Income Tax Policy Problems in
Less-Developed Economies of
Tropical Africa: With Special
Reference to Tanzania.
PART I - THEORY

Chapter 1. Taxation of Income: Concepts, Definitions and the Basic Implications:
Section (1) Definition of Income Taxes
Section (2) Incidence and Effects
Section (3) Redistribution of Income
Section (4) Conclusions

Chapter 2. Income Tax, Resource Allocation and Growth:
Section (1) Introduction
Section (2) 'Effects' of Income Taxes on Work Effort, Savings and Investment in Physical Assets
Section (3) Role of Tax-induced Technical Change in Economic Growth
Section (4) Income Tax for an 'Open' Economy
Section (5) Conclusions

Appendix 'A'

Chapter 3. Income Tax and Economic Stability
Section (1) Introduction
Section (2) Modification of Keynesian Analysis for Tropical Africa
Section (3) Use of Fiscal Theory of Economic Stability with Respect to Income Tax in Tropical Africa
Section (4) Income Taxes Subject to an Unstable Lag as Stabilizers.
Section (5) Conclusions

Chapter 4. General Equilibrium Analysis of Objectives of the Aggregate Income Taxes:
Section (1) Introduction
Section (2) Growth, Stabilization and Income Redistribution
Section (3) Taxable Capacity as an Economic Concept
Section (4) Compromise of Policy Objectives Subject to Taxable Capacity (Revenue Objective)
Section (5) Income Taxes in the Context of Inter-Regional Finances
PART II - LOCALE AND SITUATION

Chapter 5. Tanganyikan Economy:

Section (1) Structure and Size of the Economy
Section (2) Budgetary Framework in its Relation to the size of the Economy
Section (3) Present Economic Policy of the Government
Section (4) Inter-territorial Relationship

Appendix 'B'

Chapter 6. History of Income Tax:

Section (1) Introduction
Section (2) History of Personal Taxes in East Africa
Section (3) History of Local Taxes in Tanganyika
Section (4) History of Income Tax (Proper) in East Africa
Section (5) Specific Developments

Appendix 'C'

Chapter 7. Income Taxation in Tanganyika - A Comparative Review of Definitions and Problems:

Section (1) Introduction:
Section (2) A Comparative Review of the Present System of Income Taxation
Section (3) Inter-territorial Problems in East African Income Taxation

Appendices 'D' and 'E'

PART III - APPRAISAL AND RECOMMENDATIONS OF CHANGES

Chapter 8. Appraisal of the Income Tax System:

Section (1) Introduction
Section (2) Statistical Data for Formulating Income Tax Policy
Section (3) Statistical Data for the Appraisal of the System
Section (4) Income Redistribution Policy Objective
Section (5) Growth Objective
Section (6) Stabilization Objective
Section (7) Revenue Objective and Taxable Capacity with Respect to Income Tax
Section (8) Inter-regional Operation of Taxes on Income
Section (9) Conclusions

Appendix 'F'
Chapter 9. Recommendations of Changes and their Applicability 387 - 411

Section (1) Introduction
Section (2) Present Government Objectives with Respect to Taxes on Income: (A) Growth; (B) Revenue Objective.
Section (3) Criticism of the Present Income Tax Policy of the Government: (A) Redistribution; (B) Stabilization.
Section (4) Applicability of the Recommendations of Changes

Bibliography 412 - 429
List of Tables

3. Growth of some of the component aggregates of the Economy.
7. Inter-territorial Trade 1959.
27. Transfer of Currency within the East African Currency Area as on 30th June, 1960.
29. Frequency Distribution of number of personal taxpayers and the size of the tax paid in the Southern Province in 1958 - distribution of taxpayers compounded, on the basis of the middle value of taxable income brackets, to obtain actual income.
30. Aggregation of income distribution for Southern Province for the whole country to obtain distribution of income assessed under personal tax.
31. Relationship Between Income Assessed under personal tax and under income tax proper.
33. Income Tax proper assessed and collected as related to the year of income and as related to the year of tax receipts (both on calendar year basis).
34. Functional Classification of the Current Account of the Government Sector (Revenue side only) with income tax proper shown on accrual basis: 1954-60.
39. Stabilizing Influence of the Price Stabilization Funds of the Lint and Seed Marketing Board on the net earnings of the cotton producers: 1952 to-date.
40. Stabilization of Export Proceeds of sisal, cotton, coffee and hides through Export Tax and Marketing Boards: 1951 to-date.

43. Changes in per capita income and changes in tax raised from income tax proper, personal tax, local government tax and export tax over 1952-60.
List of Numerical Examples


2. Distribution of Pre- and Post-Budget (Relating to Income Taxes) Income Among Taxpayers: (A) Allocation of Government Expenditure Relating to Income Tax to Various Strata of Income; (B) Adjustments for the 'Shifting' of Tax and the 'Absorption' of Government Expenditure; (C) Dynamic Changes and Distribution of Income Reconsidered.

3. (A) Imputation of Income and Tax Burdens to Family Members on 'Expenditure per Head' and 'Quotient' Bases; (B) Distribution of Pre- and Post-Budget (With Respect to Income Taxes) Income among Taxpayers and their Dependents.

4. Relationship between the Levels of Income and Propensities to Consume and to Save in a Static Cases distinguished from Rising Income and respective Propensities in a Dynamic Setting.
List of Hypothetical Tables

I. Disproportionate growth of initially varying levels of personal incomes (in different income strata) over time.

II. Marginal (and effective) tax, expenditure and budgetary rates for income redistributive objective (operating wholly independently).

III. Illustration of the Method of Tax Concessions From Income to various factor-suppliers and users.

IV. Marginal (and effective) tax, expenditure and budgetary rates for growth, and allocation objective (operating wholly independently).

V. Factor shares under different growth paths of income with and without tax concessions to capital stock and technical changes.

VI. Size and sources of Income and Propensities to Consume and Save.

VII. Family size and Propensities to Consume and Save in Different Strata of Income.

VIII. Monetary and subsistence outputs in subsistence-cum-monetary sector during normal and depression years and the extent of fluctuations in consumption, savings and effective demand under different behavioural assumptions.

IX. Illustration of time lag in the accrual of income and tax liability and consequences of such a lag on economic stability in static situations.

X. Marginal (and/or effective) tax, expenditure and budgetary rates under stabilization objective (operating wholly independently).

XI. Juxtaposition of tax, expenditure and budgetary rates for income redistributive, growth and allocation, and stabilization objectives and the derivation of these rates in a general equilibrium situation with the three objectives simultaneously.
<table>
<thead>
<tr>
<th>List of Diagrams and Charts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Initial Levels of incomes of two individuals and the growth of receipts of their incomes over time.</td>
</tr>
<tr>
<td><strong>2.</strong> Classical Production Function: (A) Diminishing Returns; (B) Shifting and Scale Effects; (C) Scale Effects Distinguished.</td>
</tr>
<tr>
<td><strong>3.</strong> Substitution and income 'effects' of proportional (and flat rate) taxes on income under various conditions: (A) Static partial equilibrium analysis with given government expenditure; (B) Dynamic Treatment of (A) with government expenditure still given; (C) General equilibrium static analysis with government expenditure creating substitution 'effect'; (D) Dynamic Treatment of (C); (E) General equilibrium static analysis with government expenditure creating income 'effect'; (F) Dynamic Treatment of (E).</td>
</tr>
<tr>
<td><strong>4.</strong> Indifference curve analysis of production function to illustrate expansion path and degree of factor substitutability.</td>
</tr>
<tr>
<td><strong>5.</strong> Scale effect of labour under given production function illustrated.</td>
</tr>
<tr>
<td><strong>6.</strong> Growth paths of income over time under various assumptions as to the rates of capital formation and technical change with and without concessions from income taxes.</td>
</tr>
<tr>
<td><strong>7.</strong> Diagramic representation of taxable capacity with respect to: (A) total revenue; (B) a given tax.</td>
</tr>
<tr>
<td><strong>8.</strong> Component 'effects' comprising taxable capacity with respect to income taxes illustrated: (A) and (B) for an economy with an uneven distribution of income; (C) and (D) for an economy with an even distribution of income.</td>
</tr>
<tr>
<td><strong>9.</strong> Lorenz curve for Tanganyika for 1958 (approximate measurement).</td>
</tr>
<tr>
<td><strong>10.</strong> Simple Keynesian Relationship Between consumption, savings and investment, government expenditure and the level of income.</td>
</tr>
</tbody>
</table>
PREFACE

This study deals with the problem of formulating income tax policy on well-informed bases in less developed economies of British or ex-British Tropical Africa in particular Tanganyika. In maintaining the affairs of a country the government in power also has certain objectives in mind which can only be put into effect through the raising of revenue. The various sources of revenue have certain characteristics which enable the government to put its objectives into effect in the process of raising revenue and spending it. Such characteristics are either inherent in, or can be built into the system by the government, while it attempts to fulfil some of its objectives. We take taxes on income as an example of the way in which any government in Tropical Africa can make use of its budgetary policy to achieve certain policy objectives.

Income taxes while not at present large in relation to the total revenue, are chosen as the subject matter of this study owing to our belief that they are capable of development, through their proper understanding both by the government and those liable for their payment, and are likely to become a large source of revenue in future. Even though our belief is not really open to a serious controversy, the attempts to analyse taxes on income in relation to the objectives of the less-developed economies of Africa are rather restricted. This arises from the tendency on the part of economists to strive after evolving a general theory of economic development or at the best relating the theory of economic development to the overall budgetary policies of these economies. In consequence, the necessity of analysing one form of tax or taxes and developing it with the problem of economic development in mind has possibly not received the share of attention it deserves.

The main object of this study is to analyse the objectives of the system
comprising all forms of taxes on income on a conceptual basis; the ultimate purpose being to provide, in the light of the operation of income tax in Tanganyika so far, and economic conditions prevalent therein, the policy formulators with various theoretical possibilities.

Clearly the best possible way of achieving this object would be to relate the theoretical framework to the historical changes and then appraise the present system with a view to making recommendations of changes. In practice it is however found that the evolution of the system has been so old-fashioned that it is virtually meaningless to try to relate the historical changes to the theoretical framework. It is therefore tempting to conclude that so long as the theoretical principles could be related to the appraisal of the present system, the historical changes need not be so related to the theory. Here not only is there a serious difficulty of the statistical data of appraising the system in the context of theoretical principles, but also that the existing system of income taxes is widely at variance with the theoretical framework. This state of affairs is indicative of the conservatism of the policy makers.

Again, it is also undeniable that the normal procedure of analysing the economic policy problems of a given country with respect to a given policy tool would be to appraise the given system which acts as a policy weapon and on the basis of criticisms of it suggest an alternative framework. In dealing with the income tax policy problems in Tanganyika this however is not an appropriate procedure to follow in relation to the tax policies which are formulated on the basis of weight of pressure groups and 'horse trading', and which would, therefore, make it very difficult for us to ascertain the kind of economic principles on which it is based. Consequently, any alternative theoretical framework suggested would be very restricted in terms
of policy objectives that the system could be used to pursue.

In view of these special difficulties, the purpose of this study has to be restated. The study has in effect three objects. First, it seeks to analyse the functional objectives of a system of aggregate taxes on income with a view to establishing a theoretical framework for the less-developed countries of Tropical Africa. Second, it attempts to describe the historical evolution of the system and the existing system with its problems in such a way that the conservatism of those concerned with the income tax policy in the past and the nature of the system that is to be appraised can be brought to the forefront. Thirdly, it appraises the existing system and lays down tentative recommendations of changes in view of the theoretical principles and what the system could achieve but for the conservatism of the policy makers.

The subject matter of this study falls in three parts. Part I deals with the theoretical bases, which, though primarily critical of the conventional theorising in budgetary economics, seeks to go beyond the mere assessment of the applicability, in the less-developed economies, of fiscal theory as it is set out for the more developed economies. Part II gives the reader some indication of the nature of the existing system that is to be appraised and seeks to caution him as to the limited extent to which the appraisal can be made of the present system; furthermore, it adds weight to the recommendations of changes. Part III consists of appraising the system and making actual recommendations of changes. These include the statistical changes because the recommendations of changes of this nature are vitally important to a country like Tanganyika.

Chapters One to Three deal with the functional objectives of aggregate taxes on income; Chapter One is concerned with the concepts, definitions and the basic implications arising from the treatment of taxation of income and
then dealing with the income redistribution objective whilst Chapters Two and Three deal with growth and resource allocation and stabilization objectives respectively. The analysis is mainly concerned with the functional role of the given tax structure in stabilization policy, the effect of special tax incentive schemes for inducing growth as well as the redistributive policy by means of transfer of income through the tax-expenditure mechanism. The aim is to proceed beyond the classical theory by introducing stabilization or growth objectives and redistribution policy based on partial equilibrium incidence theory in static terms. The analysis is in dynamic terms covering long-run situations except in the case of stabilization policy where the particular structure of the economies under consideration necessitates short-term as well as long-run analysis. Moreover, the analysis is in budgetary rather than revenue or tax terms, i.e. there is no ceteris paribus assumption about the government expenditure; rather it is assumed that income tax revenues raised can be spent in different ways and the overall change brought about is therefore budgetary in terms of alternative ways of raising the income tax revenues and alternative ways of spending them. Furthermore, the analysis is carried out with the economic conditions prevailing in a typical Tropical African economy in mind. That is to say there is abundance of labour surplus in the objectives of inducing growth, amenability of subsistence-cum-monetary sector to tax changes and the size as well as composition of a taxable unit that is to be subjected to the income redistribution policy.

Perhaps we should also indicate, at this stage, the specific line of approach we take in theoretically analysing the objectives of the system. Our view here ties up with the state and content matter of the economic theory to-day. It is being increasingly appreciated to-day by a school of
thought led by Professors Lipsey and Kendall that economic systems are much too complex to be explained by setting up a comprehensive system based on an axiom or axioms which explain everything and that it must be learnt as a discipline of a scientific type. Perhaps the fact that the statistical techniques which can scientifically test any statements before they are accepted as the axioms of truth may have left no alternative to the classical economists but to attempt the 'peremptory reduction of economics to a set of principles.' Thus, we are not underestimating the difficulties under which the partial analysis theorists must have laboured; in fact we are relying on it in some sections of this thesis. For instance, we analyse, seriatim, the objectives of the system on the assumption that the remaining objectives are operating satisfactorily. Again, we attempt to analyse various functions of aggregate income taxes on an implicit assumption that each form of tax is necessarily expected to fulfil various objectives of taxation equally, viz. taxes on income are expected to be stabilizers to the same extent as sales or property taxes in a given budget. We nonetheless depart from the conventional partial equilibrium static approach in two main ways: first of all, we try to show by not adopting what Professor Lipsey calls 'too cavalier' or 'too cheap' an approach some contradictions or dogma in a part of existing theories by a carefully made set of observations and in so doing seek to extend and improve the existing theories of Public Finance; secondly, whenever we use the partial equilibrium approach, we avoid dogmatic assumptions and conduct our analysis in such a way that any part of the theory which we evolve could be tested in relation to less-developed economies.

There is however one special reason why we continually bear in mind the shortcomings of the static partial equilibrium analysis in the field of Public Finance, and follow the particular line of approach as indicated above.
As argued effectively by Professor David Walker, such a necessity arises from the fact that the triviality of the abstract assumptions on the part of the conventionalists in association with a sufficiently large section of a non-economic body widely interested in the subject of Public Finance gives rise to theories which are open to attack. Their line of demarcation in making assumptions is such that even though their conclusions are correctly arrived at, they are not likely to be altogether fruitful. To illustrate, until recently it remained an acceptable theory that income tax causes more disincentive to work effort than sales tax or that income tax causes more disincentive to save than sales tax. Although the underlying assumptions have not been shown as inconsistent, with the aid of empirical investigations, it is at least being thought that the nature of the assumptions used could very well be arbitrary or even trivial.

Lest the preceding discussion of the methodological approach leads one to infer that this research study is largely based on the field work carried out in Tanganyika or even possibly Tropical Africa, let it be made clear at this stage that this is certainly not the case. Indeed the possibility of an empirical enquiry is limited owing to the lack of homogeneity, and consequent difficulty in obtaining a representative sampling group in East Africa, in general lack of communication and literacy, not to mention the financial problems of the researcher seeking to conduct such a project.

If we are relying, as is obvious from the discussion of our methodological approach, on the statistical substantiation (not necessarily based on empirical testing through field work) rather than the 'logical' consistency of the theoretical principles relating to the functional objectives of taxes on income, we are immediately up against the question as to what sort of statistical data and techniques are relied upon for this purpose. However, we need not,
indeed cannot say this until we have appraised the system because the most apt way of supporting a given set of logically set out hypotheses on functional objectives of taxation of income would be to criticise the present system and hence the existing set of principles on which it is based.

Obviously, as we have not said anything on the appraisal of the system, as yet, we cannot complete our discussion of the methodological approach in Part I of this study. Nonetheless, the fact that the objectives of taxes on income are analysed without empirical work gives rise to one implication, namely that the functional objectives of this type of taxes cannot be analysed in relation to some other types of taxes, viz. taxes on consumption, taxes on property and so on.

We should perhaps bear in mind, at this stage, Professor Lipsey's observation once again to the effect that 'the view that economics can be a science leads to the rejection of the critical nature of judgment in deciding when to test a theory and what facts to test it by' and emphasise that it is the practical impossibility of the field work, rather than critical nature of our judgment as to what facts to test a theory by that is the determinant factor in following this particular line of approach. A criterion such as this for the use of statistical data in theorising at once makes it necessary for us to ignore the consideration of taxes other than those on income for it is impossible to theorise at present whether income tax causes more disincentive to work effort than customs and excise duties, or whether or not income tax reduces savings more than sales tax. We however deal with all forms of taxes on income at all various levels of the government in Tropical Africa. In dealing with income taxes in the whole of the budgetary hierarchy, we stick to the terminology of taxes on income, or simply income tax, and taxes on a non-income base, or simply non-income tax, rather than direct taxes and indirect taxes which have suffered the classicists' strictures.
In Chapter Four all the three objectives are re-examined in a general equilibrium setting together with revenue objective (or taxable capacity on which revenue raised indeed depends) with respect to income tax as an additional theoretical objective. Chapter Five describes the economy to which it is to be applied and indicates the size of all forms of taxes on income and hence their functional size in the economy. Chapter Six is concerned with the history of various different taxes on income at various levels of government. Chapter Seven compares the operation of income taxes in Tanganyika with income taxes elsewhere, examines its inter-territorial features and the general definitional problems that would be indicative of the conservatism of income tax policy makers in Tanganyika in not incorporating certain desirable features of the alien systems in the Tanganyikan system.

In Chapter Eight the present system is appraised. Chapter Nine lays down recommendations of changes. Perhaps we ought to say, at this stage, something about the nature of the appraisal. We manage to ascertain the theoretical principles on which the system of income taxation in Tanganyika appears to have been based so far. We however feel that there would be quite enormous difficulty in paving the way from partial equilibrium static analysis, on which the income tax system in Tanganyika appears to have been based, to general equilibrium dynamic analysis in a situation where the knowledge and understanding of the working of the 'partial' system is a pre-requisite to the recommendations of changes. Here we seem to be indicating the policy-makers for being either too complacent about what has been happening under such a system or for being oblivious to perhaps what the system ought to be functioning for. This is indeed true in so far as we can substantiate it with the help of what documentary evidence there is available.

Now the policy-makers are not likely to object to the fact that the system
was set up according to the 'partial' analysis for the simple reason that until rather recently no well-informed economist was being subordinated to them. But they are bound to object somewhat violently to the charge that they were either too complacent about or oblivious to, the sort of functions that the 'partial' system could be expected to perform. In so doing there are several possible defences that they may put forward for being 'seemingly' oblivious to some of the objectives of the system and perhaps it would be a profitable line of approach with two aims in mind to enumerate them here. Firstly, if the system is appraised in anticipation of these defences, the appraisal would be fair and at the same time not too critical; secondly, we can make the intention of the authorities somewhat subsidiary to that of appraising the system which is what we most want to do. The possible line of defences could be as follows:

Firstly, that the statistical data were lacking in the past or even where they were available, limitations in statistical techniques have, however, made it difficult to obtain a clear indication of the possible effectiveness of the system. Hence, even though those concerned were not altogether unaware of the possible functional role of the 'partial' system of income tax, they did not see much point in implementing it without being able to ascertain its effectiveness as it might become open to abuses. Secondly, even where they were aware of the possible role of taxes on income in the 'partial' system in the developed countries, they had no evidence as to whether similar tax devices would be equally effective policy tools in the less developed countries of Africa, e.g. the effect of tax exemption on labour effort where labour is not so disciplined may be quite different from those in the developed countries. Thirdly, the fact that Tanganyika belonged to a group of the three East African territories with a common marketing arrangement imposed limits on to them in the application of 'partial'
objectives of income tax in Tanganyika. Fourthly, the authorities were
subject to the direction of the external ruling authority in their policy
formulations. Finally, the politicians are, in any case, scapegoats, and to
maintain power they would have to modify their policy objectives to fulfil
their promises to the electorate. In so far as these objections to the
criticism of the policy formulators have any validity or relevance our
appraisal of the system or recommendations of changes will be modified.

Perhaps a little need be said at this stage regarding the period to
which the appraisal is to refer. In the case of certain policy objectives
such as income redistribution where the limits of the operation of the
income redistribution objective, even in a 'partial' sense, were quite obvious,
by arising from the necessity of raising revenue through poll taxes, one is
naturally inclined to feel that the priority of treatment should be in
favour of appraising the present system. Thus there is no need to appraise
the income redistribution objective by considering distribution of pre- and
post-tax income between 1939, 1945, 1952, 1958 and 1961 to take account of all
the intermittent changes in the income tax policy. There are, however,
certain policy objectives which either do not generally change over time or
which can be analysed only in relation to the past, e.g. pensions and provident
fund schemes, revenue yield, depreciation allowances, etc. It is perhaps a
suitable compromise, under such circumstances, to make the availability of
the statistical data an ultimate criterion for ascertaining the time period
for the appraisal of those objectives which are not already clear enough
from Part II.

When the present system is appraised in this way, there is hardly any
single definitive conclusion that can be drawn. This is because owing to the
lack of the statistical data not only is it difficult for us to criticise the
present system but it is also harder to substantiate the alternative framework
set out in Part I. At the most one can say that the present system has concerned itself a little too much with income tax proper and it is in its existing form neither rudimentary nor sophisticated enough. Perhaps there is a good case for making it rather sophisticated on the bases of the theoretical framework in Part I. This sort of conclusion gives rise to two main questions. Firstly, what are the bases, apart from the logical consistency of the theoretical framework, of a sophisticated system? Secondly, what sort of recommendations of changes are made in this study? The first question takes us back to the methodological problem which we raised earlier on. The theoretical framework has been built with not only the lack of statistics needed for the appraisal of the system, and the unfeasibility of the field work but also the financial and manpower limitations of Tanganyika in mind. Thus, we expect that the statistical bases for a sophisticated system of income taxation may be derived from the administrative by-product of tax collection. For this purpose, it would be necessary to subordinate a well-informed and trained statistician who would not necessarily find it a 'dreary affair' to collect and publish useful statistics so discreetly as not to break the rule of confidentiality. Statistical data by way of empirical enquiries could then supplement such administrative form of statistics whenever such enquiries can be made a part of some enquiries primarily thought to be inevitable for a basic understanding of the working of the economy and thus on the top list of priority, e.g. consumer expenditure or income distribution survey.

Until such data become available, controversy over fine analytical points among academic economists may continue. This is not to say that while such economists are busy with such a rigour of thought and becoming sophisticated, the policy-makers, who, they expect, should at least be mildly sophisticated, should not at all be educated. In such circumstances, the recommendations of changes can only be 'second best'. In this study, such recommendations are
based on the statistically substantiated criticisms of the principles of classicists in developed economies. And it is assumed that such recommendations would be open to refutation or criticism by empirical testing at any time.

Clearly it would be idle on our part to expect that these recommendations of changes would be accepted by the Tanganyikan government without taking into account opinions of those connected with the non-economic aspects of income tax policy, viz. those of legislators, administrators, politicians, and taxpayers as a collective group, because the applicability of changes is not fully analysed from the point of view of the non-economic factors such as administrative, political, environmental, and so on.

My interest in this field dates back to my early undergraduate days when I was initially interested in the legal and accounting aspects of the British and Irish income tax practice. When I came to study the economic aspects of it as an integral part of my undergraduate study, the whole subject had to be seen from the point of view of policy decisions at national, rather than individual or clientele, level. Towards the end of my undergraduate studies, I came across *National Income of Tanganyika, 1952-54*, by Professor A.T. Peacock and Mr. D.G.M. Dosser in which the problem of computing national income from the Income Tax statistics was considered. This aspect of the subject stimulated my interest further in income tax policy decisions in Tanganyika. Thereafter I was fortunate enough to undertake a research study in this field under Professor Peacock and Mr. Dosser at the suggestion of the Commonwealth Scholarship Committee in the United Kingdom. During my first year, I benefited a great deal under their supervision by way of some basic training in the field of Public Finance and Economic Growth and Development, their practical experiences in Tanganyika and the sort of approach I can take in dealing with my subject
of research. During this period I also had a great deal of opportunity for
discussions with Dr. T. L. Johnston.

On the departure of Professor Peacock and Mr. Dosser for the University of
York at the end of my first year, I came under the joint supervision of Mr. I. G.
Stewart and Mr. H. W. Ord. For the most part I have been under the direct
supervision of Mr. I. G. Stewart although Mr. Ord's invaluable experience in East
Africa for several years helped me considerably in appraising the system of income
taxation with particular reference to Tanganyika. My utmost indebtedness is,
evertheless, due to Mr. I. G. Stewart from whom I have benefited not only in respect of
his knowledge of West Africa (which fell within the theoretical part of my study)
but also in respect of the precision and rigour of thought after which he made me
strive to appreciate and analyse the nature of my problem. Needless to say,
whatever the shortcomings of this study, I alone am responsible for them.

Unfortunately neither East African Income Tax Department nor the Statistical
Bureau of Tanganyika could provide me with some unpublished data which I was
anxious to use in this study. In view of the fact that much of such information
would be costly and time-consuming for the limited amount of staff, I do not wish
to comment on the attitude of the Officials concerned. I am, however, grateful
to my personal friends, Messrs. John Scott and Chandrakant Patel of the Economics
and Statistical Divisions respectively for drawing my attention to some recently
published material from time to time.

As for the sources of information available in this country, I was able to have
access to the Colonial Office and Commonwealth Relations Office libraries, United
Nations Information Office, London School of Economics Library, and East African
Common Services Organisation library, in London. I also availed myself of the
facilities provided by the National Library of Scotland and Edinburgh University
Library. I am grateful to the authorities and the staff of these Libraries,
in particular the inter-library loan section of the University Library here.

Finally, I am grateful to the Commonwealth Scholarship Commission in the
United Kingdom for financing me during the whole period of my stay here.

2. Lipsey, R.G. An Introduction to Positive Economics, Heineman field & Nicholson, 1963, Chapters 1, 41, pp. 563-37. Professor Lipsey's concern is not quite so much with the criticism of the classical partial equilibrium approach as it is with the existing body of economic theory which can be improved through "the successive refutation and reformation of theories".


PART I

THEORY
CHAPTER ONE

Taxation of Income: Concepts, Definitions and the Basic Implications

This Chapter begins by defining taxes on income for the purpose of this thesis and proceeds thereafter to discuss the problem of incidence. This will lead subsequently into an analysis of the redistributive changes in income brought about by income taxation.

Section (1) Definition of Income Taxes. This Section is divided into three subsections. First of all, taxes on income are conceptually defined; then the operational definition of existing taxes on income is dealt with; and finally, the existing taxes are reclassified to make it possible for us to assess the potential usefulness of existing taxes on income as policy tools.

A. Conceptual Analysis. Concepts of 'Income' and 'Taxes' may be dealt with separately.

(a) Income. Income is generally speaking defined as "a 'measure' of the net accretion to one's economic power between two points of time"¹ or simply something that confers purchasing power on one who possesses it. Income need not, therefore, necessarily be restricted to money income. A flow of real output can be said to confer purchasing power on its owners in the form of factor receipts. This argument immediately raises two questions. First, we have to consider whether accumulated wealth, as a potential source of purchasing power, ought to be included in the definition of income. It also raises the question whether the way in which income is received, viz., through part time, full time or overtime activity, ought to be considered when defining income conceptually.

The economic power which can be derived from the accumulated wealth does not necessarily arise from the current flow of goods and services. It is the unconsumed real output of the preceding period or periods which
can be said to confer such potential economic power. Ideally, income and wealth can therefore be two different sources of economic or purchasing power. The former can be treated as having been conferred by current flow of real output and the latter by the stock of real output accumulated in the past. This is a conceptually acceptable way of dealing with the two different sources of purchasing power. It may however be a theoretical possibility that income be defined as an actual purchasing power plus potential purchasing power because the economic power that may be obtained from the liquidation of wealth is not utilized to obtain satisfaction from the wealth accumulated. For instance owner of jewellery may or may not wish to use the proceeds of the sale of it to buy a house which is ten years old and instead prefers to obtain a currently produced consumer durable like a car. To take the present line of discussion one point further, we may include transfers, which according to the conventional view, are not matched by current flow of real output or even by stocks held out of real output of the previous periods, in the source of economic power. We then have to deal with the question as to whether the method of receiving income is an important factor in defining income, viz. if gifts, pensions and life assurance benefits are to be taken as income.

Our discussion so far leads us to infer to this effect: there is a theoretical possibility that wealth and income cannot be independent and direct sources of economic power matched by respective stocks and flows of real outputs. We therefore have to deal with the way in which the current flow of real output and the stock of unconsumed output may confer economic power in the form of factor payments and ownership of wealth. The theoretical justification for doing so is that the economic power need not be expressed in the form of factor receipts seeking to command current flow
of output or in the form of wealth holdings or proceeds thereof and transfer receipts seeking to command stock of output.

As for the way in which income is received, the question is whether income can be taken to include overtime or part-time earnings irrespective of the amount of leisure time left at the disposal of the income recipient. It is often argued that one who has the same purchasing power but more leisure is in a better economic position than others with the same economic power but less leisure. This difficulty can be overcome by making the potentialities of an individual, i.e., his ability to receive a given degree of economic power or factor receipt, a measure of his income.

(b) Taxes. Taxes may be defined as payments made to the government the liability arising as soon as a pre-determined activity takes place or such an event occurs during a pre-determined period or point in time or at a pre-determined point of time. Taxes on wealth become payable when a certain amount of wealth accumulates, and if such wealth is held during a given period of time (year) such tax continues to fall due at regular intervals. Death duties become payable when the wealth-owner dies; property taxes fall due by virtue of possession of the property during a pre-determined period of time; and income taxes become payable at the end of the given period during which income-generating activity takes place. Taxes are to be distinguished from fees in two respects. First, whilst fees are payable by those who utilize government services in some way or the other, taxes may be payable by an individual who carries out a pre-determined activity, irrespective of whether in carrying out this activity he utilizes government services; secondly, such payments are not necessarily related to the amount of services available to various taxpayers. The government has to decide whether it should provide services by charging fees or by collecting taxes. Such
a decision is generally arrived at not only on the basis of whether the
benefits of its services to various individuals can be ascertained but
also on the desirability of providing such services.\(^3\)

To illustrate, one ought perhaps to confine oneself to taxes on
income. Taxes on income are payable by those who are engaged in an
activity which produces income. Such tax levies are payable by the
income-recipients whether or not they utilize these services. The
desirability of providing services through taxes on income is based on
the criterion of choice that those with large income derive more utility
from a given quantity of available government services than those with
small incomes would do, hence the former should contribute more than the
latter. The comparison of utility in this context is inter-personal
rather than inter-regional or inter-temporal.

(c) **Income and Taxes Reconsidered Together.** When the definition
of income is considered with that of taxes certain difficulties become
obvious. Let us first consider the ability of an individual to receive
a given purchasing power. If this is to be made a taxable base, it
would then be subject to the same shortcoming as the concept of income
exclusive of economic power of leisure. In any case taxation of potential
economic power can only be in the form of a flat rate tax for all sizes of
purchasing power and would thus fail to fulfil the second criterion of a
tax on income dealt with above. According to the discussion so far,
income would have to comprise of actual factor receipt plus potential
source of economic power from wealth-holding.

Now we come to the treatment of liquidated wealth which may confer
economic power in the form of command over existing flow of output and
accumulated output of the preceding periods. The fact that liquidation
of wealth, irrespective of its size, is in itself a prima facie evidence of economic power having been actually conferred on its owner is bound, at progressive and proportional rates of tax on liquidated wealth, to discriminate against the holder of bulky forms of wealth especially where such wealth was accumulated out of income already taxed before. If however actual expending of the liquidated wealth is taken to be the size of the economic power, the tax is no longer a tax on income but one on expenditure! We therefore have to leave out liquidated wealth as a source of economic power in defining income and deal with the purchasing power conferred by current flow of output.

In dealing with economic power arising from the current flow of real output, we however propose to deal with transfers somewhat differently from the way in which they are conventionally treated in national income accounting. Transfers can be said to generate a flow of output on the ground that its receipt may induce the beneficiary to increase his output. This sort of reasoning has not been prevalent in national income accounting because of the fact that government transfers are readily accepted as non-productive on the bases of statistical data on the output represented by government expenditure. Little attempt is made to relate some esoteric discussion of conceptual bases of ascertaining government expenditure to government transfers or that of private transfers. It is on the basis of our contention that transfers induce extra flow of real output that we include transfers in the definition of income. Pensions can also be included in income on the basis of Prest-Stewart view that they represent 'underpayment to those still in employment', or simply underpayment of factor reward to those who generate current flow of output.
Finally we come to the treatment of capital gains. Capital gains can hardly be ignored in defining income especially where they are matched by a flow of real output in a free market. Furthermore, if liquidated wealth is not to be made as a taxable form of income or economic power, it is necessary to ensure that accumulation of wealth is in future made out of taxed income.

Income can therefore be defined as factor payments to represent the current flow of outputs inclusive of accrued capital gains, transfers, pensions, and gifts.

B. Existing Taxes on Income in Tropical Africa.

The definition of income in Tropical Africa depends on the type of tax on income in question. It would therefore be appropriate to mention the various taxes on income at the outset. Taxes levied on income include personal tax or rate, income tax proper on individuals, partnerships, companies, trusts and clubs, hospital tax, education tax, export tax and cesses in so far as the last two fall on the income of exporters. There is no capital gains tax on realized or accrued earnings and no wealth tax.

For the purpose of personal tax income consists of what is earned in cash and in kind; in estimating taxable income no expenses incurred in producing such income are deductible, nor are any personal allowances made. For the purpose of education or hospital tax taxable income is defined in the same way as for personal tax. Export tax is leviable on the export proceeds of an exporter with no allowances by way of business expenses. In the case of income tax proper, income means the profit earnings of individuals, partnerships, clubs and trusts, wages and salaries of individual employees inclusive of the pensions, free passage leave,
residential quarters and other benefits in kind, rents of houses (but not imputed rent of owner-occupied houses), interests and dividends, the profits of companies inclusive of interests, dividends and rents. Income defined in this way does not include income earned abroad by a resident individual but it does if earned by a company; income derived by a non-resident from a given country of Tropical Africa is taxable.

Income tax proper consists of income tax payable by individuals and company tax, corporation profits tax and undistributed income tax payable by corporations. Individual income tax is payable on wages, salaries, income in kind associated therewith, rents, dividend interest and non-corporate income of the entrepreneurs. It is payable at progressive rates. Expenses solely, exclusively and necessarily incurred in earning income are allowed in deriving actual income for income tax proper; these include usual business expenses such as rent, salary, advertisement and sales expenses, lighting, bad debts, and discounts. Also, high rates of depreciation and initial or investment allowances are given on certain assets used in business in all sectors of the economy. Expenses incurred on technical research, managerial training, and improving skills of labour are allowable only if they are incurred like other current expenses to earn income.

There are two points worth noting here. Where research and educational expenditures are of a capital nature, they are not treated on the same bases as expenditure on physical capital which are subject to annual depreciation and initial or investment, and in some cases accelerated depreciation, allowances. Generally, they are either fully allowable in the year in which they are incurred or not allowable at all. Exceptionally,
they may be allowable over a number of years, but they are never allowed on
accelerated bases or in the form of annual plus initial or investment
allowances. The second point is that whilst expenses allowable are
treated leniently if incurred in the course of earning business profits,
the rules are much more strict for employees and wage earners who can
deduct expenses only if they are necessarily incurred in earning wages and
salaries. This rule is very anomalous in the case of educational
expenditures incurred by employees to create non-physical capital. For
instance, an employee is generally not allowed to deduct his actual expenses
on his educational training or research project so long as he could have
continued to earn his livelihood on the same basis as he could at the time
he took up his training and incurred this additional expenditure.

Company income taxes are payable at a fixed standard rate by all
resident companies, non-resident companies being liable on income derived
from the country itself. This is allowed as an offset to the recipients
of dividends from post-tax net profits. Undistributed income tax is
imposed on private 'controlled' companies not distributing their profits to
avoid the highest rates of income taxes which are lower than fixed rate of
company income tax. Corporation tax is an additional flat rate levy on
company profits to company income tax and is payable by all companies other
than the private 'controlled' companies. Corporation tax is not allowed
as an offset to the recipients of dividends from post-tax net profits against
their individual liability. Taxable income for the purpose of the company
taxes on profits is generally arrived at by deducting expenses on the same
basis as business expenses are deducted by the non-corporate enterprises.

Personal taxes are payable by virtually every income-recipient in all
income groups; those in the lowest income brackets pay a minimum amount of
flat rate tax either at local government or central government level or both. Education or hospital taxes are specific levies for specific services but are payable on the basis of individual income; these are payable usually by all those who are liable to pay income tax proper but not by those who are liable to personal tax only and although they are progressive, the rates of progression are not steep. Personal tax and education or hospital tax are not deductible as offsets against income tax proper, nor is the amount of such taxes deductible as expenses for deriving taxable income for income tax proper.

Export taxes and cesses may theoretically be taken as taxes on income is so far as they fall on producers. We take two-thirds of the export tax as falling on producers. Their structure varies in different parts of Tropical Africa. They may be specific levies on the unit of commodity exported or they may be ad valorem duty at the fixed rate regardless of price. Alternatively, both specific and ad valorem export taxes may be fixed on a sliding scale; specific duties may be made variable on the basis of a weighted average of prices fetched and ad valorem taxes may be made variable according to the price per unit of goods sold. What is important from the point of view of this study is the fact that nothing with respect to the form of their rates can be said without reference to the elasticity of their demand and supply in the foreign markets. As we cannot possibly deal with all forms of export taxes in this study we should perhaps deal with one which is commonly found in most of the Tropical African countries at present. On this basis we shall be dealing with ad valorem export taxes variable with the price per unit of goods sold.

The definition of 'income' in practice differs from the conceptual definition in one respect namely that it excludes capital gains both
accrued and realized, and gift receipts. We nonetheless propose to deal with these taxes, i.e. accrued capital gains tax and gifts tax, and analyse the functional changes that may be brought about by them; such analysis would be supplementary to the analysis of changes that may be brought about by the existing taxes in the Tropics.

C. Reclassification of Existing Taxes on Income. There are two purposes in reclassifying the above taxes: firstly, to avoid repetitions, whenever possible, when separately dealing with different taxes on income; secondly, to analyse the functions of these taxes with the conditions prevalent in the Tropics in mind. Firstly, education or hospital taxes are payable only at modest rates and unlike export taxes they do not raise the degree of progression to warrant any noticeable change in their functional role. Furthermore, they have been racially-based taxes in the nature of fees for specific services for which they have been raised and have been abolished rather recently in some countries. As for the company taxes and individual income tax proper, it would serve no purpose to distinguish the different taxes in analysing objectives such as income redistribution whilst it is imperative to distinguish them for stabilization purposes.

