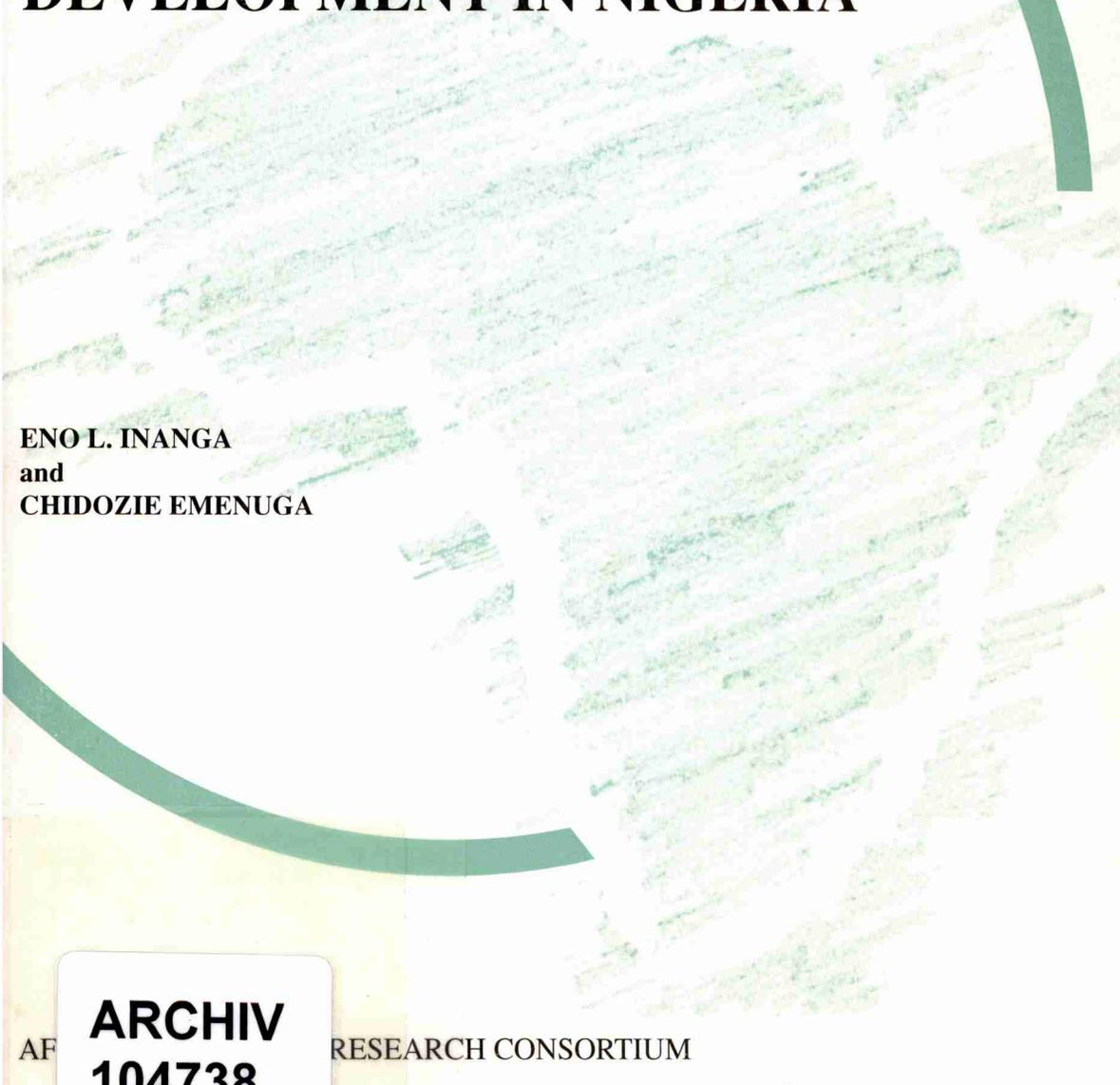
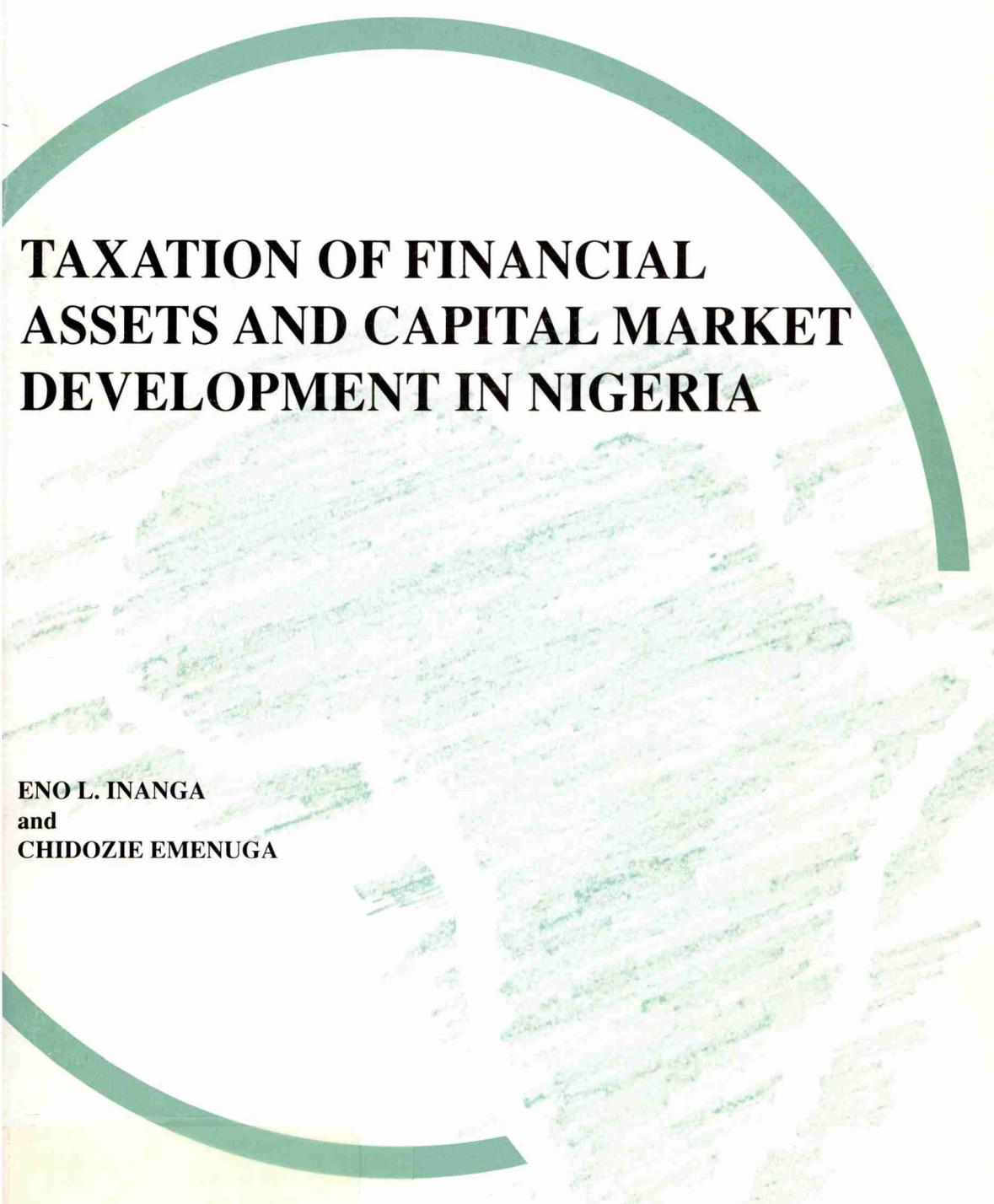


MARCH 1996

RESEARCH PAPER FORTY-SEVEN



TAXATION OF FINANCIAL ASSETS AND CAPITAL MARKET DEVELOPMENT IN NIGERIA

ENO L. INANGA
and
CHIDOZIE EMENUGA

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Taxation of financial assets and capital market development in Nigeria

Eno L. Inanga
and
Chidozie Emenuga
*University of Ibadan
Ibadan, Nigeria*



AERC Research Paper 47
African Economic Research Consortium, Nairobi
March, 1996

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Published by The African Economic Research Consortium
P.O. Box 62882
Nairobi, Kenya

Printed by the Regal Press Kenya Ltd
P.O. Box 46166
Nairobi, Kenya

ISBN 9966-900-72-1

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I. Introduction

The problem

Following the pioneering works of Shaw (1973) and McKinnon (1973), financial institutions have been known to play a significant role in economic development. An important function of these institutions in the process of development, especially in the context of developing countries, is that of financial intermediation through which domestic resources that could have remained in the informal sectors are attracted into the formal sectors and invested in productive enterprises.

Since the introduction of the structural adjustment programme (SAP) in Nigeria in 1986, various policy measures have been put in place to develop the financial sector of the economy in order to achieve overall economic development. These measures include the deregulation and liberalization of the financial sector, which have resulted in an increase in the number of financial institutions, instruments and services. Furthermore, the corporate sector of the economy has been induced to seek funds from sources other than bank credit which used to be their traditional source of capital. In the process, sourcing for equity capital from the securities market has now become an alternative to bank credit.

A number of other factors have also contributed to the awakening of interest in the securities market as a source of long-term finance to corporate entities in Nigeria. The privatization of some government-owned enterprises has made sizeable funds available to the securities market and increased the number of shareholders in Nigerian quoted companies. From the inception of the privatization exercise in 1988 to December 1992, for example, a total of 1.27 billion ordinary shares, involving 35 companies, were divested of government holding to private investors. The transactions were worth ₦1.5 billion (Nigerian Stock Exchange 1992).

The Nigerian stock market, on its part, has also taken conscious steps to aid its growth in terms of the number of securities listed and the volume of wealth created in the market. This is demonstrated by the formation of the second-tier securities market, with its less stringent listing requirements, and the increase in the number of trading floors from one in 1960 when the stock exchange was founded, to three in 1978, and six in 1990. All these developments have had positive results. For example, the stock market capitalization grew from ₦4,976 million in 1981 to ₦31.30 billion in 1992, an increase of 529.0% over a period of 11 years or 48% per annum over the period. The number of quoted companies

also rose from 93 to 145 over the same period. Though these increases may not appear unusual in international comparison, they tend to indicate significant progress, especially in the light of the growth rates in the earlier periods.

Now that the entire financial sector is on a growth path, with the securities market gradually beginning to play its unique role, studies that could reveal the factors that promote or constrain the supply of, and the demand for, financial instruments (especially securities) are relevant to effective formulation of government and corporate policies.

In any financial environment, the operating tax policies and the attitude of the suppliers of financial assets, as well as investors, toward such policies have serious implications for the development of the capital market. In this regard, a study of the tax regime and its effects on the various financial assets in Nigeria is germane. Here in particular, we consider the effects of tax policies on the rates of return on financial assets (with emphasis on equities) and, by implication, on the demand for the assets.

Objectives of the study

This study is designed to assess the impact of taxation on the development of the Nigerian capital market from the standpoint of the investors.