Now the most common feature of the Tropical African economies is that there is a monetary sector consisting of specialized, highly capital intensive forms of production run mainly by expatriates; and distinct from this is a traditional sector with a moderate amount of contact with the rest of the economy and the rest of the world, rather labour intensive method of production and seasonal form of occupation.

In view of the conditions such as this prevalent in the Tropics, it is often alleged that income tax can have little effect on the whole economy
and in particular on the traditional sector. It is however the main theme of this Part of the study that whilst this might very well be true with respect to income tax proper, the argument does not apply in all generality, i.e. to all different types of taxes on income. And for a rigorous analysis of their usefulness as policy tools we reclassify the existing taxes on income with these prevalent economic features in mind. Personal taxes are analysed separately only in so far as they are payable in the traditional sector of the economy either as local government levies on the lowest income group at a flat rate or as central government levies on slightly higher income groups. The remaining personal taxes payable by those who are not liable to income tax are treated with the analysis of monetary sector and is not likely to affect the analysis as much as the substantial share of personal tax coming from the traditional economy. The remaining personal tax which is payable by income tax assesses with no right of offset is treated together with income tax proper, education tax and hospital tax, because even if their rates are progressive, their merger with income tax proper would hardly affect the rates of personal tax and income tax and would leave them similar to what they are elsewhere.

Thus in the traditional sector we analyse personal tax, export taxes and cesses, and gifts tax separately. In the monetary sector income tax proper on individuals and companies, personal tax, education and hospital tax are generally analysed together and these taxes are called general income taxes. In the monetary sector the export taxes are analysed separately; general income taxes and export tax constitute income taxes. Gifts and accrued capital gains tax are treated separately in this sector as in the case of traditional economy. This general basis of classification is some
times modified however in dealing with different objectives, viz. in considering growth and stabilization objectives company taxes have to be distinguished from general income taxes and income tax proper.

Section (2) Incidence and Effects.

An analysis of the concept of incidence is indispensable from the point of view of this Part of the study as it has a significant bearing on the extent to which the functional objectives of taxes on income can be analysed. The fact that a given system of taxation has certain characteristics capable of performing various policy functions is in itself the cause of the complexity of this concept. Furthermore, the concept is made more complicated by the fact that a given load of tax is capable of being 'shifted', i.e. 'pushed along through price adjustments from the point of impact to the final "resting" place.'

In saying that income taxes can be shifted we are obviously rejecting the view that income tax, being a general tax, as distinct from a specific commodity tax, rests where it is put, as being too simple. Reasons for holding that general taxes on income can indeed be shifted are discussed elsewhere and we can only repeat them briefly here. Firstly, it is held that income taxes, corporate taxes on profits in particular, can be shifted if the taxpayer is operating under imperfect competition. Secondly, such an assumption holds only if the supply of every factor to each and every industry was perfectly inelastic. Thirdly, if demand for every product were indeed elastic, it is possible that the relative prices of all factors and products would remain unchanged. Put simply, a general income tax which does not discriminate as between various taxpayers would be with consequences on relative prices of output and input only if applied
to all forms of rewards and all forms of activity.

Incidence is defined as the 'location of the ultimate or direct money burden of tax as such.' Effect is said to take place whenever a particular tax load comes to 'rest' with the final 'payee'. A study of incidence as a process consists of analysing consequences of a given tax, in a full employment economy, on resource transfer from private to the public sector, on output and on distribution. In an economy below full employment, incidence consists of consequences of a given tax on the resource transfer, output, distribution and stabilization. Consequences of a given tax on resource transfer can be subsumed under those on output. The problem of analysing consequences of a given tax on stabilization can generally be dealt with in one of the two ways. One can assume a balanced-budget. Here a given tax levy is not expected to have stabilization consequences except those which follow the replacement of one form of tax by some other form of tax, viz. levy of income tax at the cost of reducing sales tax or customs and excise duties. The procedure followed in analysing incidence is to ignore the consequences of substitution of one tax for another by assuming that the consequences, on effective demand, of such substitution are unlikely to be substantial. This method of analysing incidence is referred to as balanced-budget differential incidence.

The alternative method is of course to consider the consequences of a given tax together with those of monetary and other fiscal policy parameter changes associated with the imposition of such a tax. This procedure is called specific incidence analysis. The problem of considering budgetary consequences of changes in other fiscal parameters
simultaneously with the imposition of income tax (e.g., reduction in customs and excise duties) does not arise as we have already assumed that all forms of taxes are to be used equi-proportionately to perform various policy functions. One is therefore faced with analysing the consequences of a given tax plus the monetary changes associated therewith.

Now in this study we follow the procedure of analysing specific incidence as far as possible. This is because within the confines of this study we cannot consider taxes other than those based on income as indicated earlier on. Moreover, the concept of differential incidence appears to beg the question that one has a complete knowledge of the consequences of one given tax compared with those of another. This is not a very helpful procedure as it appears to dodge the question as to whether the incidence process can at all be examined fully and definitive statements about the effects of a given tax can be made.

In the discussion of incidence the difficulty that is mainly recognized is that of taking account of the monetary changes and other fiscal parameter changes associated with the imposition of a change in a given tax. We hope to overcome this difficulty to a certain extent, while dealing with the concept of shifting, by taking account of the most plausible form of monetary adjustments which would be associated with the adjustments in income taxes in the less developed economies. We ought however to mention one further difficulty at this stage. In dealing with these three component 'effects' for a full-scale analysis of incidence, although it may a valid procedure to subsume the 'effects' of resource-transfer under distributional and output 'effects' in a full employment economy and to do the same for stabilization 'effects' in an economy below full employment level, it is difficult to consider the distributional
'effects' independently of output 'effects' and conversely. Distributional 'effects' bear upon the level of output. Consequently, the analysis of incidence or distributional effects would be without a satisfactory measure of changes in output and the effects of aggregate income taxes or specific income taxes on output do not take into account overall gains or losses to a given individual.

From the preceding discussion and the inherent difficulty of distinguishing the distributional 'effects' (or incidence in the narrow sense of the term) from output 'effects' it becomes necessary to summarise the terminology used so far and in so doing bear in mind the fact that for a complete analysis of the problem we have to extend the analysis of income tax incidence to include the expenditure and budgetary incidence.

Incidence in this study is to be taken to mean the ultimate resting point of tax and of expenditure. Impact is, on the other hand, the initial point where the tax is statutorily levied on or expenditure is initially incurred for particular individuals. The process of changes between impact and incidence may be called the incidence phenomenon and it consists of tax-expenditure transfer 'effects' from private to the government sector, distributional and output 'effects'. Now if we start with the statutory impact of given taxes on income, it is difficult to see if there is such a strong degree of inter-dependence between resource transfer, distributional and output impact (the last of which is often referred to as 'impact effect'). That is to say the output impact of a taxpayer is on the basis of his immediate reaction to tax changes and is based on the extent to which his present factor receipt would be affected directly by tax changes. He is not concerned with what the result of his reaction on the level of output would
be. Then the shifting procedure occurs and his reaction to the existing
tax is based on the extent to which his real income share at the existing
level of output is affected; he is not concerned, as yet, with the changes
in the level of income and his share therein. Thus the analysis of shifting
phenomena yields static partial results of tax-expenditure transfer,
distributional and output 'effects' because in so far as final output and
distributional 'effects' depend on each other they are not strictly speaking
effects. Consequently, 'effects' in this context really mean changes in
distribution, output, resource supply and its use as between public and
private sector, hence these terms better be referred to as post-impact
distributional, output and resource transfer changes. Thus the term
'effects' is as treacherous to dissect as the term incidence (meaning final
distributional 'effect' of a given budgetary policy) and can be used with
a sense of precision only if the incidence phenomenon can be fully explained.

In the rest of this Section, we deal with incidence in four parts.
Firstly, we analyse shifting of income taxes on the bases of institutional
and behavioural assumptions characteristic of the conditions prevalent in
Tropical Africa and in so doing try to make clear the sort of monetary
changes which are generally associated with the imposition of taxes on
income. Secondly, we extend the analysis to the concepts of expenditure
and budgetary shifting. Thirdly, we consider the previous analysis of
incidence in dynamic terms to see if and how distributional and output
effects can be distinguished. Finally, we indicate the extent to which
incidence as a concept dealt with in this way would be useful in analysing
the functional objectives of the aggregate income taxes.
A. Shifting of Income Taxes. Treatment of shifting of aggregate taxes on income (i.e. general income tax plus two-thirds of export taxes borne by domestic producers as a proportional tax on export proceeds) can conveniently be dealt with in three stages: first, under free competitive markets with no restraint on labour supply; secondly, where distributors are price makers and trade union activity is controlled; finally, modification of the preceding two forms of analyses whereby account is taken of the simultaneous monetary changes taking place with the imposition of income taxes.

(a) Where neither the demand for an output nor the supply of factors is perfectly elastic in an economy, the imposition of a tax will make factor owners as well as producers react to the imposition of the tax. Thus, given the aggregate monetary demand remaining unchanged, it is the change in output and consequent changes in factor payment rates and prices which bring about shifting of the tax. Suppose labour supply falls short of demand in an economy, labourers will demand higher wages. Producers faced with high tax liability will raise prices and shift forward a part of the tax shifted on to them in the form of demand for higher wages by workers. Thus, if labour supply at a certain time falls short of demand in a particular economy, labourers will be able to shift a part of their liability on producers so long as the latter do not adjust their demand for labour. If, however, the supply of labour were in excess of demand to begin with, the reverse would hold true, namely that producers will shift a part of their liability on to workers. If, however, labour is not homogeneous, the shifting of the tax will depend on the extent to which skilled and unskilled labour face differing bargaining positions.
Skilled labour may for instance succeed in shifting the tax burden on to producers more than unskilled labour with the result that the latter finds itself faced with much more tax shifted on to it than under homogeneous markets.

Similar arguments can be applied to the supply of capital. Imposition of the tax could affect the price of capital supply, i.e. interest rate, and also the price of outputs produced by the borrower of such capital. Here again, equity capital may be in a different position from gilt-edged securities, or capital invested in tax-favoured industries like raw material processing and mining.

So much for changes in prices of outputs and factor receipts when demand for given factors is not altered in response to the imposition of tax. If the levying of a given tax reduces the income of producers, they will react by reducing the demand for certain factors. For instance, a medium-sized producer faced with some extra tax liability may have to dispense with the services of his sales agent and substitute a shop attendant. The net consequence, from the point of view of factor owners, however, depends on the way in which the demand for their services by the government in expending the tax revenue raised differs from that of the private sectors' demand. If the demand is reduced, so is the factor-price.

Shifting can therefore be said to occur in a competitive market where the supplies of some factors are altered more than those of others or where the demand for various factors is altered thereby giving rise to a relative readjustment of prices. Further, any factor whose supply falls in comparison to the supply of other factors will raise its price and subsequently this factor owner will benefit at the expense of some other factor owners.
(b) Now where the trade union activities are state controlled, even if supply of labour falls short of demand, a tax imposed on labour cannot be shifted. Moreover, if the distributors of output are in a monopolistic position, they will be able to shift part of their initial tax burden on to the workers in the form of an increase in product prices. In other words, imperfections in factor and commodity markets may bring about direct and immediate shifting without prior changes in the supply or demand schedules.

(c) The preceding analysis ought, however, to be seen in the context of simultaneous monetary changes taking place with the levying of an income tax. For this purpose the existing monetary policy at any given time can be taken to operate simultaneously with the budgetary policy as a whole. It is no use assuming that the pursuit of monetary policy at a given time is warranted more by non-income taxes, such as customs and excise duties, than by taxes on income or the other way round. Thus, if the government budget consists of \( (X + Y + Z) \) units (of which \( X \) is an aggregate of taxes on income, \( Y \) is customs and excise duties and \( Z \) other revenue) and it is associated with a monetary change of \( A \) units (by way of an increase in velocity of circulation or volume of money in circulation), consequences of a change in \( A \) are attributable to income taxes and non-income taxes in the ratio of \( \frac{X}{X + Y + Z} \times A \) and \( \frac{X + Y}{X + Y + Z} \times A \) rather than in an arbitrary ratio of \( \frac{1}{Z}(A) \) and \( \frac{2}{Y}(A) \) or \( \frac{1}{X}(A) \) and \( \frac{2}{Y}(A) \) and so on respectively.

Given this condition, in a perfectly competitive market with no discretionary adjustment in the monetary policy by the government and where the quantity of money and the circuit velocity of money are fixed, it is
arguable that there need be no deflationary consequences of a tax levy. In such a case, economy in the use of money is achieved as the government indulges in fewer transactions than does the private sector and the shifting through factor and output prices would be the same as before. If, however, there is an expansion of money, factor prices would increase in the same proportion as the price of factor outputs. Consequences of income taxes will be slightly different in so far as the workers will find it easier to ask for higher wages thereby diminishing the possibility of producers shifting their tax burden through output prices. Likewise, where monetary expansion occurs, it will become more difficult for lenders to incorporate in the price of capital supplied, i.e. in the market rate of interest, the tax imposed than where the supply of capital is given.

In non-perfect markets, the position is different because the trade union activity is limited and producers or distributors have stronger bargaining power. Consequences of monetary expansion simultaneously with the imposition of taxes on income are that the increase in output prices will be reduced and the possibility of suppressing a rise in wage levels is slightly diminished.

It is essential for the purpose of this study to make clear which of the assumptions about simultaneous monetary changes is most likely in Tropical Africa. Given an assumption, we must raise the question as to how, if at all, such a monetary assumption helps us isolate the shifting through income taxes from the total shifting through income taxes plus that part of simultaneous monetary adjustment which relates to such a tax. The monetary expansion is limited owing to commercial banks' adherence to
high liquidity ratios. However, the amount of monetary expansion may be
big enough proportionately to the size of income taxes in the budget.
Moreover, there is also the possibility of an economy arising in the use of
money as a result of government activity with fewer transactions than the
private sector. It can, therefore, be safely assumed that the monetary
expansion is large enough to deter producers from taking an undue
advantage of the imperfections in the market. In venturing to suggest
that the monetary policy prevents or discourages an abuse of monopolistic
position of the producers and distributors, we should, nonetheless, make
clear its implication for the purpose of isolating, or attempting to
isolate, shifting through income tax alone from shifting through income tax
and simultaneous monetary changes combined. We are by no means implying
that we should assume, as one well-recognized authority\textsuperscript{21} has done in the
context of commodity or sales taxation, that 'the monetary authorities are
successful in enforcing a rule which guarantees overall stability in
appropriately defined index of final product prices.' Although such an
assumption is no doubt helpful by way of eliminating 'all need for
considering any incidence of general price inflation or deflation along with
the problem of separating such incidence (the author means shifting)
\textit{per se},'\textsuperscript{21} it is not at all realistic in less developed countries where
structural features (e.g. limited transport facilities and distributive
channels with its price-haggling characteristics) make it impossible for
monetary authorities to achieve such a degree of price stability. It is,
therefore, more appropriate to consider consequences of a given tax levy
together with its simultaneous monetary consequences rather than try to
separate the consequences of the former as such from the total consequences
of the tax and monetary policy in an unrealistic manner.

B. **Government Expenditure and Shifting Phenomena.** If the problem of shifting is seen from the point of view of expenditure, it should be borne in mind that the government incurs expenditure on various services with a view to benefiting certain income groups. This may be called **impact** of government expenditure, the difference between the impact of a tax and that of a government expenditure being that benefits of government expenditures need not be used (while tax has to be paid by one on whom the impact falls) by those for whom they are incurred. This difference in the impact of government expenditures makes us look at the equivalent of tax shifting phenomena as expenditure absorption phenomena. Those who do not feel the impact of government expenditure but nonetheless absorb the benefits of it may argue that such a benefit would be an economic waste if not used; it makes no difference in the number of gardeners required, for example, to look after a public park whether \(X\) or \(X+Y\) number of people use it. On the other hand those on whom the benefit impact falls but who do not use it and feel that the absorption of government expenditure should reduce their tax burden may argue that a reduction in the scale of operation arising from an inadequate demand for certain public services would in any case reduce operational expenditure even if it may not lead to the complete discontinuance or the reduction in the overheads or maintenance expenditure.

Although both the arguments are sound, the measurement of absorption of benefits becomes difficult. It cannot however be discarded on theoretical grounds and remains a useful concept.

C. **Analysis of Dynamic Incidence.** An interesting issue arises from the dynamic treatment of distributional changes. Suppose there are two
factor-owners with different levels of income and different rates of growth of such income in an exponentially growing economy. Under static analysis, a tax rate is progressive so long as the income of either is an increasing function of total income. Obviously, the income of the factor-owner who is at high level of income is an increasing function of total income. However, if the share of total national income which such a factor-owner receives is lower than that of an individual with an initially low level of income, then what was static-progressive tax for the former initially becomes static-regressive and conversely for the latter. In dealing with this concept we should perhaps remind ourselves that it is aimed at assessing the feasibility of distinguishing from total consequences of a given tax, those on distribution of income and those on output. In this way, we can try to identify incidence (or distributional effects) and effects (i.e. output effects) of a given tax on income.

According to the theory of incidence, the distributive change brought about in this way would consist of the two component changes: "gross-net 'effect'" and "rate of growth 'effect'". The former would be represented by a change in the proportion of gross income paid in tax and the latter by a change in gross factor shares brought about by the imposition of tax through a change in the overall rate of growth.

Some discussion followed in which several objections to the original theory of dynamic incidence (or rather dynamic distributional change) were raised. First of all, it was argued that the two-group measures have powerful limitations because certain individuals may be recipients of more than one factor share and also because relative size of two factor-groups must be kept the same through time. This difficulty was substantially overcome by transforming factor share groups into income size classes.
Secondly, it was suggested that a measure of dynamic incidence would have to include both absolute values of income levels and rates of change of variables (such as price of goods bought and factors supplied) which go into the income concept. This is not thought to be a very important problem so long as 'income' at one point in time is defined in the same way as 'income' at some other point in time. The theory of dynamic distributional change is subject to some further shortcomings, but before dealing with them let us first illustrate it numerically in Table I.

### Table I.

Disproportionate Growth of Initially Varying Levels of Personal Incomes (in different Income Strata) over time.

<table>
<thead>
<tr>
<th>Size Group</th>
<th>Income Group</th>
<th>I.T. Rate</th>
<th>Tax in ( t )</th>
<th>Income in ( t_n )</th>
<th>Change in Tax in ( t_n )</th>
<th>Income</th>
<th>Tax in ( t_n )</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>50</td>
<td>10%</td>
<td>5</td>
<td>75</td>
<td>+ 50%</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>100</td>
<td>15%</td>
<td>15</td>
<td>90</td>
<td>- 10%</td>
<td>13.5</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>160</td>
<td>20%</td>
<td>32</td>
<td>208</td>
<td>+ 30%</td>
<td>41.5</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>180</td>
<td>30%</td>
<td>54</td>
<td>189</td>
<td>+ 5%</td>
<td>36.7</td>
<td></td>
</tr>
</tbody>
</table>

Incidence Coefficient Between A and C

\[
\frac{dA_1}{dt} \div \frac{dA_2}{dt} = \frac{dC_1}{dt} \div \frac{dC_2}{dt}
\]

\[
= \frac{d(75-50)/dt}{d(25-75)/dt} \div \frac{d(208-160)/dt}{d(48-41.5)/dt}
\]

where subscripts 1 and 2 mean ex-tax and cum-tax respectively.

This recent development in the theory of Public Finance emphasises the fact that the output changes should also be analysed in a dynamic context.

A part of the numerical illustration is also shown in Diagram 1 below. The
horizontal axis shows the time period and the vertical axis indicates the initial levels of incomes of A and C and the amount that each receives over time.

Initial Levels of Incomes of Two Individuals and the Growth of the Receipts of Their Incomes Over Time.

Diagram 1

The dynamic distributional change is divided into "gross-net 'Effect'" and "rate of growth 'effect'" and further, cognizance is taken of the fact that the latter consists of a change due to tax at a given rate of growth and the differential change in shares due to a change in the rate of growth. However, a distinction between the two components of the "rate of growth 'effect'" is avoided. Although it is suggested that such a distinction is avoided for the sake of simplicity, there is no indication as to how such a distinction could be drawn. Particularly if one were to rely on an ex-tax-cum-tax analysis, one is apparently concerned with differential changes in shares due to a change in the pre-tax rate of growth. And in so doing one is contradicting the initial assumption of ex-tax and cum-tax income shares.
If the process of incidence is to be discussed in the context of pre-tax rather than ex-tax situations, we have to begin the analysis by taking into account the first reaction of the taxpayers which is based on output impact; individuals have already reacted to taxes imposed previously on the basis of the share of income (gross and net of tax) they anticipated. This is followed by static output changes which allow for the consequences of tax shifting. It is indeed the income-share accruing after the output change of a given tax that is related to the dynamic analysis of static distributional change. Such a dynamic distributional change in turn makes an individual taxpayer revise his previous reaction to output, i.e. the static output change; the revised reaction to output is, in fact, the complete dynamic output change or simply the output effect. Thus, a system of taxation with built-in-resource-allocators has an advantage in that once the output impact of such a given tax is determined, no further necessity of ascertaining the incidence process and its final output effect arises in the future. The policy implication of such a discussion is that there would be a clear certainty as to what the effects of a specific tax plus the monetary changes associated therewith are likely to be.

We should now perhaps return to some further shortcomings of the theory of dynamic distributional change. First of all, the original\textsuperscript{28} theory of dynamic incidence confined itself to the problem of incidence of a tax rather than that of a budget for what appears to be its dislike to the view that the redistributive impact of all sorts of taxes in a given budget is conceptually immeasurable.\textsuperscript{29} This position has since been changed however for somewhat different reasons we need not go into here.\textsuperscript{30} As this study is concerned with one form of tax, all that we need do is to
note that the argument regarding the conceptual unsoundness of measuring income redistributive consequences of various taxes does not apply in this study, hence there is no compulsion to support either view. Secondly, the dynamic theory of income distributional change concerned itself mainly with the narrow view of incidence, i.e. in terms of equity with a few cryptic references to the desirability of examining output 'effects' in dynamic terms and the 'inherent difficulty of distinguishing incidence (meaning distributional change) from output effects.' Consequently it emphasized the concept of a built-in-redistributor which is not, as we have seen quite so crucial as a built-in-resource-allocator in a subject of paramount importance, namely the distinction between incidence and output effects.

D. Conclusions. In the preceding analysis an attempt has been made to distinguish incidence from output effects. The attempt is by no means successful. The shortcomings arise from the fact that the income-share accruing to various individuals after output changes of a given tax relates to those of the tax in the preceding period. Unless the tax structure and tax rates are uniform for a given length of time and are thus liable to produce uniform output changes, i.e. as built-in-resource-allocators, the distinction between incidence and effects analysed so far is meaningful only in a limited way.

Such a result has immediate implications for the purpose of our analysis. We have to analyse the policy uses of income taxes in terms of distribution, resource allocation and output changes and finally the change in economic stability, rather than distributional effects\(^{31}\) or incidence, output and resource-transfer (private versus public sectors) effects and stabilization effects.\(^{31}\) The fact that the analysis is in terms of changes that can be brought about by various taxes on income is tantamount
to saying that each of the functional objectives is analysed in the partial equilibrium setting that other objectives are given. But such ceteris paribus assumptions can be made variable, e.g. in dealing with income redistribution we can deal with it by assuming that economic stability is with or without full employment, growth occurs at a constant rate or exponentially, and so on.

Section (3) Redistribution of Income

Any system of taxation which is not a quid pro quo system of charging fees for government services is liable to bring about a redistribution of income. The analysis of income redistributive objective is carried out in this section on the assumption that taxes on income are used for income redistribution, other objectives, growth and stability, being taken as not warranting any attention of income tax policy in the light of the given assumption that growth and stabilization branches are operating satisfactorily. For a proper understanding of a redistributive objective in this way one has to analyse the relevant factors.

Given the distribution of income covering the whole population in an economy, the redistribution of income brought about by a system of taxation on income can be analysed in a logical sequence as follows:

(i) by ascertaining the impact of taxes on income and impact of government expenditure supposedly financed from taxes on income;

(ii) by determining the shifting of tax and absorption of government services from the points of their impact to the final resting point in a static situation;

(iii) by relating the analysis as in (ii) to a growing economy in which both the level of income and individual income receipts are constantly changing.
In practice such a logical sequence would not work however because of several factors. To enumerate one or two, there is, first of all, the problem that not all individuals who are in some way or the other influenced by the operation of the system of taxation are income-recipients. Again, it is not simple to determine which part of a given budgetary activity, especially in the context of an unbalanced budget, relates to aggregate taxes on income. In view of such difficulties, factors relevant in analysing the income redistributive objective have to be examined in a way which is convenient.

We start off by showing how an impact of different taxes on various income-earning groups, the main concern being with those taxes on income which do not fall directly on them, but which, in the absence of shifting, are directly attributable to them. We then deal with government expenditure in general, with a view to finding answers to problems such as the value of government expenditure relating to income taxes, ascertaining the impact or absorption of various government items and so on. On the bases of such discussion we proceed to consider how the static budgetary distributional impact and change can be ascertained and cast in dynamic terms. Finally we extend the analysis of distributional change as applicable to income earning groups to cover total population of an economy.

A. The Problem of Imputing Income and Taxes to Fictitious Persons. All forms of taxes on income are attributable to the living individual wealth-holders who are income-recipients rather than to fictitious persons in law like companies, clubs and co-operative or friendly associations. The question of allocating all forms of taxes on income to the living individual members of different income groups therefore arises here. The undistributed part of the income of a corporate body has to be imputed to each living individual on some conceptual basis for there is no clear-cut division as there is for
the distributed part. The undistributed part can either be allocated according to the share of the living individual in business (the position in the case of corporations with no preference shares) or in proportion to the distributed profits share received (the position in the case of corporations with preference shares as to dividend payments, return of capital, etc.). Whichever basis of imputation is used, it may involve the transference of the living individuals themselves from one income-group to a higher one.

Taxes on income payable then have to be allocated to the respective income groups. The tax payable by the corporate bodies on undistributed profits has to be allocated also and this can be done on the same basis as the undistributed profit itself. The capital gains could be allocated to the income-group to which the security-holder belongs; gifts tax would be based on the value of the gifts and be payable by either gift-receiver or gift-maker and would be allocated to the income size of either depending on the basis on which it is imposed. Export taxes borne by the exporter are allocated to the size of his total income rather than to the size of his export income.

B. Government Expenditure. In majority of these countries, the social services are of a rudimentary nature; there is no scheme of contribution as in many of the developed economies of the 'west'. The procedure of relating the benefits to the various individuals is not therefore as simple as it is, for instance, for relating the receipts of national insurance to the individual beneficiaries in each income group, say in Great Britain. It is nonetheless true that in general the indigenous population is very co-operative in paying up its share of tax liability if it is convinced that the tax revenue is likely to confer some benefits either of an individual
or collective nature on himself or on the community as a whole. Thus there is practically no difficulty of obtaining their 'revealed preferences' through coercion in respect of collective benefits and imputing them to each individual.

In relating government expenditure benefits to various income-groups for the purpose of this study there are three components of government expenditure which need a conceptual analysis: the value of the benefits which are utilizable; the way in which benefits can be related to various individual taxpayers; the revenue source to which the benefits imputed are to be related. We undertake this task because we reject the view that the benefits are proportional to tax paid as being too simple.32

(a) Value of the Benefits: The total expenditure on government services in a normal budget (one without undue deficits or surpluses) will surely consist of all expenditures of a current nature inclusive of debt servicing and depreciation which are identical with all sources of revenue of a current nature (i.e. exclusive of capital funds raised). Obviously, the asymmetry of the 'revenue burden',33 and 'budget expenditure'33 account is invalid so long as the revenue burden carried with it the cost of servicing debt as well as depreciating assets and so long as the budget expenditure allocated the fractional cost of capital expenditure33 to the current period. See Numerical Example No.1.

(b) Imputation of the Benefits. Benefits of government expenditure can be imputed through empirical findings in a consumer survey as for instance in the United Kingdom.34 Here certain benefits are directly consumable and could be revealed by consumers in the consumer survey, but there are other forms of benefits which are not directly consumable but arbitrarily allocable and still others (such as administration, defence, etc.) which
are collective and generally non-allocable. The difficulty of allocating directly non-consumable but still arbitrarily allocable items can be overcome by ensuring that the arbitrary basis of allocation is a suitable one. Thus, housing subsidies can be allocated on the basis of average number of dwellings, education grants on the average per head of children at schools, health expenditures on the basis of the age groups of the population multiplied by the average cost per head, etc. As to collective, non-allocable services, these are not at all imputed to any income-size group and the previous exercises on the benefits of government expenditures are generally left incomplete. What we propose to do is to take the remaining services as allocated in the same proportion as the total of previous two groups of services enjoyed by each group. This method of allocation is based on the assumption that the preference for the remaining services is the same as for the most of the other services. Although this is by no means a conceptually acceptable and sound approach, it has at least the merit of performing a complete exercise on the post-budget distribution of income provided other questions relating to the ascertainment of effective rates of benefits of government expenditure are indeed answerable.

(c) Revenue Source to which Benefits Imputed are to be Related.

Three possibilities exist: income taxes can be taken to be financed proportionally from all sources of revenue of the current nature (inclusive of the returns on capital projects of the government financed through the national debt); or direct tax revenue can be taken to be 'ear-marked' to direct benefits; or total government revenue can be so divided that non-business income taxes paid can be compared with the direct individual
services enjoyed by consumers as final services and business income or profit taxes paid can be compared with the intermediary business services directly used by businesses in production. The last of these approaches is unacceptable as the exclusion of the fees for business intermediary services means that the businessman himself bears the tax and inclusion means a complete shifting (not a valid assumption for all practical purposes) and also some government services may be enjoyed by both business enterprises and consumers. As for the direct taxes and direct benefits, we have already disputed the validity of the conceptual basis of 'direct' and 'indirect' taxes and benefits and have substituted instead taxes on 'income' and 'non-income'. This raises difficulty as to which of the government expenditure benefits can be taken to be related to non-income taxes and which to income taxes. We are then left with only one alternative namely that of treating total government expenditure to be financed proportionally from all sources of revenue as in the numerical example below.

**Numerical Example No.1**

**Government Expenditure Relating to Taxes on Income.**

<table>
<thead>
<tr>
<th>Revenue</th>
<th>£</th>
<th>Expenditure</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Tax on Individuals</td>
<td>500</td>
<td>Pensions, Industrial Benefits, etc.</td>
<td>400</td>
</tr>
<tr>
<td>Income Tax on Companies</td>
<td>445</td>
<td>Transport and Communication</td>
<td>100</td>
</tr>
<tr>
<td>National Insurance</td>
<td>38</td>
<td>Housing, Education and Health</td>
<td>500</td>
</tr>
<tr>
<td>Indirect Taxes</td>
<td>200</td>
<td>Defence, law and order</td>
<td>300</td>
</tr>
<tr>
<td>Miscellaneous Revenue</td>
<td>57</td>
<td>Miscellaneous Expenditure</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>1500</td>
<td></td>
<td>1500</td>
</tr>
</tbody>
</table>
It is not helpful to argue that those who are liable for income taxes amounting to £945 derive benefits of £400 and those liable for £555 make use of government services worth £1100. Nor is it useful to suggest that businesses liable for taxes of the order of £665 benefit to the extent of £500 in the form of transport, defence and justice and the miscellaneous expenditure as the individuals enjoy the benefits of public security and transport just as the business proprietors do in order to generate a flow of income. The alternative way to relate benefits of government expenditure to revenue from taxes on income is therefore as follows:

\[
\begin{align*}
\text{Pensions, Industrial Benefits, etc.:} & \quad 400 \times \frac{945}{1500} \\
\text{Transport and Communication:} & \quad 100 \times \frac{945}{1500} \\
\text{Housing, education and health:} & \quad 500 \times \frac{945}{1500} \\
\text{Defence, law and order:} & \quad 300 \times \frac{945}{1500} \\
\text{Miscellaneous:} & \quad 200 \times \frac{945}{1500}
\end{align*}
\]

It will be noted that the amount shown in the denominator is £1500 and not £1250 (i.e. exclusive of deficit financing).
The upshot of the discussion so far is this. The value of the benefits is to include all the current government revenue and expenditure is to include the debt servicing items, depreciation of government capital assets. The benefits are to be imputed wherever possible on an empirical basis rather than on the basis of tax burden or any modifications thereof. Income tax is to be taken as a fraction of total revenue in its relationship to the total government expenditure rather than direct taxes as related to the direct government expenditure benefits. Given the present definition of tax paying unit, the benefits of government expenditure can therefore be related as in the numerical example below.

**Numerical Example No. 2(A)**

**Allocation of Government Expenditure Relating to Income Tax to Various Strata of Income**

Say in a total budget of £1500 the share of income tax revenue is £945 and other revenue £555. The government expenditure is also £1500 and out of this an expenditure of £700 is allocable to the different income groups by means of an empirical survey. The rest of the expenditure consists of subsidies (£300) and the collective expenditure on administration, justice, defence, (£500) etc. The following example shows the way in which the benefits of government expenditure as financed from income tax can be allocated to each income group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Actual Income</th>
<th>Tax (As %)</th>
<th>Benefits (Empirical)</th>
<th>Benefits (Imputed Conceptually)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 100</td>
<td>100</td>
<td>10</td>
<td>140</td>
<td>60</td>
<td>200</td>
</tr>
<tr>
<td>100-300</td>
<td>200</td>
<td>40</td>
<td>300</td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td>300-800</td>
<td>700</td>
<td>245</td>
<td>200</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>800-1500</td>
<td>1300</td>
<td>650</td>
<td>60</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>£245</strong></td>
<td><strong>£700</strong></td>
<td><strong>£300</strong></td>
</tr>
</tbody>
</table>

£245 £700 £300 £1000
Benefits

Already Group Imputed Allocation of £500 Total Benefits financed from i/t.

<table>
<thead>
<tr>
<th>Group</th>
<th>0-100</th>
<th>100-300</th>
<th>300-800</th>
<th>800-1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100</td>
<td>200</td>
<td>500 x 200/1000 = 100</td>
<td>300 x 945/1500 = 189</td>
<td></td>
</tr>
<tr>
<td>100-300</td>
<td>400</td>
<td>500 x 400/1000 = 200</td>
<td>600 x 945/1500 = 378</td>
<td></td>
</tr>
<tr>
<td>300-800</td>
<td>300</td>
<td>500 x 300/1000 = 150</td>
<td>450 x 945/1500 = 473</td>
<td></td>
</tr>
<tr>
<td>800-1500</td>
<td>100</td>
<td>500 x 100/1000 = 50</td>
<td>150 x 945/1500 = 95</td>
<td></td>
</tr>
</tbody>
</table>

Final Distribution Income

<table>
<thead>
<tr>
<th>Group</th>
<th>pre-budget income</th>
<th>Tax</th>
<th>Post-tax income</th>
<th>Benefits</th>
<th>Post-budget Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 100</td>
<td>100</td>
<td>10</td>
<td>90</td>
<td>189</td>
<td>279</td>
</tr>
<tr>
<td>100-300</td>
<td>200</td>
<td>40</td>
<td>160</td>
<td>378</td>
<td>538</td>
</tr>
<tr>
<td>300-800</td>
<td>700</td>
<td>245</td>
<td>455</td>
<td>473</td>
<td>928</td>
</tr>
<tr>
<td>800-1500</td>
<td>1300</td>
<td>650</td>
<td>650</td>
<td>95</td>
<td>745</td>
</tr>
</tbody>
</table>

C. Budgetary Distributional Change. For the purpose of static distributional change through government expenditure as distinct from government expenditure impact, clearly no adjustment is needed for directly consumable government services. The absorption of benefits of directly non-consumable government expenditure could be ascertained only through empirical analysis because as we have argued earlier there is no theory for 'absorption of government expenditure' (and the associated changes in prices, output, factor receipts and payments) as there is for the shifting of tax burdens.

Static results of shifting of tax can likewise be ascertained by investigating the adjustments on output price and factor incomes.
Numerical Example No. 2 (B)

Adjustment for the 'Shifting' of Tax and 'Absorption' of Expenditure

The impact of tax and expenditure can be adjusted to take account of shifting and absorption respectively. As we have just indicated, such an adjustment would be based on the empirical findings, but for the sake of illustration let us assume that two-thirds of the tax falls on those on whom it is levied and one-third is shifted in such a way that it is eventually borne by the taxpayers in various strata of income, say, in the ratios of 2:5:3:4 in four different strata of income, namely 0-100, 100-300, 300-800 and 800-1000 respectively. Likewise, half of the expenditure benefits the taxpayers for whom it is incurred and the remaining half benefits the taxpayers in four different strata of income just enumerated in the ratio of 4:2:3:1 respectively. The result of these adjustments is thus as follows:

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Actual Income</th>
<th>Tax + Tax Finally Borne</th>
<th>Total Tax</th>
<th>Expenditures</th>
<th>Total Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
<td>£</td>
<td>£</td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>0 - 100</td>
<td>100</td>
<td>6.6 + [(3.4 x 2)/14]</td>
<td>94.5 + [(94.5x4)/10]</td>
<td>134.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.6 + 0.9 = 7.5</td>
<td>94.5 + 37.8 = 134.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 - 300</td>
<td>200</td>
<td>26.6 + [(13.4 x 5)/14]</td>
<td>189.0 + [(189x2)/10]</td>
<td>226.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>26.6 + 4.8 = 31.4</td>
<td>189 + 37.8 = 226.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300 - 800</td>
<td>700</td>
<td>163.3 + [(81.7 x 3)/14]</td>
<td>236.5 + [(236.5x3)/10]</td>
<td>297.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>163.3 + 17.5 = 180.8</td>
<td>236.5 + 60.9 = 297.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>800 - 1000</td>
<td>1300</td>
<td>433.3 + [(216.7 x 4)/14]</td>
<td>47.5 + [(47.5x1)/10]</td>
<td>52.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>433.3 + 61.9 = 495.2</td>
<td>47.5 + 4.8 = 52.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
On the bases of discussion of incidence in the previous Section, results of static changes through the income taxes and their equivalent government expenditure can then be cast in dynamic terms by making allowances for a change in the level of income and income received by various individuals in different income strata. The result will represent the dynamic distributional change in income brought about by various taxes on income.

**Numerical Example No. 2 (C)**

Dynamic Redistribution of Income Through the Budget Relating to Taxes on Income

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Actual Income</th>
<th>Actual Income</th>
<th>Actual Net Income</th>
<th>Tax Income</th>
<th>Net in actual income</th>
<th>Dynamic Tax Coefficient</th>
<th>Rate Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
<td>£</td>
<td>£</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-100</td>
<td>100</td>
<td>110</td>
<td>101.75</td>
<td>8.25</td>
<td>10</td>
<td>1.75</td>
<td>-1.75/10 = -0.1750</td>
</tr>
<tr>
<td>100-300</td>
<td>200</td>
<td>230</td>
<td>193.89</td>
<td>36.11</td>
<td>15</td>
<td>-2.06</td>
<td>-2.06/15 = -0.1373</td>
</tr>
<tr>
<td>300-800</td>
<td>700</td>
<td>840</td>
<td>618.10</td>
<td>221.90</td>
<td>20</td>
<td>-11.70</td>
<td>-11.70/20 = -0.5850</td>
</tr>
<tr>
<td>800-1500</td>
<td>1300</td>
<td>1950</td>
<td>1270.20</td>
<td>679.80</td>
<td>50</td>
<td>-2.29</td>
<td>-2.29/50 = -0.4580</td>
</tr>
</tbody>
</table>

*Regressive if the dynamic incidence coefficient of the "faster" growing stratum is greater than that of "more slowly" growing stratum of income and conversely.

Clearly, the problem of ascertaining the dynamic expenditure incidence (i.e. income redistributive change through the benefits of government services in a situation where the level of income is changing through time) is not simple. We cannot ascertain the change in the amount of benefits enjoyed by the individuals in various strata of income as a result of a change in the income accruing to them as simply as we can ascertain the change in tax liability of an individual arising from the change in the receipts of their incomes. This is because whilst tax paid or income earned is necessarily
a function of the amount earned, benefits of government expenditure used by taxpayers are not a function of the level of income. The extent to which the change in income might have a bearing on the amount of government services consumed would nonetheless have to be ascertained empirically by means of questions such as: how much time would the consumer devote to public amusements or how much more defence-conscious would he become if his level of income rose and conversely? On the basis of information of this nature, the dynamic expenditure incidence for each stratum and as between different strata of income could be determined in the same way as the dynamic tax incidence, viz. the rate of change of pre-expenditure income divided by rate of change of post-expenditure income for each stratum of income, and then the determination of whether the dynamic coefficient of faster growing income is greater or smaller than that of the slow growing income.

D. Distribution of Income Covering Total Population. An analysis of income redistribution brought about by aggregate income taxes in this way covers the majority of the population, whether employed and liable to tax or not; it does not however relate to the global population of a given Tropical African economy. For instance, a single individual with no independent source of income of his own or a 'pool' is still liable to be excluded from the analysis. However in so far as he derives benefits of government expenditure in the form of collective, directly consumable services such as public parks and libraries, directly non-consumable services such as defence and security and also in the form of cash through national assistance, pensions, etc. it is necessary to include him in the lowest income group (zero to £100) and examine budgetary income redistributional change through income taxes for the global population.

Even if all forms of taxes on income cannot be related to the respective income-brackets of the taxpayers, it is arguable that most of such
beneficiaries of government expenditure are relatives of the taxpayers and in so far as income of the head of the family is taxed after various personal allowances are made for such relatives, they are included in the burdens, and benefits of tax-expenditure process can be related to 'family units' as a whole rather than to individual tax-payers or recipients. However in view of the fact that the definition of the taxable 'family unit' is somewhat arbitrary (limited allowances for children and dependents, failure to take below a certain minimum income of such children and dependents in the 'pool' of family income and so on) in the economies we have in mind, the whole concept of family size and its tax burden requires a careful analysis.

There are three possible alternatives one can think of. First, when each family member has his or her own income, the individual incomes do not have to be imputed and their tax load is divided on the basis of the individual income, proportionate exemptions and reliefs, depending on the form of their assessments. But if they do not each have their own source of income (at least not big enough to be taxable as a separate family unit - as they may be living together - and yet large enough, under the present tax legislation, to be excluded from the present basis of legislatively defined tax-paying unit) or if their incomes are not identifiable, total income is taken into the pool and equally divided as an imputed share of the individual and the tax liability subsequently determined. This basis of dividing a given pool (inclusive of gifts, incomes from settlements, capital gains and losses, actual or accrued) of income on per capita basis is what is called the 'quotient system' in some countries of Europe and may not be acceptable simpliciter.

The second alternative is to impute income on the basis of the individual effort (including a housewife's domestic services) to build up
the pool, i.e. number of hours of work by each family member and their imputed rates of pay on the basis of personal skills or ability, etc. This may be a workable solution in a family firm where almost all the members of the family participate, but what happens when the head of a family is the only income-recipient and the rest of the family render incidental services as well as providing him inspiration to work? To illustrate, the presence of a child or an incapacitated dependent relative normally imposes a moral obligation on the sole income-recipient of the family or on the other members potentially able to take up spare-time employment and increase the total income of the family. Again wife's constant attention and care of the household makes it possible for the head of the family to increase his individual income as he can devote more attention to his job, and so on. It is obviously difficult in practice to quantify as to what extent these extenuating circumstances give rise to an increment of the family income as the result depends on the market structure and individual efforts as well as their ability.

The third conceptual alternative is the expenditure basis of allocation of income to impute the share of each member's income but here the actual income is liable to income tax and not the actual expenditure (i.e. savings excluded) hence the age-old problem of taxation of savings to each individual member on the same basis as their proportionate expenditure without finally giving rise to either startling or misleading results. The first approach is simplistic and perhaps cannot be accepted and there is no solution to the second conceptual alternative. But as the third approach is reasonable and provides a part of the answer to the second one, it should be accepted.

Once this conceptual task is fulfilled one further adjustment may be needed for the imputing of individual incomes to each person. This is to
allow for the fact that the extent to which the wants of each member of
the family are satisfied may not be the same, viz. husband being more
selfish than the wife or the other way round or for that matter both being
less selfish than the children. There can be no ideal solution and it
may be better to leave the scales of expenditures (inclusive of savings)
as they are subject to recognition that in extreme cases of discrepancy in
satisfaction of wants some adjustment may be needed. The total income of
the household can be divided on the basis of these scales and income to each
member of the household imputed; then the tax loads to each individual
subject to their individual allowances and exemptions remain to be imputed.

This procedure will enable us to determine the effective structure
of the present system of the income taxes with limited children and
dependent allowances and either cast doubt on the progressiveness of the
tax under the present system of allowances or else reveal that the
progressiveness in effect is much lower than indicated by the rate
structure and base of the system. For this purpose if the first conceptual
basis of imputing income to each individual on a per capita basis is
followed, the individual allowances of the actual income-earners are to be
deducted first and then the surplus divided equally among the dependents
and children as well as the actual income-earners in equal shares. For
the purpose of the third basis, the income is imputed on the basis of the
individual cost of maintenance and the personal allowances (of children and
dependent) deducted to arrive at the taxable imputed income and the tax
liability. This point is illustrated in the numerical example No.3 (A)
below. In the first case the conclusion is that with the limitations on
the amount of family allowances granted at a flat rate, smaller the number
of dependents and children the higher the level of net disposable income
Numerical Example No. 3(A)

Imputation of Income and Tax Burdens on the Third Basis: 'Consumption Expenditure'

Given: Total Income £3,000; savings £1000. Husband and wife, two dependents and five children. Maintenance Expenditures are - Husband £300; Wife £200; Dependents £40 each; Children £20, £60, £140, £500, £700.

<table>
<thead>
<tr>
<th>Allowances</th>
<th>Net of Allowances (Alternative) (taxable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husband</td>
<td>£450</td>
</tr>
<tr>
<td>Wife</td>
<td>300</td>
</tr>
<tr>
<td>Dependents</td>
<td>120</td>
</tr>
<tr>
<td>Children: 1</td>
<td>30</td>
</tr>
<tr>
<td>Children: 2</td>
<td>90</td>
</tr>
<tr>
<td>Children: 3</td>
<td>210</td>
</tr>
<tr>
<td>Children: 4</td>
<td>740</td>
</tr>
<tr>
<td>Children: 5</td>
<td>1050</td>
</tr>
</tbody>
</table>

Imputation of Income and Tax Burdens on the First Basis: 'quotient' system.

Given: Low Income Family: Income £800. Marriage Allowance £300; Child Allowance £50 each up to four. Dependent allowance: £50.

4 Different Cases:
(I) 5 children; 1 dependent
(II) 3 children; 1 dependent
(III) 7 Children; 1 dependent
(IV) 5 Children; 3 dependents.

Tax Rate: 5/- on the first £100 and rising by 1/- in each slab of 100 up to 12/- in £900.

High Income Family: Income £3,000; other facts are the same as before.

<table>
<thead>
<tr>
<th>Low Income Group Family</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husband</td>
<td>£197</td>
<td>232</td>
<td>188</td>
<td>188</td>
</tr>
<tr>
<td>Wife</td>
<td>197</td>
<td>232</td>
<td>188</td>
<td>188</td>
</tr>
<tr>
<td>Dependent(s)</td>
<td>60</td>
<td>66</td>
<td>50</td>
<td>34</td>
</tr>
<tr>
<td>Child/Children</td>
<td>65</td>
<td>66</td>
<td>45</td>
<td>55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Income Group Family</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husband</td>
<td>401</td>
<td>447</td>
<td>345</td>
<td>339</td>
</tr>
<tr>
<td>Wife</td>
<td>401</td>
<td>447</td>
<td>345</td>
<td>339</td>
</tr>
<tr>
<td>Dependents</td>
<td>280</td>
<td>344</td>
<td>225</td>
<td>194</td>
</tr>
<tr>
<td>Child/Children</td>
<td>265</td>
<td>344</td>
<td>218</td>
<td>201</td>
</tr>
</tbody>
</table>
left for each individual and vice versa; and the corollary of this finding is that the lower income groups are more affected by this discrepancy. We shall return to it later. In the second case, with the limitations on the amount of flat rate family allowances, the imputed income of certain children (excess of three) as well as of the dependents (excess of one) receives no minimum exemption for subsistence even if the excess of the allowances granted to the other members of the family (husband and wife, one dependent and any three children) over their share of imputed income is transferred to the other individuals’ (children in excess of three and dependents) share of income.

By way of a corollary of the first finding, it may be argued that the fact that the higher income-group family members have a high level of imputed share of income would mean that the flat rate family allowances and their post-tax value is less at high income levels than low income levels for a family of any given size. Clearly, as the family allowances are scaled at flat rates, the benefits to the higher income group will be at a lower rate than those to the lower income groups as we have seen earlier on. The snag is that if the benefits and the level of post-tax income are plotted, it may be found that the rates of benefits for each individual (with imputed share of income) in the low income group are not sufficiently progressive, hence this argument is not convincing especially when it is seen in the context of limited allowances for children and families’ dependents (children allowance allowed only up to three children, dependent’s allowance for one dependent and a marriage allowance in respect of only one wife).

What appears to be the more appropriate solution in any such analysis for a less-developed country is this: take the present basis of family allowances and split the total household income among the dependents on
either per capita or per maintenance-expenditure basis (inclusive of the share of savings), impute the given dependent and child allowance to each such person and examine the net effect for each such person in all the income groups to determine the degree of progression arising from the flat rate allowances for a limited number. In the former case the total income as well as the total dependent allowances will be divided equally, in the latter the maintenance expenditure for the adult male, the female and for the children will be taken in units (say 5:4:2 on the assumption that the special expenses for certain individuals are not taken into consideration on this basis, e.g. the child's educational expenditure) and against it will be balanced the marginal individual and family allowances (£550 marriage allowance, £60 dependent allowance, £100 for each of the first three children and nothing for the additional dependents, children and wives). Then the tax payable by each individual-recipient of the imputed share of income would have to be ascertained. On the basis of tax payable by the individuals in different strata of imputed income, the amount of personal reliefs given to the actual income-recipients and taxpayers would be ascertained.

Then by substituting the 'actual income' in the Numerical Examples 2 (A) to (C) by 'taxable income' i.e. actual income net of personal allowances, the redistributional change brought about, for taxpayers of different family size, by the budgetary process attributable to taxes on income can be ascertained. See Example 3 (B) below.

Section (4) Conclusions.

We have to consider at this stage the alternatives open to a government concerned only with income redistribution objective. In achieving this objective some measures may bring about regressive changes on some individuals at the cost of others. For instance, an individual with a smaller family
### Numerical Example No. 3 (B)

**Distribution of Pre- and Post-Budget (Relating to Income Taxes) Income Among Taxpayers and Dependents**

<table>
<thead>
<tr>
<th>Income Stratum</th>
<th>Actual Number of Dependents</th>
<th>Expenditure on Dependents</th>
<th>Personal Allowances</th>
<th>Taxable Income</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100</td>
<td>100</td>
<td>(20+15+10+9+6)</td>
<td>60</td>
<td>40</td>
<td>.......etc.</td>
</tr>
<tr>
<td>100-300</td>
<td>200</td>
<td>(30+20+16+13+11)</td>
<td>90</td>
<td>110</td>
<td>.......etc.</td>
</tr>
<tr>
<td>300-800</td>
<td>700</td>
<td>(70+60+55+50+45+35+25+15)</td>
<td>400</td>
<td>300</td>
<td>.......etc.</td>
</tr>
<tr>
<td>800-1500</td>
<td>1300</td>
<td>(160+140+130+120+105+80+65)</td>
<td>800</td>
<td>500</td>
<td>.......etc.</td>
</tr>
</tbody>
</table>

It will be noted that the expenditure is the basis of personal allowances; the amount of expenditure shown is however only hypothetical and may well vary from that shown above.

Further adjustments in respect of 'tax shifting' and 'expenditure absorption' can be made as in Example 2 (B). Then the static results can be converted into dynamic form as shown in the following tabulation:

<table>
<thead>
<tr>
<th>Stratum of Income</th>
<th>Actual Income</th>
<th>Personal Allowances</th>
<th>Taxable Income(t₀)</th>
<th>Actual Income(tₙ)</th>
<th>Taxable Income</th>
<th>Net Change in Income</th>
<th>Change in Taxable Income</th>
<th>Change in Net Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4) = (2-3)</td>
<td>(5)</td>
<td>(6) = (5-3)</td>
<td>(7) = (4-2)/100</td>
<td>(8) = (8-6)/100</td>
<td>(9) = (8-6)</td>
</tr>
</tbody>
</table>

may find his tax burden relatively higher than the one with a considerably large family. No generalisation can however be made as the orthodox theory would seem to make as to whether the redistribution from the relatively well-off income recipients in monetary sector to the relatively poor, indigenous people in the subsistence sector. Which aspect of the income redistribution devices, viz. highly progressive tax, expenditure or budgetary rates for a given level of income, family size, incidence etc. would be used by the government depends on the
conditions prevalent at a given time. Thus, if the prevalent conditions indicate that tax shifting phenomena are inoperative, it would not be a right procedure to assume that a certain proportion of income tax is shifted from where its impact is first felt. Again, if the accrual of income to various income groups in a growing national income is not a significant factor, there may be no need to analyse income redistribution through income tax in a dynamic context, and so on.

The resultant tax, expenditure and budgetary rates may, for the sake of argument, be as follows:

**Table II**

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Number</th>
<th>Pre-Budget Income</th>
<th>Marginal Rate of Tax</th>
<th>Marginal Rate of Expenditure</th>
<th>Marginal Budgetary Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 100</td>
<td>5000</td>
<td>250,000</td>
<td>$z_1$</td>
<td>$z_1$</td>
<td>($z_1 - z_1$)</td>
</tr>
<tr>
<td>100-300</td>
<td>300</td>
<td>60,000</td>
<td>$z_2$</td>
<td>$z_2$</td>
<td>($z_2 - z_2$)</td>
</tr>
<tr>
<td>300-800</td>
<td>200</td>
<td>120,000</td>
<td>$z_3$</td>
<td>$z_3$</td>
<td>($z_3 - z_3$)</td>
</tr>
<tr>
<td>800-1500</td>
<td>180</td>
<td>180,000</td>
<td>$z_4$</td>
<td>$z_4$</td>
<td>($z_4 - z_4$)</td>
</tr>
<tr>
<td>1500-2500</td>
<td>120</td>
<td>240,000</td>
<td>$z_5$</td>
<td>$z_5$</td>
<td>($z_5 - z_5$)</td>
</tr>
<tr>
<td>2500-4000</td>
<td>50</td>
<td>150,000</td>
<td>$z_6$</td>
<td>$z_6$</td>
<td>($z_6 - z_6$)</td>
</tr>
</tbody>
</table>
There is also a completely distinct reason for treating tax on wealth as a tax on income. N. Kalas argued in "The Income Burden of Capital Taxes," Review of Economic Studies, 1942, that such a tax is payable every year, hence it is a tax on income. Whilst A.T. Peacock, op.cit., appears to support the view that recurrence of annula liability makes a tax on capital a tax on income, R.C. Treats "A Wealth Tax is a Wealth Tax," British Tax Review, December, 1963, does not think that recurrence of tax liability annually is a sufficient condition to make it a tax on income.


For a practical example of shifting of company taxes in a less-developed country in Tropical Africa, see I.B.R.D., Economic Development of Uganda, Government Printers, Entebbe, 1962, p.66: "While in the first instance the
(9) contd.

recommended change would increase the apparent tax burden on the individual shareholders, the change would ultimately lead to some revisions in dividend, price and wage policies, so that the weight of the additional tax on dividends would eventually be spread among shareholders, consumers and wage earners."


(11) The way in which the imposition of tax makes labour react in a certain way will affect the rates of wages of those who do not react to the imposition of tax and bring about shifting of income tax. This point is dealt with by R. Goode, "The Income Tax and the Supply of Labour, op.cit. and Rolph and Break, Public Finance, The Ronald Press Company, New York, 1961, pp.166-68.


(15) It is legitimate to throw other taxes into ceteris paribus or 'sterilise' other variables so long as we make clear the monetary framework within which we are working. Earl R. Rolph, Theory of Fiscal Economics, Berkeley, University of California Press, 1954, did not do so as J.M. Buchanan points out in "The Methodology of Incidence Theory," in his collection of essays under Fiscal Theory and Political Economy, Chapel Hill, The University of North Carolina Press, 1960, p.126. See also J.F. Due, "Sales Taxation and the Consumer," American Economic Review, December 1963, where the illegitimacy of sterilising other variables is mentioned. So long as we trace monetary expansion which eliminates the tax-expenditure consequences on effective demand, we are free of what Buchanan, op.cit. pp.142-43, calls the error of throwing into ceteris paribus "those magnitudes which must co-vary with the action variable."

(16) For this kind of analysis see J.F. Due, Government Finances, op.cit. pp.218-226.


(18) Trade Unions are strictly controlled by the governments in Ghana and Tanganyika.
(19) J.M. Buchanan, op.cit., discusses the contribution of J.F. Due and that of Gianno Parmavinci's on somewhat sophisticated basis as in "La Methodologia della teoria dell' incidenza", Studi Economici, December, 1955; Buchanan, pp.130, 137, 149.

(20) That is what Mrs. Ursula Hicks appears to mean when she makes a rather cursory remark that income tax may raise output prices under monopolistic conditions if the authorities are too complacent about their monetary policy. See Public Finance, Oxford University Press, 1955, p.138, footnote 2.


(25) D. Dosser, op.cit., p.584, footnote 1: ".... This refinement would complicate matters too much at present, so we shall tacitly assume that gross shares will not change if the overall rate of growth does not change."

(26) D. Dosser, "Towards International Theory of Public Finance", Kyklos, 1963, p.27, "There is a further problem which besets static, national, incidence theory and we cannot escape from it - the distinction between incidence and output effects."

(27) D. Dosser has relied on the pre-tax and ex-tax distinction drawn by Carl Shoup in "Theory of Public Finance - A Review Article", American Economic Review, 1959, pp.1019-20, and has, like Shoup, opted for ex-tax situation. Neither of them however makes it clear as to how exactly they would analyse "differential incidence" which in itself assumes at least one set of observable data. For instance, effects of sales tax on output, etc. are taken to be already known when differential effect of income tax is being ascertained, despite the fact that both of them appear to be strong supporters of differential as against specific incidence, Dosser, "Incidence and Growth Further Considered", op.cit., p.550; Carl Shoup, "Some Problems in the Incidence of the Corporate Income Tax", op.cit., p.460.

Indeed, it would appear that if incidence were to be examined in the ex-cum rather than pre-post tax context, they would have to rely on specific incidence in a highly theoretical context than pre-tax, post-tax context as we wish to do. Our concept of specific incidence is based on the fact that pre-tax position is already known and on this basis we try and assess the specific incidence plus associated, simultaneous monetary changes of a change in taxes on income. For an approach along similar lines as ours see H.H. Hinrich, "Dynamic Regressive Effects of the Treatment of Capital Gains on the American Tax System", Public Finance, 1964, pp.73 and 82.
(28) That the dynamic incidence theory put forward by Dosser had been concerned simply with the ex- and cum- tax incomes rather than ex- and cum- budget incomes is obvious in "Tax Incidence and Growth," p. 581, footnote 1: "... we do not postulate a no-government situation, such as has been used in estimating the redistributive effect of total government fiscal activity and which has suffered Prest's strictures."


(30) In terms of stabilization objective the income taxes are known to be automatic stabilizers in macroeconomic static-analysis, whereas in terms of redistributive objective they are not known to be automatic-redistributors. In a dynamic context, progressive income taxes in the sense defined here are capable of being automatic redistributors once the 'correct' income-size and rates are ascertained as argued by Dosser, "Tax Incidence and Growth," op. cit., pp. 586-91; but the same taxes may in fact 'overshoot the mark' in offsetting upward movements and thereby upset the pattern of equilibrium growth and fail to operate as automatic-stabilizers as proved by A.T. Peacock, "Built-in-Flexibility and Growth," Stabile Preise in Wachsender Wirtschaft, Gottfried Bombach, ed., Tübingen, 1960, p. 217. The latter author has pointed out that the ability of automatic stabilizers to stabilize the economy would depend on the sort of model and the 'institutional and behavioural assumptions' one is making in the model. The former, therefore, adjusted his first growth model in "Incidence and Growth Reconsidered," to allow for institutional assumptions such as the expansion of the space research programme or the foreign aid and in so doing introduced government expenditure parameter.

It is however not clear whether the extension of the original concept of tax- rather than budgetary- incidence does indeed mean that he accepts the view that redistributive changes brought about by all taxes are conceptually immeasurable owing to conflicting assumptions made in doing so. Put differently, does he now postulate no-government situation?

(31) C. Shoup, "Problems in the Incidence of the Corporate Income Tax," op. cit., indicated that we might have to abandon the term 'incidence' but for the fact that it has already stayed with us to be discarded. It should therefore be as a "fixed asset" used to derive a quasi-rent. It has indeed much more use than simply for deriving quasi-rent as it has in fact led us to discard the term 'effect' unless used in a special sense, i.e. where consequences of a given tax on output are already known to us and are not liable to alter, or where 'incidence of effects' is a la Musgrave, op. cit. neutral.

progressive tax rates, it follows that the general benefits of government are not proportional to income but regressive against income. A proportional tax on income might be regressive if measured against the psychological pains of the taxpayers; but government benefits proportional to income are also regressive if measured against the psychological pleasures of the beneficiaries..."
Other conceptual basis of imputing government benefits are considered by R. Tucker, op.cit., pp.525 et-seq. where he attempts to allocate the amount of expenditure not allocable to specific groups of individuals either because of conflicting theories and deficient statistics and then deals with government expenditures for which other measures of distribution are available. He deals with the former by allocating them on four different assumptions: "that they were equal for each person; that they were proportional to total income or ownership of property; that they were proportional to total consumption; and that they were proportional to the ownership of the "capital" or income-producing property". He then assigns the benefits of the latter type by, for example, relating farmer's welfare benefits on the basis of farm income and education expenditure according to the number of children in each income bracket. See also J.H. Adler, op.cit., for various different ways of allocating the benefits of government expenditure to the income brackets.

Machiko Kubo in "Income Tax Progression in Great Britain", Public Finance, 1955 takes the same approach in relating income tax revenue to the public expenditure. Like us he assumes that "each budgetary item is financed by revenue from all the sources in the same proportion as they are in the total revenue". He, however, also tries to see if income redistribution would be affected by an alternative assumption that if "these (social) services were financed solely from income tax the progression would still be better."

As to this point see Musgrave, Public Finance, op.cit., p.188. This Kuznetian view of dividing services between businessmen and final consumers is completely arbitrary and not acceptable.


One need not exaggerate the importance of defining the taxable unit in less-developed countries as even in the developed economics once the family size is taken into account in its relation to the level of income, the conclusion as regards redistribution might well have to be altered. Thus compare Musgrave et al. in "Distribution of Tax Payments by Income Group: a case study for 1948" in National Tax Journal, March 1951, with Beaton,"Family Tax Burdens and Income Levels," National Tax Journal, 1962. Even though the assumptions in the latter study are substantially the same as in the former (except of course for family size) their conclusions are somewhat different.

Further, the possibility has been raised by H.W. Groves, "Distribution of Government Benefits and Burdens," op.cit., p.537, of measuring progress on a per capita basis arising from the fact that the statistics of tax burdens by spending units attempt to compare the incomparables like the relative progressivity of tax on families not only of different size of income but also of different size of family. This had been however discarded by the author on the grounds that it "would ignore the important fact that the recipients of income do not fully share the power and benefits of their intake with their dependants".
In our view the conditions in less-developed countries are not the same, hence the author's view for the rejection of measuring progression on per capita basis is not tenable in the context of our analysis. Lydall, "Long Term Trends in the Distribution of Income by Size," Journal of Royal Statistical Society (A), 1959: According to Inland Revenue practice the income of a married man includes the income of his wife; and tax units, therefore, consist of single persons (with incomes above the exemption limit) and married couples, together with their dependants. It is arguable that a more satisfactory unit of account would be the household or the family and some students of this subject have striven to allocate all income to individual persons, including children...." Also, see Lampman, "Effectiveness of Some Institutions in Changing the Distribution of Income," American Economic Review, May, 1957: p.524. "If the families were re-ranked on the basis of income per person, the lowest deciles would be dominated by the families with children...." and p.529 "Families of different sizes may be placed in 'equivalent income groups' and effective rates of tax may be calculated for each family size in each group. This method reveals a family allowance effect in the tax system arising out of the personal income tax exemptions. This effect is masked in the income bracket measure of progressivity. The family allowance effect is hard to reconcile with the income equalization measure since it is capricious with respect to that measure."

We feel that this question as a pure theory problem in tax equity has received very inadequate attention as it is often attempted halfheartedly with a built-in bias that children allowances ought to be restricted and the dependents eliminated in number on the grounds that if population is an endogeneous variable in the growth models (as in the Malthusian case), it ought to be curtailed by tax disincentives which reduce the propensity to have children. Thus before the theoretical bases are thrashed out, value judgments as to the feasibility of so doing on conceptual basis as well as to their undesirability on the grounds of social policies begin to creep in. The analysis is not clear-cut and the question of priorities is decided rightaway before the analysis is carried out. See for instance, A.R. Prest, Public Finance in the underdeveloped Countries, op. cit., pp.81-83.

This conceptual basis becomes more justifiable when the purpose of these exemptions, namely to provide the subsistence minimum level of income free of tax is taken into account; the ultimate aim is to provide the minimum funds for bare maintenance. Thus consumption and the families having economies of scale with large consumption units will automatically be built into our analysis under this concept. A.R. Prest, op.cit., p.274, footnote 2, does specify this point but does not take it further for the reason which is completely unacceptable to us. He seems to indicate that as the whole purpose of allowances is centred on marriage allowance and as the unmarried couple would probably eat outside and the married couple at home the analogy would be untenable. As we indicated before the purpose of
This discussion is centred around not only married couples but children and the dependents as well. Even so, it is not uncommon for married couples to forego the economies of scale in the household expenditure on food and instead eat outside, nor is it uncommon for the unmarried individuals to eat outside in places where economies of scale are equally enjoyable (e.g. eating at the club) or recover the loss of economies of scale from the Inland Revenue by charging the expenditures on meals (in so far as it is possible) to the business expenses account allowable by the Inland Revenue!

Thus, see for instance: W.J. De Langen, "The Assessment of Members of One Household" in Public Finance, 1956, p.134, where he says: "In French law... we find a quotient of two which, obviously, is not based on statistical data mentioned above (referring to "the family quotient reflected in some tax laws by the difference between the minimum cost of living - for a bachelor and for a couple - that is free from income tax...") and is too high when comparing a married couple with a bachelor living alone..." 

In so arguing we are not thereby accepting fully the rationale of the 'quotient' system in France and elsewhere as we agree with A.R. Prest, op.cit., p.273, among others, that the 50-50-splitting is not really the right kind of the answer. We however feel that the splitting need not be restricted between husband and wife but be extended to children as well because we don't distinguish between the husband and wife living together as a family and his children and dependents also living together in the social context of the less developed countries where the children also provide the household services just as the housewife does. Clearly whether quotient or joint system is used depends on a matter of judgment in the particular circumstances of the country and whether children are included or not depends on the same criterion.

Thus if children are included in the 'quotient' system, clearly their taxable capacity would be determined by the cost of living of the family (which is lower than the sum total of each person's cost of living as cohabitation increases the possibility to satisfy wants) plus the imputed incomes of the members of family who are not occupied in earning cash income. As an example of the value of the scales of expenditure the Vienna scales (W. de Langen, footnote 42 above) may be cited: 0.7 for the man and 0.6 for the woman of 15 and 16 (scales for children below 14 varying from 0.1 for 0 to 3 years rising by 0.1 for every three years up to 0.5 at 14); 0.9 for man and 0.7 for woman of 17 and 18; and 1.0 for men and 0.8 for the woman of 19 and older.

This is not to say that no study of the family tax burdens and income levels as such exists. Indeed, an attempt has been made to ascertain the effective tax rate on the family of the same size at various levels of income by Beaton, "Family Tax Burdens and Income Levels," op.cit.,
Our approach is however different as we attempt to analyse the burden of income tax only rather than total tax payments and also we analyse it for each family member rather than the family of the same size.
CHAPTER TWO

Income Tax, Resource Allocation and Growth

Section (1) Introduction

It is the primary concern of this Chapter to consider the resource-allocating or resource-creating consequences of aggregate income taxes as one of the fiscal policy tools for inducing growth in a dynamic setting in the less-developed economies of Tropical Africa. The conventional views as to resource allocating in developed 'western' economies fall mainly in two categories: first, micro-economic theory as to the maximization of social marginal utilities or the maximization of production under the given physical productivity; second, the macro-economic aggregate Keynesian view of the maximization of social propensity to consume and the maximization of real income through the 'multiplier effects.' It should be noted that this is a highly aggregated view dealing with the private and public sectors of the economy and that some discussion of differential consequences of taxation within different sectors of the private economy is worth investigating. In doing so, it would be a fruitful line of approach to examine critically this aggregative view and suggest some alternative basis of resource allocation through income-taxes before proceeding in Section (2) and the rest of the Chapter with analysing the consequences of income taxes on labour supply and use, on the supply of and demand for technical change, entrepreneurial skills, etc.

A. Resource Allocation in Developed Economies.

(i) Micro-Economic Theory. In terms of static analysis, one of the
principal reasons for government activity in the private sector is that the ability of the government to provide certain requisite services (e.g. irrigation or malaria eradication) in sufficient volume and thereby absorb the available external economies is higher than that of the private sector without taxation. 'Justifiable government intervention' of this nature has to be distinguished from one where government provides 'collective' wants without covering its operational costs, i.e. from social wants to which the exclusion principle does not apply. What we have in mind is something like an irrigation project where the service is a merit want from the consumption of which those who do not pay can be excluded but which also has a slight element of social want.

The government intervention as between the private sectors of the economy occurs, according to the micro-economic theory, in two main forms: ² those who benefit from the external economies are taxed and those who lose through external diseconomies are reimbursed; producers facing increasing returns to cost are subsidized in the form of some lump sum or conditional subsidy based on the utilization of some factor input such as capital or labour or on the amount of output. The argument in favour of intervention of this nature is that under the conditions of external economies and small scale industries the marginal allocation of resources does not ensure optimality of production.

(ii) Macro-Economic Theory. On the other hand, at Macro level the same problem of Allocation Branch is seen as one of allocation between consumption and investment use of resources in an economy at full employment level. In this case government intervention is justified not on the grounds that the consumers derive more utility from government services than they would do otherwise from the consumption of similar private services, but on
the grounds of an increase in social marginal propensity (or rather productivity); it can, through income absorption or expansion by means of the tax changes, so adjust the consumption and investment use of resources as to induce more growth than would be the case if the sum of net disposable income were left at the same level as before. Thus, for instance the distribution of net disposable income which contains a high marginal propensity to consume for a great majority of the consumers in an economy may be such at a given time that the entrepreneurs are either unwilling or unable to increase the level of investment. In such circumstances, although the net disposable income is not in excess of goods supplied, the growth capacity is not likely to increase so long as the existing stock of capital equipment has little extra capacity. The entrepreneurial decisions may be affected by government policy in several ways, e.g. government investment with external economies may induce entrepreneurs otherwise not willing to expand to make extra investment to avail themselves of external economies; alternatively reduction in income tax or company tax on entrepreneurial profits may do the same trick.

In other words, it may be prudent for the government to reduce temporarily a given level of net disposable income and consumption by increasing tax on those with high marginal propensity to consume and reducing taxes on those with high propensity to invest. If there is, therefore, a clear-cut case that the government expenditure by way of autonomous investment out of such taxed revenue will give rise to an increase in private autonomous investment and capacity growth, then there is justification, from resource allocation viewpoint, on the part of the government to tax income of those with high marginal propensity to consume and reduce the level of net disposable income. Whether or not government should intervene where the resource allocation of this type is between private and public sectors is one thing but the government
intervention as between private sectors is quite another. Any intervention of the latter type would fall in three categories: as between different consumers; as between different types of investors; and as between consumers and investors. As for the second category, if the nature of the effective demand of some of those in the private sector is such that they make decisions to demand consumer goods of an industry with no excess plant capacity, it may be advisable to tax such consumers and redistribute it to those who demand goods of producers who have such excess capacity. As for the intervention as between different types of investors in a given economy, if an entrepreneur with an excess capacity makes a decision to increase his investment, he may be given tax concessions as against another with little inclination to expand beyond a given point with no extra capacity. Finally, resource allocation from a consumer to investor under the equilibrium condition of effective demand being compatible with supply of goods and services may be desirable when the entrepreneurs are seeking to expand but the rate of profits in the past has been such that they cannot do so under given rates of tax levels, e.g. company tax or income tax on businesses.

B. Resource Allocation in Less Developed Economies of Tropical Africa.

Aggregate income taxes in less developed economies are raised where government intervention is desirable on the basis of micro- or macro-economic arguments, i.e. where economic productivity of the economy is likely to be higher than what it would be in the absence of government intervention. In so doing the government seeks to induce private sectors to smooth out disharmonies between various factors of production; it takes it for granted that the supply of capital equipment is inadequate, hence tax concessions on the supply and utilization of capital equipment are desirable from both micro- and macro-economic points of view. From the former view point, tax
concessions on the utilization of a given factor input, viz. capital equipment, will encourage producers to combine it with an abundant factor-input (such as labour) and raise output; and from that of the latter concessions on the use of capital will, given an adequate level of effective demand, raise the level of real income through the multiplier process.

It is the principal argument of this Chapter that both macro- and micro-economic arguments are based on certain unrealistic assumptions and over-generalizations drawn from the theory of economic development which is very much built up on the bases of such macro-and micro-economic theories in developed economies. For instance, the argument as to the excess of marginal government productivity over marginal private productivity is based on an unrealistic assumption as to the given production function; however in reality production function could indeed change through time. Again, in the case of macro-economic theory which has produced Harrod-Domar dynamic models as its off-shoots, the assumption as to the constancy of capital-output ratio is equally unrealistic. The most serious shortcoming of such an analysis is that discriminatory taxation of income through concessions to capital users as against non-capital users is that it is an inefficient or ineffective device to induce private sectors to smooth out disharmonies between various given factors of production and that some other form of inducements through various forms of taxes on income should be devised. Although there is adequate evidence as to the ineffectiveness of tax concessions on capital in inducing growth in the form of variability or drastic fluctuations of capital-output ratios in the Tropics, several hypotheses as to the possible effectiveness of other forms of tax inducements, e.g. tax concessions on the supply and utilization of labour, entrepreneurship, technology, etc. are difficult to verify empirically. However, now that income taxes have become permanent
features of government finances the world over and particularly in Tropical Africa (with all their faults such as efficiency-distorters in a free market economy, theoretically discriminatory in favour of capital users, etc.), it is worth considering how, given their existence, they could be improved upon and utilized for inducing growth. It seems difficult to evolve alternative bases of inducements but we try to overcome the difficulty for the time being with the aid of a critical examination of the existing theories of growth in developed countries.

C. Alternative Bases of Resource Allocation. Most of the modern theories of economic growth are based on the interpretations of the Harrod-Domar model which is in turn concerned with the explanation of the role of technological change because it is felt that if technical change can be made one of the variables in the production function some conclusions can be drawn about the growth of the economy analogously with the growth of a firm.

Diagram 2 which shows a classical production function below will help us illustrate our next argument about movement along and shift of production function.

![Diagram 2](image-url)
Under the assumption of a factor homogeneity the capacity growth as a result of the factor use 'widening' stops at X because under the Classical Production Function diminishing returns to scale set in as shown in Diagram 2 'A'. At this stage the Growth from X onwards can take place only by technological change or by the change in the characteristics of the homogeneous factor of production (e.g. the labour skill may improve or there may be a change in the quality of the capital stock, say it is less susceptible to the laws of physical constraints thereby demanding less fuel input) and in consequence the classical production function may be transformed into, say, Cobb-Douglas function with constant returns to scale. On the other hand, growth from Y can take place either by the technological change (as shown in Diagram 2 'B') or by the expansion of capital or by more intensive use of the surplus factor of production, (as shown in Diagram 2 'C') or both (as shown in Diagram 2 'B'). The change in output by the expansion of capital in essence means the capacity expansion and the change in output by the use of labour (surplus) means expansion through factor substitution. The first problem in dealing with the theory of growth is therefore that growth may be brought about by three different factors, viz., expansion of homogeneous factor inputs, technical progress and/or the combination of both. The change brought about by the technical progress is a conundrum to solve especially where a growth in output occurs as a result of a combination of the expansion of given factor inputs and the technical change itself.

In practice for a growing economy the strategic importance of the various factor inputs is difficult to define where growth takes place as a result of expansion in the stock of given factor inputs (factor input intensity or movement along a given production function) as well as improvement in the quality of the variable stock of inputs (technical progress).
Certain ways have been devised for the purpose of drawing conclusions from this sort of economic phenomenon and these fall in three groups. But before touching upon these three different schools of thought it is perhaps more appropriate to mention some elementary factors which affect a study of such a phenomenon. Thus, the first problem is that of taking into account the prices of factor inputs which may affect the process of growth in such a way that the contribution of various factor inputs in bringing about growth may become difficult to assess. Furthermore, in dealing with the whole economy rather than a single firm to which the classical theory of production function was meant to apply, it is no longer possible to analyse the problem in terms of the growth of one output as the product or final output may change with technical change.

Various studies on the theory of growth and the role of technical change therein are too well-known to review here. What they generally emphasise is the contribution of factors other than physical capital. Anyone who is very much preoccupied with the idea of improving upon the existing system of income taxation is then prompted to ask whether or not some alternative basis of resource allocation ought to be devised. For instance, it sounds logical to take 'output per unit of available inputs' as a criterion for tax inducements to producers who in turn would be ensured that the inputs are indeed available in adequate supply. The availability of requisite factor inputs could be ensured by offering tax concessions as an inducement to the owners of stocks of inputs to convert such stocks into flows or indeed
increasing the stock of input itself as a potential source of flow in future. At this stage one need only point out the obvious implications of such a tax policy. Firstly, such a system of income taxes would have differential consequences on various sectors of the economy in the inducement of growth. This point should not perhaps be belaboured as it will become clearer in the rest of this Chapter. Secondly, it will enable us to make clear generalizations as to the consequences of the alternative income tax policies on the level of growth in rather two different senses. First of all, it will enable us to make generalizations, which, but for the critical examination of the theories of economic growth, are thought to be difficult ones to make. Further, consequences of replacing concessions on the use of physical equipment by concessions to innovation or those of taxing and subsidising labour-intensive industries at the cost of capital-intensive producers, on both the level of growth and different factor shares. Secondly, it enlightens us as to how misleading what are at present generally considered to be consequences of some current tax policies, e.g. concessions to physical capital are (further see Appendix 'A').