The specific objectives of the study are to:

1. identify the existing taxes on financial assets and compare them with taxes on non-financial assets;
2. review the Nigerian tax system and administration with particular interest in taxes on financial assets;
3. examine the contribution of revenues from taxation of financial assets to total government revenue;
4. examine the trend of pre-tax and after-tax rates of return on all financial assets as a means of defining the impact of taxation on each asset's rate of return;
5. analyse and compare the real after-tax rates of return on equities with the real after-tax rates of return on other financial and non-financial assets; and
6. identify the structure of taxes on equities that will ensure healthy and accelerated development of the Nigerian capital market.

Research hypotheses

The study revolves around the following hypotheses:

- In Nigeria, tax policy is more favourable to non-financial assets than to

financial assets. And, relative to other financial assets, equities tend to be over-taxed.

- Taxation contributes to the unattractive rates of return on financial assets, particularly equities.
- Provision of generous tax incentives on investment in equities will not create significant negative effect on government revenue.

II. Taxation and financial assets

Increasingly, conventional wisdom emphasizes the removal of obstacles and building up of strengths for effective mobilization of resources for capital market development. Taxation has clearly been identified as a factor that could be either a strength or an obstacle in the process of capital market development. For instance, Khalizadeh-Shirazi and Shah (1991) have noted that in countries with relatively developed financial markets, and in all countries that have high inflation rates, the supply of financial assets is highly responsive to tax changes. On the positive effect of tax policies, Chamley (1991) showed that the removal of onerous levels of taxation stimulates financial intermediation when such a measure is conceived to be a permanent policy change. Further, he identified several uncommon implicit taxes on financial assets in developing countries that add to the explicit taxes to result in over-taxation of the financial sector. These implicit taxes which apply mainly to bank deposits, arise through seigniorage, reserve requirements, lending targets and interest rate ceilings in the face of inflation.

Even the traditional asset taxes alone create complications in the allocation of resources among competing alternatives, and in some instances act against the development of some financial assets, particularly equities. For this category of financial assets, tax could be levied on income at several stages. For example, first, the corporate income tax could apply at company levels through the taxation of corporate net earnings. Second, there could be the dividend tax (withholding tax) levied also at company levels. Third, investors could be taxed when they receive dividend income that is a portion of the company's distributable earnings previously taxed at company level. Fourth, foreign investors may also pay remittance tax if the dividend income received by them is being repatriated. These are in addition to capital gains tax which applies when an investor sells company equity shares at a profit. As Roe (1990) has observed, the problem of multiple taxation typified above is common in Africa and is compounded by the existence of alternative securities such as housing development bonds and government securities, which are tax-free. Investments in bank term deposits are, in practice, usually subject only to withholding tax. Income from savings deposits, on the other hand, is usually tax-free. Moreover, taxation of dividends from unlisted companies may differ from that from listed companies, and the differential could constitute a disincentive to invest in equities.

It is in respect of these issues that tax policies have featured prominently among policy instruments used to develop securities markets in some countries. In Korea, for example, tax policies have been used not only as incentives for the supply of, and the

demand for, securities, but also as penalties for companies that were reluctant to go public (Horch and Popiel, 1989a). Similar measures used in Brazil include dividend tax exemptions or reductions, stock acquisition tax incentives, and provision of tax fund shares, among others (Horch and Popiel, 1989b).

Ultimately, the effectiveness of policies aimed at developing the securities market is measured by their impact on the supply of, and the demand for, equities. On the demand side, the major considerations are the pre-tax real rate of return on equities relative to other financial assets and the impact of taxation on that relationship.

In a financial environment with either high tax rates or several levels of taxation on one class of asset, the pre-tax rate of return will necessarily have to be high in order to guarantee an after-tax rate of return that compares favourably with the rate on alternative investments.

It has been noted that excessive taxation of capital gains from the sale of shares encourages investors to retain their shares and take out their profits in dividends. Several studies on the Nigerian capital market have observed thin stock trading and a "buy-and-hold" attitude of investors in the market (Gill, 1982; Ike, 1984; Akinnifesi, 1988; and Inanga, 1990). The tax environment could be a reason for the observed investor aversion to stock disposal.

Tax environment also plays a major role in determining the volume of inflow of foreign portfolio investment to developing countries (Shah and Slemrod, 1991). Dailami and Atkin (1990) have also noted that stock markets represent a valuable mechanism for investors and companies in developing countries to be integrated into the world capital markets. These markets, in addition, provide opportunities for institutional investors in developed countries to diversify their assets geographically. But as the scholars have further noted, the inflow of portfolio investments into any emerging capital market will largely be affected by the tax regime which affects the rates of return on financial assets.

III. Methodology

The methodology of our study is designed to address the issues in its specific objectives empirically. As a background to the study, there is a comprehensive review of the past and existing taxes on financial assets. The review covers such aspects as the types of tax, the number of assets subject to a particular tax, the tax rate, and jurisdiction and efficiency in the administration of each tax.

The financial assets and instruments emphasized in the review include, among others:

- equities (taxes on capital gains and dividends);
- dividends on unlisted companies;
- time deposits of various term structures;
- savings deposits; and
- government securities.

The review also covers the structure of the tax system. The contribution of each type of tax to the total government revenue is computed to define its importance.

Data on stock prices and dividends were collected from the daily official price list of the Nigerian Stock Exchange. We derived information on scrip issues from the daily official price list and annual reports of the affected companies. Several consultations were made with the officials of the Federal Board of Inland Revenue and the Joint Tax Board, from whom we collected information on the Nigerian tax system and administration. For the tables presented in this report, the relevant sources of data have been indicated.

One specific objective of the study is to define the impact of taxation on the rates of return on financial assets. To accomplish this, we compute the pre-tax rates of return on each asset and then net off the components of the returns that were taxed to arrive at the after-tax rates of return. Tax, in this context, includes all taxes that apply to the respective assets.

While investors would normally be interested in the after-tax nominal yields on their investments, in an inflation-prone environment, their ultimate consideration will be the real after-tax yields. Investing in equities, for example, will depend on the real after-tax rates of return on equities relative to other assets.

We define the rate of return on equities as:

$$R_{it} = \frac{P_{it} - P_{it-1} + d_{it}}{P_{it-1}} \quad (1)$$

where:

R_{it}	=	the rate of return on the i th shares in period t ;
P_{it}	=	the market price of the i th shares at the end of period t ;
P_{it-1}	=	the market price of the i th shares at the end of period $t-1$;
d_{it}	=	the dividend paid on the i th shares in period t ; and
t	=	one-year time period.

In computing the returns on shares, adjustments were made for scrip issues (i.e., shares issued to equity shareholders from accumulated reserves, in proportion to existing holdings). The end period price of the i th equity, P_{it} , is multiplied by $(1 + x)$ to derive the scrip issues-adjusted value of the equity, where x is the ratio of the scrip issues to the previously held shares. Scrip issues are added to the capital gains component of the holding period rate of return, rather than to dividend yield, because the gains from scrip issues do not accrue to investors as cash dividends but as additional shares. If the scrip issues were to be entitled to cash dividends within the holding period, the dividends per share would have to be adjusted accordingly. Scrip issues, however, do not normally earn dividends in the year in which the issue is made. Dividends accrue to them in future years. We derived our data on dividends from the stock market daily official list, which usually specifies cash dividend paid per existing share.

For comparison with other assets, we analyse returns on equities in a context of a well-diversified, equally weighted portfolio of equities. The use of a portfolio rather than single stocks is informed by two main reasons. The first reason is that there is no logical basis on which to select a single stock as being the market representative. Second, the return on a well-diversified portfolio evens out non-systematic fluctuations in the returns on individual securities. A well-diversified portfolio presents a picture of what obtains, on average, in the stock market. This measures the return to an investor who chooses to invest in several equity stocks rather than in alternative assets.

The rate of return on the portfolio of equities is derived by:

$$R_{pt} = \frac{\sum_{i=1}^n R_{it}}{n} \quad (2)$$

where:

R_{pt}	=	the rate of return (nominal) on a portfolio of equities in period t .
n	=	21 (21 equities that constitute the portfolio)
R_{it}	=	as defined above.

Our portfolio consists of 21 equities chosen from 20 out of the 22 industrial sector classifications of equities in the Nigerian stock market. The two industrial sectors of the economy left out are those that do not satisfy the data requirements for inclusion. Two stocks were included from one large industrial sector for balance of sectoral representation. The selection of stocks from each sector was random. Any chosen stock that did not meet the requirement of being continuously listed over the period of the study was substituted with another in the same random process. The 21 stocks included constitute 26% of the total number of equities listed in 1979, the beginning period for the data on stock prices. The sectors that have more than one stock meeting the data requirements are fewer than ten. The number of stocks in the portfolio has consequently, been limited to 21 because inclusion of more stocks could bias the composition of the portfolio in favour of a few sectors. In such a situation, sector-specific factors could also bias the portfolio rate of return.

The after-tax rate of return on the i th equity is computed as follows:

$$RA_{it} = \frac{(P_{it} - P_{it-1})(1 - CGT_t) + d_{it}(1 - DT_{it})}{P_{it-1}} \quad (3)$$

where:

CGT_t	=	the capital gains tax rate on shares at time t ; and
DT_t	=	the dividend tax rate on shares at time t .

The after-tax rate of return on the portfolio is a weighted average of RA_{it} , alternatively computed as:

$$RA_t = CG_t(1 - CGT_t) + D_t(1 - DT_t) \quad (4)$$

where:

RA_t	=	the portfolio after-tax rate of return;
CG_t	=	the capital gains on the portfolio at time t ;
D_t	=	the dividend yield on the portfolio at time t ;
CGT_t	=	capital gains tax rate at time t ; and
DT_t	=	dividend tax rate at time t .

We used the latter approach. For all other financial assets, the yield rate (Y) is used to

define the rate of return, while the after-tax rate of return is the yield less taxes. Thus:

$$YA_{nt} = Y_n(1 - WT_t) \quad (5)$$

where:

$$\begin{aligned} YA_{nt} &= \text{the after-tax rate of return on the } n\text{th financial asset at time } t; \\ Y_{nt} &= \text{the pre-tax rate of return on the } n\text{th financial asset at time } t; \text{ and} \\ WT_t &= \text{the withholding tax rate on } Y_n \text{ (if applicable) at time } t. \end{aligned}$$

The real after-tax rate of return on financial assets is measured using the Fisher equation by subtracting the rate of inflation from the after-tax rate of return (Dailami and Atkin, 1990). This method of computing the real rate of return becomes inaccurate when the rate of inflation is high. The resulting real rates of return should therefore be considered approximations of the true rates.