Once the question of reallocating the given resources in raised, we are immediately faced with the question of prices that are to be used. There are two ways of valuing national output: (i) on the basis of production potential or efficiency standard; (ii) on the basis of welfare standard. In the case of the former, under perfectly competitive conditions the prices of any two products are inversely proportional to the corresponding "marginal rate of transformation" and the m.r.t. represents the rate at which, at the margin, one product may be transformed into another through reallocation of factors between industries. In the
case of welfare standard, prices generally correspond to consumers' marginal utilities. Where an investment good is concerned, prices depend on the discounting of future returns at the prevailing rate of 'time preference' of those making the investment decision. The efficiency and welfare standards are independent and either may be realized without the other. If it so happens that the community produces a 'bill of goods' which is 'optimal' from the standpoint of welfare, prices will conform to both standards simultaneously. Under such circumstances the calculation of national output in terms of either standard will provide the basis for productivity or welfare.

In a planned economy however these conditions of a free enterprise economy do not prevail. Resources in a planned economy are allocated in accordance, in some measure, with planner's preference. Welfare is then understood in terms of the planners' preference, rather than consumers' preference. Valuation is in terms of the planners' 'marginal rates of substitution'.

In the context of Tropical Africa and perhaps also elsewhere, the economic system tends to be a combination of a free enterprise and a planned economy. The tax system is then liable to be used as an inducement and may be, more often than not, 'directly selective, industry by industry, and product by product' and this 'may be tantamount to detailed central direction by the government.' In such a case, the prices will be based more on the tax planners' preferences and as the planners' preferences tend to be based on the allocation of optimal output, prices could be said to be based on planners' 'marginal rate of substitution' (production potential equivalent of a free enterprise economy).
Although it is fairly obvious that only those producers who achieve maximum growth per unit of input will experience the consequences of changes in the existing income tax policy, it would be a useful exercise to examine the consequences of discriminatory income tax policy on the supply of and demand for each of the inputs and then consequences of taxes on income, which are discriminatory with respect to given inputs, on the supply of, and demand for, or use of that given output because it is ultimately the allocation of such inputs that determines the levels of output. The consequences of income taxes on each input are analysed in this way on the bases of different assumptions, vis: tax consequences, budgetary consequences, static or dynamic, partial or general equilibrium situations. No attempt is, however, made to distinguish between consequences of taxes on income on the allocation of given resources and those on increasing the supply and utilisation of resources because such a distinction tends to be rather artificial. Thus in Section (2) the way in which the structural tax changes can be manipulated to affect the supply of labour and capital (of homogeneous nature) by the factor owners and the effective use of it for growth objectives needs to be considered in a dynamic context. The constancy of supply of any possible form of entrepreneurial ability and technical skills will have to be subsumed for the time being until Section (3). In Section (4) we extend this analysis of structural tax changes to an open economy and concern ourselves with the export growth capacity. In Section (5) we try to draw some conclusions from our analysis.

Section (2)

A. 'Effects' of income tax on Labour Supply and Labour Utilisation

In analysing the way in which income tax can be manipulated to increase the supply and utilisation of abundant labour resources, we have to briefly review the labour conditions in the Tropical African economies so as to explain what exactly 'surplus' labour is and also to rigorously establish the potentiality of taxes on income on inducing growth in different sectors of the economy.

(a) Labour Conditions in Tropical Africa

Unlike the West Indies, Mauritius or Fiji the actual supply of land is not quite so limited in the African economies as in those other countries, hence the form of surplus labour is not quite the same as elsewhere. The indigenous labour in the African countries, with adequate supply of land
is content with subsistence farming with low productivity during the non-harvest season. During the off-seasonal period, it may take up temporary employment for some target earnings, the size of the target earning depending on the status or ordinary condition of living of the peasant concerned. The economic development plans in these countries are primarily concerned with raising the agricultural productivity in order to release resources for other sectors of the economy. The inducement of cash earnings as such is not usually strong enough to make the peasants give up subsistence activity and even although no statistical data on the seasonal cash earnings and turning of labour are generally available, it is possible that the subsistence peasants are able to supplement their subsistence output with 'target' cash earnings in the off-season. In this particular context, therefore, surplus labour is primarily one that is either idle in the off-season¹⁶ (living on the savings of the immediately preceding period, i.e. by liquidating wealth) or is engaged in some casual activity such as hut-building or repairing with low yield, or one that seeks such off-seasonal employment with target figure for earning cash so as to supplement relatively low subsistence income. Now if the government developed plans for the elimination of subsistence activity and expansion of agricultural are to succeed, tax policies should be designed to enhance this particular objective of the government. Thus tax policies can first of all be devised so as to be effective in creating unfavourable conditions for subsistence farming together with seasonal employment targets, i.e. release sufficient labour supply from subsistence sector for the rest of the economy by reducing the returns to labour effort in the former through tax policy. Secondly, the tax policies can be adjusted to raise the output of sectors other than subsistence by creating conditions favourable for such released surplus labour.¹⁷ In this
context surplus labour is defined as one that is not only seasonally idle or is employed for a limited period for target cash wages to supplement subsistence output, but one that has lower productivity in the subsistence-cum-seasonal-monetary sector than its productivity in the rest of the economy.

(b) **Supply of Work Effort.** In analysing how the 'surplus' labour supply can be made available to those sectors in which labour substitutability is possible (i.e. where the opportunity cost of using labour for capital is lower), we must first be clear about the structure of the income tax which is to be applied. We have said previously that income tax structure in the Tropical African economies is generally graduated with income but that for the lowest income group there is no exemption for the subsistence minimum; it is a combination of flat rate for the lowest income group and a graduated tax for the rest of the income-recipients. Now the extra supply of seasonal labour normally comes from the subsistence farmers who have low incomes and who are aiming at target cash wages, hence the structure of income tax imposed upon them is bound to be a flat rate levy. In terms of static, partial equilibrium analysis, the flat rate tax (or the poll tax as it would be called under their analytical terminology) has no substitution effect and therefore has no disincentive effect to work effort.

In a growing economy with government expenditure operating simultaneously with the revenue raising the exact reaction of labour effort to such a tax charge cannot be determined. It is however realistic to assume that the share of labour in the growing national income is hardly likely to change over the short seasonal period of employment. This leaves us therefore with the static general equilibrium analysis of the reaction of labour to work effort. Here it is possible that the benefits of government expenditure may create a substitution effect for leisure as a result of
the full operation of the whole process of raising flat rate tax and spending it. Alternatively, the sum total of subsistence income and the target cash earnings of the off-seasonal period together may reach such a level that the rate structure of the peasant's tax liability under static partial equilibrium conditions becomes progressive.

In such a case it is again not at all possible to generalise, as in the conventional static partial equilibrium analysis, if the substitution effect (for leisure or return to the subsistence farm) would predominate over the income effect. This would depend on the effects of the government expenditure as well as the degree of rate progression from the flat rate levy to the graduated levy. Firstly, it is not possible to say with any precision if the income effect prevails either over the substitution 'effect' for leisure or over the substitution 'effect' of returning to the subsistence farm land irrespective of the level of income. Furthermore, in the case of a peasant with minimum level of income (which is least likely to grow in terms of the same input effort as before over the short-span of the off-seasonal period of three to four months), the poll tax is, as in the case of static partial equilibrium analysis, likely to have more income effect than substitution 'effect', while in the case of a peasant with a slightly higher level of income there is the possibility that the substitution 'effect' predominates over income effect. No such conclusion can be drawn as the benefits of government expenditure may be large enough to eliminate the disincentive effect of proportional or progressive taxes or create conditions for income 'effect' to prevail over the substitution 'effect'.

So much for retaining the seasonal employee who is trying to earn cash wages. One of the consequences of this policy may be that he can no longer supplement his subsistence income through occasional or random cash wage earning with a target figure, hence he would have to either raise his farm
income through cash crops or higher productivity or abandon subsistence farming. As for making the supply of more work effort from the existing pool of active labour force possible, the dynamic framework is applicable and even though the benefits of government expenditure are not adequate to make the income 'effect' exceed the substitution 'effect', the share of labour in the growing income may be the determinant factor.

In analysing the 'effects' of income taxes on the supply of labour in the short run such as one year, three different situations may be envisaged: static partial equilibrium situation where the 'effects' of proportional income tax is analysed _ceteris paribus_; the situation under which the government expenditure induces substitution 'effect' which is higher than what it would be under the _ceteris paribus_ case; and finally, the situation where government expenditure induces income 'effect' which is higher than what it would be under a partial static case. In analysing the long run situations the preceding three short-run situations may be so analysed as to allow for the changes in the level of income and the share of such income accruing to wage-earners. Thus, in effect six different situations may be envisaged in analysing the 'effects' of income taxes on the supply of labour. They are shown in Diagram 3 which is divided in six quadrangles, each representing a particular situation. The indifference curve maps on the left-hand side of the Diagram represent short-term situations and those on the right the long-term ones.

Diagram 3A represents partial equilibrium static case. Tax of _XA_ is imposed in proportion to income and consequently, the substitution 'effect' of _BG_ and income 'effect' of _FB_ are created. Consequently, substitution 'effect' exceeds income 'effect' and equilibrium level of income is finally established
Substitution and Income 'Effects' of Taxes on Income on Work Effort

Static: $(t)$

Diagram 'A'

Diagram 'B'

Diagram 'C'

Diagram 'D'

Diagram 'E'

Diagram 'G'

Diagram 'T'

Diagram 3
at OK, and not at OC which would have been the new level of income had both substitution and income 'effects' been equal. Depending on the marginal utility of income of the income-recipients, it is equally possible that income 'effect' might exceed substitution 'effect'. In Diagrams 3C and 3E, the effect of government expenditure is taken into account. In Diagram 3C, the substitution 'effect' is higher than in 3A and it exceeds income 'effect', which is nonetheless the same as in 3A. As the difference between substitution 'effect' and income 'effect' is however more pronounced in Diagram 3C than in 3A, the equilibrium level of income is at OK which is lower than OK in Diagram 3A. In Diagram 3E, the effect of government expenditure is to increase income effect from what it was in Diagram 3A to such an extent that it now exceeds the substitution 'effect', hence the equilibrium level of income is higher than in Diagrams 3A or 3C.

In Diagrams 3B, 3D and 3F, the dynamic effects are analysed and the substitution and income 'effects' are both expressed directly in dynamic terms in each Diagram rather than in terms of the specific increase of each of the 'effects' in relation to their given magnitude in the static case. As a result of an increase in Diagram 3B, of labour income from OK to OT over t-tₙ income 'effect' exceeds substitution 'effect' rather than substitution 'effect' exceeding income 'effect' as in the static case of Diagram 3A. Equilibrium level of income settles at OK rather than at OC where income 'effect' and substitution 'effect' cancel each other out. In Diagram 3D, the share of labour in growing or falling total income declines to OK from OT. This effect, together with the substitution
'effect' of tax as well as government expenditure raises substitution 'effect' to the highest point BG reducing the income 'effect' to the lowest point BF; and the equilibrium level of income settles at OK. In Diagram 3F the rise in the labour's share of income not only lowers substitution 'effect' (BG) as it stood in Diagram 3E but increases the size of the income 'effect' to BF and the equilibrium level of income reaches OK which is higher than in Diagram 3E.

In each of the above cases however if a flat tax (on low income recipients) of ST were imposed, the results would be different. In Diagram 3A, there would be no substitution or income 'effects'. In Diagrams 3C and 3D, the predominance of one form of 'effect' over another will diminish and in Diagram 3E it will increase. In Diagram 3E, the predominance of one form of 'effect' over the other will depend on the 'effect' of the growing share of income receipts, but if such an effect is the same as it is on labour in Diagram 3D, i.e. that of raising the initial size of income 'effect', the income 'effect' will again be higher in this case. In Diagram 3D, if the level of income falls from OT to OK instead of rising from OK to OT as it in fact does, the substitution 'effect' induced by government expenditure in Diagram 3E will not necessarily be cumulated as under the proportional (and a fortiori under the progressive) tax structure but perhaps neutralized as the minimum income recipient will probably need to compensate the gain in substitution 'effect' from government expenditure against loss in its share of growing or falling national income. In Diagram 3B, the rise in income may either mean that the poll tax payer will attempt to receive higher income in which case income 'effect' will exceed substitution 'effect' or else be contented with the existing level of net disposable income; or possibly put in less work effort as it is easier
to obtain cash for the payment of minimum tax.

The effect of cesses on the supply of labour effort would, in all probability be, to compel the subsistence producers to make more work effort during the crop season, and at the same time be a deterrent to return to subsistence activity from a casual cash employment at the end of the off-seasonal period. What exactly is the effect of cesses or export taxes on those already engaged in the monetary sector will be impossible to tell on a priori grounds but the same sort of possibilities exist, mutatis mutandis, as under progressive income tax in the analysis above.

The effect of including gifts in taxable personal income on the supply of labour effort would also be difficult to analyse as these effects in turn depend on how they are treated in the income distribution policy, viz. whether or not they are included in the pool of family income. Prima facie, taxation of gift receipts would not enable a casual cash wage-earner to withdraw his labour supply and return to the subsistence sector thus rendering the personal tax device more effective in monetizing the economy.

(c) Demand for Work Effort. The use of income tax in creating expansion in the utilization of labour effort must now be examined. In so far as the firms receive tax concessions for an extra use of labour, their variable cost of employing labour declines. The reduction in cost (with the same output as before) will mean that the expansion path alters. If what is implicit in the expansion path in diagram 4A is made explicit in the Total Variable Cost curve of the firm it will be as in diagram 4B.
Indifference Curve Analysis: Degree of Factors Substitutability

Diagram 4

If Diagram 4B is swirled around with the horizontal axis becoming vertical and vice versa, the new diagram 4C will be as shown above and the extent to which the expansion path is altered in its course and the law of the non-proportional returns reflected depends on the extent to which the firm uses this shift in the isoquants, viz. on the 'substitution' and the 'scale effect'. 'Substitution' will depend on the convexity of the iso-cost lines - more the substitutability better the increase in output especially where labour is an abundant factor. In so far however as the supply of labour is met with from within the firm itself, e.g. overtime, it pushes the income of the employees up and raises their MPS, thereby making expansion of savings and capital possible. As to the 'scale' effect, this may mean either an increase in the stock of capital or an improvement in the quality of labour, etc. Obviously, the expansion of capital means the economy can climb up on the upper point in diagram 5 from X to Z on the curve of the Production Function. Thus, if it were at point X with capital $k_1$ and output $y_1$, it can move up to Z with capital $k_2$ and output $y_2$. 
As to the form which the taxation of labour effort as well as concessions to labour utilizers ought to take, 'withholding tax' and 'tax holidays' may be found to be appropriate for respective purposes. For the purpose of obtaining maximum labour effort in inducing growth, 'withholding tax' would be the most appropriate substitute for P.A.Y.E. A system of direct deduction from income is emphasised here, as under the various possibilities of substitute 'effect' and income 'effect' analysed it is felt that in general the direct deduction will create conditions generally favourable for income 'effect' to prevail over substitution 'effect'. The relevance of this observation will become obvious in the next Chapter when the propensities of such income-recipients are analysed. As for concessions to labour utilization either direct subsidy or tax holiday can be used. In general however subsidies in favour of labour intensive industries are undesirable because as the economy develops tendency to use capital-intensive industries' manufactured goods also increase; subsidies also lack progression in rates which income tax incentives possess.

Such tax concessions could of course be extended to export taxes and cesses. They would however be proportional and would lack the element of progression.

The discussion so far of the effects of tax policy on labour utilization has concerned itself with the revenue aspect only. The analytical content of this Chapter is however the effects of the budgetary policy in relation to income tax and it remains to be seen how the revenue raised from income tax can be utilised by the government to achieve growth through
the use of 'surplus' labour. It is expected that the tax holidays to
labour employers would utilize what is otherwise non-storable 'surplus
labour' and help monetization of the economy. This process would be
further achieved by means of government projects such as road building,
marketing institutions, irrigation, etc. rather than by defence, foreign
representations, etc. Such projects not only enhance the process of
monetization but make utilization of 'surplus' labour possible. In so
far as their output changes through government undertaking are higher than
their output changes would have been in private sector in the absence of
taxation of income, and also by their consequences on labour supply by
subsistence sector, beneficial (i.e. one liable to cause income-effect),
economic growth is further induced.

B. Consequences of Income Taxes on the Level of Savings and its Use.

Next, the effects of income taxes on savings are to be considered.
The role of savings in the type of growth determine not only the amount of
capital investment but also the expansion and utilization of factor inputs
such as technical knowledge, entrepreneurial ability and, in the absence of
excess capacity of capital equipment, the utilization of 'surplus' labour
supply.

(a) Saving Habits in Tropical Africa. Once again a brief description
of the special characteristics of the process of saving in a Tropical
African economy, as of the characteristics of labour effort, ought to be
made. In the subsistence sector of the economy, there has been a lack of
financial institutions, as the expatriate commercial banks have been
located in the cash sectors of the economy. The illiteracy of the indigenous
population, and limited means of communication have not encouraged access
to such institutions, either for depositing savings or for borrowing.
The level of income is in any case so low that there is virtually no necessity to deposit any savings; whatever seasonal savings are made are usually hoarded rather than deposited. Although no commercial bank lending is made to the subsistence sector owing to the lack of title to land-holdings and private lending by traders to indigenous producers is illegal, the latter appear to grant consumer credit at times to increase their volume of turnover or to achieve higher value of sales through exhorbitant prices. What percentage of such consumer credit is used for the purchase of what is in effect capital good in subsistence sector is not at all ascertainable. These sorts of conditions fail to redirect whatever seasonal monetary savings occur, i.e., not directed into the monetary system to be eventually channelled into productive investment; and furthermore, virtually no borrowing facilities are either available to subsistence producers who are seeking to expand, or else such facilities are available at rather high costs. Whilst the rural financial institutions such as co-operative banks are in the stage of being established, it will be some time before their use by the subsistence sector will become prevalent, hence the necessity of relating the tax policy to the existing system subject to the changes envisaged.

In the monetary sector the expatriate commercial banks are commonly found with several branches but the indigenous population has not made much use of it during the alien rule. To illustrate, it has not been an uncommon practice to pay the salary of the clerical worker of the indigenous group in cash rather than by cheque. Likewise there is little lending made to the indigenous population unless some security is offered and very little of this is forthcoming. The lending policy for the non-indigenous population is also rather conservative as the commercial banking policy is to maintain a high liquidity ratio and restrict lending to short-term periods.
This sort of affairs necessitates the modification of the usual sort of analysis of 'effects' of income taxes on savings, in terms of substitution of consumption in one time period for that in another (e.g. present, instead of future, consumption) period, and conversely, and its extensions to allow for variations of work effort, for possible accumulation (rather than future consumption) of savings and so on. There is no need for us to go into the various refinements of such well-known analysis. Nor does it appear a fruitful pursuit to modify such micro-economic analysis in the light of saving habits in Africa because the possible line of approaching such an exercise in static, partial or general equilibrium, dynamic terms has already been demonstrated in dealing with the supply of work effort. Instead, it would be more useful to examine one or two aspects of the existing theories relating to the 'effects' of income taxes on savings. Firstly, it is fashionable for the critics of income taxes to argue that income taxes discourage savings and they suggest, *inter alia*, that this is because income from savings is taxed twice. Secondly, it is argued that income taxes do not curtail consumption of the poor sector of the population which is almost equal to their income, i.e. marginal propensity to consume of one. The former argument ignores the fact, as has been argued elsewhere, that it is the absolute level of savings which matters in the long run and that it would very probably be higher under income taxes than under expenditure taxes especially where the payment of the latter is not confined to a limited time period. The latter argument ignores the
fact that in a growing economy the M.P.C. of the various income groups will change over time with the growth in income of various consumers.

In view of these criticisms it is desirable to limit the analysis of 'effects' of income taxation on savings to the saving to dynamic situations relating to the saving group as a whole in a given economy. Moreover, in the light of our definition of income taxes which apply to income base inclusive of interest, it seems appropriate to limit the analysis of savings in terms of substitution 'effects' of income taxes on M.P.C. (or, in micro-economic terms, substitution of consumption in period \( t \) for consumption in period \( t_2, t_3, \ldots, t_n \) for future accumulation (or, in micro-economic terms, accumulation in \( t_2, t_3, \ldots, t_n \) for consumption in period \( t_1 \)).

The nature of the savings pattern in a growing economy can be illustrated in the following numerical example:
Numerical Example 4

Relationship Between the Levels of Income and Propensities to Consume and Save: Static and Dynamic Situations

Actual Levels

<table>
<thead>
<tr>
<th>Income</th>
<th>MPC</th>
<th>Savings</th>
<th>Income</th>
<th>MPC</th>
<th>Savings</th>
<th>Income</th>
<th>MPC</th>
<th>Savings</th>
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<th>MPC</th>
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<td>£</td>
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<td>1300</td>
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</table>

Changes

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<th>ΔIncome</th>
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<td>90</td>
<td>95</td>
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<td>159</td>
<td>100</td>
<td>81</td>
<td>100</td>
<td>81</td>
</tr>
</tbody>
</table>

Explanations: II and III indicate the shifts in MPC which may give rise to either $Y > S$ or $S > Y$.

IV indicates the change in the MPC of consumers in various income-groups as a result of the growth of income.

It may therefore be concluded that in a growing economy it is difficult to ascertain whether income tax reduces the incentive to save or not. It is however possible to encourage savings by granting specific tax reliefs on the income earned on savings, and we can now turn to deal with the way in which
this can be done in each of the sectors of the economy.

(b) **Supply of Savings in Relation to the Tax Mechanism.** Firstly, the seasonal monetary savings of a subsistence producer: if these are deposited in the financial institutions, the interest does not accrue until after the off-season period is over, hence the exemption of income on such savings (e.g. post office or co-operative bank interest) does not necessarily raise the incentive to leave the monetary economy. Moreover, the fact that the interest on such savings is either partly or fully exempt from tax is a further incentive to liquidate as little of it as possible. Thus, there would appear to be a good case for exempting interest on small savings. Secondly, the monetary sector: the Pension and Provident Fund schemes have already been operating to encourage savings among the public and private employees in some parts of Africa and if necessary further savings can be encouraged by exempting a certain level of Post Office Savings interest from income tax proper.

(c) **Utilisation of Savings.** Now we turn to the discussion of utilization of savings for acquiring fixed capital assets. The discussion in the previous sub-section was based on the assumption that there is a definite relationship between savings and the rate of interest, i.e. that if tax concessions increase the supply of savings and reduce the rate of interest, such savings will be utilized for investment. In reality there may be no such simple relationship and it is perhaps necessary that taxes on income influence investment decisions. Thus, although the reduction of interest rate through the effects of taxes on income may not be a sufficiently strong influence for the investors to increase stocks of fixed capital, taxes on income may, through provisions such as offset of losses and initial or investment allowances, influence decisions to invest or plough back internal profits of the firms.

The effect of the part of export taxes on those engaged in exports
goods-producing activity would be to reduce their income and hence the
level of private savings. But if export taxes are saved by the government
in the form of government reserves, these may have growth-inducing effects
in future. And if the present value of the government savings of export
taxes as reserves is greater than what it would be in the private sector
but for the imposition of export taxes, export taxes have a growth-inducing
effect in the long-run. The object of such allowances is to reduce the
degree of risk-taking and further to give specific incentives to invest
in capital equipment. The utilization of savings in the form of capital
equipment is desirable only if capital equipment is a 'strategically'
important factor input in the productive process. If not, in so far as
an entrepreneur avails himself of it through a mistaken business decision
to invest in capital equipment, tax incentives are not effective in
inducing growth or such tax incentives are simply built into the system and
are not made use of in practice. If latter is the case, the question
arises as to whether alternative tax incentives cannot be built into the
system.

The effect of the export taxes on investment would be to reduce the
rate of return to the producers. To what extent the rate of return would
be reduced however depends on the size of the productive enterprises. Its
effect may be such that it falls heavily on small marginal firms; the effect
may be so heavy as to squeeze such small, marginal firms out of business.

Even such a level of export taxes may however be justifiable if it raises
the government investment to a level which would induce a higher rate of
growth than that which would have been achieved by the small, marginal
firms but for the levy of export taxes.

In the rest of this subsection, in so far as it relates to the
revenue aspect, our concern is with the effect where taxable income includes capital gains, gifts, etc. on the supply and utilization of savings. First, as to the savings, the fact that the taxable income includes gifts receipts and accrued plus realized capital gains (with offsets for capital losses) has also to be taken into account. The extent to which the savings decisions are affected would depend on how far the activity of the saving class which previously escaped tax liability by diverting incomes on savings to capital gains had been the criterion to save. If this had been rather insignificant criterion of decisions to save, it is difficult to see if taxes on accrued or realized capital gains (with provisions for offsets of losses) would really affect, adversely, the decisions to save. Again, a great deal would depend on the rates of taxes on capital gains, viz. whether capital gains are taxed at the same rates as ordinary income and also on the way in which accrued capital gains are ascertained. If the rates of tax on capital gains are lower, it is probable that tax liability would not really be the criterion of decisions to save. As to the method of ascertaining the size of the accrued capital gains, the uncertainty thereof is probably one of the reasons why the effect of accrued capital gains on saving decisions is impossible to ascertain.26

The effects of tax on gift receipts are based on who the gifts are made to and also whether or not the gifts payments are deductible from taxable income. Obviously, if gifts are made to family members, these confer no gain in revenue on the government under the redistribution policy defined above. If gifts are taxable on the one hand and payments are not deductible on the other, the effect would be to discourage gift-making. Whether or not this would affect savings of the community in turn depends on what the gifts are usually made from (viz. current income or savings)
and also how the gifts received are utilized (dissipated or saved and invested). Thus no definite statement can be made in this respect except by empirical findings.

The effects of capital gains and losses on risk-taking in investment (defined in its widest sense as above) may now be introduced as the second point. For a moment, the analysis may be confined to the risk-taking element of investment in capital equipment only, as the risk-taking arising from investment in technical skill and knowledge, etc. can be considered below. The inclusion of capital gains in taxable income would normally reduce the degree of protection against risk-taking. If however there are adequate provisions for the off-setting of capital losses, accrued and realized, it is difficult to see if the taxation of capital gains would make much difference.

The income tax revenue so raised can be expended as to facilitate the proper channelling of the savings in the community, e.g. government participation or lending to the development corporations, banks, etc. rather than on health, diplomatic representations, defence, etc. but the priority of government expenditure here is not quite so clear-cut as for labour.

Section (3) The Role of Tax-induced Technical Change in Economic Growth.

The importance of technical change as a factor input is to be considered in both the subsistence and monetary sectors of the economy. In the subsistence sector, the supply of such a factor input and its utilization is possible only in a limited way through the tax policy; government expenditure is generally more effective than tax concessions. This is not necessarily the case with monetary sector of the economy and therefore we leave the subsistence sector aside for the moment and examine the function of income tax in inducing growth through technical change.
A. Problems. In an attempt to use income taxes as inducements for technical change there are certain problems which are bound to arise. The main problem is that even if the strategic importance of technical change can be ascertained in the process of growth, there are certain conceptual difficulties in effectively using income tax policy for its adequate supply and utilization. First of all it is difficult to judge the motivation for technical change. Secondly, the exact outcome of initial research expenditure is not as certain as say on the purchase of a new capital equipment. For instance, an expenditure of £x on technical research or improvement of labour skill or managerial ability may not produce any end-product or if it does the end-product may be more beneficial to somebody else. Thus, technical know-how is either useless to the firm making an initial outlay or is more useful to somebody else; the firms training the manpower skills and its employees cannot force them to continue in their employment in the absence of slavery in most of African countries. These problems do not however seem to provide the rationale for not using tax inducements as surely appropriate environmental conditions may be created for an anticipated outcome of technical research expenditure; and even if the end-product is not of much use to the initial outlaying-firm, it can be sold as a technical know-how through some form of institutional set-up (such proceeds can be taxed leniently perhaps as capital gains) and laws of contract of employment can be so modified as to make it obligatory for employees who were trained for skill by employers to serve for a minimum period after training, or else repay the cost of their training to their employers.

B. Untenability of Distinction Between Resource Allocation and Resource Use. Before analysing the use of income tax policy in inducing the supply
of and utilization of the technical progress, let us however be clear as to who the factor suppliers and factor utilizers are in this particular context. Conventionally, in a productive process capital and labour are the usual forms of inputs, technology being represented in the production function itself. It is not however clear whether entrepreneurial efforts are included in the labour inputs\(^3\) or capital inputs or are assimilated with the production function as the technical knowledge is. Clearly, in so far as an entrepreneur makes physical effort in supervising the productive activity and in applying the fund of existing technical knowledge, he is supplying 'skilled' labour effort and so far as he is providing capital for it or making business decisions for expansion or as to risk-taking, he is supplying capital input. In an economy where labourers do not participate in entrepreneurial decisions and where owing to the reinvestment of returns of capital as well as that of entrepreneurial income in a productive activity, it is impossible to distinguish returns on capital from returns on entrepreneurial effort, hence entrepreneurial effort can at the best be assimilated with technical knowledge. We then have the production function consisting of technical function and an entrepreneurial function or rather of invention function and introduction function. Thus, "if economic growth is to ensure from the application of technology, then some individual or group of individuals must act to put this new combination of resources in productive activity into effect... This act... is what is called here the entrepreneurial function.... This emphasis is made with full recognition that complementary action may also be required in uncertainty-bearing capital provision, and resource co-ordination. These functions may or may not be performed by the innovator."\(^3\)
Although generally entrepreneurs are those who demand technical knowledge and researchers are those who provide it, there is still the difficulty of ascertaining the strategic importance of each in inducing growth. The problem here is not as simple as that of inducing labourers to supply labour effort and firms to utilize it for the act of utilization of labour required tax inducements whereas that of utilization of technical skill requires 'proper' entrepreneurial training. In the former the supply of labour is to be matched with the demand therefor and once this is done the strategic importance of labour as such is determinable. In the latter, on the other hand, it is necessary to ascertain the importance of technical knowledge and entrepreneurial ability; some attempts have been made recently to disaggregate the residue and we can only hope that the results will be fruitful.

C. Use of Tax Mechanism for Allocation and Utilization of the Residual Factor. If we can assume that the component parts of production function namely invention function and innovation function can be distinguished from each other (as we clearly must), the tax mechanism can be used either to ensure an adequate supply of inventions or their application in the form of innovations. To encourage innovations, tax concessions may take the form of tax holidays, application of inventions through entrepreneurial efficiency being a pre-condition of the tax holidays privilege. Similarly, tax concessions to encourage inventions may take the form of deductible business expenses if the researcher has a source of income or the amortization of present expenses from his future earnings. Whether or not tax policy should encourage inventions depends on the view one takes, as one must, of its strategic importance in growth and the feasibility of importing it from abroad. Income Taxes are used as policy tools to influence risk-taking on which income and substitution 'effects' in turn depend.
By way of illustration, say a firm X is run by an entrepreneur Y
who employs A, B, C and D. A and B are being trained at the firm's
expense to become a skilled craftsman and a technical researcher respectively;
C is being trained in managerial training at his own expense and D is an
expatriate technician. Moreover, Y's son E (who is not with the firm)
is receiving full time education. Now, first of all, to make available
the supply of the skills of A, B, C and D the tax policy has to be
designed for the supply of labour cannot clearly be an adequate inducement
as the question here is not simply that of diverting 'surplus' labour of
the subsistence sector to the monetary sector; here the inducement has to
be positive, i.e. in the form of tax incentives for the supply of skilled
training, technical knowledge and managerial training. From the point of
view of the supply of these skills, although one of the pre-conditions
of skills by A and B is the provision of their training expenses by X, C
and D are independent. Even in the case of A and B, the provision of
training expenses by X is a necessary but not a sufficient condition of
ensuring the supply of such skills. Thus, inducements have to be offered
to A, B, C and D. Now in the case of D, if the tax rates in less-
developed countries are lower than elsewhere, this may be a sufficient
inducement for him to provide such skills. In the case of C, the
allowance of educational expenditures would probably be a sufficient
inducement. The amount allowed could be made dependent on the intent of
the trainee, ascertainable by the experiences of others from the nature
of their training, viz. vocational, high school, primary school (percentage
of allowable expenditure declining from 100% to 60% respectively);
alternatively, it could be allowed on the basis of precise influence
on the earning capacity of the trainee/taxpayer. It is however a moot
point whether the expenses ought not really be amortized and written
off rather than being made allowable against the current income if any. The necessity of amortization would depend on the gestation period at the end of which increased returns on the educational expenses are expected. If this is a sufficiently long period and the change in future earnings is high, the amortized amount would, on the analogy with physical capital, need to be written off - over the rest of the life of the trainee. This would clearly be a difficult procedure to handle, hence, as suggested by Professor R.B. Goode, an optional period of twenty years or so may be allowed so long as the trainee does not die during that period or reach a presumptive retiring age. If so, the full outstanding amount would be deductible from the taxable income of the year preceding death or retirement.

Now in the case of A and B the concessions to Y are not in any way inducements to A or B as A and B incur indirect costs in so far as they do not gain any experience in the affairs of the firm for the period they are occupied with their training or if they are researching or getting trained during the non-working period, in lieu of the loss of leisure. Concessions to A and B could take the form of allocation of relief for training expenses of Y between A and Y or B and Y in the ratio of 3:7. Alternatively, if the amount of incentives that Y needs to be given is equal to full expenses incurred, A and B could be permitted to amortize their indirect costs and write them off over the usual period. Finally, E's educational expenses could not be deducted from the earnings of X but they could be deducted from Y's personal assessment. It is however rightly suggested that even here, there is a good case, from allocation point of view, for amortizing such expenses to be offset against E's future earnings.

The purpose of this example is to show how the usual method of treating such expenditure in most of the tax legislation can be varied.
Most of the existing systems either allow or disallow such expenses incurred by one who is at the same time earning some income; in the case of one who does not earn any income while getting trained or educated, the allowance takes the form of allowances to his parents. Surely, the present system of treating expenditures on education and research can be varied and a system of allowance similar to that for physical capital asset can be introduced. Such a system can then be varied to take into account such factors as loss, risks, incentives by accelerated depreciation, utilization of such human capital in pioneering industries, etc.

Now, as to the question of capital gains and losses affecting the risk-taking arising from investment in the supply of knowledge of technical science, managerial and labour skills and utilization of these factors by entrepreneurial skill, the main point is this. 'Investment' in these factor inputs is as indicated already perhaps much more hazardous than in physical capital like plant or machinery that is liable to become obsolete, hence the degree of risk taken is greater. One of the most obvious ways of reducing this degree of risk-taking would be to treat the capital gains arising from such transactions lightly. To illustrate, the sale of technical know-how by one researching firm to which the results of the project are not of much use is, as mentioned previously, a case in point. Whilst it is possible for a firm faced with a situation wherein the results of a research project are inappropriate for its own use to sell it as a technical know-how in an indivisible form, it is rather difficult to visualize how an individual who has expended his savings on what turns out to be inappropriate educational training to dispose it off in an indivisible form and have such proceeds treated lightly for tax purposes. Clearly, the analogy does not stand. One possible alternative may be to provide for an
extension of the tax free time period by a little longer. Thus, in our example, suppose A and B had been entitled to tax free income for five years after the end of the training and commencing of new employment and A discovers that his expectations materialize which B as a result of a change in the trend of events in the economy does not. A’s time period for tax exemption would automatically end after five years whilst B’s could possibly be extended to another two to five years.

To what extent exemption from export taxes/be incorporated in granting overall tax exemption is difficult to say. There would probably be a good case for allowing educational and research expenditures as deductible business expenses from the export earnings to firms seeking to advance through the export-inducing technical research, management training, etc. As the exports income is also liable to general income tax at progressive rates, the individual enterprises would be more inclined to favour the deduction of proportional export tax; the corporations subject to the proportional company income tax and corporation tax would opt for it in so far as the export tax is levied at a lower rate than company income tax and corporation tax. But if the tax exemptions are also to be used as equitable means of reducing the riskiness in investment in research, education, etc., the higher rate of riskiness under progressive tax should be subject to the higher rate of tax concessions by way of deduction of the business expenditures of this nature from total income rather than from the exports income only.

The government expenditure policy can likewise be used to expend the income tax revenue raised and thereby raise growth by higher supply and better utilization of these 'miscellaneous' factor resources. Here the government expenditure on items like education, research grants to
scientific bodies or universities, crafts schools, chambers of commerce and trade unions would have a definite priority over the expenditures on defence, communications to areas not covering educational centres, etc. although no clear-cut lines can be drawn here once again.

D. Subsistence Sector. In the subsistence sector, the operation of general income taxes or cesses policy as an inducement or incentive to raise output through higher supply and utilization of technical knowledge, skill or organizational ability can be rather limited as the difficulties of determining what exactly is the expenditure incurred on the technical knowledge, and what exactly is the level of entrepreneurial efficiency are almost insurmountable under the personal tax. On the other hand, operation of government expenditures on projects like community development and welfare schemes, mass education, establishment of consumer co-operatives distributing small agricultural implements, fertilisers, etc. which costs relatively little to the government would be effective in maintaining the existing level of agricultural outputs and releasing surplus labour for other sectors of the economy.

Section(4): Income Tax for an 'Open' Economy.

We have indicated in the course of discussing the shortcomings of the conventional Harrod-Domar type growth model for closed economies that even although intervention via tax policy in the allocation of consumption and investment use of resources through its tax policy ensures stability of domestic effective demand compatible with the rate of growth, such a tax device cannot be used to control the foreign effective demand. However even if the external effective demand is not adjustable, this does not rule out the possibility of adjusting the export growth supply through concessions. Fluctuations in export growth supply arise from such factors as weather changes;
those in the export growth demand arise from the fluctuations in international export prices. The former can be controlled through the tax policy, the latter cannot. The tax inducements for enhancing export growth supply can take the form of concessions on the export earnings beyond a certain target which helps achieve maximum growth supply. Alternatively, as the fluctuations arise from the weather changes, tax incentives can be given on such research projects as are likely to minimize the fluctuations in export output or tax concessions on export earnings be restricted to the earnings from the 'pioneering export industries' which are stable in growth supply.

The usual form of tax concessions to export sectors is reduced rates of value added or purchase tax on the exportable goods. This is the practice followed in Europe, U.K., U.S.A. and other countries.

The concessions to exporters from income tax are not however altogether unknown in the income tax systems of some countries such as Eire, Japan and Australia.

In analysing the growth function of income tax it may hardly seem relevant to compare the operational efficiency of each because any conclusion as to their relative efficiency would have to be substantiated on empirical grounds as stated at the outset of this analysis. Thus empirical evidence on the reactions of foreign importers and domestic exporters in relation to each export good, their market structure in respect of demand and supply elasticities, etc. as a result of tax changes in each case would be desirable. One theoretical point does however arise in considering the functional efficiency of these two forms of tax concessions. In less developed countries with small-scale exporters seeking market abroad the income tax incentives have a built-in
advantage especially when the small exporters are facing an increasing cost curve; such firms require not only higher demand for their products but also higher prices (or more income net of tax) if they are to continue producing on the marginal basis. Here in effect our remarks in relation to tax holidays as against subsidies to labour-intensive industries are applicable, *mutatis mutandis*, as this is a similar form of tax relief. Under reliefs from value added or purchase tax, the concessions pass on to the importers and no tax concession benefit accrues to the producers. However under income tax the benefits of the concessions would be divisible between importers and exporters.

As to the reactions of the factor-owners supplying the factor-resources to the export sector, the same analysis applies in relation to their reactions to income tax as for the closed economy. If the concessions to export sectors were however passed on solely to the importers, it may affect the operation of the domestic producers to such an extent as to reduce the factor-prices offered to these resources in the export goods sector of the economy and divert them to some other sector which may or may not yield maximum growth.

The effect of tax concessions from export taxes would be similar to that of income tax proper. Those industries which are subject to export tax should be allowed reliefs against export income only at proportional rates rather than at progressive rates as the question of degree of riskiness involved arises here again as under the research and educational expenditure in export-oriented industries.

**Section (5)**

The analysis of resource allocation and growth with respect to income tax so far has been on the assumption that the function of the government is
to raise taxes and give inducements to various sectors of the economy either by tax concessions or by an appropriate form of government expenditure. Although it is theoretically possible for the government to achieve this objective, in so doing it has to balance the disincentive effects against the incentive effects. Now it is obvious from the analysis so far that it is impossible to conclude which factors of production will react adversely and which ones would react favourably in response to tax levy and tax concessions respectively. Clearly, the conventional type of inference that the tax concessions to the entrepreneurial or skilled work effort will necessarily involve heavier taxation of the unskilled, subsistence sector manpower which is being taxed at a flat rate does not hold as the nature of the assumptions made is different from that held by the conventional theorists. What we can indeed infer is that there would indeed be a maximum tax rate beyond which disincentive effects may become predominantly operative and that there would also have to be a minimum rate of tax collection necessary for the resource-allocating mechanism through government intervention to function meaningfully. The maximum-minimum boundaries of this nature would indeed limit the amount of tax collected, concessions given and the government influence through government expenditure created.

Consequently, the tax concessions will be conferred on the maximum growth-inducing factor suppliers or factor users as is the case.

So much by way of the tax levy and concessions as between the factor suppliers plus utilizers. There is also a distinction drawn between the 'strategic' importance of the factor input concerned. Thus, if under a statistically tested growth model, the order of strategic importance is technical knowledge and skill, work effort and capital asset respectively, tax concessions would be divided as between these factors in proportion
to their strategic importance, the most part to technical knowledge and the least to capital asset. Various combinations would be possible in this way.

It must be emphasized however that the existing tax concessions would have to be reallocated in proportion to the strategic importance of various factors supplied and demanded. Tax concessions could not possibly be confined to one factor supplied or demanded as there may be a certain amount of interdependence between various factor inputs. Thus, in

\[ Y = \log A + \alpha \bar{L} + \beta \bar{K} + \gamma \bar{E} + \lambda \bar{S}, \]

where \( A \) is the residual, \( L \) labour, \( K \) capital, \( E \) education and \( S \) technical research, there may be multicollinearity between say \( A \) and \( E \). In such a case, concessions for an increase in the supply and use of \( E \) may not serve any purpose in inducing growth unless they are provided on a complementary basis. For instance, physical investment decisions may depend on good entrepreneurship. 

In the context of Tropical Africa, the combinations set out below may be worth bearing in mind.

**Table III**

<table>
<thead>
<tr>
<th>Income Tax Concessions to Various Factor Suppliers and Factor Users</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tax</strong></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>(1) Labour Supply:</td>
</tr>
<tr>
<td>Subsistence Monetary</td>
</tr>
<tr>
<td>Labour Utilization:</td>
</tr>
<tr>
<td>Subsistence Monetary</td>
</tr>
<tr>
<td>Savings:</td>
</tr>
<tr>
<td>Subsistence Monetary</td>
</tr>
<tr>
<td>Investment:</td>
</tr>
<tr>
<td>Subsistence Monetary</td>
</tr>
<tr>
<td>Technical Knowledge:</td>
</tr>
<tr>
<td>Subsistence Monetary</td>
</tr>
<tr>
<td>Entrepreneurial Knowledge:</td>
</tr>
<tr>
<td>Subsistence Monetary</td>
</tr>
</tbody>
</table>
Explanations: Concessions, A on utilization; B on supply. Subscripts indicate the ranking of priority by 1, 2, 3 etc. Full is the taxing of total income base (after normal allowance). Partial and Full in brackets indicate whether there is or is not a limitation of concessions respectively to the fastest growth inducing factor suppliers and utilizers at the cost of others. The second subscript above indicates the order of priority of a concession as between monetary and subsistence sectors or as between supply and utilization.

It can be seen that all factor inputs except savings in the subsistence-cum-monetary sector are taxed fully in the first instance. It is in fact a form of inducement to ensure an adequate supply of a factor resource; other forms of inducements are the special concession or specific government expenditure. Of all factor inputs savings are given priority of tax reliefs in this example purely on the basis of a value judgement that accumulation of savings is a significant factor in the growth-inducing process, the supply of technical knowledge being of second importance and work effort of none. A similar ranking has to be made on the utilization side.

This is one example of the possible combinations, but other possibilities can be shown to exist by the interchange of the subscripts, the extent of inter-change of the subscripts, the extent of concession (viz. partial, full or none), the adjustment of tax base, the specific government expenditure, etc. As it is unlikely that the concessions to all sectors of the private economy be distributed equally, and would in all probability be confined to industries most subject to inter-industrial resource transfers, a general tax on income would inevitably have differential consequences on output in various sectors of the private economy.
These tax levies, concessions and government expenditure rankings have to be transformed into the income brackets. When this is done, the resultant Table would contain the tax, expenditure and budgetary rates. This is a difficult procedure because the factor-suppliers or utilizers of one category (i.e., factor input) may not be at the same time factor suppliers of others. It can, however, be expressed in the following form:

**Table IV**

**Marginal (and Effective) Tax, Expenditure and Budgetary Rates for Growth and Allocation Objective**

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Number</th>
<th>Income of Labourers, Saving Class, Investors, Entrepreneurs, Researchers and others</th>
<th>Marginal Rate of Tax</th>
<th>Marginal Rate of Expenditure</th>
<th>Marginal Budgetary Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 100</td>
<td>5000</td>
<td>250,000</td>
<td>$x_1$</td>
<td>$x_1$</td>
<td>$(x_1 - x_1)$</td>
</tr>
<tr>
<td>100 - 300</td>
<td>300</td>
<td>60,000</td>
<td>$x_2$</td>
<td>$x_2$</td>
<td>$(x_2 - x_2)$</td>
</tr>
<tr>
<td>300 - 800</td>
<td>200</td>
<td>120,000</td>
<td>$x_3$</td>
<td>$x_3$</td>
<td>$(x_3 - x_3)$</td>
</tr>
<tr>
<td>800 - 1000</td>
<td>180</td>
<td>180,000</td>
<td>$x_4$</td>
<td>$x_4$</td>
<td>$(x_4 - x_4)$</td>
</tr>
<tr>
<td>1000 - 2500</td>
<td>120</td>
<td>240,000</td>
<td>$x_5$</td>
<td>$x_5$</td>
<td>$(x_5 - x_5)$</td>
</tr>
<tr>
<td>2500 - 4000</td>
<td>50</td>
<td>150,000</td>
<td>$x_6$</td>
<td>$x_6$</td>
<td>$(x_6 - x_6)$</td>
</tr>
</tbody>
</table>
APPENDIX 'A'

We attempt to illustrate in this Section how difficulties arise in practice to differentiate the growth in income (and factor shares) without tax-induced technological change occurring at the same time. As can be seen in Table V, in period $t_0$, with tax policy which is neutral with respect to the use of capital and technical change the output is 30 units so long as no technical change is occurring, i.e. so long as the production function remains static. It is divisible into labour and capital shares or 18 units and 12 units respectively. Out of this, L is taxed by 5 units and K by 2, hence net shares of L and K are 13 and 10 respectively.

Then the assumption of constant technology is relaxed and it is found that due to technical progress output rises to 34 units and it is divisible between L and K as 20 units and 14 units respectively.

At the end of period $t_0$, discriminatory tax changes are made. Labour is taxed more heavily than capital, and generous tax concessions are given in respect of research expenditure to stimulate technological change during period $t_1$. At the end of $t_1$ total output is raised to 65 by expansion of output and as in period $t_0$ is divisible as follows:

Table V/
Table V
Factor Shares Under Different Growth Paths of Income with and without Tax Concessions to Capital Stock and Technical Change

<table>
<thead>
<tr>
<th>Output with constant technology</th>
<th>Share of L</th>
<th>Share of K</th>
<th>Total</th>
<th>Share of L</th>
<th>Share of K</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; &quot; less tax</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Net output</td>
<td>13</td>
<td>10</td>
<td>23</td>
<td>26</td>
<td>24</td>
<td>50</td>
</tr>
<tr>
<td>Savings = Investment</td>
<td>7</td>
<td>6</td>
<td>13</td>
<td>13</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Change in growth with technological dev.</td>
<td>7</td>
<td>4</td>
<td>11</td>
<td>18</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td>Savings = Investment</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>9</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Net output</td>
<td>20</td>
<td>14</td>
<td>34</td>
<td>44</td>
<td>33</td>
<td>77</td>
</tr>
<tr>
<td>Gross Output</td>
<td>25</td>
<td>16</td>
<td>41</td>
<td>48</td>
<td>34</td>
<td>82</td>
</tr>
<tr>
<td>Savings = Investment</td>
<td>10</td>
<td>7</td>
<td>17</td>
<td>24</td>
<td>17</td>
<td>39</td>
</tr>
</tbody>
</table>

L and K shares expand by 30-18=12 and 25-12=13 in gross terms and by 26-13=13 and 24-10=14 in net terms with technology constant (i.e. same as in period $t_0$).

With technological development occurring simultaneously L and K expand by 44-20=24 and 33-14=19 net and by 48-25=23 and by 34-16=18 gross respectively. Thus it can be seen that with no technological change, K share expanded faster than L with tax concessions as was desired, but with technological change simultaneously occurring change in former was slower than the change in the latter. Hence the tax incentives on K is ineffective with the technological change occurring simultaneously so as to be labour-biased (i.e. of capital-saving nature) thereby increasing the share of L in the economy.

Even if the technological change were neutral, it may have a bearing on
capital formation and hence on the consequences of tax concessions on capital formation. Suppose in period $t_0$, savings and investment amounted to 13 in the total and in $t_1$ increased to 25 through purely the stock accumulation of 12. The stock accumulation purely through the change in output (i.e., without simultaneous technological change) as well as the expansion of capital stock (arising from the technological change) amounted to 39 in $t_1$ after its initial increase from a stock of 17 in $t_0$, i.e., in all 22. In practice, the total change of 22 is ascertainable, but it is not possible to determine its respective components of:

\[
\begin{align*}
    t_1 &= 25 + t_1 = 14 = 39 \\
    t_0 &= 13 + t_0 = 4 = 17 \\
    \text{total} &= 12 + 10 = 22
\end{align*}
\]

Growth Paths of Income over Time under various Assumptions as to the Rates of Capital Formation and Technical Change with and without Income Tax Concessions
The allocation branch is usually restricted to the problem of procurement of such resources in the economy for public services and not with the allocation of resources as such. For a similar view see U.K. Hicks, "Musgrave's Public Finance", Financearchiv 1959-60, p. 465.


It is contended that the static analysis is quite inadequate for dealing with the problems of less developed countries. See for instance Joan Robinson in Economic Philosophy, New Thinkers Library, C.A. Watts, London, 1962, pp. 99-100: "In this situation both static neo-classical analysis of the allocation of given resources between various uses, and Keynesian short-period analysis of how given resources are employed appear quite inadequate. A dynamic long-run analysis of new resources can be increased now that we require..." Again, pp. 103-4: "For the advanced industrial countries, particularly the U.S., the figures appear to show a marked increase (averaging over booms and slumps) in the value of capital per man, with relatively small changes, one way or the other, in the ratio of output to capital or the share of profits in total proceeds. This indicates a more or less constant rate of profit on capital. Technical progress and the availability of natural resources had evidently been strong enough to make nonsense of predictions based on diminishing returns, rising organic composition or falling marginal productivity... when technical progress is neutral, there need by no rise in organic composition. When it is sufficiently rapid, there is no fall in marginal productivity. Taking off traditional blinkers, we have wider fields to survey..."

See also Lipsey, Positive Economics, op. cit., p. 531: "although static theory can be useful and revealing, it could be misleading as revealing".

Although we refer to the original models of Harrod and Domar and criticise them for their application to the less-developed economies, we do not mean to criticise the authors of these models as they did not really wish to see their application in such countries. There is ample evidence of this fact in their own writings or in that of


(8) For examples see below, Chapter 7, Section (2).

(9) General surveys of these theories are: Bland K., "A Survey of the Theory of Process Innovations," Economica, February, 1963; B. R. Williams, "Investment in Technology and Growth," Manchester School, January, 1964. For anyone who is interested in the original theories may refer to the following in three separate groups, each representing a particular school of thought:


(ii) Here we are taking the same approach of pecuniary inducements to the private sector of the economy as is taken in What Price Economic Growth? Baumol and Knorr, editors, Prentice-Hall, New York, 1964. There are, however, two differences in our approach from theirs. First, the criterion for the tax subsidies is, in their analysis, growth-concessions from value added tax to firms with maximum output.
are the greatest. They nonetheless recognise that for underdeveloped societies seeking an improvement in the standard of living per capita output may be suggested as a better or more reasonable criterion. Second, even though they admit (p. 46) "we are in no position to rule out these (by which reference is made to 'more liberal accelerated depreciation allowances') and some other possible forms of pecuniary inducements," they confine themselves to the 'value added tax and subsidies'. As for the first difference, we use output per unit of some index of resource availability as the criterion of tax concession and in so doing obviously reject what Carmichael in What Price Economic Growth? op.cit., pp. 51-52 has had to say, namely "output per unit of resources employed was found to be unacceptable (for financial incentives) because of the most insuperable problems involved, in finding appropriate indices of the level of resource utilization". With regard to our second difference, it can be said that it is without one major difficulty which applies to value added tax concessions but not to income tax concessions. This difficulty, as pointed out by A.R. Prest, "Value Added Tax and Business Profits," British Tax Review, December 1963, p. 346, relates to the situation where the monopolistic firms which can raise their prices and obtain higher concessions than they would otherwise be entitled to from the value added tax. In emphasising this merit of the tax concessions based on income, we should perhaps point out that what Prest has referred to as difficulties of subsidizing unevently growing enterprises and differentiating against declining industries through value added tax (which would also apply to income taxes) are not, in our opinion, legitimate difficulties but the means by which high-growth rate is sought to be brought about and maintained.

(12) See for instance, R.A. Musgrave, Theory of Public Finance, op.cit., p. 374: "Once changes in techniques are involved, effects of budget policy upon technological change must be allowed for. The problem here concerns not only effects on growth but the particular types of innovations called forth, which differ in their effects on factor shares. Thus the effects of growth on factor shares, and hence on incidence, are exceedingly complex. The effects of budget policy on growth itself can be handled more readily, and will be explored ...." On p. 495 he concludes: "No ready generalizations can be made, but it is evident that the choice between alternative tax adjustments may have a significant bearing on the level at which balanced growth is restored". The following statement is also worth noting in this context: "The path of income depends on the supply of resource and labor, the initial capital stock, the propensity to save, the production function... No generalization can be made on a priori grounds about changes in factor shares in the process of growth... Not only does a priori reasoning fail to answer the problem, but it is difficult to interpret the historical record... What the data show is the combined result of capital accumulation, growth in labour supply, and changes in technique. The net result of constant shares, therefore, does not reveal how factor shares would have changed, had accumulation occurred without changes in technique...."
That a problem such as this exists has been explicitly accepted by Alan Williams in "Public Finance and Budgetary Policy", Allen and Unwin, London, 1965, as against Musgrave who quietly leaves it on p. 374. Thus, see Alan Williams, p. 263 where he says, "These problems of dynamic stability with growth are undoubtedly of the utmost importance to economic policy in general and to budgetary policy in particular... the whole subject is so complex that a cursory treatment which had the appearance of yielding precise results would probably be more misleading than enlightening. So if the matter be presented here is less exact than that presented hitherto, it is not only because of self-imposed constraints upon the type of theoretical framework considered admissible in an expository work at this level, but also to real ignorance on the part of economists..."

(13) For a discussion of these concepts see A. Bergson, The Real National Income of Soviet since 1928, Harvard University Press, 1961, Chapter 3, pp. 24-26 and p. 31.

(14) The United Nations Educational, Scientific and Cultural Organization is at present publishing a Manual on the Economic Problems of Africa under the joint effort of Austin Robinson and a Russian Economist Skorov. The fact that the necessity of preparing such a Manual on Africa has been recognised is in itself indicative of the sort of economic system that the African countries tend to have.

(15) Baumol and Knorr, op.cit., however emphasise "criterion of compatibility with political system".


(17) Although the lack of field work in Tropical Africa prevents us from defining surplus labour fully, and we have to content ourselves with the definition of surplus labour as that which is seasonally idle, we may note the definition of surplus labour as used by Fisk in "Planning in a Primitive Economy", Economic Record, 1962.

(18) Although the text-books of Public Finance analysing the effects of a tax on work effort and income do not indicate the income effects on a diagram they analyse the problem in terms of substitution and income effects as is done with the factor supplies in ordinary price theory. See for example, R.A. Musgrave, Theory of Public Finance, op.cit., pp. 236-37 where he refers to 'income effect favourable for work effort and substitution effect favourable for leisure'. For the purpose of making clear the whole chain of the Cobweb-type reaction of a tax levy on the supply of work effort, we portray it on the Diagram and transfer the equivalent of income effect from the vertical axis to the horizontal axis.
Although the effects of government expenditure by way of substitution and income effects are not shown in the two stages of such effects from the revenue or tax side as well as from the expenditure side separately, but only the net tax-expenditure effects are indicated, the shifts in the budget and relative price lines have indeed been shown.

See for instance G. Ackley, *Macro-economic Theory*, Macmillan, London, 1961, pp. 542-49, where he indicates that a change in technology may be such that the labour substitutability may stop. He refers to the possibility of a change in consumer tastes such that the demand for capital-intensive goods may increase and finally to the fact that there may be institutional rigidity under which even if labour-intensive industries offer better opportunity rewards than the labour-intensive agricultural occupation, the labour substitution may not take place.


An example of such an effect on small scale coffee producers during the Korean boom levy of export tax in Tanganyika see Report of the Committee of Inquiry on Coffee Export Tax, Dar-es-Salaam, 1954.


R. Turvey, *op.cit.* See however W.A. Steger, "The Taxation of Unrealized Capital Gains and Losses," *National Tax Journal*, 1957 p. 280, where he refers to the possibility of reduction in risky, growing enterprise and aggregate tax as revealed by J.K. Butters and others in *The Effects of Taxation on Investment by Individuals*, Harvard Business School, Boston, 1953. See further the Revaluation Tax in Japan which applied to the reappraisal of individual as well as corporate bodies assets until 1962 (now applicable only to corporations) and which is meant to reduce the amount of capital gains on transfer to nominal sums. See *Japanese Tax System*, Tax Bureau, Ministry of Finance, 1962, Also, see J.G. Head, "The Case for a Capital Gains Tax," *Public Finance*, 1963.
J. Van Hoorn considers that the effect of tax concessions on technical research is virtually impossible to measure: see his Tax Treatment of Research and Development, O.E.C.D., 1962, p. 19.

For a discussion of how results of a technical research project obtained by a firm to which they are not of much use can be disposed of see Grossfield and Zventzov, "Research and Development - A Survey for the Sixties", National Provincial Bank Review, August, 1963.

Concessions to entrepreneurs may be taken as a concession to work effort analysed previously in Section (2). That this is not unusual can be seen from D.N. Holland's project at N.B.E.R., where he "focuses inquiry on corporation executives, entrepreneurs and those in profession practice, scientific and technical personnel and individuals with substantive investment incomes. Have tax concessions resulted in a diversion of effort (italics supplied) by members of these groups from activities which contribute to growth to those which minimise liabilities?" see N.B. Ture, the Study of Tax Policies for Economic Growth of N.B.E.R., "Public Finance, 1963, where the reference to this study is made.


B.R. Williams, "Investment in Technology and Growth", op.cit., argues that the small countries devoting a small percentage of their Gross Domestic Product have no future unless they imported inventions, p. 68.


Fisk, "Planning in a Primitive Economy", op.cit., p. 466, discusses the role of government expenditure in a primitive subsistence economy like that of Guinea-Papua.

Note however that even crude form of assessment such as that of personal tax can and indeed does make allowances for educational expenses in the Teso District of Uganda. See A.C. Badenoch, "Graduated Taxation in the Teso District of Uganda," Journal of Local Administration Overseas, 1963.

A.T. Peacock and G. Hauser, "An Agenda for Fiscal System of Southern Europe," op.cit., para 28 which refers to the fact that investment incentives presuppose the existence of efficient producers who can weigh up the benefits of incentives granted.
CHAPTER THREE

Income Tax and Economic Stability

Section (1) Introduction.

This Chapter deals with an analysis of all forms of taxes on income as a fiscal policy weapon for maintaining economic stability in less-developed economies of Tropical Africa. Although in so doing we are mainly concerned with its use as a remedy against the instability of income, the institutional features of the economy can hardly be ignored in our analysis as the institutional and structural set-up do indeed affect the nature of underlying assumptions one can make in analysing the problem. In seeking to analyse the stabilizing function of taxes on income in this way we are departing from the Marketing Board type stabilizing devices which apply to particular crops or exports and implying a good deal about the potentiality of taxes on income as stabilizing tools as well as the applicability of fiscal policy analysis of the developed economies in the less-developed economies. These implications, in turn, make it necessary to modify the assumptions and nature of our analysis.

Before dealing with these problems of modifying and defining the nature and scope of our analysis, we should perhaps deal with the stabilizing function of aggregate income taxes in developed economies.

A. Review of Fiscal Theory of Stabilization in Developed Economies. The fiscal theory can be applicable to macroeconomic aggregate model of the classical type or of the Keynesian type. The shortcomings of the classical model, where adjustment occurs through changes in the factor remuneration/product price ratio rather than aggregate expenditure, have been discussed elsewhere succinctly, and need not be dealt with here. We can therefore
concentrate on the application of fiscal policy\textsuperscript{2} to the Keynesian general theory model.

Under a Keynesian theory, the volume of income and employment is determined by the level at which aggregate demand price is equal to aggregate supply price. In practice, however, the nature of the consumer demand is such that it does not increase at the same rate as does the income, and the gap has to be filled either by investment demand/for prices to remain stable, or for income and employment to maintain their previous level. Therefore, a certain level of investment has to be maintained, but this, in turn, depends on the amount of savings for the equality of savings and investment to be maintained. The extent to which investment can maintain the level of income and employment depends on the marginal propensity to consume under the multiplier theory:

\[ \Delta Y = \Delta I \times k \]  

where \( 1 - 1/k = \text{Marginal Propensity to Consume} \).

As marginal propensity to consume declines with increasing income, increasingly larger increments of income go to raise investment at increasing levels of income. Once such investment is forthcoming, the stability of prices and requisite level of income and full employment can be maintained.

If, however, it is not forthcoming, or if there is inherent instability in the system owing to such dynamic factors as time lags\textsuperscript{5} in consumption and production after a given change in income, the level of inventories\textsuperscript{6} and changes therein and expected income, which affect the path of income by way of cyclical fluctuations\textsuperscript{7}, fiscal or monetary remedies may have to be applied to adjust the path of prices, income or level of employment.

We can illustrate the way in which income taxes can be used to adjust the growth tendency in respect of consumer and investment goods; government expenditure is not considered even in so far as it relates to taxes on income because it has limited use owing to the administrative problems involved in its approval and implementation.
For the sake of argument, we take the growth capacity in the form of Harrod-Domar growth model, although it would in fact have to be different in terms of the analysis of the previous Chapter. However, as our growth model is not expressed symbolically, we take the Harrod-Domar growth capacity for illustrative purposes taking care that the analysis of $Y_t$ in this Chapter is consistent with that of $Y'_0$ in the previous Chapter.

If we introduce the investment function on the assumption that $Y_t$ now consists of $b + (C - b) + I + G$ where $b$ is the undistributed profit of firms and that $I_t$ is the sum total of $I'_t$ and $I''_t$; $I'_t$ is autonomous and $I''_t = b(1-t)Y_{t-1}$, we have:

$$Y_t = C_t + I_t + G_t$$

$$= c \left(1-t\right) (1-b) Y_t + b (1-t) Y_{t-1} + G_t$$

If we further assume that $G$ consists of consumer demand and investment demand and that the former can be represented as $G_t = gY_t$ and the latter by $I''_t = kY_{t-1}$, we have:

$$Y_t = c \left(1-b\right) \left(1-t\right) Y_t + \frac{b}{t} (1-t) Y_{t-1} + kY_{t-1} + s(Y_t).$$

Where $K$ is the investment coefficient of the government investment expenditure represented by $I''_t$, $c$ is the consumption coefficient, and $t$ or rather $t$ is the tax coefficient expressed as a function of income of the current period.
The necessity of varying any of the components, viz: C, I, G, R, etc. arises when the level of expenditure $Y_t$ falls short of or overshoots a given level of the growth capacity represented by $Y_o$ as follows:

$Y_c = \vartheta (I_{o-1})$ where $\vartheta$ is the Capital-output ratio.

$I = S^h + S^f + S^g$ (h, f and g stand for households, firms and government respectively)

$S^g = (t-g)Y_{o-1}$ ; $S^f = bY_{o-1}(1-t)$ and $S^h = s(1-b)(1-t)Y_{o-1}$

Then, $Y_c = \vartheta (t-g)Y_{o-1} + bY_{o-1}(1-t) + s(1-b)(1-t)Y_{o-1}$

Now the final equations for $Y_t$ and $Y_c$ can be expressed as follows:

$Y_t = \sqrt{\frac{b - (1-\vartheta t)}{1-c (1-\vartheta t) (1-b) - \vartheta}} Y_o$

$Y_c = \vartheta \left( s (1-b) + b (1-t) + (t-g) + 1 \right) \sum_{n=0}^{\infty} Y_o$
The effectiveness of income tax policy would, of course, depend on the extent of delay with which it would begin to operate. In fact it is possible that such corrective adjustments would themselves accentuate the very cyclical fluctuations which they are meant to correct if they are not applied in time or if they do not come into operation in time.

This kind of use of income taxes for economic stability is subject to two difficulties in practice. These are: the extent to which the investment demand can be adjusted through direct consequences of tax changes on consumption expenditure; and the question of time lag in the receipt of tax after a decision to announce a change in tax rate, relief, allowances, etc.

B. Recent Development and Problems. In dealing with the adjustment of tax rate and relief, to adjust growth tendency in respect of consumption or investment goods no reference has been made as to the extent to which the tax imposed performs its function in the way envisaged nor to the necessity of ascertaining the marginal propensity to consume and to save of the various income groups as would be the case under a progressive tax structure. If those who are taxed do not react as envisaged by the policy-makers, one is led to draw one or two inferences therefrom. The result could be taken as indicative of the limited potency of income taxes as stabilizing tools. Alternatively, it may be inferred that the policy-makers have been short-sighted. To illustrate, a short-sighted income tax policy may be framed on an assumption that the tax tends to lower consumption by reducing disposable income and overlook the fact that the effect of the tax may be to increase consumption by lowering the effective rate of return for saving especially where saving is positively related to the rate of interest. A properly analysed policy, on the
other hand, will take into account the elasticity of substitution between present and future consumption.

(a) **Adjustment Problem.** In practice, not only is there a serious difficulty of ascertaining the marginal propensity to consume of various income groups but there is also the complex question of theoretically analyzing the inter-relationship between the growth tendency in respect of consumption goods and that in respect of investment goods. Perhaps a possible line of approach might attempt to relate the marginal propensity to consume or marginal propensity to save to the various sources of income as shown in Table VI. This would enable us to make precise tax changes for an exact adjustment of effective demand of consumer goods and that of investment goods separately. Let us suppose that under the following given distribution of income and the propensities to save and consume of each income group and income source in Table VI it is deemed necessary to adjust the actual income path of income with respect to an investment good. Let us suppose also that policy seeks to reduce the growth tendency by taxing entrepreneurs or corporations, thereby reducing expectation of profits, and by taxing the consumers' net disposable income. If the receipt of investment incomes shown below is reduced, perhaps the previous decisions to save made by such investors may be revised and the level of previous savings reduced; consequently, the effect of tax increase on the wage income of such income-recipients may be nullified as the net disposable income now in their hands would be the same as before the tax changes were made.
TABLE VI

Relationship Between the Size and Source of Income and Propensity to Save and Consume.

<table>
<thead>
<tr>
<th>Size No.</th>
<th>Actual Income MPC £</th>
<th>Labour Income MPC £</th>
<th>Investment Income MPC £</th>
<th>Rent Income MPC £</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100</td>
<td>10</td>
<td>750</td>
<td>690</td>
<td>20</td>
</tr>
<tr>
<td>100-200</td>
<td>20</td>
<td>2,400</td>
<td>2,300</td>
<td>100</td>
</tr>
<tr>
<td>200-700</td>
<td>50</td>
<td>30,000</td>
<td>27,000</td>
<td>1,500</td>
</tr>
<tr>
<td>700-1000</td>
<td>70</td>
<td>56,000</td>
<td>20,000</td>
<td>30,000</td>
</tr>
<tr>
<td>1000-1500</td>
<td>40</td>
<td>52,000</td>
<td>10,000</td>
<td>35,000</td>
</tr>
<tr>
<td>1500 &amp; over</td>
<td>13</td>
<td>30,000</td>
<td>5,000</td>
<td>16,000</td>
</tr>
</tbody>
</table>

(b) Built-in-Adjustment. The difficulty in practice with the income not liable to be assessed on current basis is that the tax can be collected only after a certain period of time lag. This difficulty is increased by the fact that probably few tax payers base their decisions on their tax liability, and tend to think in terms of tax payments. It is, however, arguable that so long as the nature of the future economic events can be forecast, and the time lag in collecting taxes is a stable one the tax changes can be made beforehand in such a way that tax changes become effective by the tax payments becoming due as and when envisaged. There is, further, the possibility of progressive income taxes acting as automatic or built-in stabilizers rendering it unnecessary to make discretionary tax changes in anticipation of changes in future economic events.

The theory of built-in-stability is that under a progressive tax on income the sensitivity of tax yield to a given change in income is much greater than under a non-progressive tax on income. Although theoretically the value of such a built-in-flexibility would be between zero and one, it would hardly be either of these values in practice. It would not be an extreme value of zero since the poll taxes under which this
would be the case are hardly to be found as the only forms of tax on income and in this study our concern is with the stabilizing effects of all sorts of taxes rather than a particular form of tax on income. The value cannot again be one unless the rate of tax on income is 100%. So the stabilizing effect of taxes on income can be denoted by $Z = 1 - \frac{\Delta Y}{\Delta Y_j}$, where $l$ is the perfect stability, $\Delta Y$ is the actual change in income that occurs under the existence of given form of flexibility and $\Delta Y_j$ is the change in income which would occur without such flexibility. We can denote flexibility of taxes on personal income as $\frac{\Delta Y}{\Delta Y} = m'$.

Now a change in income could accrue either to persons or to companies or to both. Given that $Y = b + (C-b) + I + G$ (where $b$ is the undistributed profit) and $G = c(Y)$, the position would be: $\Delta C = c \left[ (1-m') (1-b) \right] \Delta Y$. Similarly, we have: $\Delta Y = \frac{\Delta G}{1-c (1-m')(1-b)}$. If however, $m' = 0$, we have $\Delta C = c (1-b) \Delta Y_j$ and $\Delta Y_j = \frac{\Delta G}{(1-c) (1-b)}$. Therefore, $Z$ (of personal tax) $= \frac{cm'(1-b)}{[1 - c (1-m')(1-b)] \left[ c(1-b) \right]}$.

The value of $Z$ is greater so long as the marginal propensity to consume is higher as it increases the base of its operation.

The concept of built-in-stabilizers in a dynamic context however requires further consideration. There is, first, the fundamental question as to whether the "no flexibility" situation in a growing economy is at all meaningful, hence some alternative basis of the "no flexibility" situation would have to be thought of and it might be appropriate to define it as a situation where the total government expenditure and tax yields grow at the same rate as national income.

Now if income tax or I.T. is taken as a progressive tax structure rather than a proportional one with $I.T. = t_i t_i(Y)$, then the rise in income
produces a more than proportionate rise in tax revenue. The value of the tax coefficient would depend on the rate of change of income. Thus,

\[ I.T._t = I.T._{t-1} + (Y_{t-1} - Y_{t-2}) \text{ or simply } I.T._t = I.T._{t-1} + \Delta I.T. \]

Whether such a tax structure with the coefficient built into it would be an effective tool in putting the actual income path in equilibrium with the growth capacity path would depend on the nature of the capacity growth, i.e. the values of k and g in the first model in this Section. Now in the Harrod-Domar type of growth model (which we chose earlier in this Section) where k remains a constant coefficient and national income rises exponentially, the actual money income becomes subject to an increasing tax coefficient, the coefficient rising at the same rate as national income rises. Consequently, actual net income path falls short of the growth capacity. In the case of g which, on the other hand, has no capacity-creating effect the opposite situation prevails, i.e. growth capacity falls short of growth tendency.

The dynamic analysis of built-in-stabilizers so far indicates that the discretionary tax rate changes are indispensable. Indeed one recent contributor to the theory of automatic stabilizers goes so far as to say that such devices can even act as destabilizers. The second obstacle above referred to in the use of income taxes as economic stabilizers, therefore, substantially remains to be overcome.

C. The Nature of Modifications of the Analysis. If this sort of fiscal policy analysis with respect to income tax is to be applied to the less-developed economies we have in mind, we have to make clear the necessary modifications in the light of conditions prevailing in these economies. First, there is the question of institutional features of the economy affecting the nature of underlying assumptions but as this is a rather
usual sort of modification, it can be left aside for the time being. Second, in arguing that the above analysis can be so modified as to be applicable throughout the economy, we need say something on the nature of income tax that is to be used so as to be able to dispute a general argument about the ineffectiveness of the use of income taxes covering the whole economy in the Keynesian form of macro-economic model. Thus, our concern here is with illustrating the way in which income tax of the type we have already defined above can affect the whole economy rather than with the applicability of Keynesian analysis or with the institutional features of the economy affecting the nature of our underlying assumptions.

The economic structure of the economies under discussion is such that it does not consist fully of monetized activities. This specific characteristic of the economy raises an interesting issue as to whether the non-monetized activities undergo any repercussive experience as a result of destabilizing influence in any part of the economic activity, and if so it is likely to be amenable to any tax policies. Income tax, as it is known in most of the western economies, applies to the fully monetized activities and is generally accepted as one of the tools of economic stability. Income tax is often taken, according to this view, to be inoperative in a similar sense, even in the less-developed economies as it is assumed under this view to cover monetized sectors of the economy. This view also poses a question as to whether it can be large enough to be effectively operative on a functional basis so as to make the non-monetized sector amenable to tax policy.

Taking the view regarding the functional size of income tax, it is indeed true that the size of income tax in the total domestic output or in the total government revenue is quite small. It is however also true that
the level of per capita income and the degree of fluctuations are also small. This study, nonetheless recognizes that the functional efficiency of income taxes would no doubt depend on its size as a lever. But to return to the point on the inapplicability of income taxes throughout the economy, we can dispose of this argument on two main grounds. Firstly, it appears to come from those who are convinced that the instability in less-developed economies arises from two factors: "fluctuations in output as a consequence of variations in rainfall, and variations in demand for export; instability of these kinds requires policies of a different sort from those needed to offset fluctuations in private demand." 

Secondly, it fails to take account of the way in which we have defined income tax. As to the first view, it appears to beg two significant questions: that the Keynesian analysis of economic stability and its later developments in relation to fiscal policy are wholly inapplicable to less-developed countries; and that all less-developed countries must be subject to extreme fluctuations without any exceptions. For the time being, we will assume that the contention as to the inapplicability of the Keynesian analysis of economic stability in relation to the less-developed economies is unacceptable as a somewhat overgeneralized view and leave it for future elaboration in the next Section. In putting forward such a definitive argument, this view rejects certain countries which are exceptions to the extremes of instability. The economies we have in mind, on the other hand, are diversified enough in their agricultural exports and find that the fluctuations in demand for export are not as serious as in monoculture export countries because the fluctuations in the demand for one export commodity is balanced by the stability of others. It is, therefore, necessary to go beyond the stage of trying to control the external
fluctuations by Marketing Boards or otherwise because these less-developed economies are also after all, subject to their own internal instability just as the developed economies are.

In arguing that aggregate income taxes in less-developed economies of Tropical Africa are applicable to both monetized and non-monetized sectors we are begging the question that non-monetized activity is not after all strictly such for income taxes imposed on all the income recipients are payable in cash rather than in kind. It is therefore assessed on income, both in cash and in kind. Thus, in the non-monetized or subsistence sector income is principally earned in kind and in the monetized sector in cash. In the case of the former, those who are usually liable to personal tax convert part of their non-money income in cash for the payment of tax. In the case of the latter, those who are usually liable to personal tax and income tax proper, it is almost always the case that they are assessed on income in cash. One of the consequences of this type of aggregate income taxes system is that the distinction between monetized and non-monetized or subsistence activities is not really meaningful for analytical purposes of this Chapter. As a corollary of this statement and what we have said so far, it can be said that a useful distinction between the different forms of income is to divide incomes into "subsistence-cum-monetary" form of income and "monetary-cum-benefits-in-kind" form of income.

D. Nature and Scope of the Analysis. The discussion of the income tax as stabilizers is in this Chapter preceded by a brief treatment of the modification of the Keynesian theory in its application to less-developed economies. Then the subject matter of the rest of the Chapter is in terms of the source of instability, the sector of the economy to which it applies,
the nature of the generic taxes on income used and so on. Thus, in Section (2) we deal with the modifications of Keynesian theory for less-developed economies. In Section (3) we discuss the application of income taxes firstly in the subsistence-cum-monetary sector and then in the monetary sector itself. In Section (4) we analyse the way in which the existence of an unstable lag in tax assessment and collection would affect the conclusions reached in the analysis. Finally, in Section (5) we indicate the way in which the compromise is reached between various possible ways of adjusting the economy on a stable growth path by means of different forms of taxes on income.

Section (2) Modification of Keynesian Analysis.

As a preliminary, we need say something on the "subsistence-cum-monetary" and "monetary" sectors before we can sum up how exactly the Keynesian relationship between output, employment and savings and investment, consumption and price level is at variance in less-developed economies from what it is elsewhere. We also have to consider the problem of institutional features of the economy at the outset because, it will not only enable us to modify the Keynesian theory in its application to less-developed economies, but will also help us indicate the extent to which the inapplicability or limited usefulness of the orthodox stability is, as in developed economies, inapplicable or less useful as a policy weapon in less-developed economies.

A. Institutional and Behavioural Assumptions. The basic features of these economies are the lack of communication and the differences in the institutional framework. The lack of communications may create shortages in the supply of goods demanded even under a stable level of net disposable income. Under the given financial institutions, the entrepreneurs have no option but to
 postpone an otherwise 'normal' business decision because credit is not forthcoming as and when required. Further, the existence of development plans may raise net disposable income of the participants in the plan with no corresponding yield in the capacity to produce, e.g. irrigation projects may last six years and an increase in output may not be forthcoming until water supply becomes available to raise productivity in the seventh or the eighth year after the instigation of the project. The rate of income tax obviously cannot be raised to 100% to meet with such situations.

There are, on the other hand, structural or institutional advantages such as the limits on the amount of deficit financing or fiduciary issue under the Central Bank or the Currency Board policy permitting a rather restricted note issue, the wage demands are limited by the nationalisation of Trade Unions and state control of wage negotiating machinery.