The real after-tax rate of return on the portfolio of equities thus becomes:

$$ra_t(d) = RA_t - U_t \quad (6)$$

where:

$$\begin{aligned} ra_t &= \text{the portfolio real after-tax rate of return on equities;} \\ RA_t &= \text{as previously defined; and} \\ U_t &= \text{the rate of inflation in period } t. \end{aligned}$$

The real rates of return on equities are further broken down into dividend yield and capital gains using the formulas:

$$ra_t(d) = \alpha RA_t \quad (7)$$

and

$$ra_t(cg) = (1 - \alpha) RA_t \quad (8)$$

where:

$$\begin{aligned} ra_t(d) &= \text{real after-tax dividend yield;} \\ ra_t(cg) &= \text{real after-tax capital gains rate of return; and} \\ \alpha &= \text{the ratio of dividend yield to the total portfolio rate of return on equities.} \end{aligned}$$

The real after-tax rates of return on other financial assets are determined by:

$$ya_{nt} = YA_{nt} - U_t \quad (9)$$

where:

ya_{nt} = the real after-tax rate of return on the n th asset.

Other variables are as previously defined.

Income accruing to investors is reduced by the amount taxed. This reduction in investment income due to tax, in itself, constitutes a disincentive to invest. In the approach of Hall and Jorgenson (1967), the wedge between the pre-tax and the after-tax rates of return is a measure of the disincentive to invest that is related to tax. This provides us with a measure of the effective tax rate, which Musgrave and Musgrave (1989) have defined as the percentage reduction in the yield or return on an asset that is caused by the tax.

We derive tax-related disincentive to invest in equities as:

$$Re = \frac{Rb - Ra}{Rb} \quad (10)$$

where:

Re = effective tax rate on nominal income

Rb = pre-tax nominal rate of return; and

Ra = after-tax nominal rate of return

Similarly the effective tax rate in real terms is derived as:

$$re = \frac{rb - ra}{rb} \quad (11)$$

where:

re = effective tax rate in real terms;

rb = pre-tax real rate of return; and

ra = after-tax real rate of return.

The effective tax rates on returns from other financial and non-financial assets are as defined in Equation 11 for equities.

To ascertain whether the differential returns on the assets are due to tax effects or essentially caused by risk factors, risk-adjusted rates of return on the assets are computed. A standardized risk premium is calculated using the formula

$$RR_n = \frac{R_n - R_f}{\sigma_n} \quad (12)$$

where

RR_n	=	risk-adjusted rate of return on the nth asset;
R_n	=	the period average rate of return on the nth asset;
R_f	=	rate of return on the risk-free asset (proxied by the Treasury Bill); and
σ_n	=	the standard deviation of the rates of return on the nth asset.

IV. The Nigerian financial system: An overview

The term “financial system” refers to institutions and institutional arrangements for the creation and management of financial assets. Institutions in the Nigerian financial system may be classified into banks and non-bank financial institutions. In the category of banks are the central bank, commercial banks, merchant banks, development banks, and such other specialized banks as community banks, the people’s bank, and mortgage banks. The non-bank financial institutions include the stock exchange, finance companies, insurance companies, and *bureaux de change*. Existing parallel to these formal institutions are organizations, associations and companies in the informal financial sector, which provide financial intermediation services. A brief review of the functions, size and performance of the institutions in the formal financial sector is presented below.

The central bank

The Central Bank of Nigeria (CBN) was established in 1958. It is the apex institution, which regulates and controls the operations of other financial institutions in Nigeria. The broad objectives the bank pursues are to:

- issue legal tender in Nigeria;
- maintain the external reserve and safeguard the international value of the domestic currency;
- promote monetary stability and a sound financial structure in Nigeria; and
- serve as banker and financial adviser to the federal government.

These principal objectives of the bank constitute its banking functions. Other functions carried out include:

- organization and provision of development finance;
- development and control of the financial system; and
- development of research and provision of monetary and financial data and statistics on the economy.

The performance of the central bank's functions, particularly the control of the financial system, has been strengthened since the public sector institutional reforms of 1988, which made the bank autonomous of the federal Ministry of Finance. Before then, the ministry had generally exercised control over the affairs of the bank.

The central bank is both the Federal Government's chief banker and the manager of its domestic debt. Public domestic debt instruments issued and managed by the bank include treasury bills, treasury certificates and government development stocks.

Bank supervision is implemented by the central bank. There is also the Nigerian Deposit Insurance Corporation (NDIC), which augments the services of the bank in this supervisory function.

Commercial banks

The main objectives of commercial banking in Nigeria involve encouragement of savings and the savings habit creation of channels extending credit. Major functions of the commercial banks include money creation through financial intermediation and provision of various banking and related services. The usual deposit instruments available in the Nigerian commercial banks are savings deposits, fixed term deposits and current account (or demand) deposits.

The number of commercial banks and their branches has been growing steadily over the years – from 20 banks in 1980 to 65 in 1992. Table 1 shows the total number and branches of commercial banks from 1980 to 1992. The classification of bank branches into urban and rural in the table shows that the greater number of commercial bank branches are in urban areas. The success of government's emphasis on rural banking is reflected in the increasing percentage of rural bank branches. From the table, it can be seen that in 1980 there were 733 commercial bank branches in Nigeria, about 23% of which were located in the rural areas of the country. By 1992, the number of commercial bank branches had increased to 1,950, an increase of 166%. Of this total, 42% were located in rural areas. This increasing trend of banking activities in the rural sector provides greater scope for mobilizing savings from the informal sector.

Merchant banks

Merchant banks are wholesale banks whose major objectives are the provision of long-term lending and corporate financial services. This class of banks is currently authorized to house only lump-sum deposits of ₦50,000.00 and above. The number of merchant banks has grown significantly in very recent years, from only 6 in 1980 to 54 in 1992. This growth is mainly due to the increasing demand for their services, which comes with the development of the financial system. Their branches have also grown from 12 in 1980 to 84 in 1992 (see Table 1). Compared to commercial banks, the merchant banks in Nigeria operate with a smaller branch network. Their activities are urban-based, probably because their deposits are mostly mobilized from companies and wealthy individuals

Table 1: Number and branches of banks in Nigeria, 1980 - 1992

Year	Number of commercial banks	Number of commercial banks (urban branches)	Number of commercial banks (rural branches)	Number of commercial banks (branches abroad)	Number of commercial banks (branches in Nigeria:2+3)	Number of merchant banks	Number of merchant bank branches	Total Number of banks (commercial/merchants:1+6)
	1	2	3	4	5	6	7	8
1980	20	565	168	7	733	6	12	26
1981	20	622	240	7	862	6	15	26
1982	20	676	308	7	984	8	19	28
1983	22	694	407	7	1,101	10	24	32
1984	25	810	432	7	1,242	11	25	36
1985	27	839	451	7	1,290	12	26	39
1986	28	879	481	7	1,360	12	27	40
1987	29	947	529	7	1,476	16	33	45
1988	34	1,050	602	7	1,652	24	46	58
1989	42	1,078	771	7	1,849	34	56	76
1990	58	1,129	771	7	1,850	49	74	107
1991	65	1,129	810	7	1,939	54	84	119
1992	65	1,135	815	7	1,950	54	84	

Source: CBN, *Statistical Bulletin*, vol. 3, June 1992.

who mainly operate in urban rather than rural areas.

Development and specialized banks

In this category are banks whose functions and specialization are in a particular sector or a number of sectors of the economy. The names of some of these banks and their specialized areas of operation are as follows:

Bank	Year established	Objectives and functions
• Nigeria Industrial Development Bank (NIDB)	1964	Providing medium- and long-term finance for industrial development.
• Nigerian Agricultural and Cooperative Bank (NACB)	1973	Funding the development of the agricultural sector.
• Federal Mortgage Bank of Nigeria (FMBN)	1977	Mobilizing savings for investment in the housing sector.
• Nigerian Bank for Commerce and Industry (NBCI)	1973	Funding medium- and long-term investments in commerce and industry.
• The People’s Bank of Nigeria (PBN)	1990	Extending banking services to the poor and inculcating a banking habit at the grassroots level.
• Community banks	1990	Ensuring nearness of banking facilities to the people at the community level through communal ownership and control of banks.

Table 2: Number of listed securities in Nigeria (1980-1992)

Year	Government stocks	Industrial loan stocks and bonds	Equities	Total
1980	54	12	91	157
1981	56	14	93	163
1982	57	18	93	168
1983	61	25	92	178
1984	56	27	92	175
1985	57	28	96	181
1986	58	29	99	186
1987	54	31	100	185
1988	51	35	102	188
1989	47	40	111	198
1990	43	43	131	217
1991	40	57	142	239
1992	40	57	145	242

Source: The Nigerian Stock Exchange, *Annual Report and Statement of Accounts*, 1980-1991 issues. The Nigerian Stock Exchange, *Factbook 1992*.

The stock exchange

The Nigerian Stock Exchange is usually classified by the International Finance Corporation (IFC) among emerging stock markets. Established in 1960, the market has since grown both in terms of market operators and the number and variety of traded instruments. The three equities listed in 1960 increased to 91 by 1980. Since then, a sustainable growth path has been maintained. Table 2 highlights the number of listed securities from 1980 to 1992. The stock market operation, which started with the Lagos trading floor, now has six trading floors spread across the country.

Insurance firms, finance companies and others

Apart from those discussed above, other financial institutions in Nigeria include insurance companies, finance companies, unit trusts and *bureaux de change*. Insurance firms generate funds that they invest in government securities and quoted and unquoted stocks, as well as in bank deposits. Funds from the insurance sector constitute a substantial part of investments in these financial instruments.

Several finance companies, both licensed and unlicensed, operate in the Nigerian financial sector. Their operations are tilted towards the money market, where they mobilize deposits and lend on a short-term basis. *Bureaux de change* facilitate foreign currency exchange.

V. The Nigerian tax system

Overview

Nigeria currently operates a federal system comprising three levels of government – the federal, state and local. The country's fiscal arrangement entails the sharing of functions and tax powers among these three levels of government.

The major types of tax in Nigeria are spelled out in Table 3. The taxes differ in terms of the level of government that either legislates or carries out tax collection and administration. As can be seen from the table, most tax legislation is done by the federal government.

It is pertinent to observe that the federal government legislates on all taxes that apply to financial assets. In general, these taxes may be classified into two categories. One category relates to income and capital gains earned by corporate bodies from investments in financial market instruments. The other is tax on the income and capital gains accruing to individuals from investments in the same financial market instruments. The federal government makes the laws and also collects all taxes accruing from corporate bodies, such as limited liability companies, both quoted and unquoted. While the federal government makes laws for personal income and capital gains taxes accruing from individuals, the actual collection is effected by the state government of the tax payer's usual place of domicile. It is noteworthy that the centralized system of legislation for all taxes on financial assets makes it easy for government to manipulate such taxes for any macroeconomic objective it desires to achieve.

In terms of contribution to the nation's revenue, the major taxes are import duties, excise duties, mining rents and royalties, petroleum profit tax, company income tax, and personal income tax. With the exception of the personal income tax, all taxes are legislated, and collected by the federal government. The personal income taxes of the armed forces, external affairs officers and residents of the Federal Capital Territory are also collected by the federal government.