**B. Subsistence-cum-Monetary Sector.** This sector primarily consists of the subsistence income and is subject to personal tax or local graduated rates based on income. Usually no adequate information is available on the type of consumption and saving habits in relation to the individual income. By definition, the output of this sector in relation to the total population dependent on it is so low that the marginal propensity to consume is inevitably an almost unity. The national income data on these countries nonetheless indicate that there is indeed a certain amount of capital
formation taking place in the type of economic activity in which the population is engaged in. The population is largely engaged in peasant farming or craft industry which is subject to seasonal activity. Thus, during the non-crop season the male population is engaged in building huts or repairing any such assets; its subsistence minimum consumer demand is generally met by running down the stocks of subsistence output or proceeds of sale of the output produced in the immediately preceding period. The savings or investment would therefore be related as much to the number of hours of manpower effort as to the income of the preceding period. Thus if a subsistence producer works for 3000 hours in a year during which period he cultivates and harvests his subsistence output for 2000 hours and devotes 1000 hours in building or repairing his personal or productive assets (e.g. hut, farm land or farm shed, etc.), there is a relationship between the magnitude of the manpower effort plus income of the preceding period, and propensity to save or invest rather than between consumption and income or savings and income only.

The accumulation of capital like huts, improved farm land, farm shed, etc. is not an inevitable alternative to earning income in kind during the non-crop season. As has been fully argued in the last Chapter, the casual employment in the monetary sector by the subsistence producers is also a common feature during the off-seasonal period. Although no empirical evidence as to the propensity to consume and save of such casual cash employees is available, one can venture to say that their propensity to save or consume is fixed since they are 'target' wage-earners who are employed on the basis of free rations and living quarters. They therefore have to avail themselves of such benefits in kind on an all or nothing basis. Such casual cash employees generally belong to two different categories.
There are firstly those who are seeking to return to the farm even before the end of the season with adequate cash income to keep themselves alive whilst being engaged in producing or maintaining intact their subsistence capital before the new crop season commences. In the case of such target earners, it is perhaps the duration of their employment which is inversely variable with the current income plus previous periods' output rather than the propensity to consume or save. Then there are those other target earners who would live on the rations throughout the off-seasonal period and would opt in favour of earning target wages to buy what is generally understood to be a consumer durable in the developed economies in the 'west', i.e. bicycles, farm and household implements, etc. with a view to modifying their farming methods which they previously practiced. Whatever capital formation that does however occur is therefore either a "self-satiable" capital asset, e.g. a hut or a farm dwelling, a farm shed, improved land, etc. or an asset such as a bicycle, or farm and household implements.

Apart from this sort of variation in consumption habits arising from weather fluctuations, the relationship between consumption and income may be different in subsistence-cum-monetary sector because of the family size. The way in which the propensity to consume of an income recipient in this sector is liable to vary owing to the family circumstances from the ordinarily understood Keynesian relationship can be seen from the Table below.

**TABLE VII**

**Family Size and the Propensities to Consume and Save in different Income Strata.**

<table>
<thead>
<tr>
<th>Income group</th>
<th>M. P. C.</th>
<th>Family Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>0 - 100</td>
<td>0.80</td>
<td>0.85</td>
</tr>
<tr>
<td>100 - 300</td>
<td>0.70</td>
<td>0.80</td>
</tr>
<tr>
<td>300 - 600</td>
<td>0.60</td>
<td>0.65</td>
</tr>
<tr>
<td>600 - 1000</td>
<td>0.40</td>
<td>0.45</td>
</tr>
</tbody>
</table>
Let us now consider the sort of forces which are likely to cause economic stability and the possible repercussions of such an instability. We can take the internal stability first. For the sake of argument, let us restrict such instability to that arising from weather changes. Agricultural output declines and therewith total income in cash and kind: "self-satiable" as well as outside demand for consumer goods should decline. As for the "self-satiable" demand from subsistence output, this will be proportionally higher than before. This sort of situation can be illustrated in the form of a Table below.

**TABLE VIII**

**Monetary and Subsistence Outputs in Subsistence-cum-Monetary Sector in Different Periods**

<table>
<thead>
<tr>
<th>Normal Year</th>
<th>De...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column I</td>
<td>Column II</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Total Output</td>
<td>30</td>
</tr>
<tr>
<td>Subsistence</td>
<td>22</td>
</tr>
<tr>
<td>Monetary</td>
<td>8</td>
</tr>
<tr>
<td>Off-Seasonal Output</td>
<td>10</td>
</tr>
<tr>
<td>Self-satiable demand</td>
<td>12</td>
</tr>
<tr>
<td>Savings</td>
<td>10</td>
</tr>
<tr>
<td>Monetary Demand</td>
<td>...</td>
</tr>
</tbody>
</table>

Suppose there are two producers A and B of whom A is engaged fully on his land whilst B is a peasant who generally takes up casual wage employment in the off-season. Further, suppose that in a normal year total output is 30 units for each of them, but whilst A earns 30 units from his land holding entirely, B earns 20 units from the holding and 10 units from cash wages. Each of them is of course engaged in selling 8 units for cash. In a normal year, therefore, their position will be as shown in Column I of the Table above. Suppose further, that there is then a decline in
total output in the following year, and that the output goes down to 24
for A and B both, of which there is a decline of 4 in seasonal period and
2 in the off-seasonal period. If the price changes have no effect on their
self-satiable demand, the position is as shown in Column II of the Table.
If, however, the effect of a price change is to influence the self-satiable
consumer demand, the position is as shown in Columns III and IV, depending
on whether a decrease in price return associated with growth tendency
declining necessitates a relative reduction of an increase in self-satiable
demand respectively.

C. Monetary Sector. The nature of investment demand is most significant
here as it is not simply a matter of fulfilling self-satiable demand here
nor of aiming at target savings to obtain a durable asset or supplementing
the low subsistence income of the crop season during the non-seasonal period.
The investment demands of this sector are for the purpose of increasing
productive capacity except in the case of private houses which are in any
case investment goods. The nature of the consumer demand is much more
homogeneous but the consumption expenditure demand may not necessarily have
the same pattern as under the Keynesian economic analysis; the family unit
is perhaps a significant factor also in this sector of the developed economies.
The effective demand for consumer goods is not self-satiable in any
significant degree. Although this sector is again open to the external
and internal sources of instability, it is more directly related to the
external factors; furthermore, it is more likely to vary with political
factors, general business expectations and confidence, etc. than with
factors such as weather changes in respect of its internal stability.

The savings are in monetary form and are, in almost all probability,
deposited in the financial institutions. Further, a large percentage of
the population in this sector is subject to pensions, provident funds and other such self-provided savings, and is not at the mercy of the creditors who happen to be relatives, friends or petty retailers. Thus, savings are more directly related to income than to income and work effort combined together. Perhaps the entrepreneurs in both the sectors enjoy the same type of borrowing facilities except that in rural, subsistence areas loans are largely from local government or government sponsored bodies (Land Bank, African Productivity Raising Loan Bank, etc.) whilst in the latter these may be from the expatriate commercial banks.

As for the adjustment of the growth tendency from investment goods through the net personal disposable income, propensities to save of each income group or factor-share is not necessarily adequate and further data on the past tendency of the saving group in the growth tendency for the investment goods is required. Thus, for instance it would be desirable to ascertain the proportion of personal savings that is, through the flow of funds system of social accounting, channelled into the commercial enterprise. This proportion would, for investment purposes, increase the size of the net disposable income of enterprises. The non-personal effective demand for investment goods will depend on several factors such as the cost of the capital asset for productive purposes, business expectations about induced demand, and prospects of profit.

Finally, the entrepreneurial decisions as regards the amount of inventories held are significant in the monetary sector. If there is an adequate stock of unsold goods, the effect of the time lag between the accrual of income among consumers and the availability of goods is diminished through these stocks as buffers. Consequently, although the value of the multiplicand is reduced, income expands by the value of the multiplier coefficient times the change in investment. If, however, there is not an
adequate supply of stocks to act as buffers, the time lag in making goods available either through domestic production or imports, prices will increase enormously; the multiplier effect would be in terms of a rise in money, rather than real income if the quantity of money for transaction purposes is expanding. Another form of inventory adjustment may take the form of entrepreneurs trying to keep pace with current production in which case there may be inventory changes. If, however, imports are a significant portion of business inventories in the Tropics, (there is sufficient evidence, in relation to East Africa at any rate, that this is not the case in the Tropics where imports tend to lag behind a rise in exports receipts or indeed in total national incomes and presumably the sales), this sort of phenomenon may lead one to rule out the existence of inventory cycles, but not necessarily the existence of cyclical phenomena in general.

D. Summary of Modifications.

It is in all probability true that the less developed economies of Tropical Africa are underemployed but still not unemployed, hence at the given level of income where the savings and investment identity condition is fulfilled, the full employment prevails. In so far as the fluctuations in monetary sectors occur in the seasonal period, subsistence-cum-monetary sector acts as an absorber of such fluctuations since regular cash wage-earners have in all probability cultivable land to which they can resort
if they are so willing, in periods of adversity. It is not at all certain
if the opposite condition prevails, viz. whether those off-seasonal wage-
earners who are, by definition, unemployed rather than underemployed, can
find employment at given levels of income, consumption, savings, investment
and prices in the economy. The off-seasonal job seeking employees are defined
as unemployed until they get employment as casual wage-earners. For they
have no means of maintaining livelihood even if they are seeking to accumulate
physical capital in the subsistence sector. This may appear to be tantamount
to arguing that it is the inability to adjust supply by such producers in
off-seasonal periods that is the cause of unemployment and that this aspect
of inelasticity of supply has not been discussed in the Keynesian analysis.
Therefore, the effective demand type Keynesian analysis is not applicable
owing to the inelasticity of supply of output in less-developed economies.
On further analysis it appears however that this is a somewhat restricted
interpretation of the whole situation as the lack of effective demand is
probably equally responsible for unemployment. It is, indeed, true that
the self-satiable effective demand in subsistence-cum-monetary sector has
no secondary and tertiary income-generating effect and, further, that the
savings of this sector are not channelled into the investment which could
create a multiplier effect. It can nonetheless be validly argued that that
part of the subsistence-cum-monetary activity which creates monetary effective
demand on the monetary sector has an income generating effect. It is
suggested, by one authority at any rate,\footnote{17} that such an effective demand is
simply in the form of monetary expansion as there is "the absence of effective
excess capacities in industries, difficulty of obtaining raw materials and
other ingredients for additional production, inelastic supply of skilled
workers, and various bottlenecks arising out of controls and the general
environment of a shortage-dominated economy". Although this argument has been put forward in the context of India and need not, and in all probability does not, apply to the countries of Tropical Africa, one is inclined to feel that this is an assumption difficult to accept a priori. Indeed some drastic limitations on deficit financing in the Tropics tends to further support our view that an increase in non-self-satisfiable effective demand can hardly be in terms of an increase in monetary demand.

The family size together with income is also a determinant factor in such decisions, and this is in all probability more so in the subsistence-cum-monetary sector than in developed monetary sector where Engel's law may not be quite applicable.

The stock-piling phenomenon is somewhat haphazard in the subsistence-cum-monetary sector. Many goods tend to pile up awaiting the return of a good harvest season whence they can be disposed of. This form of stocks does not, however, ensure that its size is sufficient to act as a buffer during the production or import lag. As the capital of the petty traders is small, the amount of business inventories would, of necessity, have to be small. For the same reason, the petty traders feel no urgency to maintain the level of stocks with current periods sales. The position in the monetary sector is somewhat similar, except that the size of the buffer stock may be larger because of more reliable and stable demand (owing to the less degree of reliance on the good harvest) and larger amount of capital investment in business. The analysis of inventory adjustment process in these terms leads us to draw a tentative conclusion that inventory cycles are non-existent, and fiscal policy can be spared the burden of smoothening the fluctuations. An important corollary follows in relation to subsistence-cum-monetary sector; namely that the inadequacy of buffer stocks may create
undue increases in prices if monetary expansion occurs.

To conclude the modification of Keynesian analysis which is largely based on seasonal variations in less-developed economies of Tropical Africa, we need once again emphasise the primary purpose of such modifications. The purpose is not really to be able to dissect the economy to eliminate seasonal variations through income tax policy but to be able to understand it for prescriptive purposes in eliminating or smoothening short-run cycles.

Section (3) Use of Fiscal Theory of Economic Stability With Respect to Income Tax.

We have indicated so far that income taxes defined in the way we have done in this study can indeed be applicable for the rectification of instability on an aggregate macro-economic basis in less-developed economies. For this purpose we have modified the Keynesian general theory to which fiscal policy tools are applied in developed economies. In this Section we have to concern ourselves with the way in which different forms of taxes on income are used depending on the basic variables of the aggregate macro-economic analysis responsible for instability conditions, viz. whether the instability is due to the growth tendency in respect of consumer goods or investment goods and whether the fluctuations are due to the external conditions or internal conditions, etc.

A. Subsistence-cum-monetary Sector. If we could refer to the example given in Section (2)(B) above in dealing with the basic features of this sector, the tax is payable out of the cash income earned during the crop-season, i.e. out of 8 units in a normal year and out of 5.5 units in a depression year. The decline in output means one of the two consequences: reduction in the self-satiating effective demand for consumer goods, or reduction in the net disposable income for the demand of non-agricultural sector (mostly imported goods for we are assuming that reduction in monetary-cum-subsistence income has not given rise to the balance of payment stringency)
so long as the rate of personal tax payable remains the same. If however, it is reduced, it will adjust both the self-satiable as well as monetary effective demand for consumer goods. Alternatively, if no tax reduction is made, the marginal propensity to consume of the seasonal income may be so high that no short-term savings can be made and later during the off-seasonal period as there are no savings of the preceding period that can be liquidated, the initial disturbance in the stability of effective demand for self-satiable as well as non-self-satiable consumer demand will be maximum. As for the non-seasonal casual cash income, this will have an effect on the demand for monetary goods. Whether or not a durable good like bicycle is defined as a consumer good or an investment good in less-developed country is however, the criterion for ascertaining if instability in the subsistence-cum-monetary sector arises from the effective demand for consumer goods or from that for investment goods. The supply of such goods depends on the decisions to produce, import or to act as an intermediary; the decisions of such suppliers in turn depend, among other things, on the income taxes that they themselves are liable to pay. The instability may alternatively arise from the fluctuations in the external market, e.g. in the prices of or demand for exportable items. The nature of reactions of the producers in this sector of the economy to the declining prices or reduction in the quantity of exports or quantity of imports is quite clear. Thus, reduction in the price of exportable goods of the subsistence producers will induce them to reduce their sales to the minimum and to increase their individual self-satiable demand.

Income taxes can be used to adjust the instability which may arise in either of the two ways. Clearly, reduction in personal taxes and cesses would be the effective ways of raising the level of both self-satiable and monetary effective demand to a level compatible with the growth supply.
The extent to which cesses would be sufficiently effective in adjusting the effective demand is however doubtful as cesses would be leviable only on some forms of subsistence output at the time of the conversion of such output into cash income. The possibility that cesses would affect only a small section of the subsistence producers inequitably and would thus be a deterrent to the growth of the monetary activities does not really constitute a sufficient rationale for treating them as unsatisfactory forms of stabilizers since the stabilization policy objective of a government in power may be of paramount importance or because inequities and disincentive factors may be removed by making such cesses paid as deductible expenses against the income otherwise assessable for personal tax. The main reason for treating cesses as unsatisfactory stabilizers is that they can at most affect the separate transactions rather than the overall nature of their occupational activity throughout the year.

B. Monetary Sector. Income taxes can be used as rectifiers of instability of effective demand. The exact form of tax on income that can be used to adjust the level of effective demand would depend on the unit to which the tax is to be made applicable. Thus, if the level of effective demand on consumer expenditure is low, the reduction in company income tax would not be effective in boosting up demand insofar as the reduction in company income tax has no effect on the domestic pricing policy of the corporations; the reduction in progressive income or personal tax would be a more effective choice. In periods of slack effective demand for investment goods, the reduction of company income tax would be effective in making available the internal finances to the corporations concerned.

Export fluctuations disturbing the economy can be rectified through the appropriate changes in the rates and allowances for proper income tax,
personal tax, corporation, etc., in the way already described for domestic disturbances. Export taxes are generally used to rectify the external disturbances at the points where they occur, i.e. by taxing the income of the exporters. But in so far as the fluctuations in exports affect the rest of the economy, depending on the input-output structure of the economy, export taxes do not extend to these sectors. Therefore, the same sorts of arguments for the unsatisfactory operation of the export taxes apply, mutatis mutandis, as for cesses in the previous Section.

Section (4) Income Taxes Subject to an Unstable Lag as Stabilizers. The analysis of the fiscal policy with respect to income taxes so far has been subject to the fact that the tax changes are so made that they can be implemented as and when the change in the trend of economic activity envisaged occurs. Thus in equation \( Y_t = \frac{I + G + cR}{1-c} \left(1-t_t(Y_t)\right) \), where \( T = t_t(Y_t) \) is the given condition, but if \( T \) were equal to \( t_t(Y_{t-v}) \) with \( v \) indicating any number of preceding year for which the income is being assessed in the year \( t \), the equation would be: \( Y_t = \frac{I+G+cR}{1-c} + ct(Y_{t-v}) \) and all the equations which follow in the stable model discussed in Section (1) (a) would have to be modified to take into account the unstable time lag.

In the following Table the entrepreneurs would base their business decisions on the basis of the budget for 1955/56. They would therefore arrange the productive capacity of their enterprise as would be compatible with the disposable income net of the current tax liability.
TABLE IX
Consequences of Time Lag in Tax Liability on (Static) Economic Stability.

<table>
<thead>
<tr>
<th>Year</th>
<th>1950</th>
<th>1957</th>
<th>1958</th>
<th>1959</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income: £</td>
<td>700</td>
<td>500</td>
<td>400</td>
<td>300</td>
<td>500</td>
</tr>
<tr>
<td>Income Tax</td>
<td>7%</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>5% (4% in 1955)</td>
</tr>
<tr>
<td>Liability (Current)</td>
<td>70</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Tax paid:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-year lag</td>
<td>40</td>
<td>70</td>
<td>50</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>2-year &quot;</td>
<td>40</td>
<td>70</td>
<td>50</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>3-year &quot;</td>
<td>40</td>
<td>70</td>
<td>50</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Net Disposable income:</td>
<td>660</td>
<td>430</td>
<td>350</td>
<td>260</td>
<td>470</td>
</tr>
<tr>
<td>Growth Supply</td>
<td>630</td>
<td>450</td>
<td>360</td>
<td>270</td>
<td>450</td>
</tr>
</tbody>
</table>

The difficulty in such circumstances is that, owing to the existence of an unstable time lag, neither can the producers take the existence of tax policy into account nor can the government use fiscal policy to predict the economic trend or the response of the private sector to the tax changes that are desired by it. Not only does this state of affairs make it virtually impossible to use income tax as a stabilizer and in consequence let it be stability-wise neutral, but in economies which are subject to short-run 'Kitchin' type cycles the effect of such a delay in tax assessment and collection is to make income taxes somewhat of destabilizers. It is worth noting that this state of affairs prevails in static situations as distinct from the dynamic one where even a lag of one year can be destabilizing.
Sextion (5) Conclusions.

Various theoretical possibilities of stabilizing an economy which is off the stable growth path have been analysed in the preceding Sections under various assumptions. The conclusions would differ according to the assumptions made in each case. The validity of the assumptions can be tested statistically. Our concern here is therefore not quite so much with ascertaining the best income tax policy that ought to be used to stabilize the economy subject to strong fluctuations only but with indicating the various plans. From the preceding Sections, it is obvious that no simple generalization, such as follows is possible: "The income of the higher income group is high and so long as their marginal propensity to consume is not very low, to curtail consumption, their income has to be taxed more heavily than that of low income group with high marginal propensity to consume."

Such a generalization is not possible because the distribution of income may be such that the consumption occurs mostly in the low income group with large families and large marginal propensity to consume. Even if the marginal propensity to consume of high income group is low, their income would probably also require to be taxed since the excessive consumer demand may induce them to invest to such an extent as to spread the effect of excess growth tendency in consumer goods sector to the investment sector.

Faced with a given form of instability, the authority will be compelled to apply a corrective force through taxes on income. In doing so it will have to reach a decision as to how a compromise between the conflicting desired ends within the broad stabilization objective itself
is to be reached. For instance, given that income tax as a corrective force is not strong enough, to what extent is an excess of growth tendency over growth capacity to be permitted in the interest of a given level of employment, and conversely. Thus, if the government in a less-developed economy of Africa decides to maintain a certain minimum level of employment in its urban sector, growth tendency may exceed growth supply leading to an increase in price level as follows:

\[ p = \frac{\Delta Y_t}{1 + \Delta Y_c} \]

Once this sort of compromise between conflicting aims within the stabilization objective itself is reached, the tax, expenditure and budgetary rates may read as in the Table below.

**TABLE X**

Marginal Tax, Expenditure and Budgetary Rates for Stabilization Objective.

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Number</th>
<th>Pre-Budget Income</th>
<th>Marginal Rate of Tax</th>
<th>Marginal Rate of Expenditure</th>
<th>Marginal Budgetary Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100</td>
<td>5000</td>
<td>250,000</td>
<td>( Y_1 )</td>
<td>( y_1 )</td>
<td>((Y_1 - y_1))</td>
</tr>
<tr>
<td>100-300</td>
<td>300</td>
<td>60,000</td>
<td>( Y_2 )</td>
<td>( y_6 )</td>
<td>((Y_2 - y_6))</td>
</tr>
<tr>
<td>300-800</td>
<td>200</td>
<td>120,000</td>
<td>( Y_3 )</td>
<td>( y_5 )</td>
<td>((Y_3 - y_5))</td>
</tr>
<tr>
<td>800-1500</td>
<td>180</td>
<td>180,000</td>
<td>( Y_5 )</td>
<td>( y_4 )</td>
<td>((Y_5 - y_4))</td>
</tr>
<tr>
<td>1500-2500</td>
<td>120</td>
<td>240,000</td>
<td>( Y_4 )</td>
<td>( y_3 )</td>
<td>((Y_4 - y_3))</td>
</tr>
<tr>
<td>2500-4000</td>
<td>50</td>
<td>150,000</td>
<td>( Y_6 )</td>
<td>( y_2 )</td>
<td>((Y_6 - y_2))</td>
</tr>
</tbody>
</table>


(6) Metzler's theory of inventory cycle which first appeared in 1941 and was elaborated in 1947 has been dealt with by G. Ackley, op. cit., in Appendix 2 to Chapter 13, pp. 355 et seq. It has also been dealt with succinctly by W. M. Lee, *Economic Fluctuations: Growth and Stability*, op. cit., with a numerical example, pp. 371-74.

Much of the discussion here is based on Professor Peacock's series of seven lectures delivered in Lisbon during Spring, 1961. For more complicated models see Chailis A. Hall, Fiscal Policy for Stable Growth, Rhinehart & Winston, New York, 1960.


See for instance the Distribution Theories of Kaldor, Joan Robinson and others as discussed by Paul Davidson in Theories of Income Distribution, New Brunswick, 1960.


For instance see R.N. Bhargava, "Social Accounting", Indian Economic Review, August, 1958, p.3; also Harold M. Groves, "Empirical Studies of Income Tax Compliance", National Tax Journal, December, 1958, p.197 where it is argued, "... Indeed the point is often made that in countries and states that are largely agricultural, the income tax cannot be expected to play much of a role".


The possibility of such a relationship to exist has been mentioned by I.G. Stewart, "Consumer Demands in Nigeria"; and also see P. Ady, "Uses of National Accounts in Nigeria", in Income and Wealth, op.cit.


(19) The fact that instability is examined from the point of view of the external as well as internal sources of instability by no means supports the view that we are concerned with those under-developed economies which are the primary producers of one or two commodities and are exposed to the fluctuations in demand and prices of commodities arising from the business cycles in developed economies. See as to such a theory Kanasathasan, 'Export Instability and Counter-Cyclical Fiscal Policy in less-Developed Economies', *I.M.F. Staff Papers*, 1959.

(20) Here we are supporting the Nurksian view in "The Quest for Stabilization Policies in Primary Producing Countries", *Kyklos*, 1958, that consideration be given to taxation generally than to efforts to stabilize the domestic economy by operating on the export sectors alone. We are also supporting Charles Stanley's view in 'Export Taxes in Ceylon, 1948-52', *Public Finance*, 1959 that export tax revenue obtained is usually expended for capital formation and not supporting D. Walker-Kennedy-Ord view as to their effectiveness in Uganda as shown in "East African National Income Statistics"; *Income and Wealth*, op.cit. See further my comment on D. Walker's paper 'Marketing Boards in Uganda', at I.E.A. Conference in Vienna, 1962 as to partial effectiveness of such taxes.

(21) This point has been discussed by G. Ackley, *Macroeconomic Theory*, op.cit. in a somewhat different context. He deals with the implications of a change in the distribution of income for the purpose of macro-economic analysis, pp.296-98.

(22) For a statement along these lines see G. Bombach, "Prices, Growth and Distribution", *International Economic Papers*, No.10, p.25.
CHAPTER FOUR

General Equilibrium Analysis of Objectives of

The Aggregate Income Taxes

Section (1) Introduction.

This Chapter has a four-fold purpose. Firstly, it must be indicated how the three policy objectives of income taxation, analysed so far independently on the assumption that the remaining objectives are operating satisfactorily, may indeed be in conflict, and how exactly a compromise might be reached by the politicians on the conflicting objectives through informed judgement. It is appreciated that the final decision, as to which of the objectives should be sacrificed in order to achieve more of one or the other, rests on the politicians who would, in turn, be indeed answerable to the electorate. In this sense, there is a parallel with the pricing mechanism here whereby the politicians are seeking to maximize votes through the supporters just as the entrepreneurs are seeking to maximize profits. Just as an entrepreneurial decision depends on a reasonably sound understanding of the working of the price mechanism, and positive knowledge relating to the profit maximization objective, political decision-making as between the objectives would be 'rational' if based on informed judgement. Secondly, we analyse taxable capacity with respect to income tax as an economic concept, in an effort to ascertain the determinant factors which impose a constraint, in economic terms, on the amount of any tax that can be raised by a government in less-developed economies. Thirdly, we try to relate this additional objective which acts as a constraint on the working of the other objectives analysed prior to the consideration of an economic concept of taxable capacity with respect to income tax. Fourthly, we extend the general equilibrium analysis of objectives of a system of aggregate income taxation from a single,
unitary layer of government to the one at multi-level, and modify our
analysis to take into consideration this additional inter-regional factor
with respect to income taxes.

Section (2) Growth, Stabilization and Income Redistribution Reconsidered
Simultaneously.

The concluding Sections of the previous Chapters set out Tables of
marginal tax, expenditure and budgetary rates on the assumption that in each
case the government is seeking to achieve one particular objective through
its income tax policy. Various possibilities in deriving these rates
have had to be considered. For whilst in some cases, such as stabilization,
there are further sub-objectives, for example, price stability and full
employment for the simultaneous achievement of which there is not enough
knowledge, in others such as growth objective there is enough knowledge for
its achievement, the period for the maintenance of which would be dependent
on the growth plan selected. In other words, the decision as to the way in
which the given objective was to be fulfilled through income tax policies has,
in any case, to be made on well-informed basis.

Given the order and scale\(^1\) of priority of objectives, the problem of
selecting between the various policy objectives and the method of achieving
them is similar, in that the implications of determining and implementing
the priority and scales of objectives will again depend on the method of
implementation. It is the knowledge or foresight of such implications
which is essential for well-informed judgement. If we juxtapose the
marginal rates of tax, expenditure and budget derived previously, it can
be seen that all three objectives cannot be achieved simultaneously if the
sum of X, Y and Z in the income scales amounts to over £1 against £1
### TABLE XI

Derivation of Marginal Tax, Expenditure and Budgetary Rates in a General Equilibrium Situation with Different Objectives Simultaneously Desired

#### I. Initial Rates:

<table>
<thead>
<tr>
<th>Income Group No.</th>
<th>Income</th>
<th>Redistribution MTR</th>
<th>Redistribution MER</th>
<th>Redistribution MBR</th>
<th>Growth MTR</th>
<th>Growth MER</th>
<th>Growth MBR</th>
<th>Stabilization MTR</th>
<th>Stabilization MER</th>
<th>Stabilization MBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 100</td>
<td>5000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 - 300</td>
<td>300</td>
<td>z_1</td>
<td>z_1</td>
<td>z_1 - z_1</td>
<td>x_1</td>
<td>x_1</td>
<td>x_1</td>
<td>y_1</td>
<td>y_1</td>
<td>y_1 - y_1</td>
</tr>
<tr>
<td>300 - 600</td>
<td>200</td>
<td>z_2</td>
<td>z_2</td>
<td>z_2 - z_2</td>
<td>x_2</td>
<td>x_2</td>
<td>x_2</td>
<td>y_2</td>
<td>y_2</td>
<td>y_2 - y_2</td>
</tr>
<tr>
<td>600 - 1200</td>
<td>180</td>
<td>z_3</td>
<td>z_3</td>
<td>z_3 - z_3</td>
<td>x_3</td>
<td>x_3</td>
<td>x_3</td>
<td>y_3</td>
<td>y_3</td>
<td>y_3 - y_3</td>
</tr>
<tr>
<td>1200 - 2400</td>
<td>120</td>
<td>z_4</td>
<td>z_4</td>
<td>z_4 - z_4</td>
<td>x_4</td>
<td>x_4</td>
<td>x_4</td>
<td>y_4</td>
<td>y_4</td>
<td>y_4 - y_4</td>
</tr>
<tr>
<td>2400 - 4000</td>
<td>50</td>
<td>z_5</td>
<td>z_5</td>
<td>z_5 - z_5</td>
<td>x_5</td>
<td>x_5</td>
<td>x_5</td>
<td>y_5</td>
<td>y_5</td>
<td>y_5 - y_5</td>
</tr>
</tbody>
</table>

#### II. Compromise Rates:

<table>
<thead>
<tr>
<th></th>
<th>Redistribution MTR</th>
<th>Redistribution MER</th>
<th>Redistribution MBR</th>
<th>Growth MTR</th>
<th>Growth MER</th>
<th>Growth MBR</th>
<th>Stabilization MTR</th>
<th>Stabilization MER</th>
<th>Stabilization MBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2z_1</td>
<td>z_2</td>
<td>z_1</td>
<td>z_1 - z_1</td>
<td>x_1</td>
<td>x_1</td>
<td>x_1</td>
<td>y_1</td>
<td>y_1</td>
<td>y_1 - y_1</td>
</tr>
<tr>
<td>2z_2</td>
<td>z_2</td>
<td>z_2</td>
<td>z_2 - z_2</td>
<td>x_2</td>
<td>x_2</td>
<td>x_2</td>
<td>y_2</td>
<td>y_2</td>
<td>y_2 - y_2</td>
</tr>
<tr>
<td>2z_3</td>
<td>z_3</td>
<td>z_3</td>
<td>z_3 - z_3</td>
<td>x_3</td>
<td>x_3</td>
<td>x_3</td>
<td>y_3</td>
<td>y_3</td>
<td>y_3 - y_3</td>
</tr>
<tr>
<td>2z_4</td>
<td>z_4</td>
<td>z_4</td>
<td>z_4 - z_4</td>
<td>x_4</td>
<td>x_4</td>
<td>x_4</td>
<td>y_4</td>
<td>y_4</td>
<td>y_4 - y_4</td>
</tr>
<tr>
<td>2z_5</td>
<td>z_5</td>
<td>z_5</td>
<td>z_5 - z_5</td>
<td>x_5</td>
<td>x_5</td>
<td>x_5</td>
<td>y_5</td>
<td>y_5</td>
<td>y_5 - y_5</td>
</tr>
</tbody>
</table>

#### III. Final Rates:

<table>
<thead>
<tr>
<th></th>
<th>MTR</th>
<th>MER</th>
<th>MBR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(.5x_1 + .3y_1 + .2z_1)</td>
<td>(.5x_1 + .3y_1 + .2z_1)</td>
<td>(.5x_1 + .3y_1 + .2z_1)</td>
</tr>
<tr>
<td></td>
<td>(.5x_2 + .3y_2 + .2z_2)</td>
<td>(.5x_2 + .3y_2 + .2z_2)</td>
<td>(.5x_2 + .3y_2 + .2z_2)</td>
</tr>
<tr>
<td></td>
<td>(.5x_3 + .3y_3 + .2z_3)</td>
<td>(.5x_3 + .3y_3 + .2z_3)</td>
<td>(.5x_3 + .3y_3 + .2z_3)</td>
</tr>
<tr>
<td></td>
<td>(.5x_4 + .3y_4 + .2z_4)</td>
<td>(.5x_4 + .3y_4 + .2z_4)</td>
<td>(.5x_4 + .3y_4 + .2z_4)</td>
</tr>
<tr>
<td></td>
<td>(.5x_5 + .3y_5 + .2z_5)</td>
<td>(.5x_5 + .3y_5 + .2z_5)</td>
<td>(.5x_5 + .3y_5 + .2z_5)</td>
</tr>
<tr>
<td></td>
<td>(.5x_6 + .3y_6 + .2z_6)</td>
<td>(.5x_6 + .3y_6 + .2z_6)</td>
<td>(.5x_6 + .3y_6 + .2z_6)</td>
</tr>
</tbody>
</table>

**Explanations:**
- **MTR** indicates marginal tax rate
- **MER** indicates marginal expenditure rate
- **MBR** indicates marginal budgetary rate
of income; for it means that the private sector has no net disposable income with which it could operate concurrently with the public sector and so is inconsistent with the assumptions made in the previous Chapter.

Given the order and scale of priority, positive economists could fit the policy objectives in the results of the previous Chapters. If the scale of priority of objectives as between growth, income redistribution and stabilization is given, say, in the ratio of 4:3:2 respectively, the final marginal tax, expenditure and budgetary rates would be as shown in Table XI. These rates may possibly have the effects not analysed in the previous Chapters, e.g. the partial rather than full responsiveness of the taxpayers to tax changes, due to the institutional factors not previously built into the assumptions. In such a case the positive economist must bring this fact to the knowledge of politicians who may adjust the ratios representing order and scale of priority of objectives.

Alternatively, given the tax rates, certain policy objectives may be sought to be achieved through income taxes. Here the task of a positive economist is to indicate, through his knowledge of the economy, to the government the extent to which the objectives could indeed be fulfilled, leaving it to the vote-catchers to ascertain the compatibility of the extent of policy objectives achievable with the demands of the voters.

The discussion so far has been in terms of the rates of tax and the scales and priority of objectives, no reference being made to the size of the taxes on income through which policy objectives are sought to be achieved. This is what we ought to deal with when this subject is dealt with fully.
As we have restricted our numerical example to demonstrating the way in which the rates of tax can be manipulated to build in the broad policy objectives into the system, it might appear that it does not take into account the realities of the forms of income taxation in practice. For instance, one might argue that difficulties would arise if a system of income taxation makes allowances for personal circumstances or the subsistence minimum where certain amounts of income are tax-free. The answer to such an obstacle is that the argument can be seen in terms of the 'effective rates of tax rather than the simple, 'legislative' rates of tax.

There is one further point we need make in connection with what we have already said about the compromise between conflicts of objectives within an objective of the system of income taxation. This relates to the form of income tax that is used by the government. Thus, the schedular form of income tax could be more effectively used than a global tax in order to tax different sources of income differently as desired by the growth and stabilization policy; a supplementary income tax on total aggregate income would be useful in taking care of the income redistribution policy. Furthermore, the variations in tax rates to take account of factors such as family size (as in Holland) could be more easily manipulated for analysing theoretically the policy issues than under the system of personal reliefs, exemptions, etc. necessitating the prior determination of 'effective' tax rates. Whether these could be implemented or not is however difficult to say as there might be administrative difficulties in operating a system of schedular taxes as borne out by their unsuccessful operation in countries of Latin America and Europe, Egypt, etc.

Section (3) Taxable Capacity as an Economic Concept.

A. Absolute Versus Relative Capacity. Taxable capacity of a
government is often defined as the maximum percentage of the national output that people would be prepared to pay by way of taxes without reacting adversely in such a manner as would cause revolution, inflation, reduced rates of growth in consequence of unacceptable level of taxation. For our purpose the level of income taxation has to be distinguished from the level of total taxation by the government in power. However, merely to say that a level of income taxation in relation to the total national output, and also in relation to the level of the rest of the taxation may reach such a limit as would make the taxpayers react adversely, does not explain the concept of taxable capacity in relation to income tax. We have to probe further into the precise implication of this statement.

The analysis of taxable capacity in this Section is again subject to the same type of assumption as in the previous three Chapters. It means that the concept is analysed with respect to a growing economy where the benefits of government expenditure on the taxpayers are taken into account. The taxable capacity of each individual taxpayer is aggregated for the purpose of ascertaining the limit of taxation or the limit of a particular tax itself. In a dynamic context we refer to taxable capacity at a particular point in time and assume that it will change with the growth of national output. As our concern is with the capacity of a tax rather than deficit financing, foreign borrowing, etc., it has either to be assumed that the government budget is balanced, or that adequate income taxes are raised to meet with the proportionate share of government expenditure that is required to be financed by income tax.

In referring to taxable capacity of a government in relation to a particular tax, we take into account the taxable capacity of the government in relation to the remaining taxes, i.e. non-income taxes, in the given
context. Clearly, an absolute taxable capacity of a government in relation to a particular tax at a given point in time is meaningless. To illustrate, let us suppose that there are two communities called A and B. In each of these income taxes comprise 10% of the gross domestic product. In addition, other sources of revenue comprise 5% (in A) and 15% (in B) of the gross domestic product. If taxable capacity with respect to income tax is reached in B as soon as income taxes amount to 10% of the gross domestic product and the reactions of the taxpayers become adverse in B, this does not necessarily mean that the members or taxpayers of the community A would also be prompted to act in the same way. The concept of taxable capacity of a government in relation to income tax is relative rather than an absolute taxable capacity. This must be borne in mind particularly when certain countries in Tropical Africa have had a quite significant share of purchase taxes (Ghana and Nigeria) whereas others like Tanganyika, Kenya and Uganda have had none of it in their budgets.

The level of government expenditure depends on whether or not the marginal social benefits are equal to or more than the marginal social costs. This is what gives rise to a limit in the capacity of government expenditure. To meet such government expenditure various taxes are imposed. The tax which can be raised with the least marginal social costs, would be the first to be raised, as shown in the diagram Seven (A). If, however, the marginal social cost of a tax depends on the level of revenue from each tax rather than on the level of all government revenues the position would be as in diagram Seven (B).
Diagram 7

Explanations: In diagram Seven 'B' revenue of BA can be raised solely from Export Tax. If revenue > BA it can be raised from Income Tax so long as it does not exceed BA + (AL + BL).

If revenue > BA + AL + BL but it is < BA + AL + BL + LN + IN

from export and income taxes, we have BA + AL + LN + (BL + LN),
i.e. LN (from export tax) plus LN (from income tax). Total L.T. = BV; E.T. = BN.

Taxable capacity is thus reached when the marginal social costs of further taxation exceed the marginal social benefits of a further government expenditure. In referring to the taxable capacity with respect to a particular tax we therefore mean that this particular tax has reached such a level that the further marginal social cost of raising more of it would be higher than the marginal social cost of raising any other tax, or that marginal social cost has reached such a level that it would exceed the possible marginal social benefit at such a level of government expenditure.

B. Components of the Taxable Capacity. Having thus clarified what
we mean by a relative taxable capacity in relation to different taxes we need to deal with the way in which the marginal social cost reaches its limit and gives rise to the limits of taxable capacity. There are three different consequences (or 'effects') which result from taxation and it is these effects which determine the social costs of taxation. These 'effects' are (i) purchasing power 'effect'; (ii) distributional 'effects'; (iii) announcement or substitution 'effects'. These have been considered in the previous Chapters; and the extent to which they conflict and interact with each other has been analysed in the previous section. Our concern here is to try to determine which of these 'effects' is of paramount importance in the marginal social cost of taxation on income. As the marginal utility of disposable income decreases with a decrease in disposable income, the marginal social disutility of income of paying taxes increases with an increase in the level of taxation. This will give rise to a limit to which government expenditure can be incurred. Since the social disutility of paying taxes depends on the size of government expenditure, the government expenditure would arrive at a capacity. Thus, if one were to ascertain taxable capacity in relation to a given tax, one would cut down government expenditure if its social marginal benefits fall short of marginal social cost of raising the tax, or else raise some other tax so long as the marginal social cost of raising it fell below the marginal social benefit of further expenditure. So from the point of view of purchasing power effects what would matter most would be that a reduction in government expenditure at a certain level would be as effective as the levying of tax up to that level. If at that level of government expenditure and that rate of purchasing power effects the economy is in equilibrium, i.e. growth tendency matches with growth capacity, on the basis of purchasing power 'effects', taxable capacity has been reached. Other economic 'effects' ignored, that is the social cost that people are
prepared to pay; any further taxation might mean that with balanced budget multiplier in operation, growth tendency would exceed capacity so that marginal social cost would exceed marginal social benefit. But the distribution of cost of financing this given level of government expenditure may not be acceptable to all who seek to find themselves placed in an economy where growth tendency and growth capacity are compatible with each other. Their distributional effects may be such that the level of government intervention would have to be reduced if marginal social cost in its distributional 'effects' are higher than the marginal social costs in their stabilization or purchasing power 'effects'; alternatively, it may have to be increased or kept at the same level if they are lower than those of purchasing power 'effects'. But the level of government intervention is limited not only because the marginal social cost of going beyond that level would be higher or because distribution 'effects' would be undesirable, but because of the announcement 'effects'. Thus, if an increase in the level of government expenditure is liable to cause growth tendency to exceed growth capacity, taxpayers' reaction to invest and save will be considerably influenced. If the marginal social cost of increasing the level of government activity in terms of its announcement effects is liable to be higher than that of distributional effects, i.e. those taxpayers who were seeking to find themselves placed in a society with fairly equal distribution of income at a certain marginal social cost might not wish to pay a cost to such a degree if they discovered that its immediate short-run effect is to alter the individual decisions to save, invest, providing and utilizing work effort, technical progress and so on. The announcement 'effects' of the government tax-expenditure intervention might bring them to a capacity as a result of the aggregating of various individual marginal social costs which have been revised against the three different effects determining the social cost of taxation.
This principle that the announcement 'effects' prevail disposable income or purchasing power 'effects' and the distributional 'effects' in the marginal social cost of government tax-expenditure intervention should perhaps help us explain a generally accepted statement that a country in which a larger share of total income accrues to a minority of wealthy individuals the accustomed standard of living of the population will evidently be lower and the tax potential higher than a country in which the national income accrues to all groups equally. The diagrams below help us illustrate these points; diagrams 'A' and 'B' relate to an economy with an uneven distribution of income and 'C' and 'D' to that with an even distribution of income.

Component Effects Comprising Taxable Capacity with Respect to Income Tax in:

**An Economy with Even Distribution of Income**

![Diagram A](image)

![Diagram B](image)

**An Economy with Uneven Distribution of Income**

![Diagram C](image)

![Diagram D](image)

**Diagram 8**

If the income is fairly evenly distributed, the marginal social cost of distributional 'effects' will be lower; it will not be zero, since our redistribution objective is broadly defined to take account of the family size,
'effects' of government expenditure benefits, etc. rather than the present income-size for which a simple flat rate poll tax with zero marginal social cost would, perhaps, suffice. The marginal social cost of announcement 'effects', other things being equal, will however, be higher. The marginal social cost of the purchasing power effect may very well be higher as, with an equality of distribution of income, an aggregate of marginal propensity to consume for the whole economy may approach unity and may give rise to a loss of business confidence and a sudden downturn of the height of economic activity. The extent of the prevalence of any of these effects in the taxable capacity of the economy would no doubt depend on how much smaller or how much greater is any of these effects in an economy with an equal distribution of income than in one with a somewhat skewed distribution. Now, if the assumptions for a complex evaluation of these three effects are taken to be the same (e.g. growth of income and its accrual to various factor shares, and the income brackets are taken to be the same for the purpose of income redistribution, growth and allocation and the stabilisation objectives each), it is probable that the degree of reduction in the marginal social cost of distributional effects from that in an economy with a skewed distribution of income is not liable to be quite so large as the increase in the marginal social cost of announcement effects would be larger than it is in a distributionally skewed economy. If this argument is accepted, the taxable capacity of a distributionally skewed economy is higher than that of a distributionally even economy as shown in the diagrams above.

C. Other Relevant Factors in the Concept of Taxable Capacity. In concluding this Section, two further points must be made. The first relates to the extent to which tax concessions, necessitated by the allocation of resources so as to achieve a more effective growth rate in the long-run, affect the concept of taxable capacity. The second relates to qualifying
our discussion on the paramount importance of announcement effects in the concept of taxable capacity; there may be factors other than the rates of tax which affect more significantly the individual decisions to work, save, invest or learn to make use of new technical knowledge, and personal skills. As to the first point on incentives, it is true that, in so far as some concessions from tax to encourage adequate supply and utilization of factor resources are available, the taxable capacity may generally be reduced, provided no simultaneous changes are made to adjust other parameters of that part of a budgetary system which consists of income taxation. For instance, the government may make good revenue loss by taxing incomes derived from the supply of non-strategic factor inputs more heavily than those from the supply or utilization of a strategic factor input, i.e. from within the Growth and Allocation Objective itself or by adjusting the weight of priority of different objectives, i.e. by reducing the degree of income redistribution desired, or from both. That the granting of tax incentives to the supply and utilization of certain factor inputs does necessitate either the reduction in overall taxable capacity (called 'reduced capacity') or maintenance of the normal taxable capacity at the loss of the extent of priority of objectives (everywhere changes are made within the allocation and growth objective itself since these would affect income redistribution and purchasing power effects among such recipients) is largely true. For which course of action the government in power would opt is dependent on two factors: firstly, its previously declared priority of objectives; and secondly, its ultimate goal in the society over which it rules. If the acceptance of reduced taxable capacity brought about by the incentive taxes enables the government approach nearer to the desired degree of income redistribution, growth and economic stability through income tax than the insistence of normal taxable capacity (and
reweighting of extent of priorities) the former will be preferred on economic grounds. As to the ultimate role of the government, the determining factor may be, for instance, whether it would want to direct the growing firms to act in a 'desirable way' through tax incentives and accept consequent reduction in taxable capacity, or have at its disposal larger revenue obtained by raising tax as revealed by normal taxable capacity, and spending it as a subsidy to control growing firms. In other words, it would depend on the extent to which the government would wish to intervene, viz. whether the largeness of government intervention in size (large normal taxable capacity) and in form (through subsidy rather than incentives) has more value than smallness of the budget, and more direction than control.

The acceptance of the reduced taxable capacity ought not necessarily prevent us from making a realistic appraisal\(^8\) of income tax limits under an incentive system as is often suggested. So long as the reactions of those who are taxed and who are exempted specially can be ascertained, they can be aggregated, and the income tax limit for the whole economy ascertained.

As to the argument in connection with the non-significance of announcement effects of income tax on individual decisions to save, invest, supply labour effort and put to use skill, and technical knowledge, there are rather two distinct points: first, relative non-significance; second, absolute non-significance. It is somewhat difficult to accept the view that the tax rates and levels have in a democracy no significance at all. If in 'settled times' the taxes are suddenly raised\(^9\) (not maintained at the level of 'unsettled times' - war - as they are now) the levels which would be justifiable only in periods of emergency, the individual reactions would be violent. The concept of relative non-significance of income
tax rates and levels is therefore more realistic. What it means is that the individuals concerned with the payment of such a tax do not regard it as a decisive factor in their daily behaviour (viz., whether to work more, save more or vice versa) as they indeed do derive certain benefits therefrom but react against the tax by way of a complaint against a loss of democratic freedom to dispose of income in a manner which they prefer i.e. it becomes psychological as the disposition of income personally does not confer a better bargain on the consumer except by way of an option for the personal choice.

In less-developed countries, the problem is not so much of a psychological nature but a humanitarian one, as an increase in marginal tax rate may mean a direct loss of purchasing power owing to the level and nature of government expenditures and smallness of the size of income. Moreover, in developed countries with a democratic system, the outcry against the levels of taxes may either be in the form of mere complaints or, if taxation is a powerful enough factor, in the acceptance or non-acceptance of the government in power, the overthrow of the government through censure of no confidence and new elections. In less-developed democratic countries, the probable outcome of a marginal increase in tax rates is riots or a revolution if it falls on poorer groups, and overthrowing the government if it falls on the richer group on whose support the government depends so as to be able to rule. In the context of African countries, governments in power depend on the poor mass of the people, hence the marginal increases in tax rates would matter a great deal. The less developed countries of Tropical Africa have, therefore, to conform more to the level of income taxation as revealed by the economic concept of taxable capacity (modified perhaps
a little by administrative factors) than the developed economies where the concept may largely be a psychological one.

Section (4) Compromise of Policy Objectives Subject to Taxable Capacity (Revenue Objective)

If the details of pre-budget taxable income are added to the example of Section (2) and total revenue yield from income tax can be ascertained on the basis of the rates of tax (evolved to take the pre-determined priority of policy objectives), it is possible that the revenue yield may not be compatible with the taxable capacity of the economy with respect to income taxation. It may either be too small a sum raised or it may be too large a sum for the government to be able to raise, depending on the extent of priority of objectives some of which are revenue yielding and others revenue-reducing. If this is so, a political decision has to be made once again to make the revenue collected compatible with the taxable capacity of the economy, and in so doing the tax rate for each branch or each of the functional objectives of the income tax system has to be reconsidered and again the extent of the priority of objectives determined. Thus, in the example above, the weight of 0.5 assigned to the income redistribution objective might have to be reduced to be able thereby to raise the percentage of actual rates (as the rate established under the income redistribution objective tend to be the lowest).

Consequently, the stabilization branch can be attributed a weight of 0.5 and income redistributive objective 0.3 and growth and allocation 0.2, or instead, growth and allocation as well as stabilization 0.4 each and income redistribution 0.2. There need not also arise any possibility of going beyond the taxable capacity of the economy and defeating the very purpose of reconsidering the weights of degree of
priority of objectives, so long as some caution is exercised in attributing weights of different objectives in the second case. Caution is required to ensure that the rates of tax eventually ascertained by attributing different weights such as 2:4:4 :: Income Redistribution: Growth and Allocation: Economic Stability do not generally exceed those reflected by the Allocation and Growth, as the announcement effects are paramount in the economic concept of taxable capacity with respect to a given tax.

Section (5) Income Taxes in the Context of Inter-Regional Finances.

We have so far analysed theoretically the functional objectives of a system of income taxation in relation to a given, uniform area. In reality, the various areas of a unitary state, or the various states of a federation are not uniform because of the disparity in the distribution of natural resources, climatic conditions and so on. It would be valid to argue that the preceding analysis indeed takes into consideration such problems as disparity in resource distribution and limitations on factor mobility as between various individuals in a given unitary region, and that the preceding arguments would apply, mutatis mutandis, to the individuals as between the states. It is on the other hand, equally arguable that in a multi-unit financial structure there are certain additional factors such as national interest, needs of a given region and financial responsibility. Although these additional factors may or may not alter the substance of the preceding analysis, they are certainly worth considering.

In a multi-level structure of government financing the objectives such as national interest, financial responsibility and needs are generally taken care of by grants, special or block, by central government to the local units, division of total or part of the revenue collected in a
'distributable pool', fractional division of a given source of revenue as between central government and local units or additional tax levy by a local unit on to what the central government has already been collecting and finally the separation of tax sources as between different layers of government.

In this final Section our aim is to indicate how additional factors such as financial responsibility, needs, and national interest modify the income redistribution, resource allocation and growth, stabilization and taxable capacity objectives of the preceding analysis.

A. **Income Redistribution.** Inter-regional differences in wealth and income are liable to produce different taxable capacity. A region with a lower taxable capacity will show a different fiscal treatment towards its citizen than one with a higher taxable capacity. The discrepancy in fiscal treatment is generally seen in terms of differences in public services standards rather than in terms of overall differences; the former seeks to rectify inter-regional discrepancies through specific grants on certain services, whilst the latter seeks to bring about equalization in the national interest through various plans. These equalization plans consist of: equalization of actual outlay or performance; equalization of differentials in needs and capacity; or even equalization of potentials which are the very causes of the discrepancies. Of all such plans that are concerned with equalization, one through outlay or performance is based on a narrow, service standards view of income redistribution rather than a wider view of national interest through equity of overall-fiscal treatment. Although the overall fiscal equalization through other plans is by means of a federal expenditure grant, it could equally be achieved by conditionally -
conditional on needs, capacity or potentiality - allowing the lower levels of government to fix their own tax rates. So long as the lower units impose taxes matched by benefits, the necessity of making regional grants by the higher level of government, i.e. redistributing from high income states to low income states could be dispensed with.\(^{13}\) 

B. **Growth and Allocation.** The argument as to imposing least tax on the region where output per index of input is the highest from the point of view of efficiency in resource allocation comes under scrutiny if, given the desirability of inter-regional equalization, the lower unit of government levies a progressive tax in the short-run. This is because, the citizen of a region liable to pay tax to a lower unit of government, which is in turn seeking to eliminate inter-regional differences in fiscal capacity with no federal grant or resource transfer from high income to low income states, finds that a low-income receiver (with the same level of income as his) in the high income state will tend to be differentially treated than himself. This might induce him to move to the high income states at the cost of inefficiency\(^{15}\) in resource allocation. To prevent this sort of situation, the tax levels at lower unit in a low income and high income states may have to be modified; the latter will have to compromise because the limit on the ability of the lower-unit low income state to make its tax rates as much proportional and least progressive as possible may mean the transfer by top-level unit from high-income to low-income state. The adjustment of distribution at low level high income state might be through adjustments in actual rates or effective tax rates through reduction in depreciation and business allowances with a bearing on regional stability.

C. **Stabilization.** From the stabilization point of view, the
variations in rates of tax between one unit of government and another may be based on the differences in the marginal propensity to consume or to save of the regions in question, i.e. liability to stability or instability, conditions of federal transfer, viz., as to the nature of the project depending on whether employment creating or not and so on. The adjustment would have to be subject to the limited compatibility with income redistribution and growth objectives, the extent of compatibility being pre-determined on the bases of the demands of the local electorate.

It would be easy to see from the preceding argument that the whole position as to the taxable capacity at all levels of government unit would require to be re-examined in the light of the variations in tax rates at various levels. It might be conjectured at this stage that the progressive personal tax or personal rate with no deductible expenses or personal allowances at the local government levels in Tropical Africa is much less progressive in terms of effective rates and may in fact, be a quid pro quo as required under the inter-regional income redistribution and growth objectives.
(1) It is often the case in practice that although the desirability of implementing certain policy objectives is accepted the extent to which they are to be implemented is not made clear. As an example of the argument along these lines see A.T. Peacock, "Royal Commission on Taxation in Great Britain", National Tax Journal, 1957, where the author is critical of the failure of the Commission to make clear the extent to which the progression of tax is generally accepted as a desirable objective. "Granted that equity demands progression and even determines within broad limits the degree of progression, it is surely necessary to state precisely how much weight is to be given to equity (in this narrow sense) as distinct from other considerations of policy."

(2) David Walker, "Taxation and Taxable Capacity in Underdeveloped Countries", a paper delivered at the Nyasaland Economic Symposium (18th to 28th July, 1962) on Relating Principles of Economic Development to African Economic Development. We are very grateful to Professor Walker for allowing us to see the unrevised version of this paper which is in the course of being published, in rather shorter form, as a part of the Symposium.


(4) That the concept of taxable capacity with respect to income tax is capable of analysis has been illustrated by W. Heller in "Limits of Taxable Capacity with Respect to Income Taxation", Symposium on Limits of Taxable Capacity, Princeton Tax Institute, Princeton, 1953, p. 61.

(5) That the concept has to be treated as an economic concept for analytical purposes has been argued by Amotz Morag, "The Limits of Taxation", Public Finance, 1959, p. 68. Our analysis in this Chapter is on rather identical basis as that of Morag except that we eliminate the possibility of deficit financing and deal generally with taxable capacity with respect to income tax rather than all forms of revenue.

Taxable Capacity is seen as an economic concept also by Sylvain Plasschaert, Taxable Capacity in Developing Countries, 1962, I.B.R.D. (not representing the views of the Bank), Report No. EC-103.

For the concept of optimal budget which takes into account the expenditure as well as taxes in determining taxable capacity see R.A. Musgrave, Theory of Public Finance, op.cit., pp. 50-7.

(6) Like Morag we reject Kaldor's idea of taxable capacity as being tantamount to ability to pay in Expenditure Tax, op.cit., pp. 25 et-seq. We are therefore analysing taxable capacity in terms of marginal social cost of imposing a tax burden in the same way as Morag does. Clearly, we are not concerned with Kaldor's view of taxable capacity as consisting of ability to pay because, in so far as ability to pay is one of the criteria for progression in the tax system, it is only one of the small constituent elements of the overall concept of marginal social cost of taxes.
In rejecting Kaldor's view of taxable capacity, we also reject his new version of taxable capacity in "Taxation and Economic Development," Journal of Modern African Studies, 1963, Vol. 1, No. 1; under his view, the taxation potential of a country consists of the "excess of its actual consumption over the minimum consumption of the population." In a sense, there seems to be little novelty in this view as he had already expressed it in Expenditure Tax, p. 185 in the following terms: "(the view that maximum practicable reduction of profit through taxation is a widely desired social objective) ignores, as Marx ignored, that the surplus value which is devoted to capital accumulation is a fundamentally different thing from the surplus value on which our richman liveth idly and indulges in luxurious waste. It is only the second surplus which can be a proper object of redistributive policy".

It is clear that in discussing taxable capacity Kaldor is concerned with the redistribution and would, perhaps, measure the marginal social cost of taxation in terms of the cost to the society from redistribution. Otherwise he takes for granted that growth and stability objectives of taxation will be fullproof, i.e., a tax will not impose marginal social cost through its effects on growth and stability. In rejecting the Kaldorian nicety of 'fullproof' taxes, we also reject his somewhat oversimplified concept of taxable capacity, or what he calls the 'tax potential of a country'.


(9) That it is a psychological notion as to what level of taxation is tolerable has been suggested by Peacock and Wiseman in The Growth of Public Expenditure in the United Kingdom, N.B.E.R., 1962.

It has also been argued by Sylvain Plasschaert, Taxable Capacity in Developing Countries, op.cit., that contrary to popular conceptions, human efforts to increase production with respect to work, investment decisions, and the allocation of resources, are only partially influenced by tax-factors; and the tax-parameter is far from being the only determinant of economic growth. He goes on to state "though some economic criteria by which taxable capacity can be defined are available in the economist's arsenal, they are of little practical value", pp. 5-6, paras. 11-12.

(10) As for a discussion of these factors see U.K. Hicks (Editor), Federalism and Economic Growth in Underdeveloped Countries, Allen and Unwin, London, 1961, Chapter 5; B. Singh, Federal Finance and Underdeveloped Countries, Bombay, 1952, pp. 78 et seq.

These factors undoubtedly affect the taxable capacity.

See R.A. Musgrave, Theory of Public Finance, pp. 51-57 et seq.

(11) J.M. Buchanan, Public Finance, op.cit., Chapter 36.

(12) See A.R. Prest, Public Finance in Under-Developed Countries, op.cit., Ch. 7.


(16) For a brief statement along these lines by A.D. Scott, "Reply" Journal of Political Economy, 1952, where H.M. Somers's theory, "Government Expenditure and Economic Welfare", Revue de Science Financieres, 1951, of social propensity to consume and save as a criterion of growth and stability is related to the problem of inter-regional stability through variations in social propensities to consume as between the regions.
PART II

LOCAL AND SITUATION
Tanganyikan Economy

Section (1) Structure and Size of the Economy.

Tanganyika, like other neighbouring African countries of Tropical Africa, is a country with a relatively low income per head, a high degree of dependence on export crops, notably sisal and cotton and coffee. The weather plays a dominant part in the prosperity of its agriculture but it has no population problem. Although under the Trusteeship Agreement land alienation to non-Africans was virtually prohibited, tribal restrictions upon the holding of land together with the limited means of communication facilities have given rise to a substantial amount of subsistence farming in the overall agricultural sector.

The Latin American and Asiatic systems of land tenure whereby few rich landlords own large estates against numerous small-scale, land-hungry peasants, are not found here; nor is the manufacturing sector on such a large scale as elsewhere in Africa, e.g. mining and manufacturing in the former Central African Federation and manufacturing in Kenya, to render the economy in any real sense dualistic in character. In effect therefore, tribal customs, lack of communication, heavy reliance on weather and export prices, lack of technical know-how in developing otherwise sufficiently abundant resources have, taken together, been the obstacles to the overall effort for economic development. Unlike the dualistic economies of the world today, disincentives arising from the disparity of rewards for development effort are not the major causes of the problem; evidence as to the lack of disparity of rewards is produced in the form of distribution of gross domestic output in Appendix 'B' below. The paucity of cash in earnings in the economy retard the growth of the non-agricultural sector which is a matter of ultimate concern in all development plans.
plans.

These facts, however, require to be statistically illustrated, but very few statistical data for a fully comprehensive picture of the economy are available. For instance, although approximate population data are available, very little is known about the detailed age and occupational breakdown of the total manpower except for the fraction that is actively employed in the monetary sector. Also, no clear record of the fluctuations in employment is available although it remains true that some temporary migration and off-seasonal employment of peasants during the non-harvest season is normal. Likewise, adequate data on the amount of land cultivated in the monetary sector by estate farmers are available, but there are none on the amount of land cultivated in the subsistence sector by each peasant and his family. Again, practically no information on the consumption and saving habits of almost the whole population is available, nor is the contribution to or participation in exports and imports by each of the subsistence and monetary sectors ascertainable. All that one can say with any reliability concerns the total population and output, the income per head of the population, capital formation and foreign trade. The available data are set out below in Tables One and Two; the former sets out information on domestic output, capital formation and foreign trade in the form of social accounts and the latter gives us some indication of the size of the global population and per capita national income.

Table No. 1/
### Table No. 1.

**Social Accounts of Tanganyika: 1955 - 1960.**

<table>
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<th>1955</th>
<th>%</th>
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<th>%</th>
<th>1957</th>
<th>%</th>
<th>1958</th>
<th>%</th>
<th>1959</th>
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<th>1960</th>
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<td>152.4</td>
<td>75.9</td>
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<td>76.9</td>
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<td>20.3</td>
<td>45.3</td>
<td>20.9</td>
<td>40.7</td>
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<td>42.6</td>
<td>18.0</td>
<td>50.3</td>
<td>20.6</td>
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<td>7.8</td>
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<td>8.8</td>
<td>4.1</td>
<td>9.2</td>
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<td>10.8</td>
<td>4.2</td>
<td>11.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Less: Subsidies</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
<td>0.1</td>
<td>0.3</td>
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<table>
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<tr>
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<th>200.6</th>
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<th>216.2</th>
<th>100</th>
<th>216.8</th>
<th>100</th>
<th>230.2</th>
<th>100</th>
<th>244.3</th>
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<td>(Gen. Govt. Consumer Exp.)</td>
<td>39.1</td>
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<td>23.7</td>
<td>43.1</td>
<td>19.7</td>
<td>46.4</td>
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<td>49.8</td>
<td>21.6</td>
<td>58.9</td>
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<tr>
<td>(Gross Capital)</td>
<td>13.5</td>
<td>7.2</td>
<td>14.9</td>
<td>7.5</td>
<td>16.3</td>
<td>7.3</td>
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<td>8.1</td>
<td>18.2</td>
<td>7.9</td>
<td>20.2</td>
<td>8.3</td>
</tr>
<tr>
<td>(Expend &amp; Gen. Government)</td>
<td>5.5</td>
<td>2.9</td>
<td>6.3</td>
<td>3.3</td>
<td>7.0</td>
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<td>6.9</td>
<td>3.0</td>
<td>5.9</td>
<td>2.6</td>
<td>5.5</td>
<td>2.3</td>
</tr>
<tr>
<td>(Gross Capital)</td>
<td>12.7</td>
<td>6.8</td>
<td>18.3</td>
<td>9.2</td>
<td>19.7</td>
<td>9.0</td>
<td>18.9</td>
<td>8.7</td>
<td>18.5</td>
<td>8.0</td>
<td>21.9</td>
<td>8.9</td>
</tr>
<tr>
<td>(Expend of private enterprises)</td>
<td>5.4</td>
<td>2.4</td>
<td>2.9</td>
<td>1.6</td>
<td>2.8</td>
<td>1.2</td>
<td>1.5</td>
<td>0.8</td>
<td>2.0</td>
<td>0.9</td>
<td>2.4</td>
<td>0.9</td>
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<tr>
<td>(Private consumption)</td>
<td>111.3</td>
<td>59.4</td>
<td>109.3</td>
<td>54.7</td>
<td>127.3</td>
<td>58.8</td>
<td>135.6</td>
<td>65.9</td>
<td>135.6</td>
<td>65.9</td>
<td>135.4</td>
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</table>

<table>
<thead>
<tr>
<th>Expend. on G.D.P. &amp; Imports</th>
<th>187.5</th>
<th>100</th>
<th>200.6</th>
<th>100</th>
<th>216.2</th>
<th>100</th>
<th>216.8</th>
<th>100</th>
<th>230.2</th>
<th>100</th>
<th>244.3</th>
<th>100</th>
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<tbody>
<tr>
<td>Total consumer expend.</td>
<td>124.8</td>
<td>64.9</td>
<td>123.7</td>
<td>52.8</td>
<td>143.6</td>
<td>66.6</td>
<td>143.0</td>
<td>65.3</td>
<td>153.8</td>
<td>66.9</td>
<td>155.6</td>
<td>63.7</td>
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<tr>
<td>Total capital expend.</td>
<td>23.6</td>
<td>12.2</td>
<td>27.5</td>
<td>13.6</td>
<td>29.3</td>
<td>13.5</td>
<td>25.3</td>
<td>13.3</td>
<td>26.4</td>
<td>11.5</td>
<td>29.8</td>
<td>12.1</td>
</tr>
<tr>
<td>Total private expend.</td>
<td>124.0</td>
<td>64.4</td>
<td>128.1</td>
<td>54.5</td>
<td>147.0</td>
<td>68.2</td>
<td>144.3</td>
<td>68.8</td>
<td>144.1</td>
<td>67.0</td>
<td>157.3</td>
<td>64.3</td>
</tr>
<tr>
<td>Total public expend.</td>
<td>24.4</td>
<td>12.7</td>
<td>24.1</td>
<td>11.9</td>
<td>26.1</td>
<td>11.9</td>
<td>26.0</td>
<td>12.8</td>
<td>26.1</td>
<td>11.4</td>
<td>28.1</td>
<td>11.5</td>
</tr>
</tbody>
</table>

**Source:** Tanganyika Statistical Abstracts (Annual).

**Table 2/**
Table No. 2
Population and Per Capita Income at Factor Cost

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (millions)</th>
<th>G.D.P. (£ mln.)</th>
<th>Per Capita Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>8.4</td>
<td>146.7</td>
<td>17.0</td>
</tr>
<tr>
<td>1956</td>
<td>8.6</td>
<td>152.4</td>
<td>17.7</td>
</tr>
<tr>
<td>1957</td>
<td>8.8</td>
<td>162.4</td>
<td>18.4</td>
</tr>
<tr>
<td>1958</td>
<td>8.9</td>
<td>167.1</td>
<td>18.7</td>
</tr>
<tr>
<td>1959</td>
<td>9.0</td>
<td>177.1</td>
<td>19.7</td>
</tr>
<tr>
<td>1960</td>
<td>9.2</td>
<td>186.3</td>
<td>20.2</td>
</tr>
</tbody>
</table>

Source: Tanganyika Statistical Abstracts (Annual)

Clearly, it would be useful to study the growth and composition of these aggregates. The rate of growth of the main aggregates is shown in Table 3. Of the data relating to the composition of most of these aggregates, the most significant ones for an understanding of the economy are those relating to the total output, and these are produced in Table 4. The composition of the remaining aggregates is however shown in Tables 8 to 16 at the end of the Chapter.

Table No. 3
Percentage Change in the Principal Statistical Aggregates of the Tanganyikan Economy 1955 to 1960

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>...</td>
<td>2.4</td>
<td>4.1</td>
<td>23.8</td>
<td>16.5</td>
<td>-0.9</td>
<td>3.3</td>
</tr>
<tr>
<td>1956</td>
<td>6.7</td>
<td>2.3</td>
<td>4.0</td>
<td>-11.8</td>
<td>7.3</td>
<td>+16.1</td>
<td>14.6</td>
</tr>
<tr>
<td>1957</td>
<td>7.8</td>
<td>2.3</td>
<td>4.0</td>
<td>-11.8</td>
<td>7.3</td>
<td>+16.1</td>
<td>14.6</td>
</tr>
<tr>
<td>1958</td>
<td>0.2</td>
<td>3.4</td>
<td>1.6</td>
<td>+7.6</td>
<td>-14.2</td>
<td>0.04</td>
<td>-1.8</td>
</tr>
<tr>
<td>1959</td>
<td>6.2</td>
<td>1.1</td>
<td>5.3</td>
<td>7.3</td>
<td>4.3</td>
<td>7.6</td>
<td>-0.1</td>
</tr>
<tr>
<td>1960</td>
<td>5.7</td>
<td>2.2</td>
<td>2.5</td>
<td>18.5</td>
<td>1.3</td>
<td>1.2</td>
<td>+9.1</td>
</tr>
</tbody>
</table>

Arithmetic Average 5.3 2.3 5.5 9.1 3.0 4.8 5.0 3.1
On the basis of averages of years to which different components of the Gross Domestic Product relate, it can be seen from Table 3 that the overall rate of growth of the G.D.P. at market prices in Tanganyika is 5.3% per annum. As no reliable G.D.P. data at constant market prices of a given base year are available however, no indication of the real rate of growth may be had from these data. Well over half of the total expenditure consists of the private consumer expenditure, and this, taken together with the general consumer expenditure of the government amounts to almost two-thirds of the total G.D.P. The balance is represented by capital formation of the private and public sectors and exports. The expenditure of the government sector comprises 15.4% of the total expenditure. The rate of increase in the G.D.P. at current prices affects the expenditure on capital formation, consumer expenditure and the rate of exports. Whilst 4.8% of the increase is absorbed by an increase in consumer expenditure, the rates of increase in exports and in capital formation amount to 9.1% and 3.0% respectively. Put differently, the rate of the increase in the output is divided between the public and private sectors; the rate of increase in public and private sectors is 5.0% and 3.4% respectively.

For the purpose of this study, the treatment of government sector in the economy is rather essential in describing the locale to which income taxes are to be used as policy weapons. It is to the treatment of the government sector and its size that we turn in the next Section.
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
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<tr>
<td>Agriculture</td>
<td>12.5</td>
<td>75.0</td>
<td>10.4</td>
<td>6.4</td>
<td>7.0</td>
<td>6.1</td>
<td>76.4</td>
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<td>Livestock Products</td>
<td>12.5</td>
<td>47.1</td>
<td>10.0</td>
<td>9.6</td>
<td>10.1</td>
<td>9.5</td>
<td>47.1</td>
</tr>
<tr>
<td>Forest Products</td>
<td>3.6</td>
<td>5.7</td>
<td>3.7</td>
<td>5.9</td>
<td>3.6</td>
<td>5.3</td>
<td>3.6</td>
</tr>
<tr>
<td>Hunting &amp; Fishing</td>
<td>1.5</td>
<td>1.7</td>
<td>1.5</td>
<td>1.9</td>
<td>1.4</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Mining &amp; Quarrying</td>
<td>5.0</td>
<td>3.4</td>
<td>5.0</td>
<td>3.3</td>
<td>4.9</td>
<td>3.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Manufacturing &amp; Public Utilities</td>
<td>4.0</td>
<td>2.7</td>
<td>4.0</td>
<td>2.6</td>
<td>5.7</td>
<td>3.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Textile Products</td>
<td>7.6</td>
<td>5.2</td>
<td>7.6</td>
<td>5.0</td>
<td>7.7</td>
<td>4.9</td>
<td>7.6</td>
</tr>
<tr>
<td>Agriculture of Dwellings</td>
<td>2.7</td>
<td>1.8</td>
<td>2.9</td>
<td>1.9</td>
<td>3.0</td>
<td>1.5</td>
<td>2.7</td>
</tr>
<tr>
<td>Distribution</td>
<td>7.6</td>
<td>5.5</td>
<td>9.3</td>
<td>6.1</td>
<td>9.3</td>
<td>8.4</td>
<td>7.6</td>
</tr>
<tr>
<td>To Transports Storage Etc.</td>
<td>2.5</td>
<td>1.0</td>
<td>2.9</td>
<td>1.7</td>
<td>3.4</td>
<td>1.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Public Administration &amp; Defence</td>
<td>8.7</td>
<td>5.9</td>
<td>9.3</td>
<td>6.1</td>
<td>10.4</td>
<td>6.6</td>
<td>8.7</td>
</tr>
<tr>
<td>Miscellaneous Services</td>
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<td>2.7</td>
<td>4.3</td>
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<td>4.6</td>
<td>2.9</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>146.7</td>
<td>152.4</td>
<td>162.4</td>
<td>167.1</td>
<td>177.1</td>
<td>186.3</td>
<td></td>
</tr>
</tbody>
</table>
Section (2). **Budgetary Framework in its Relation to the Size of the Economy**

As in the case with most of the less-developed economies, the relative size of the government revenue on current account is smaller than in the developed economies. The current revenue (both local and central) comprises about 13% or so of the total G.D.P. at factor cost in Tanganyika over 1957 to 1959 compared with 30-35% for developed economies like the United Kingdom. This is a very rough approximation of the size of the government sector in Tanganyika but it makes the point that the size of the government sector in the current budget in Tanganyika is just about half the size of the budget in the developed economies.

The size of the capital budget is also somewhat modest in the like manner, as its size in turn depends largely on the government surplus on current budget and partly also on the ability of the government to float local loans, limits of fiduciary issue, ability to borrow from abroad and the capacity to service foreign debt interest and finally the political influence as a criterion for obtaining loans, grants or gifts.

With this limitation on the size of the government sector in mind, it would be a useful approach to consider the government sector in three stages. First of all, we should deal with the present method of classification of government accounts in Tanganyika by way of introduction. Secondly, we would then immediately tackle the problem of ascertaining the size of income taxes in relation to the government sector which is given and the rest of the economy. Thirdly, we then go on to examine the composition of the government sector in so far as it is of some significance for the purpose of income tax policy in Tanganyika. Finally, we make some concluding observations as to the size of the government sector and income tax in the economy on the basis of the discussion of the government sector.
A. Present Method of Classification of the Government Sectors.

As indicated already, Tanganyika has a set of national income accounts from 1952 to date. She has also had the traditional way of recording central government receipts and expenditure on a cash basis since 1922 and that of recording local government receipts and expenditure on a cash basis from the date of establishment of those local authorities. East African Authorities have also maintained financial accounts since 1948. As a result of the appreciation, in developed 'western' economies in the past decade, of how useful the economic analysis of government accounts can be for the purpose of government policy decisions, and its widespread dissemination through the international agencies in less developed economies, Tanganyika Statistical Unit produced, in 1959, a booklet "Public Finances in Tanganyika - An Analysis" for the years 1954 to 1957. The booklet explained in some detail the basis of classifying cash recording of government transactions, both at central and local government level, for 1954-1957. This form of classification is being continued but the data produced are aggregate and not quite so detailed. For instance, the amount of taxes on income in current budget is shown for each year but not what it consists of.

B. Classification of Income Taxes. This can be dealt with under Problems and Solutions.

(a) Problems. These are generally three-fold: conceptual, practical and administrative.

(1) Conceptual Problems. In deciding whether or not in a given economy the existing level of income taxes is sufficiently large as an instrument of the ability of the government to implement its programme of stability, income redistribution, growth etc. as well as being some sort of yardstick/
yardstick of taxable capacity, it is rather essential to make clear the national income concept one adopts in measuring the tax: national income ratio as a potential indicator of the government ability to perform its policy functions, viz. whether there need be an absolute measure for the anti-cyclical or redistribution potential of government and whether there would not be a strong case for taking total flow of payments rather than of value added concept of national income. Thus, an absolute percentage ratio which would probably be relatively indifferent from the incentive and growth point of view may be rather effective in respect of stability and income redistribution.

(ii) Practical Problems. At practical level there are three problems in the measurement of the size of the income tax in the economy and in the given budget. Firstly, as will be indicated in due course in this study, the collection of income tax proper is full of arrears of assessment and arrears of tax payments. The existence of arrears and particularly a change in the efficiency of collection make it meaningless to try to evaluate the size of income tax in the current budget or in the total domestic product. In view of the fact that the amount of unpaid tax may be as large as one and a half times the taxes collected in any year, the size of income tax in any year may vary from $2\%$ to $5\%$ of the total Gross Domestic Product at factor cost. Second, in recent years there have been so many legislative changes in the local government framework as well as in the sources and the form of revenue they are entitled to receive that a certain amount of arbitrariness is required in ascertaining the level of income taxes in the local government budgets. The difficulty is not however quite so insurmountable as the problem of distinguishing basic personal/
personal rate, i.e. income tax as such, from the property rate does not give rise to much difficulty in Tanganyika as in a country like Ghana where local government revenue in rural areas is raised through both personal and property (property which includes real and personal properties such as land, cattle, bicycles,) taxes. In the former such revenue is raised mainly through the personal rate. Finally, in any study, such as this, on income taxation at various layers of government practical difficulties of analysing the size of the budget at the top layer of financing and the size of income are bound to arise. The practical difficulties in such a case are numerous and varied. As they have been dealt with elsewhere in the context of East Africa, we need mention only one or two of them. First of all, the national income accounts of the different East African territories are not comparable. Secondly, the amount of benefits of expenditure derived by each territory is not exactly ascertainable.

(iii) Administrative Problems - Although admirable initiative has been shown by the Tanganyika Statistical Unit in classifying the place of government sector and its various sources or functional and economic bases in the economy, it has not been carried far enough. Thus, for instance, the economic classification does not take account of the arrears in the collection of income tax proper in classifying the size of income taxes as a potential policy tool. Further, although no practical difficulty of distinguishing personal from property rates exists, the original statistical analysis fails to distinguish urban property rates from income tax and lumps it into 'local taxes' in dealing with the size of income taxes at local government level. The inadequacy of explanations for converting cash accounts into functionally analysed/
analysed set of accounts and lack of information such as the cash account of a county council unit makes it impossible for a researcher to analyse the accounts according to his needs. Finally, shortage of staff appears to make it impossible for those concerned with the analysis of such statistics to answer the questions of researchers.

(b) Solutions. In the circumstances we rely on the data published by the Statistical Unit. At this stage we ignore the question of arrears in collection except for one fact, namely, that owing to the size of unpaid tax amounting to as much as one and a half times the tax collected in any year, the size of income taxes in any year may vary substantially, viz. from 2 to 5% of the G.D.P. at factor cost. The question of arrears is however taken up after the discussion of history of arrears at the end of the next Chapter. As for the difference between our basis of classification of income tax and those of the Statistical Unit, we state what the differences are and indicate the extent of variation below the Tables. It is to be emphasized that only the extent of variation and not the exact amount is shown as this would involve us in the computation of all different tables on our bases without any fruitful results because of lack of data or inadequacy of explanations stated before. Finally, as the practical difficulties of analysing the importance of government activity at the East African level are too numerous and the size of income tax therein negligible, we leave it out from this study.