The taxes in Nigeria can be grouped into three. These are taxes that derive from income and wealth, taxes that relate to expenditure or consumption, and production-based taxes. Income and wealth-related taxes are personal income tax, company income tax, petroleum profit tax, capital transfer tax, capital gains tax and property tax. Among the expenditure or consumption-related taxes are sales tax and customs duties. Sales tax applies to expenditure on locally manufactured goods while customs duties apply to

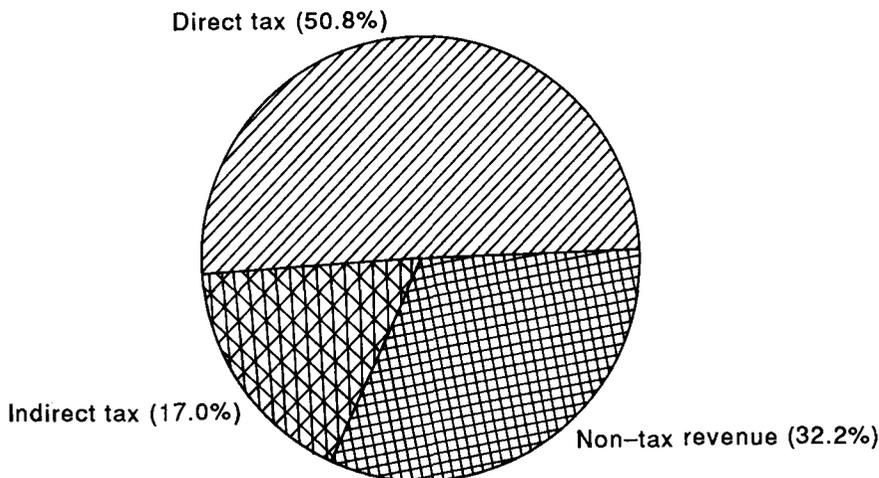
Table 3: Major taxes in Nigeria

Type of tax	Jurisdiction	
	Law	Administration and collection
1. Import duties	Federal	Federal
2. Excise duties	Federal	Federal
3. Export duties	Federal	Federal
4. Mining rents and royalties	Federal	Federal
5. Petroleum profit tax	Federal	Federal
6. Companies income tax	Federal	Federal
7. Capital gains tax	Federal	Federal/states
8. Personal income tax	Federal	states
9. Dividend tax	Federal	Federal/states
10. Personal income tax Armed forces, external affairs officers and Federal Capital Territory	Federal	Federal
11. License fees on television and wireless radio	Federal	Local
12. Stamp duties	Federal	States
13. Estate duties	Federal	States
14. Gift tax	Federal	States
15. Sales or purchase tax	Federal	States
16. Football pools and other betting taxes	States	States
17. Motor vehicle tax and drivers license fees	States	States
18. Entertainment tax	States	States
19. Land registration and survey fees	States	States
20. Property tax	States	Local
21. Market and trading license and fees	States	Local

Source: Emenuga, 1993.

expenditure on goods manufactured in foreign countries but consumed in Nigeria. Also included in this category is the modified value added tax (MVAT) that is now being introduced. Production-based taxes are excise duties charged on the local manufacturer, and landing duties imposed on imported intermediate inputs.

The above grouping of taxes explains the general distinction usually made between direct and indirect taxes. Income and wealth-related taxes are direct taxes, while expenditure or consumption-and production-based taxes are indirect taxes. The direct taxes, unlike the indirect taxes, are avoidable.

Figure 1: Composition of government revenue (%)

The distribution of tax revenues between direct and indirect taxes between 1961 and 1992 is shown in Table 4 and Figure 1. The table shows an increasing importance of the direct tax revenue relative to the indirect tax. The increase in the contribution of direct tax revenue may be explained by the emergence of oil revenue in the early 1970s. Indeed it was not until 1972 that the direct tax revenue began to overtake the indirect tax revenue, a trend that has since persisted. There has, however, been a decreasing share of the direct taxes in the total government revenue since 1980 and up till 1992. This is mainly due to the decrease in the revenue from petroleum profit tax following the reversal of the oil boom of the 1970s.

The petroleum profit tax has dominated the direct tax revenue since the oil boom years. For instance, in 1975 direct taxes generated 54.2% of total government revenue. Petroleum profit tax accounted for 90.5% of the direct taxes. In 1990 it constituted 88.5%, while in 1991 and 1992 it accounted for 84.9% and 71.3% respectively (CBN, *Annual Report and Statement of Accounts*, various issues).

Thus, a salient feature of the Nigerian tax system is its heavy dependence on a single commodity – petroleum. This is clearly evident from Table 5 and Figure 2, which show the percentage shares of oil and non-oil revenues in the total government receipts from 1970 to 1992. From a share of just 18.9% in 1970, the oil revenue increased to 78.0% in 1980. Between 1981 and 1984, it averaged 65%. This increased to 75% in 1985 and 83.3%, the highest, in 1992.

Figure 2: Oil and non-oil revenue (%)

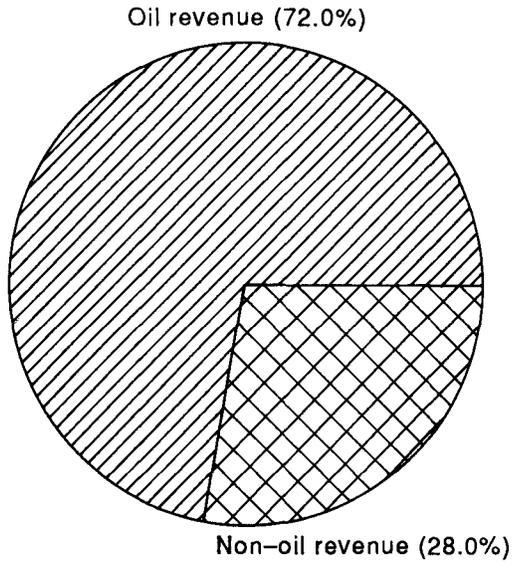


Figure 3: Federal Government revenues (%)

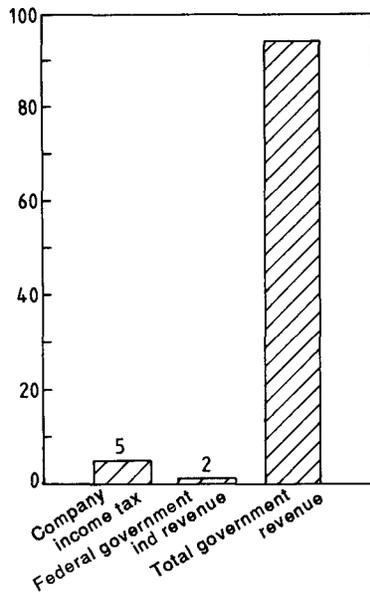


Table 4: Percentage contributions of direct, indirect and non-tax revenue to the total federal government revenue (1961-1992)

Year	% Share of direct tax revenue	% Share of indirect tax revenue	Total % share of tax revenue	% Share of non-tax revenue
1961	6.60	71.57	78.17	21.63
1962	7.40	65.26	72.66	27.34
1963	6.70	67.56	74.26	25.74
1964	5.70	74.06	79.76	20.24
1965	6.60	71.94	78.54	21.46
1966	8.60	69.52	78.12	21.88
1967	11.20	60.57	71.77	28.23
1968	15.10	64.27	79.37	20.63
1969	22.83	69.05	80.65	19.35
1970	22.83	58.33	81.16	18.84
1971	38.61	42.03	80.68	19.32
1972	44.44	34.24	78.70	21.30
1973	50.31	30.45	80.76	19.24
1974	66.83	10.98	77.81	22.19
1975	54.22	13.79	68.01	31.99
1976	56.94	13.05	69.99	30.01
1977	60.20	14.21	74.41	25.59
1978	53.75	23.04	76.79	23.21
1979	52.73	10.48	63.21	36.79
1980	60.14	11.90	72.04	27.96
1981	56.02	20.92	76.94	23.06
1982	47.67	21.10	68.77	31.23
1983	41.21	18.89	60.10	39.90
1984	49.87	14.44	64.31	35.69
1985	53.39	14.95	68.34	31.66
1986	47.80	19.08	66.78	33.22
1987	54.74	14.10	68.84	31.16
1888	52.51	15.61	67.13	32.87
1989	52.00	11.84	63.83	36.17
1990	45.32	13.04	58.36	41.64
1991	51.60	14.13	65.73	34.27
1992	19.00	13.00	32.00	68.00

Source: Central bank of Nigeria, *Annual Report and statement of Accounts* (Various Issues).

Note: Petroleum profit tax, company income tax and federal government's independent revenue constitute the direct tax revenue. Customs and excise duties constitute the indirect tax revenue, while rent, royalties, NNPC earnings and petroleum subsidy make up the non-tax revenue.

Table 5: Percentage shares of oil and non-oil federal government revenue (1970 - 1992)

Year	Oil revenue	Non-oil revenue
1970	18.9	81.1
1971	40.7	59.3
1972	49.9	50.1
1973	56.9	34.1
1974	80.7	17.3
1975	72.3	27.7
1976	75.6	24.4
1977	72.4	27.6
1978	60.3	39.7
1979	74.7	25.3
1980	78.0	22.0
1981	68.8	31.2
1982	66.1	33.9
1983	59.7	40.3
1984	67.0	33.0
1985	74.7	25.3
1986	75.9	24.1
1987	75.8	24.2
1988	76.7	23.3
1989	82.2	17.8
1990	71.8	20.2
1991	78.1	21.9
1992	83.25	16.75

Source: Central Bank of Nigeria, *Annual Report and Statement of Accounts*, (Various Issues).

The tax revenue in Nigeria also seems to depend largely on foreign-oriented activities. For example, before the era of the oil boom, the bulk of the federal revenue was derived from import duties, which are based on foreign-oriented consumption. Furthermore, since the oil boom period of the 1970s, the preponderance of the tax revenue has been earned from oil export and related activities.

On the structure of the tax system, we note at this point that the shift from indirect tax to direct tax as the main source of government revenue is not, in any way, a true reflection of Musgrave's (1969) thesis that as nations develop, the tax base shifts from indirect to direct tax. The case in Nigeria is produced by the dominance of petroleum profit tax. Tax revenues from the traditional income-based sources, such as company income tax and personal income tax, are still very low. Besides, tax from domestic outlay is also far from developed. Company income tax, which is the most viable revenue source of all the income related taxes, constitutes only about 5% of total government revenue. Its share of the total government revenue from 1970 to 1992 is shown in Table 5 and Figure 3. The table also shows the federal government's independent revenue, a revenue item under which is grouped all revenues collected from capital gains tax (of all sources), dividend tax, withholding tax on bank deposits, casino tax, airport tax, stamp duties and penalties. In recent years, the total contribution of this source of revenue

Table 6: Federal government revenues (1970 - 1992)

Year	Total federally revenue (N million) 1	Company income tax (N million) 2	Federal government independent revenue (N million) 3	2 as a % of 1 4	3 as a % of 1 5
1970	634	45.8	0.8	7.22	0.13
1971	1,168.8	67.5	0.2	5.78	0.02
1972	1,405.1	80.4	0.0	5.72	0.00
1973	1,695.3	80.8	1.2	4.77	0.07
1974	4,537.4	148.8	11.1	3.28	0.24
1975	5,514.6	261.9	15.9	4.75	0.29
1976	6,765.8	222.2	3.5	3.28	0.05
1977	8,042.4	476.9	3.3	5.93	0.04
1978	7,371.0	527.4	3.3	7.16	0.04
1979	10,912.4	575.1	2.9	5.27	0.03
1980	15,234.0	579.2	4.0	3.80	0.03
1981	12,180.2	483.0	3.9	3.97	0.03
1982	11,764.4	734.0	12.5	6.24	1.06
1983	10,508.7	561.5	4.5	5.34	0.04
1984	11,191.2	787.2	13.3	7.03	0.12
1985	14,606.1	1,049.9	15.1	7.19	0.10
1986	12,302.0	1,102.5	433.7	8.96	3.53
1987	25,099.8	1,235.2	407.6	4.92	1.62
1988	27,310.8	1,572.4	540.5	5.76	1.98
1989	50,272.1	1,977.4	1,010.1	3.93	2.01
1990	68,570.5	3,408.7	1,724.0	4.97	2.51
1991	88,158.7	3,826.7	3,040.4	4.34	3.45
1992	138,617.0	5,417.2	1,753.3	3.91	1.26

Source: Central Bank of Nigeria, *Statistical Bulletin*, vol. 2, no. 1, June 1991.

Central Bank of Nigeria, *Annual Report and Statement of Accounts*, 1991 and 1992 issues

amounts to about 2% of the total revenue.

The overall picture of the tax system and government revenue shows that the contribution of income-related tax to total government revenue is quite small. The income-related taxes on financial assets are discussed below.

Taxes on financial assets

The existing taxes on financial assets in Nigeria comprise the following:

- Withholding tax on dividends;
- Capital gains tax;
- Capital transfer tax; and
- Withholding tax on bank deposits/other money market instruments.

Withholding tax on dividends is charged on dividend incomes to corporate investors and individuals from investment in both quoted and unquoted companies. The dividend tax rate was 12.5% from 1980 to 1984. In 1985, it was increased to 15% and has since remained unchanged. On 10 July 1992, at the Nigerian Stock Exchange annual merit award, government announced a reduction of the rate from 15% to 5%. But since no law has been enacted to give legal backing to the pronouncement, dividend income continued to be taxed at 15%, at least up to the end of 1992.

Dividend tax is deducted at the company level. Once a limited liability company has declared a dividend, it passes over the bulk of the dividend tax from corporate shareholders to the Federal Board of Inland Revenue. The proportion of the dividend tax revenue from the shares of individuals is deducted and paid by the company to the relevant state board of internal revenue. No further tax is paid on the after-tax dividend income accruing to companies and individuals as stated in the dividend warrants. Limited liability companies and individuals are, however, expected to gross and disclose all dividend incomes received in the appropriate section of their tax returns. Such taxes as are on the dividends are expected to be used to offset total income tax liability. In practice, however, it is not uncommon for individuals to omit declaring their dividend income in making tax returns. Tax authorities in any case are not reputed for designing an efficient tax system that enables them to know the actual taxable incomes of different taxable individuals. Thus, besides the withholding tax, dividend income, like other incomes, is not often taxed again at the shareholder's level. In other words, the effective tax on the dividends accruing to the shareholders from stocks is the withholding tax.

Profits made from the sale of equity shares, like profits from the disposal of other capital assets, are liable to capital gains tax at the rate of 20%. The tax rate has remained unchanged since its inception in 1967. In practice, the federal tax authority collects capital gains tax from corporate bodies when they sell their shares. But this usually happens when the transaction involves substantial holding in a company, in which case the sale becomes public news. Enquiries from state tax authorities could not substantiate any case of an individual ever having paid capital gains tax on profit made from the sale of shares. It is important to point out that while those who sell their shares do not actually pay capital gains tax, this fact may not be widely known. Thus, the majority of individual shareholders who usually do not sell their shares may believe that such sale would be subject to capital gains tax. It is therefore still possible that the existence of the tax could discourage some shareholders from selling their shares.

There is also the capital transfer tax, which, in law, is applicable to a transfer of an individual's holding of a financial asset, such as shares, bank deposits and similar assets liable to it. By the provisions of the Capital Transfer Tax Act of 1979, the tax applies to assets worth over ₦100,000.00. The capital transfer tax rate is progressive, ranging from 10% to 60%. However, no evidence of collection of this tax on shares and other financial assets is observable from the tax returns of the states analysed in the course of this study.

Withholding tax of 15% on yields on bank deposits was introduced in 1989. The tax applies to fixed-term deposits of various term structures. Savings account deposits below ₦50,000.00 are not liable to the tax, but deposits above this amount are taxable at the

rate.

Following the modification of the Companies Income Tax Act of 1979 by Decree 21 of 1991, profits or gains arising from the acquisition, transfer or disposal of short-term monetary instruments held by companies are taxable as company income and not as capital gains. Instruments covered by the law include:

- federal government securities;
- treasury bills;
- treasury or saving certificates;
- debenture certificates or treasury bonds; and
- any other monetary instrument.

The implication of the new provision of taxing this class of asset as company income rather than as capital gain is that yields of the instruments will attract higher tax (capital gains tax rate is 20%, whereas companies' income tax rate is 40%).

In general, financial assets are inextricably liable to either company income tax, withholding tax or both. Profits from stocks are taxed at both levels. Incomes to individuals from money market instruments are only subject to withholding tax. Here lies the difference between investment in the capital market and investment in the money market. For individuals, alternative investments such as in petty trading, personal or family business (unincorporated) or investments in cooperatives, and various lending outlets in the informal financial sector are neither subject to company income tax nor to withholding tax. Income from properties is not taxed except as part of personal income. Tenement rating is effective in very few cities of the federation. Even where a tenement rate is levied, it is often on the occupier rather than the owner of the property. Therefore on a general note, there is no direct tax on rental income on properties. As in the case of equities, capital gains tax also applies to capital gains from properties.

The actual revenue generated from taxation of financial assets (capital gains tax, withholding tax on dividends and interest on bank fixed deposits) is not reported separately by the Federal Board of Inland Revenue (FBIR). However, officials of the FBIR who were consulted in the course of this study claimed that revenue from the taxation of financial assets does not constitute more than 10% of the federal government's independent revenue. Since federal government's independent revenue is 2% of the total revenue, the tax revenue from taxing financial assets amounts to 0.2% of the total federal government revenue.

VI. Results

The nominal rates of return on each of the 21 equities included in the portfolio are presented in table 7. The table also contains the average and median rates of return on each equity over the period from 1980 to 1992. The medians are close to the averages, showing that the averages are not driven by outliers. The period averages indicate a marked variation. Generally the averages lie in the range of about 25% to 50%, with few outliers. The outlier stocks show rates of return of 6.57% and 15.08% on the low side and 62.79% on the high side. The performance of individual equities also varies substantially from period to period, sometimes in an erratic manner. Take stock four for instance; its rate of return dropped from 93.97% in 1980 to 73.23% in 1981. By 1982 it nose-dived to -2.64% only to rise to 74.54% in the following year. In 1984 it dropped again to -4.94% but in 1985 it was up once more to 68.84%. A similar picture shows up for other stocks. The fifth stock, for example, recorded a loss of -42.92% in 1987, but in 1988 it had a profit of 151%.

The rates of return on the equities have two components – capital gains and dividend yield. Table 8 presents the capital gains for each stock in each period while Table 9 contains figures for dividend yield. Both components of rates of return exhibit marked variability from period to period and from stock to stock. The same pattern is translated to the portfolio averages. The variation is, however, stronger for capital gains. Such observed fluctuations in stock returns raise the question of whether the performance of equities depends on any fundamental values. Or is it dependent on factors that are themselves very erratic? An implication of this observed characteristic of capital gains and dividend yield for the study is that governments that rely, to a significant extent, on capital gains and dividends tax from equities, will have a rather unstable fiscal environment.

Table 7: Nominal rates of return on a portfolio of equities (Percentages) 1980 - 1992

Year	1	2	3	4	5	6	7	8	9	10	11
1980	38.29	64.00	41.07	93.97	111.19	30.88	-5.88	44.60	143.69	79.55	55.32
1981	77.78	-37.50	29.63	73.23	60.56	8.11	-15.63	29.89	118.42	23.55	35.94
1982	44.44	37.84	66.66	-2.64	9.53	14.62	-3.70	0.00	56.02	-12.70	-17.07
1983	11.54	48.78	47.62	74.54	-15.97	26.67	15.38	10.39	41.81	62.63	-17.65
1984	18.63	3.92	12.00	-4.94	0.19	5.75	3.33	48.05	34.91	8.00	96.43
1985	134.62	0.00	2.00	68.84	3.84	31.90	64.52	55.88	56.93	18.77	163.63
1986	56.41	4.25	6.66	24.52	112.00	20.00	17.65	43.89	6.96	69.61	16.30
1987	-12.82	0.00	-19.04	37.80	-42.92	78.00	66.67	46.11	-5.04	73.97	9.15
1988	10.57	9.60	-25.00	10.45	151.00	38.12	10.00	-2.24	44.74	0.80	0.00
1989	4.36	26.00	33.33	22.58	144.38	32.91	45.33	108.99	242.95	18.27	161.11
1990	-15.31	33.93	64.29	107.08	80.82	66.90	-9.03	113.93	36.48	33.03	55.91
1991	35.12	62.50	35.29	33.77	61.89	83.57	3.68	53.15	22.78	25.36	28.62
1992	32.07	118.75	52.94	125.34	33.33	16.84	3.68	43.65	15.69	-28.61	25.00
Average	33.52	28.63	26.73	51.10	54.60	34.94	15.08	45.87	62.79	28.63	41.60
Median	35.12	26.00	33.33	37.80	60.56	30.88	3.68	44.60	41.81	23.55	28.62

Table 7.....continued

	12	13	14	15	16	17	18	19	20	21	Portfolio average
	46.50	38.15	11.69	59.16	17.31	13.20	38.26	47.89	12.90	46.77	48.98
	25.07	50.96	41.25	-5.57	-3.92	0.00	48.59	77.21	12.46	-2.32	27.98
	-2.35	-0.77	24.45	-50.00	30.55	31.58	5.14	12.28	-14.97	17.83	11.75
	35.10	83.33	34.33	55.00	-9.09	52.50	46.05	17.65	47.37	21.66	32.84
	-16.13	21.91	-13.08	73.13	66.67	-3.92	16.26	12.00	2.95	21.01	19.38
	29.29	40.70	20.76	32.00	172.00	28.89	21.45	-0.99	24.38	-12.66	45.56
	16.34	74.07	95.00	132.00	41.44	13.20	69.90	-8.94	-21.27	-5.49	37.36
	-14.73	18.15	65.69	51.04	43.61	0.00	48.55	9.42	83.09	16.12	26.32
	43.52	43.21	9.68	50.82	54.38	5.00	42.70	73.24	21.07	124.55	34.11
	99.33	22.43	-7.44	15.51	3.85	25.56	34.38	39.45	3.67	69.31	54.58
	51.70	22.54	23.58	-22.14	17.60	112.24	53.51	25.36	-16.32	60.05	42.67
	56.17	33.46	31.93	-5.05	30.61	76.96	100.71	13.20	-44.45	63.94	38.25
	-17.76	15.68	25.18	-30.56	-13.52	7.37	57.30	-4.24	-25.42	51.92	24.03
	27.08	35.68	27.92	27.33	34.73	27.89	44.83	24.11	6.57	36.36	34.10
	29.29	38.15	25.18	32.00	30.55	13.20	46.05	13.20	3.67	21.66	30.55

Source: Our estimates.

Table 8: Capital gains rates of return on a portfolio of equities (percentages), 1980 - 1992

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Portfolio Average
1980	-4.26	44.00	-3.57	23.81	5.97	8.82	-5.88	17.57	72.82	40.91	36.17	25.00	7.22	-16.88	29.58	-1.92	-4.00	6.96	11.27	2.15	17.74	14.93
1981	20.00	-48.61	-16.67	33.85	18.31	-12.16	-15.63	6.90	53.93	2.161	-35.94	-3.33	25.96	-1.56	-18.61	-29.41	-20.83	14.95	44.30	8.95	-11.64	0.68
1982	3.70	10.81	-6.67	-43.10	-8.33	-7.69	-3.70	-17.20	-9.49	-39.68	-17.07	-26.90	-26.72	-4.76	-50.00	8.33	5.26	-17.62	-10.53	-17.39	2.33	-13.16
1983	-1.92	24.39	19.05	25.25	-29.87	1.67	15.38	0.00	-5.77	31.58	-17.65	21.70	45.83	8.33	0.00	-9.09	27.50	9.21	-1.96	26.90	11.36	9.61
1984	1.96	-1.96	0.00	-23.39	-3.70	-4.91	3.33	32.47	14.13	-2.00	96.43	-23.26	7.62	-18.46	56.25	66.67	-11.70	1.20	2.00	0.92	7.48	9.98
1985	125.00	-6.00	-10.00	53.68	-3.85	20.69	64.52	36.27	38.10	4.77	145.45	16.16	27.43	13.21	0.00	122.00	17.78	10.71	-6.87	22.37	-17.09	32.08
1986	36.75	-2.13	-6.67	12.33	106.00	7.14	17.65	29.50	-3.45	43.14	5.19	12.17	60.18	70.00	92.00	19.82	3.77	48.39	-21.05	-22.76	-21.37	23.17
1987	-23.13	-8.70	-33.33	22.56	-51.46	62.67	66.67	23.89	-9.52	54.79	-1.41	-16.28	12.37	51.96	27.08	28.57	-9.09	34.06	4.01	81.16	6.80	15.41
1988	2.44	0.00	-46.43	-7.46	124.00	27.87	7.00	-20.18	-2.11	-7.96	-14.29	37.96	32.10	-2.42	42.62	36.84	-10.00	21.08	53.52	20.00	110.91	19.51
1989	-11.90	12.00	-6.67	11.29	108.04	21.37	44.86	77.53	210.99	7.69	144.44	77.18	14.02	-12.40	5.17	-8.97	8.89	18.75	26.61	-6.00	44.40	37.49
1990	-24.32	7.14	21.43	92.59	67.94	52.11	-12.26	101.27	28.25	23.21	47.73	42.61	15.16	12.26	-31.97	3.52	81.63	40.35	15.22	-26.60	47.66	28.81
1991	26.19	33.33	0.00	21.40	49.91	73.15	0.00	46.23	15.61	20.29	23.08	51.39	8.40	20.17	-13.25	25.85	60.11	88.21	3.77	-49.28	53.64	27.47
1992	22.64	93.75	16.65	110.74	26.55	10.16	0.00	38.92	9.49	-33.73	20.00	-21.05	8.40	13.29	-30.56	-17.30	-3.16	50.66	-16.36	-29.52	42.46	14.91
Average 13.32	12.16	-5.53	25.66	31.50	20.07	14.00	28.71	32.09	11.07	33.24	14.87	19.74	10.21	8.33	18.84	11.24	25.15	7.99	0.84	22.67	16.96	
Median 2.44	7.14	-6.67	22.56	18.31	8.82	3.33	29.50	14.13	7.69	20.00	16.16	15.16	15.16	8.33	5.17	8.33	3.77	18.75	3.77	0.92	11.36	8.82

Source: Our estimates.

Table 9: Dividend yield on a portfolio of equities (percentages), 1980 - 1992

Securities	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Portfolio Average
1980	42.55	20.00	44.64	69.90	105.22	22.06	0.00	27.03	70.87	38.64	19.15	21.50	30.93	28.57	29.58	19.23	17.20	31.30	36.62	10.75	29.03	34.04
1981	57.78	11.11	46.30	39.38	42.25	20.27	0.00	22.99	64.49	21.94	0.00	28.40	25.00	42.81	13.04	25.49	20.83	33.64	32.91	3.51	9.32	26.04
1982	40.74	27.03	73.33	40.46	17.86	22.31	0.00	17.20	65.51	26.98	0.00	24.55	25.95	29.29	0.00	22.22	26.32	22.76	22.81	2.42	15.50	24.91
1983	13.46	24.39	28.57	49.29	13.90	25.00	0.00	10.39	47.58	31.05	0.00	13.40	37.50	26.00	55.00	0.00	25.00	36.84	19.61	20.47	10.30	23.23
1984	16.67	5.88	12.00	18.45	3.69	10.66	0.00	15.58	10.00	10.00	0.00	7.13	14.29	5.38	16.88	0.00	7.84	15.06	10.00	2.03	13.53	9.81
1985	9.62	6.00	12.00	15.16	7.69	11.21	0.00	19.61	18.83	14.69	18.18	13.13	13.27	7.55	32.00	50.00	11.11	10.74	5.88	2.01	4.43	13.00
1986	19.66	6.38	13.33	12.19	6.00	12.86	0.00	14.39	10.41	26.47	11.11	4.17	13.89	25.00	40.00	21.62	9.43	21.51	12.11	1.49	15.88	14.19
1987	10.31	8.70	14.29	15.24	8.54	15.33	0.00	22.22	4.48	19.18	10.56	4.17	5.78	13.73	23.96	15.04	9.09	14.49	5.41	1.93	9.32	10.91
1988	8.13	9.60	2.43	17.91	27.00	10.25	3.00	17.94	42.63	8.76	14.29	5.56	11.11	12.10	8.20	17.54	15.00	21.62	19.72	1.07	13.64	14.60
1989	16.26	14.00	40.00	11.29	36.34	11.54	0.47	31.96	31.96	16.67	22.15	8.41	4.96	10.34	12.82	16.67	15.63	12.84	9.67	24.91	17.09	13.87
1990	9.01	26.79	42.86	14.47	12.88	14.79	3.23	12.66	8.23	9.82	8.18	9.09	7.38	11.32	9.83	14.08	30.61	13.16	10.14	10.28	12.39	13.87
1991	8.93	29.17	35.29	12.37	11.98	10.42	3.68	6.9	27.17	5.07	5.54	4.78	6.41	11.76	8.20	4.76	16.85	12.50	9.43	4.83	10.30	10.78
1992	9.43	25.00	35.29	14.60	6.78	6.68	3.68	4.73	6.20	5.12	5.00	3.29	7.28	11.89	0.00	3.78	10.53	6.84	12.12	4.10	9.46	9.12
Average 20.20	16.47	32.26	25.44	23.10	14.88	1.08	17.16	30.70	17.56	8.36	12.21	15.94	17.71	19.00	15.89	16.65	19.68	16.12	5.73	13.69	17.14	

Source: Our estimates.

In Table 10 we show the summarized dividend yield, capital gains and total nominal rates of return on the portfolio of equities. The table also shows the nominal rates of return on treasury bills, treasury certificates, bank deposits of one-year maturity and savings deposits. Interestingly, the average rate of return on the portfolio of equities is higher than the average rates on the money market instruments. But, the rates of return on these money market assets between 1980 and 1986 were administratively determined. This also explains their relative invariability and the wide margin between them and the rates on equities within that period. The deregulation of their rates since 1987 shows up in the high and varying values. The drop in the 1991 values, over those of the preceding two years, resulted from the government's monetary policy of that year, which placed a ceiling of 21% on bank lending rates. The ceiling was terminated at the end of the year.

Given that the rates on treasury bills, treasury certificates, and bank deposits were not market-determined between 1980 and 1986, comparison of returns on these assets and equities is appropriate only in the post SAP era, i.e., 1987 to 1992.

For each year from 1987 to 1992, it may be observed that the capital gains rate on equities exceeds the rates on all the other assets (Table 11). On the other hand, the average dividend yield is less than the average rate for all other assets. But on the whole, the rate of return on equities exceeds the rates on each of the other assets. For the speculative investor who considers both capital gains and dividend yield, investment in equities appears to be more lucrative than investment in any of the other assets. But for the average Nigerian investor, who tends to buy and hold equities in perpetuity, and who ignorantly considers dividend yield as the only source of income from equities, investment in equities seems the least attractive of all the financial assets. Savings deposits, which are the most likely alternative financial asset to the small investor, generate about 2% rate of return higher than dividend yield. On the whole, the average pre-tax nominal rate of return on equities is 36.66% as against 20.84% on bank fixed deposit, 15.20% on savings deposits, 14.85% on treasury certificates and 13.13% on treasury bills.

The period average rate of return on equities also exceeds the premium from investment in foreign currency, which averaged 18.62% from 1987 to 1992, (Table 12). But investment in properties over the same period yielded 45.04%, which exceeds the yield on equities by 8.38% (Table 13). Like equities, the greater portion of the return on properties came from capital gains. Rental income contributed only about 12.17% of the total rate of return on properties. The rest came from capital gains. The rental income is comparable to dividend yield since both are sources of regular income to equity and property investors, especially the buy-and-hold investors. While dividend yield on equities averaged 12.73%, rental income from properties averaged 5.48%.

Table 10: Pre-tax nominal rates of return on financial assets (percentages) 1980 - 1992

Year	Dividend yield on equities	Capital gains on equities	Total nominal rate on equities	Treasury bills rate	Treasury certificates	Bank deposit rate (one year maturity)	Savings deposit rate
1980	34.04	14.93	48.98	5.00	5.50	6.25	6.00
1981	26.74	0.68	27.42	5.00	5.50	6.25	6.00
1982	24.91	-13.16	11.75	7.00	7.50	7.75	7.50
1983	23.23	9.61	32.84	7.00	7.50	7.75	7.50
1984	9.81	9.58	19.38	8.50	9.00	9.75	9.50
1985	13.48	32.08	45.56	8.50	9.00	9.75	9.50
1986	14.19	23.17	37.36	8.59	9.00	9.75	9.50
1987	10.91	15.41	26.32	11.75	12.25	15.10	14.00
1988	14.60	19.51	34.11	11.75	12.25	13.70	14.50
1989	17.09	37.49	54.58	17.50	16.38	21.40	16.40
1990	13.87	28.81	42.67	17.50	18.20	22.10	18.80
1991	10.78	27.47	38.25	14.75	15.00	17.70	13.63
1992*	9.12	14.91	24.03	17.28	18.00	20.22	13.89
Average	17.14	16.96	34.10	10.78	10.93	12.88	11.29

*Except for equities, the 1992 rates are averages of the 1st and 2nd quarter rates.

Sources: Columns 1 to 3: our estimates.

Columns 4 to 7: Central Bank of Nigeria, *Statistical Bulletin* vol. 3, no.1 June 1992

Table 11: Pre-tax nominal rates of return on financial assets, (Percentages) 1987 - 1992

Year	Dividend yield on equities	Capital gains on equities	Total nominal rate on equities	Treasury bills rate	Treasury certificates	Bank deposit rate (one-year maturity)	Savings deposit rate
1987	10.91	15.41	26.32	11.75	12.25	15.10	14.00
1988	14.60	19.51	34.11	11.75	12.25	13.70	14.50
1989	17.09	37.49	54.58	17.50	16.38	21.40	16.40
1990	13.87	28.81	42.67	17.50	18.20	22.10	18.80
1991	10.78	27.47	38.25	14.50	15.00	17.70	13.63
1992	9.12	14.91	24.03	17.28	18.00	20.22	13.89
Average	12.73	23.93	36.66	15.07	15.35	18.37	15.20
St. Dev.	2.96	8.87	11.25	2.80	2.67	3.45	2.02

Source: As in Table 10.

Table 12: Premium on buy-and-hold investment in foreign currency (US dollar) 1987 - 1992

Year	Premium (nominal) %	Premium (real) %
1987	14.25	4.05
1988	28.30	-10.00
1989	8.10	-32.80
1990	10.81	3.31
1991	7.06	-5.94
1992	43.21	-1.39
Average	18.62	-7.13
St.Dev.	14.30	13.68

Source: Our estimates.

Table 13: Rates of return on properties (percentages) 1987-1992

Year	Nominal						Real	
	Pre-tax			After-tax			Pre-tax	After-tax
	Rental income	Capital gains	Total rate on properties	Rental income	Capital gains	Total rate on properties	Total rate on properties	Total rate on properties
1987	7.00	20.00	27.00	7.00	16.00	23.00	16.80	12.80
1988	6.25	25.00	31.25	6.25	20.00	26.25	-7.05	-12.05
1989	5.30	33.33	38.60	5.30	26.66	31.96	-2.30	-8.94
1990	5.00	10.50	15.50	5.00	8.40	13.40	8.00	5.90
1991	5.58	86.05	91.63	5.58	68.84	74.42	78.63	61.42
1992	3.75	62.50	66.25	3.75	50.00	53.75	21.65	9.15
Average	5.48	39.56	45.04	5.48	31.65	37.13	19.29	11.38
St.Dev.	1.11	28.86	28.46	1.11	23.09	22.69	31.05	26.47

Source: Computed from nominal rental income and capital gains supplied by Onakanmi and Partners, estate surveyors, valuers and property developers.

Note: The rental income and capital gains represent averages of a set of properties of various types located in different parts of Ibadan.

Table 14: After-tax nominal rates of return on financial assets (percentages) 1987 - 1992

Year	Dividend yield on equities	Capital gains on equities	Total nominal rate on equities	Treasury bills rate	Treasury certificates	Bank deposit rate (one-year maturity)	Savings deposit rate
1987	9.27	12.33	21.60	9.99	10.41	15.10	14.00
1988	12.41	15.61	28.02	9.99	10.41	13.70	14.50
1989	14.53	29.99	44.53	14.88	13.92	18.19	16.40
1990	11.79	23.05	34.84	14.88	15.47	18.79	18.80
1991	9.16	21.98	31.14	11.60	12.00	15.05	13.63
1992	7.75	11.93	19.68	11.68	12.24	17.19	13.89
Average	10.82	19.15	29.97	12.25	12.77	16.34	15.20
St.Dev.	2.52	7.10	9.13	2.23	1.99	2.02	2.03

Source: Our estimates.

Table 15: Tax rates on financial assets (percentages) 1987 -1992

Year	Dividends	Capital gains	Treasury bills	Treasury certificates	Bank fixed deposit	Savings deposit
1987	15	20	15	15	-	-
1988	15	20	15	15	-	-
1989	15	20	15	15	15	-
1990	15	20	15	15	15	-
1991	15	20	20	20	15	-
1992	15	20	20	20	15	-

Source: Federal Board of Inland Revenue, Lagos.

Note: Taxation of bank fixed deposit started in 1989. Savings deposits are considered tax-exempt because amounts less than ₦50,000.00 are not liable. An investor who has more than ₦50,000.00 could, as a strategy to avoid tax, invest sums less than ₦50,000.00 in several banks or in different branches of a bank. Savings deposits of ₦50,000.00 and above are taxed at 15%. Since 1991 returns on treasury bills and certificates have been taxed as capital gains.

The after-tax nominal rates of return on the financial assets are shown in Table 14. These rates were computed using the tax rates in Table 15. Even though savings deposits are treated as tax exempt, their after-tax period average rate of return is lower than the rate on bank fixed deposit rates. Except for treasury bills, dividend yield is still the lowest,

Figure 4: After-tax nominal rates of return

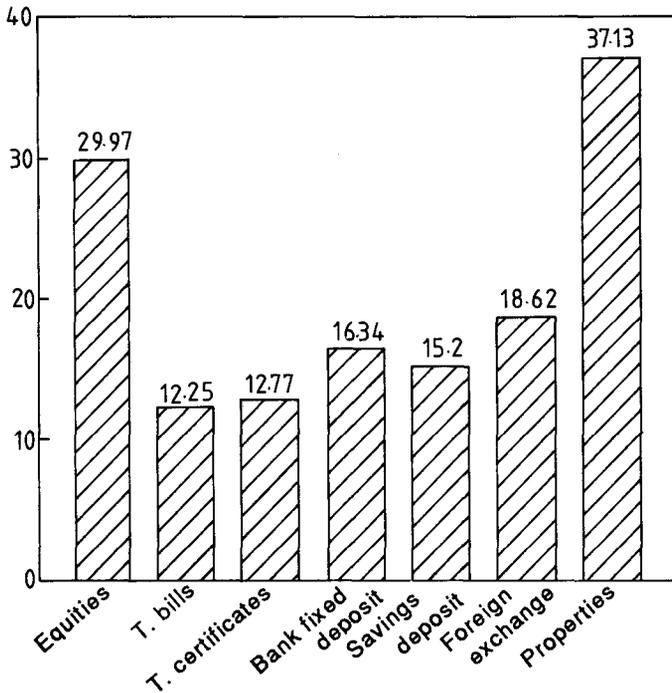


Figure 5: Effective tax rates (nominal)

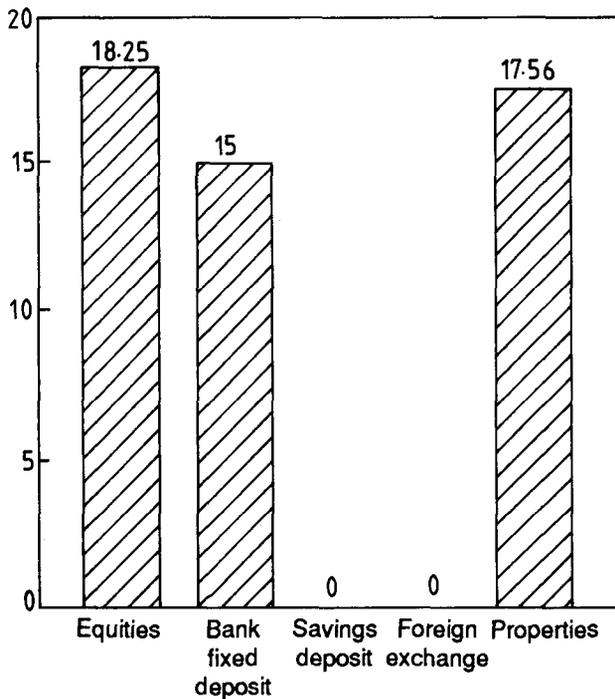


Table 16: After-tax nominal rates of return on financial assets when capital gains tax is not paid (percentages) 1987 - 1992

Year	Dividend yield on equities	Capital gains on equities	Total nominal rate on equities	Treasury bills rate	Treasury certificates rate	Bank deposit rate (one-year maturity)	Savings deposit rate
1987	9.27	15.41	24.68	9.99	10.41	15.10	14.00
1988	12.41	19.51	31.61	9.99	10.41	13.70	14.50
1989	14.53	37.49	52.02	14.88	13.92	18.19	16.40
1990	11.79	28.81	40.60	14.88	15.47	18.79	18.80
1991	9.16	27.47	36.63	11.60	12.00	15.05	13.63
1992	7.75	14.91	22.66	11.68	12.24	17.19	13.89
Average	10.82	23.30	34.70	12.25	12.77	16.34	15.20
St.Dev.	2.52	9.58	10.89	2.25	1.99	2.02	2.03

Source: Our estimates.

compared to the yields on other financial assets. Even with a higher tax rate (Table 12), the average after-tax capital gains exceeds the yields on bank fixed deposits, savings deposits, treasury bills and treasury certificates. The total average after-tax rate of return on equities remains the highest of the selected financial assets despite the greater tax burden on income from equities. Although the premium on buy-and-hold investment in foreign currency is tax-free, the after-tax rate of return on equities exceeds its rate by 11.35%.

The after-tax rate of return on equities becomes more attractive under a scenario of non-payment of capital gains tax – as could be the case in practice (Table 16). However, our analysis cannot be premised on an assumption of inefficient tax administration, which may not endure as the tax system is presently being reformed. But the gap between pre-tax rate of return on equities and properties is widened by taxation. While capital gains from equities and properties are taxed at the same rate, rental income from properties is not taxed, whereas dividend yield on equities is taxed at 15%. The average after-tax nominal rate of return on equities is 29.97% compared to 37.13% on properties (Table 13), showing a gap of 7.16% (Figure 4).

The effective tax rate on the nominal rate of return on equities is 18.25% (Table 17 and Figure 5). This rate approaches the capital gains tax rate (20%), but is higher than the dividend tax rate (15%) because capital gains constituted the greater share (65.28%) of the total return on equities within the period 1987-1992 (Table 11). The effective tax rate on equities is thus 3.25% higher than the tax rate on bank fixed deposits. On the other hand, the effective tax rate on properties is only 17.56% (Table 17).

Table 17: Effective tax rates on financial assets and properties (percentages) 1987 - 1992

	Equities	Bank fixed deposit	Savings deposit	Foreign currency	Properties
Nominal	18.25	15.00	0.00	0.00	17.56
Real	61.32	27.51	0.00	0.00	41.01

Source: Our estimates.

The annual rates of inflation used in computing the real rates of return on the assets are shown in Table 18. The pre-tax and after-tax real rates of return are contained in Tables 19 and 20, respectively. These are also shown in Figure 6. With the exception of equities, other financial assets have negative pre-tax and after-tax real rates of return. Equities have a period average of 10.91% pre-tax and 4.22% after-tax real rates of return. For properties, the rates are 19.29% pre-tax and 11.38% after-tax real rates of return (Table 13).

Table 18: Inflation rates (CPI) in Nigeria (percentages) 1987 - 1992

Year	Inflation rate
1987	10.2
1988	38.3
1989	40.9
1990	7.5
1991	13.0
1992	44.6

Source: CBN, *Statistical Bulletin*, vol. 3, no. 1, June 1992 CBN, *Annual Report and Statement of Accounts*, December 1992.

Table 19: Pre-tax real rates of return on financial assets (percentages) 1987 - 1992

Year	Total Rate on equities	Treasury bills rate	Treasury certificates rate	Bank deposit rate (one-year maturity)	Savings deposit rate
1987	16.12	1.55	2.05	4.90	3.80
1988	-4.19	-26.55	-26.05	-24.60	-23.80
1989	13.68	-23.40	-24.52	-19.50	-24.50
1990	35.17	10.00	10.70	14.6	11.30
1991	25.25	1.50	2.00	4.70	0.63
1992	-20.57	-27.32	-26.60	-24.38	-30.71
Average	10.91	-10.70	-10.40	-7.38	-10.55
St.Dev.	20.24	16.83	17.09	17.39	17.80

Source: Our estimates

Table 20: After-tax real rates of return on financial assets (percentages) 1987 - 1992

Year	Dividend yield on equities	Capital gains on equities	Total rate on equities	Treasury bills rate	Treasury certificates	Bank deposit rate (one-year maturity)	Savings deposit rate
1978	4.89	6.51	11.40	-0.21	0.21	4.90	3.80
1988	-4.55	-5.73	-10.28	-28.3	-27.89	-24.60	-23.80
1989	1.18	2.45	3.63	-26.02	-26.98	-22.71	-24.50
1990	9.25	18.09	27.34	7.38	7.97	11.29	11.30
1991	5.34	12.80	18.14	-1.4	-1.00	2.05	0.63
1992	-9.81	-15.11	-24.92	-30.78	-30.20	-27.41	-30.71
Average	1.05	3.17	4.22	-13.22	-12.98	-9.41	-10.55
St.Dev.	7.07	12.17	19.18	16.93	17.15	17.30	17.80

Source: Our estimates

Figure 6: After-tax real rates of return

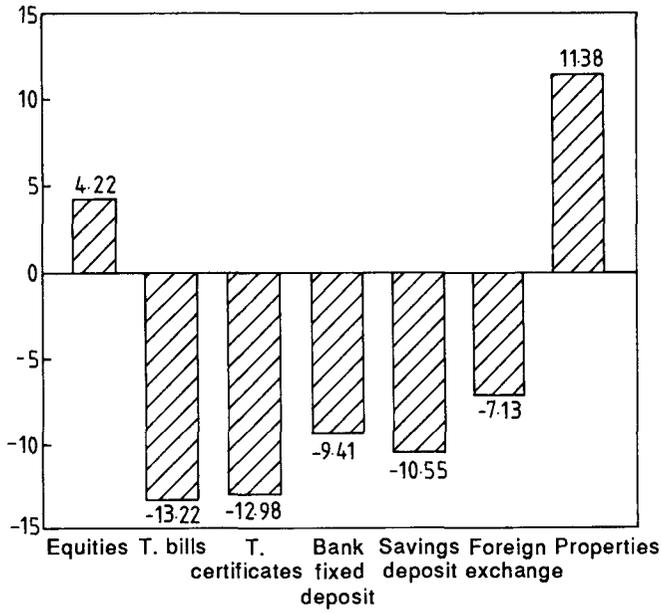


Figure 7: Effective tax rates (real)

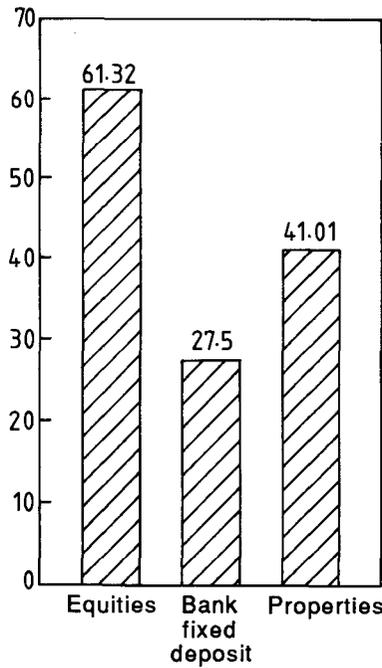


Table 21: After-tax rates of return on equities under inflation-adjusted capital gains tax

Year	Dividend yield	Capital gains (inflation-adjusted)	Total rate on equities (nominal)	Total rate on equities (real)
1987	9.27	14.37	23.64	13.44
1988	12.41	19.51	31.92	-6.38
1989	14.53	37.49	52.02	11.12
1990	11.79	24.55	36.34	28.84
1991	9.16	24.58	33.74	20.74
1992	7.75	14.91	22.66	-21.94
Average	10.82	22.57	33.39	7.64
St.Dev.	2.52	8.55	10.66	18.65

Source: Our estimates.

Note: Capital gains were liable to tax only in 1987, 1990 and 1991. There were no capital gains in real terms for the other years.

Table 22: Risk-adjusted mean nominal rates of return on financial assets and property (percentages) 1987-1992

Asset	Pre-tax	After-tax
Equity	1.92	1.95
Treasury bills	0.00	0.00
Treasury certificates	0.00	0.00
Bank fixed deposit	0.96	2.06
Savings deposit	0.04	1.49
Property	1.05	1.83

Source: Our estimates.

The above give a 61.32% effective tax rate on the real rate of return on equities, 41.01% on properties and 27.51% on bank deposit (Table 17 and Figure 7). Such a high effective tax rate (real terms) on equities arises because of the taxation of nominal rather than real capital gains. Table 21 shows what could have been the after-tax rates of return on equities if capital gains tax have been applicable to only real capital gains. The inflation-adjusted capital gains tax results in 7.64% after-tax real rate of return. This is 3.42% higher than the rate (4.22%) when capital gains tax is applied on nominal gains. Applying capital gains tax on only real capital gains gives an effective tax rate (real terms) of 30%, which is about half of its value (61.32%) when nominal gains are taxed. Taxing capital gains in real terms therefore produces effective tax rates on equities that compares with the 27.51% rate on bank fixed deposits

The risk-adjusted pre-tax nominal rates of return on the assets (Table 22) gives 1.92%

for equities, 1.05% for property, 0.96% for bank fixed deposit, and 0.04% for savings deposits. Treasury bills and certificates, which, in this context are considered risk free, have zero percentage risk-adjusted rates of return. The observed risk-adjusted rates of return increase with the burden of taxation on the assets, ranging from 0.04% (approximately zero) for the tax-exempt savings deposits through 0.96% for bank fixed deposits taxed at 15%, and 1.05% for property effectively taxed at 17.56%, to 1.92% for equities taxed at 18.25% (Table 17). This finding is evidence that tax arbitrage opportunities do not exist in the market and that pre-tax returns incorporate tax premiums. The after-tax risk-adjusted rates show returns of 1.95% for equities, 2.06% for bank fixed deposit, 1.83% for property and 1.49% for savings deposits (Table 22). These imply that bank fixed deposits and equities are the most profitable assets on an after-tax basis.

VII. Summary and policy implications of the study

The findings of the study may be summarized as follows:

1. The taxes on financial assets in Nigeria are withholding tax on dividends, capital gains tax, capital transfer tax and withholding tax on interest income on bank deposits. Earnings on equities are subject to both dividend tax (15%) and capital gains tax (20%), whereas only withholding tax (15%) is paid on income from other financial assets.
2. Incomes from investments in non-financial assets, such as unincorporated businesses are, in practice, not taxed. The effective tax on earnings from properties is only the capital gains tax of 20%.
3. The structure of government revenues shows that the contribution of revenues from taxation of financial assets to the total government revenue is negligible. Most of the federal government's revenue comes from oil exports and petroleum profit tax.
4. The estimated nominal rates of return on equities are higher than the rates on other financial assets but lower than the rates on properties (a proxy for non-financial assets). Between 1987 and 1992, equities recorded a 36.66% average nominal rate of return, while bank fixed and savings deposits recorded 20.84% and 15.20% respectively. Properties had a 45.04% rate of return.
5. Due to the combined impact of dividend and capital gains taxes, the effective tax rate on equities is 18.25% compared to 15% on bank fixed deposit and 17.56% on properties. However, despite the higher effective tax rate, the after-tax rate of return on equities exceeds the after-tax yield on bank deposits and the tax-exempt savings deposits by almost 100%. The dividend yield component of the total return on equities is lower than the yield on other financial assets, but higher than rental income from properties.
6. In real terms, equities yield 10.91% pre-tax and 4.22% after-tax rates of return. Other financial assets yield negative pre-tax and after-tax real rates of return. Properties earn 19.29% pre-tax and 11.38% after-tax real rates of return.
7. Owing to the taxation of nominal capital gains, the tax burden on real yields on equities is onerous. As a result, equities suffer an effective tax rate of 61.32% in real terms, as against 27.51% for bank deposits and 41.01% for properties.
8. A simulated effect of taxing real capital gains instead of nominal gains shows that the effective tax rate on real rates of return on equities could have been reduced by

50% over the period 1987-1992. This could have resulted in 30% effective tax rate in real terms, which is comparable to 27.5% effective tax rate in real terms on bank deposits.

In view of the above findings, we make the following policy proposals:

1. The study has shown that with a combination of dividend yield and capital gains, equities are the most profitable financial assets in Nigeria. But investors may not generally be aware of this, since some regard dividend yield as the only source of gain on equities. There is therefore the need for the Nigerian Stock Exchange to carry out a campaign to educate investors on the components of returns on equities.
2. Since dividend yield, which constitutes only one-third of the total gain on equities, is usually the source of realized gain on equities, given the peculiar buy-and-hold investment attitude of many Nigerian investors, reduced dividend tax could be a good incentive to investors. This will at least ensure that after-tax dividend yield is comparable to the yields on other financial assets. Dividend tax could therefore be reduced to about 5%.
3. Taxation of nominal capital gains imposes a very high tax burden on the real income from equities. To be fair to equity investors, *vis-a-vis* investors in other financial and non-financial assets, capital gains tax could be levied only on the real capital gain.
4. Tax instruments could be used to enhance the development of the banking system. The existing situation in which real rates of return on bank deposits (like other financial assets) are negative cannot promote the government objective of developing the financial system. It is therefore desirable, at least in the short run, to reduce the tax on bank deposits to 5% or even make the assets tax free.

The recommendations on reduced tax rates on financial assets could be easily implemented since the revenue effects will be negligible given the non-significance of such revenue on total government earnings.

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AFRICAN ECONOMIC RESEARCH CONSORTIUM



P.O. BOX 62882
NAIROBI, KENYA

TELEPHONE (254-2) 228057
225234 215898 212359
332438 225087

TELEX 22480

FAX (254-2) 219308

E-MAIL aerc@elci.gn.apc.org

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ISBN 9966-900-72-1