The relevant information is available for 1954 to 1960 and in order that it can be put to use for the purpose of this study we should make two points clear. First of all, since in analysing the government sector we are interested in the size of income taxes at different layers of the government, we/
### Table No. 5 (contd.)

<table>
<thead>
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<th>Expenditure</th>
<th>1954</th>
<th>%</th>
<th>1955</th>
<th>%</th>
<th>1956</th>
<th>%</th>
<th>1957</th>
<th>%</th>
<th>1958</th>
<th>%</th>
<th>1959</th>
<th>%</th>
<th>1960</th>
<th>%</th>
<th>Average</th>
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<td>11. Maintenance</td>
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<td>68.9</td>
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<td></td>
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Notes: Municipal Tax in 6(c) above amounts to: 61.5
Cesses in 3(e) above constitute: N.A.

### TABLE NO. 5

Central Government Revenue and Expenditure Account

**Current Account: 1954-1960**

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<th>1954</th>
<th>%</th>
<th>1955</th>
<th>%</th>
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<th>%</th>
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### Table No. 6

**Local Government Revenue and Expenditure: 1954-1960.**

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<td>a. Share of Native Poll &amp; House Tax</td>
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<td>362</td>
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we need to say what each layer consists of. The central government consists of the central administering authority including non-autonomous township authorities, and public bodies, with the exception of government dairies, various township water supply authorities, the grain storage department and the Tanganyika Agricultural Corporation. The local government consists of municipal council or councils, town councils and native authorities or district councils, as they are now called. No analysis is given for the East African level of government for reasons given earlier on. Secondly, since our concern is with the size of income taxes rather than with the historical changes or the conceptual bases of treating certain taxes on income at this stage, we should mention what these taxes are and how our treatment of taxes on income differs from that of Statistical Unit. Taxes on income at central government level, in Table 5 are: income tax proper, personal tax, education tax, export tax, local government or urban house tax, cesses and native tax, wherever the latter is receivable in township authorities. It varies from the analysis of the statistical Unit in two ways: it seeks to distinguish cesses from the local government tax which the Statistical Unit does not do; it also seeks to distinguish municipal tax from other forms of taxes on expenditure which the Unit again fails to do. In Table 6, taxes on income at local government level, for our purposes, include, those from native authorities (or district councils as they are now called) personal rates and cesses collected in local authority areas and native tax collected in the same way. It differs from the analysis of the Unit in so far as it excludes municipal or town council rates on property.

C. Classification of the Government Sector. In dealing with the classification of taxes on income, we have been confining ourselves to
| Year | 1953 % | 1955 % | 1956 % | 1957 % | 1958 % | 1959 % | 1960 % | Average 1957-1960%
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**Expenditure:**

10. Wages and Salaries
11. Maintenance
12. Other Goods and Services
13. Interest Payments
14. Subsidies
15. Current Grants, Internal
16. Current Grants, External
17. Appropriations from Revenue
18. Total Current Expenditure
19. Current Surplus
20. Total

**Averages:**

1722.6, 69.9, 69.3, 247.6, 64.7, 287.9, 68.9, 336.5, 73.8, 363.4, 75.2, 350.5, 76.4, Average 30.17

**Sources:** Public Finance in Tanzania, Dar-es-Salaam, 1959; Tanganyika Statistical Abstracts (Annual) with modifications of data for 1960 as in the Abstract for 1962.
to the size of income taxes in a given form of government activity, viz. on current basis, at a given layer of government, viz. central or local. Neither have we considered as to what exactly constitutes, on conceptual basis, the government sector, nor have we ascertained the additional forms of government intervention, viz. on capital basis, or the total intervention at various levels of government. These factors are undoubtedly of some significance for income tax purposes. For instance, it is useful to know the extent to which the size of the government sector is reduced through the combination of the government sector at local and central levels through the cancellation of the transfer items between central and local governments. It is also interesting to ascertain the relationship between intervention through the current budget and that through the capital budget. As in the case of the classification of taxes on income, certain problems inevitably arise and have to be solved.

(a) Problems. These are mainly conceptual and practical.

(i) Conceptual Problem. The problem of valuation of government output is a well-known one. It relates to the various bases on which the government output, whether marketed as in the case of nationalized industries, or not, can be valued. For instance, how the surpluses of the nationalized industries can be treated where the government product is marketed. Again, whether in the case of non-marketable government output (e.g. justice, defence, police service and public amenities) the government output should be zero or be equal to labour input such as the wages and salaries of the judges, policemen, librarians and caretakers of public parks). This problem has been discussed elsewhere for the purpose of establishing conceptual soundness of the latter approach.
and need not be dealt with here.\textsuperscript{11} We may, however, note in passing that in the social accounts of Tanganyika the non-marketed output of the government sector is valued according to the latter approach, i.e. the value-added by the employees; the surpluses of the nationalized industries where they are included in the government sector are taken as savings of the firms rather than as taxation as in the United States.

(ii) \textbf{Practical Problem.} The government sector classified on functional basis from the financial statements does not yield figures which are required for national accounts purposes or which would be exactly equal to the government sector analysed independently for national accounting purposes. In other words, there is a discrepancy between the size of the government sector as in social accounts and as in functionally classified government accounts. This is not surprising for a country like Tanganyika where the social accounts are derived only on one basis, namely by product approach with no verification by income or expenditure approach.\textsuperscript{12} One or two examples of this type of difficulty may suffice.\textsuperscript{13} For instance, the private consumption expenditure which is a residual item in the social accounts is not estimated independently and includes consumer expenditure of government enterprises\textsuperscript{14} which are excluded from the functionally classified government sector. Again, while expenditure taxes in social accounts exclude import duties on capital goods (as the capital expenditure is derived on supply\textsuperscript{15} rather than expenditure basis), these in government accounts include such tax receipts. As the discrepancy is not large, the problem is not quite so serious.

Another difficulty in classifying the government sector is in relation to the balance of the capital budget of the central government.
This is generally reflected in the holdings of the financial assets and cash. Where such assets and cash are adequate, the deficit balance of the capital budget has to be met by borrowing. In practice, governments probably rely on both. Changes in the financial assets ought to be reflected in turn in its statement of assets and liabilities. In the case of Tanganyika such a statement of assets and liabilities however falls short of two requirements. Firstly, it is not at all clear from the form in which the data are presented what exactly are the government securities. 16 Secondly, a large part of the Public Debt being a long-term contingent liability is not shown in the statement of assets and liabilities and raises difficulty when a deficit on capital budget arises.

(b) Solutions. Despite the strength of the conceptual arguments, it is impracticable to ascertain the size of the government output by a method of evaluation which is different from the present one. The difficulty is the same as that of evaluating the size of income tax on a flow basis for stabilization purposes as distinct from the value added method for growth and allocation objectives.

As the other problems of evaluating the size of government sector are not quite so serious, we can indeed get a clear indication of its size on various sectors 17 of the economy and the extent to which its simultaneous operation with that of taxes on income has a bearing on the changes that the latter can bring about in the economy. The relevant information is set out in Tables 17 to 21 at the end of this Chapter.

With regard to the problem of showing net changes in financial assets, the statement of assets and liabilities of the government in Table 22 is supplemented, at the end of the Chapter with Table 23 on
the reserves of the government and Table 24 on the Public Debt of the government of Tanganyika.

D. Conclusions. The discussion of the government sector can be concluded by summarising the relevant points which emerge from it and a five year average of the data in Tables 1 to 24. It can be seen from Tables 5 and 6 that taxes on income at central and local government levels comprise 36.8% and 61.1% (reduced to 53.8% if the rates on property in town councils are excluded) of the current budgets of these two different levels of government respectively. If income basis (i.e. data relating to the current revenue of the government at two different levels of government reduced by the revenue not spent) is taken to be the more reliable basis of ascertaining the size of the government sector than the product basis, the central government (in Table 5) and the local government (in Table 6) absorb 11.4% and 1.3% of the total Gross Domestic Product respectively and the government sector as a whole at current level absorbs 12.5% of the total Gross Domestic Product at factor cost (Table 17). Thus, income taxes at central and local levels of the government comprise 3.4% and 1.5% (exclusive of the property rates of the town councils 1.3%) of the total Gross Domestic Product at factor cost. Income taxes of the government sector received at current level (in Tables 17 and 2) however amount to 4.9% (if adjusted to exclude rates imposed by town councils amounting to 4.7%) of the total Gross Domestic Product at factor cost. We have not referred yet to the balance of payments of the Tanganyikan economy in the framework of social accounts nor in the discussion of the budget here but as we have indicated already in Section (1), it arises largely
through the special inter-territorial relationship of Tanganyika with the rest of East Africa. The discussion of this subject matter is however postponed to Section (4).

Section (3) Present Economic Policy of the Government.

In this Section we are concerned firstly with the way in which the government has set about to recognize the kind of problems facing the Tanganyikan economy, as described in Section (1), and secondly to define the actual policy pursued by the government. Obviously, the weight of emphasis in defining the present government policy, for our purpose, has to be on the fiscal policy (although other means of implementing government policy are also mentioned.)

The government has set about to deal with the problems of development by giving a general recognition, at political level to specific problems brought to attention through various investigations and then trying to overcome them.

A. Recognition of the Problems. The nature of these specific problems has varied over time and falls into three categories; first, those relating to the period immediately prior to and following independence; second, those which belong to the interim period; and third, specific problems of the most recent period.

(a) Independence Period. Immediately prior to and following the end of the external rule, the government formulated its policy on the basis of the recommendations of the World Bank Mission. It was suggested to the government that an expansion of the subsistence sector would really be a means to an end for it is only enlarged, monetized agricultural sector that would offer bigger markets for an expansion of specialized
non-agricultural sectors. It was also suggested at the same time that although the expansion of the monetary sector through the reduction of the subsistence activity has to be emphasized for increasing the pace of expansion, the enlargement of the non-subsistence sector pari passu has also to be recognized as a policy objective by the government because the size of the money income and its effective demand in the non-agricultural sector through the inter-exchange of demand and supply determine growth in the domestic market and through the foreign trade. Thus, for an expansion of the manufacturing, mining and transport sectors, the government should provide a climate suitable for industrial enterprise, encourage prospecting by mining companies through tax concessions, improve the network of roads in rural areas and accelerate topographical mapping as well as encourage technical training facilities. As there would be only a few Africans with appropriate education and experience to carry through the trade and industrial development programmes, education and development programmes to meet this need should be conducted; and the labour force, usually unskilled and unaccustomed to discipline should be trained. A policy of protectionism (especially between the East African countries themselves) would not be found to be appropriate. Similarly, a policy of draft-industrialization would not be considered suitable. As regards the distribution, construction, public utilities and general administrative sectors, no substantial growth of these sectors was recommended.

(b) The Interim Period. During the interim period government policy was based on the advice given by those who were invited to do so by the government. With regard to industrialization, a Visiting Mission advised
that the possibilities of industrial processing (such as fruit-canning, pyrethrum and chemical development) had been underestimated in the past because of lack of information on raw material supplies and market potentialities arising from the failure to collect statistics on industrial expansion and also to integrate whatever data were at hand.

As regards distribution, the Economic Intelligence Unit advised the government in 1963 that the existing practice of bargaining and lack of specialization as well as resale price maintenance is thought to be undesirable. To eliminate this, the urgent need for greatly increased commercial education and instruction for African traders, preferably in the form of extension service that would visit individual shops giving help and advice on the spot was suggested. The necessity of replacing wholesellers who took advantage of buyers who were price-conscious but not sufficiently quality or weight-conscious by means of wholesale co-operative societies was also recommended. In the rest of the economy, the development policies were in general based on the political philosophy of the government in power, e.g. Africanization policy in administration, restriction on the activities of the Trade Unions etc. Some of these problems were also further based on the advice of international technical agencies, findings of Commissions of Enquiry and so on.

(c) Most Recent Period. In the most recent period in the course of formulating the new five-year Development Plan the government felt that it has to go beyond the tendency to establishing those industries which had been overlooked in the past. It is convinced that by restricting itself to an exclusively agricultural role it would be
condemned in the long-run to economic stagnation. It should therefore hasten with the present plans of industrialization which are indeed the ones overlooked in the past and strive after new ones. Also, the government feels that it should put an end to the Africanization policy and impose further stringency on the trade union activities through the merger of separate federations of employees into one state-controlled trade union group.

Put in a nutshell, the government policy in the first period was based on the principle that the growth of the economy is desired in those sectors where the returns to government expenditures would be maximum, i.e. on the Hirschman strategy rather than the Nurksian view of balanced-growth. This type of economic strategy had to be slightly modified in the interim period on the basis of various recommendations made by different advisers to the government. And in the most recent period, the growth policy appears to be approximating the Nurksian type of balanced-growth theory of economic development.

B. Implementation of the Government Policies. One of the principle ways in which government policy is implemented in less-developed economies is generally through the budget covering not only the annual recurrent budget but also the development plan, the main features of which in relation to Tanganyika can be seen in the previous Section. In order to be able to define the general economic policy of the government and the order and scales of priority of various objectives, we need deal with the ways in which the present government has set about to implement the problems it has recognised so far. The present government has been
using two devices to implement its recognized policy objectives: institutional changes and the fiscal policy; we deal with each in turn.

(a) **Institutional Devices.** To deal with the subsistence agricultural sector and its problems, a nationwide scheme of community welfare scheme has been installed to foster a feeling of community welfare (generally referred to as *'ujamaa*) and thereby modernize what is felt to be a stagnant, traditional subsistence economy. The use of producers' co-operative society by small-scale producers has been made legally obligatory so as to encourage the expansion of cash economy. A co-operative bank has also been established to help finance small-scale producers seeking to expand their operation. These measures are complementary to those desired under the development plans, viz. irrigation, clearance of tsetse infested areas, marketing organizations, etc. In the commercial agricultural sector considerable amount of government pressure is being exerted on the non-indigenous producers to encourage African participation in such sectors. Little capital and loan appear to have been given even to the estate farmers by the Tanganyika Agricultural Corporation, as recognized by the government owing, perhaps, to its more immediate concern with the stagnant subsistence sector threatened by floods and famine. Although estate farms have not been nationalized, all freehold estates or rather lands in the country have been converted into the 99-year-leaseholds as the policy of land alienation is thought to be foreign to the African concepts of communal life. In the industrial sector, a sweeping reform of the Ministry of Commerce is being carried out through the development of institutions such as Industrial Development Corporation, Industrial Development Division and Commercial Advisory Division, etc. to co-ordinate
various activities for industrial developments in the country; most of these changes have already been brought about. A few processing industries like plastics, textiles, etc. have already been established. Although in the construction sector no problems have been recognised, encouragement to African participation by the existing entrepreneurs is nonetheless greatly desired and sought to be tackled together with the changes in the distribution sector. Here, rapid Africanization of the business and commercial sector is sought to be implemented through an institute for the training of African Managers and also through the training and loans section and commercial extension service in the Ministry of Commerce. In the administrative and public utilities sectors, a great deal of progress has been achieved through the rapid Africanization of the services and the replacement of the previous colonial officials by a recruitment of foreign staff from various international agencies on the short-term contract basis. There has been one further institutional change in the industrial relations sector where following the recommendations of a commission of enquiry, a minimum wage legislation has been introduced, the rates varying according to the cost of living in various parts of the country. On the other hand, the right of the employees to strike has been curbed in consequence of the nationalization of Trade Unions, as in Ghana; wage negotiations are being encouraged instead. This type of measure is not necessarily indicative of the fact that the policy of the present government is wholly to achieve the desired ends at the cost of labour, as attempts are being made to increase workers welfare through schemes such as pensions and national health schemes which do not at present exist for most of the employees. The possibilities
of a National Insurance scheme dealing with pensions and national health are being explored at present in Tanganyika.

(b) Fiscal Devices. The ways in which fiscal policy can be used to implement the objectives of the government is already discussed by many well-known authorities in various places and need not detain us here. It is perhaps clear from the discussion of the present government policy so far and the development plans in Section (2) that the weight of emphasis by the government is generally on economic growth with income redistribution or rather redistribution of opportunities as the second best. Fiscal policy seeks to maintain the same order of priority of objectives except perhaps one. This is in relation to the necessity of raising adequate revenue for the implementation of the development plans to which the various institutional reforms are complementary. The practical pressure for maintaining government expenditure on development plans is so great that there is no pre-determined adjustment made in government expenditures to take account of the level of activity in the economy. In other words, government expenditure is not used intentionally as an economic stabilizer; whatever variations occur in the government expenditures are due to the shortage of technical staff to implement them. Growth is sought to be achieved through the government expenditure on infrastructure, health, education, agricultural developments, etc., as can be seen from the details of the government development plan rather than through positive fiscal incentives to the private sector. Owing to its concentration in favour of indigenous mass with low income, it probably also has a redistributive effect. As to the priority and scales of objectives under the revenue-mechanism, revenue measures such as import duties are aimed at making the domestic import substitutes competitive
enough with foreign imports by means of high import duties rather than through the exemption of imports of goods which would enable the local producers to produce substitutes cheaper (e.g. import of capital equipment needed for manufacturing import substitutes.) This is largely due to the fact that associated with this growth objective is the government objective to maintain high revenue yield from import duties. There are no possible ways of ascertaining (e.g. through consumer expenditure surveys) exactly on which sections of the population the load of import duty falls, nor is it possible to ascertain the extent to which they are adjusted to make them compatible with the level of economic activity.

We discuss income tax policy after the history of the system and its present basis of operation have been considered in the next two Chapters.

From the discussion of the fiscal policy so far we can say that one of the main objectives of the government is to maintain the existing level of revenue yield to be able to maintain a high level of government expenditure and implement its development plans. The government expenditures are directed towards raising the present level of economic growth and benefiting the indigenous low income group; it is not possible to use it to maintain economic stability. The revenue is raised in such a way that it does not cause disincentive among those liable to it, viz. importers and consumers of imported goods, excise duties. No tax concessions are however generally made to induce economic growth. Although the import duties, excises, etc. are usually heavy on luxurious goods and rather low on the articles of mass consumption, it is not possible to know exactly
the degree of redistribution that the government has in mind in imposing such taxes; the redistribution object of export taxes which are now imposed on a sliding scale depending on the market price of sisal cannot be known \textit{a priori} either. In general it can be said that the overall fiscal objective of the government is to obtain a steadily rising level of revenue from taxes, achieve maximum rate of growth in the fastest growing sectors of the economy through neutral tax policy and growth-enhancing government expenditures; redistribute income through a rather half-hearted tax-policy but progressive government expenditure policy (in favour of low income groups); ignore the stability of the economy in the process of raising taxes and expending the revenue so raised.

Section (4) \textbf{Inter-territorial Relationship.}

The country belongs historically to the group of East African territories and is about to become a part of an envisaged East African federation tied together with Kenya, Uganda and Zanzibar (possibly also former RuandaUrundi, Nyasaland, etc.). Although the rest of the study is carried out without the draft Constitution of the Federation and a fiscal and economic report, which are in any case not obtainable, the impending possibility is borne in mind. It is hoped that the discussion of the present inter-territorial arrangement with its 'distributable pool' and 'derivation principle' of revenue allocation and equalization of differential growth rates and the confederal banking arrangement of the present type will be of some relevance in the final shape in which the new Federation will emerge according to the hopes and aspirations of her twenty five million people.

Since early twenties Tanganyika has had common trade, transport and communication, administrative and monetary as well as fiscal arrangement
despite the alleged fears of the merger of this ex-mandate and ex-trust territory in the early years of the establishment of this common economic relationship with the colony and protectorate of Kenya and Uganda respectively.\(^{31}\) The question of the loss of territorial sovereignty is liable to arise only in respect of the administrative and partly of fiscal arrangement and there is also the complaint that the common trade arrangement may not be perfectly beneficial to each party unless the rules of the common marketing policy are observed by each party. It is with the consideration of issues such as these in mind that we deal with the basic components of inter-territorial relationship \textit{seriatim}.

A. Common Trade Arrangement. The three territories are joined in a \textit{de facto} Customs Union.\(^{32}\) There has been a free trade between Uganda, Kenya and Tanganyika since 1920\(^{33}\) although each came under the customs department together only in 1949.\(^{34}\) This inter-territorial trade has been generally growing over the several past years and such a growth is faster than that of the external trade of East Africa as a whole. The following table gives some indication firstly of the size of the inter-territorial trade in relation to the external trade and secondly of the inter-territorial primary goods trade as against the trade in manufactured goods.

Table 7/
### Table 7

**Inter-territorial Trade: 1959**

<table>
<thead>
<tr>
<th>From/To</th>
<th>Kenya</th>
<th>Tanganyika</th>
<th>Uganda</th>
<th>Rest of World</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£'000</td>
<td>£'000</td>
<td>£'000</td>
<td>£'000</td>
</tr>
<tr>
<td>Kenya:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Products:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>6,513</td>
<td>5,784</td>
<td></td>
<td>33,310</td>
</tr>
<tr>
<td>Manufactured</td>
<td>5,668</td>
<td>4,596</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imported Products</td>
<td>8,230</td>
<td>12,960</td>
<td></td>
<td>5,080</td>
</tr>
<tr>
<td>Tanganyika:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Products:</td>
<td>1,848</td>
<td>726</td>
<td></td>
<td>45,290</td>
</tr>
<tr>
<td>Primary</td>
<td>625</td>
<td>534</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufactured</td>
<td>1,223</td>
<td>192</td>
<td></td>
<td>1,930</td>
</tr>
<tr>
<td>Imported Products</td>
<td>2,430</td>
<td>290</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uganda:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Products:</td>
<td>3,640</td>
<td>1,587</td>
<td></td>
<td>42,090</td>
</tr>
<tr>
<td>Primary</td>
<td>1,038</td>
<td>305</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufactured</td>
<td>2,602</td>
<td>1,282</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imported Products</td>
<td>1,590</td>
<td>440</td>
<td></td>
<td>1,140</td>
</tr>
<tr>
<td>Rest of World</td>
<td>78,820</td>
<td>28,330</td>
<td>14,340</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
- This Table is compiled from these sources with certain further assumptions such as: tea is taken to be a primary good and so is unmanufactured tobacco; Cotton seed cakes are also taken to be unmanufactured goods. Wheat flour is distinguished from cereals by taking the total cereals and flour exported and deducting the figure given for wheat flour as given in Appendix C of the Raisman Report and in the Annual Statistical Abstract respectively.

Such a common marketing arrangement naturally implies a common tariff against the outside world, and although in theory each territory can impose its own rates, in practice there are few differences causing trade diversions and changes in rates occur only as a result of mutual consultation. The common marketing arrangement on this basis is however open to three objections. First, the working of the system is not usually left to the operation of the free market forces. There can be policies and practices in the
individual countries that run counter to the principles of common market and, at a minimum, lessen the advantages that would normally be expected to accrue from participation in the common market. The territorial governments have intervened through the joint East African administrative body\textsuperscript{35} in three main ways: Statutory Marketing Authorities, State participation in production and Industrial Licensing. Second, even under this type of intervention in a freely operating common marketing arrangement, it is theoretically possible that what is beneficial for East Africa as a whole may not be so for Tanganyika herself. Third, the common marketing arrangement can impose budgetary limitations on the member countries. Clearly, our main concern here is with the first issue, the remaining two to be dealt with separately under monetary and fiscal arrangements below. The possible interventions by the territorial governments have however been eliminated by establishing the machinery for the co-ordination of trade policy through regular meetings of the relevant territorial ministers. Arising from the recommendations of a recent Commission of Enquiry\textsuperscript{36} in this matter, it became necessary to take steps to lay down a code of principles as follows:

(a) Prohibitions or limitations on territorial trade not to be imposed unilaterally;

(b) Commodities not to be sold by an Authority in one territory to buyers in another at prices higher than their f.o.b. export prices without the agreement of the buying territory's government;

(c) Uniformity of internal marketing policies between territories not to be regarded as necessary; the desire of one territory to assist a branch production which another territory does not wish to assist often to be achieved by direct subsidy, in the
absence of a uniform policy, and the raising of the price of the product above equilibrium level being not regarded as practicable.

In respect of Industrial Licensing which began in 1948 and became identical in its application to East Africa by 1953, it was suggested that it did not achieve its objects. The objects were to safeguard the East African territory which first established those industries which were scheduled under the Licensing Arrangement from competition within East Africa and to do so by the East African Industrial Council which would take into account the resources of the applicant territory in granting the license. The failure was attributed to the reluctance of those East African territories which were lagging behind industrially, mainly Tanganyika, to allow the addition of new industries to the Schedule.

In respect of Statutory Marketing and State participation, no steps have been taken as yet to introduce a code of principles. With regard to Industrial Licensing it was thought that the suggestion as to its withdrawal, would have to be dealt with later on in 1961. It now appears however that the East African Industrial Council, which consists of the Ministers of Commerce of each territory, the legal and financial secretaries of the main East African body (obviously ad personam owing to the independent status of the East African Industrial Council), one nominated member and two members from each territory, is to continue operating on the present basis owing to the insistence on the part of Tanganyika to keep it until the balance is redressed.

There appears to be a lot of friction which relates in some cases to the establishment of an industry which is not complementary to but competitive with the existing industries.
In addition to the preceding objections to the satisfactory operation of the common market, it is also arguable that even where Marketing Boards do not deter the operation of free markets, lack of knowledge of opportunities available or some sense of bias on the part of the administrators in the past (uninformed bases of industrial licensing for industrial licensing) has given rise to the concentration of economic activities in Kenya. A recent Report on East African economic situation draws attention to the fact that although Kenya's population is 34% of the total, her total Gross Domestic Product comprises 42% of the total East African Gross Domestic Product, 50% of the East African imports, and over 70% of East Africa's total manufacturing activity. It also suggests that the particularly small role which Tanganyika plays as a supplier of manufactured goods in inter-territorial trade seems to indicate that Tanganyika has benefited particularly little from the common market.

B. Monetary Arrangement. East African Currency Board does not fall within the ambit of East African Common Services Organization although its administrator is liable to be appointed, ad personam rather than ex officio, as the chairman of the currency board. The Board's history goes back to December 1919 when it was established to separate the local currency from the standard Rupee then in circulation and place it on the basis of sterling exchange. This process was completed in 1925 with a not inconsiderable loss to the extent that the currency was backed by reserves amounting to 43.6% of the monetary circulation. Thereafter the currency had to pass through a rather critical stage during the depression of 1930's whence the currency circulation fell and reserves amounted to only 10% of the total money in circulation. By 1950 the currency was well established and with the favourable development of the reserve fund the 100% cover was exceeded for the first time. To-day the Currency outstanding
is £58.5 million, the reserve fund is worth £66.4 million and thus the backing is 113.5%. The reserves are adequate enough to cover about four months current international payment of East Africa. No exact details of the currency circulation\(^2\) are available except for Tanganyika and these are also an arbitrary one-third. Consequently the surpluses of the currency board are being distributed, since its first accumulation in 1950/51, equally to the three territories rather than in proportion to the amount of currency circulation in each territory. The currency board is allowed to buy the territorial government’s short-term securities to the extent of £20 million and it has so far bought up to £15.8 million\(^4\) worth of Treasury Bills and other such securities (of which Kenya securities amount to £5.8 million). It can also cash crop bills to the extent of £5 million.\(^5\)

The East African currency is issued against the sterling equivalent, hence the territory with a surplus balance of payment obtains an equivalent increase in its monetary supply. As the currency can move freely not only across the territorial frontiers but also in the sterling area, no positive steps can be taken by the Currency Board to effect the rate of economic progress in any of the territories by monetary movements except perhaps slightly by variations in exchange commissions for redemption of issue of East African currency against sterling.\(^6\) Thus, the activities of the East African Currency Board are often defined to be "neutral" in monetary policy.\(^6\) There is however a considerable body of opinion in Uganda and Tanganyika that considers that deficit in Kenya’s balance of payment, as indicated\(^7\) in Tables 25 and 26 at the end of the Chapter, is made good by the movement of capital from Tanganyika and Uganda to Kenya. One of the obvious inferences from such a view would be that in so far as the movement of funds from Uganda and Tanganyika does not take place
through the short or interest-bearing long-term securities as in the international balance of payment, but simply through the depletion of the currency in circulation in these two territories, the Kenya economy is not subjected to the market test. Thus, neither does it have to pay interest on such inflowing funds nor is its currency liable to exchange rate fluctuations.\footnote{48} The opposite view holds that the net inflow of capital from abroad in Kenya makes this good. Table 27, produced at the end of the Chapter, seems to indicate a net outflow (or only a small inflow at the best); hence this argument is not tenable. Alternatively, the opposite view is that the benefits to Kenya are only indirect, i.e., other territories gain from 'spill over' effects.\footnote{49} The nature of the spill over effects is rather dubious, albeit a long-term dream, among the under-developed countries under a common marketing arrangement.\footnote{50} Perhaps it is apparent from the Tables that an outflow of £3.5 million (inter-territorial inflow and outflow being taken to be negligible) from a country with an imputed currency circulation of the order of £19 million is quite significant. Thus if one accepts this view, one of the obvious inferences is that the present monetary arrangement is not suitable enough to prevent such inequities. One possible solution may be to divide the currency board profits between Kenya, Uganda and Tanganyika in the ratio of 0:5:5. However, owing to the relative smallness of such profits the lack of liquidity in the other territories would not be probably made good and inequitable situation rectified.\footnote{51}

The three territories have a fairly well-developed commercial banking system, largely branches of foreign banks. The principal banks in Tanganyika are Standard Bank, Barclays Bank (D.C.O.), National and Grindlays Bank, Bank of Baroda, Bank of India, Lombard, Nederlandsche Handel Maatschapii and Ottoman Bank. Their services are used by the non-indigenous population,
and as the currency board has no say in their lending policy, they maintain a high lending ratio to their deposits. Thus, their role as commercial bankers has been so far passive but is now changing to take into account the economic needs of the newly emerging independent East Africa.

The extent to which commercial lending occurs varies as between the East African territories. Table 28 gives some indication of the extent of variation; in Kenya the cash and liquidity ratios, which are generally taken to be rather high enough to enable the traders to pile up excessive stocks, exceed those of the banks in Tanganyika. If the prevalence of high liquidity in Kenya is due to the better possibility of high economic returns under perfect competitive conditions, there can be little objection against the present commercial bank policy. As soon as one considers the institutional factors such as land alienation in Kenya and Tanganyika and tries to relate it to the commercial banks' conventional lending policy, one begins to doubt if the absence of credit control has given rise to what is often called monetary 'neutrality'. Kenya has had the White Highlands policy which made it possible for the European farmers to mortgage their land-holdings whilst Tanganyika has had the policy of discouraging land alienation to the non-indigenous population under the Trusteeship Deed and consequently little facility of commercial bank financing.

Just as the imbalance in the inter-territorial balance of payments and the necessary flow of currency arising therefrom cannot be rectified without a well-developed security or capital market, the disproportional commercial bank lending cannot be put right without a central bank controlling commercial bank lending policy. Whilst there are good prospects of having a central bank for East Africa with a power to control such lending by means of selective credit policy for projects in terms of priority in the interest of a sound economic development of the currency area as a
whole, it is not at all possible to say whether such an institution, in formulating its broad lines of policy can take into account the territorial needs arising from their individual variations.

If the central bank can rectify the disproportional commercial bank lending as between the territories, it would also go a long way towards eliminating 'undesirable' flow of currency in circulation from the area with a favourable balance of payment to the one without. The rest of the imbalance would have to be rectified by the fiscal policy. If the monetary changes cannot be brought about in one of the forms or the other suggested so far, viz. adjustment in the distribution of currency board or central bank profits, selective control of the central bank over commercial bank lending in terms of regional needs and variations and possibly also the establishment of a sound capital market, the burden of adjustment is so much heavier on the fiscal machinery to which we turn now.

C. Fiscal Arrangement. Historically, the fiscal arrangement has existed in two main respects. Firstly, the administration of certain common services and the contribution to the cost of these services. Secondly, in respect of the allocation of income tax and customs and excise revenue which are jointly collected. The question of allocation is considered in two stages: straightforward allocation on the basis of the country from which the revenues are derived; allocation taking into account the regional disparities in growth of the various areas of the common market.

(a) Administrative Arrangement: Under the East African High Commission formed in 1947 the charges could be met only by appropriation of votes of the Central Legislative Council of the High Commission. There was however a distinction being drawn between (a) transport and communication (exclusive of East African Airways), (b) revenue collecting services and (c) other services such as economic and statistical services, research and
general services and other special services. The first group were either self-financing or were financed by external grants and although the second were treated as non-self-contained, the costs of running the customs and excise and income tax departments were met out of revenue collected. The cost of customs and excise department was met with in proportion to the services rendered to each territory. The cost of income tax department was taken to be the departmental costs incurred in that territory plus the estimated costs of the work done on behalf of that territory in the department's head office plus one-third of the outstanding costs of the department's head office in London. The services of the third group could be financed only if the territorial votes for these services had been appropriated by the Central Legislative Assembly. The whole system was therefore re-examined in 1960-61 and as a result of Tanganyika achieving independence the High Commission was transformed into the East African Common Services Organization.

The organisation is the responsibility of an authority consisting of the three principal ministers of the three territories. The authority is supported by four groups, each composed of a Minister from each territory. Each group has its special responsibility in the field of communications, commercial and industrial co-operation, finance or social and research services. The legislative assembly, usually called the Central Legislative Assembly, is composed of twelve Ministers from the four groups, nine members from each of the three territories elected by their respective legislatures, the Secretary-General and legal secretary to the organisation.

As for the judiciary side of it, it has been provided by the Constitution of the East African Common Services Organization that in administering the East African Court of Appeal on behalf of the United Kingdom government which would be responsible for the appeals to the individual
litigants in each territory (again no provision is made for one territory to be a litigant against another). The court is to be financed by the Distributable Pool of Revenue.

There are again two broad categories of the activities of the East African Common Services Organization at present: self-contained and non-self-contained. The self-contained services are those which are self-financing and include railways (covering not only railways but also inland waterways and harbours together with associated road services and coastwise shipping), posts and telecommunications and air transport (exclusive of East African Airways Corporation). These are self-financing and constitute 90% of the total expenditure of the East African Common Services Organization which amounted to £45 million in 1960. The non-self contained services are either financed from a common pool or by votes. The former include research services (in medical, industrial research organisation and agriculture and fisheries), East African Statistical Unit, East African Literature Bureau, Civil Aviation and Meteorological Department, Economic co-ordination, East African Court of Appeal and general administration including East Africa office and Central Legislative Assembly in London and Nairobi respectively. The latter comprise East African Hides and Leather Bureau, Desert Locust Survey, East African Navy and any new common services that may be established new.

The sources of financing of self-contained services are the same as before. The costs of income tax and customs and excise departments are covered by way of a first charge on a distributable pool of revenue consisting of a certain percentage of income tax revenue of a particular kind and a certain percentage of customs and excise revenue collected throughout East Africa; the cost of services are in proportion to the work performed for each territory in the case of both the departments now. The non-self-contained services were to be financed from half of such a distributable pool
of revenue net of the cost of collection of the two taxes we have just referred. Before considering the composition of the pool in detail, it is perhaps better to deal with the history of allocation of revenue.

(b) Fiscal Arrangement: Although Tanganyika did not join the common market until 1948, nor did a joint East African administrative organization such as the East African High Commission Services, East African Common Services Organization come into existence until then, customs and excise department of Tanganyika worked closely in collaboration with the departments of the neighbouring territories. The income tax department in Tanganyika has had the similar arrangement with the departments of the neighbouring territories form 1940 onwards. Obviously, these departments collected revenue for the departments of the other territories and handed it over to the territory that had a right to it under the rules laid down; where revenue was derived from more than one territory, only one assessment was made subject to the final adjustment according to the rules laid down. These rules, which remained unaltered until 1961 were as follows:

Customs and excise were paid over to the government of the territory wherein the goods were sold for consumption and in the case of income tax the sum total of income tax revenue was made over to the government of the territory in which the taxed income originated. In the case of customs and excise the transfer of goods inter-territorially, there were thought to be possibilities of abuses arising from non-recorded transfer, misdescription or false basis of correcting the selling price to purchase price for allocation on the basis of cost of goods.

In the case of income tax the rules were as follows:

(i) for non-resident individuals and limited companies the tax payable is allocated to each territory in the proportion which the income received in each territory bears to the total East
African income;

(ii) for resident limited companies each territory is credited with the amount of the tax charged on the income derived from that territory, the territory of residence receiving the tax raised on any income received outside East Africa;

(iii) for resident individuals, the territory in which the taxpayer does not reside is entitled to that proportion of the total tax payable which half of the income received in that territory bears to the total taxable income.

(o) Recent Fiscal Developments. As a result of an enquiry in 1961, it was found that the inter-territorial transfer of goods was not quite so subject to wrong description and non-recording but that there was a good justification for adjusting the correcting factor for converting the selling value to import price and that it should be altered from 0.77 to 0.66. Further complaints on import duty were the same as in the case of income tax.

In the case of income tax the complaints were in the nature of the loss of revenue to Tanganyika and gain to Kenya arising from the operation of the common market. The remedy was sought to be provided by a distributable pool of revenue consisting of 40% of income tax charged to companies on profits arising from manufacturing and finance and 6% of the annual revenue collected in the territories by means of customs and excise. The other rules of allocation were to be the same now as before. It was suggested that one half of the pool should finance the non-self-contained services as indicated already, and the other half should compensate the territories lagging behind in terms of growth in the common market.

These suggestions were accepted by Tanganyika for a period of two years after which the matter would be reviewed. The matter has been reviewed
very recently by an American economist who has submitted a Report to the East African governments. According to this Report, the present basis of revenue allocation has been proved workable in East Africa. It emphasises that the present system compensates the other two territories only for the loss in customs revenue resulting from trade diversion and that it would be necessary to offer sufficient compensation to both Uganda and Tanganyika to hold together despite the resistance on the part of Kenya to provide all participants in the economic union with equal rates of growth. The Report does not offer any suggestions as to how much compensation should be paid or on what factors it should be based, but claims that despite all the frictions on this issue, an increased opportunity in the common markets than has hitherto been the case should indeed make it possible to lessen the present degree of friction. The fiscal redistribution ought also to be supplemented by planned industrial location through a policy of licensing and in the form of creating such incentives as would favour one point relative to another for certain types of industries. Thus, the continuation of the system of Industrial Licensing is, contrary to the recommendations of the earlier commission, emphasised.

As our concern in this study is with taxes on income, we shall have to re-examine, in the light of recent controversies on fiscal policy in East Africa, the bases of revenue allocation in Chapters Seven and Eight.
### Total Revenue and Expenditure of the Government Sector
#### Current Account: 1954-1960

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SOURCE: Tanganyika Statistical Abstract (Annual)
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| TOTAL                        | £64.9  | 100%  | 63.1| 100%  | 69.4| 100%  | 69.1| 100%  | 70.9| 100%  | 71.8|      |

Source: Tanganyika Statistical Abstract (Annual)

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| TOTAL                        | 18.0  | 100%| 18.3  | 100%| 19.7  | 100%| 18.9  | 100%| 18.5  | 100%| 22.0  | 100%|

(B) Government:               |       |   |       |   |       |   |       |   |       |   |       |   |
| Building & Construction      | 7.1   | 65.1| 7.4   | 79.6| 7.8   | 79.3| 7.2   | 84.7| 7.0   | 86.4| 6.7   | 85.8|
| Machinery and Equipment      | 3.8   | 34.9| 1.9   | 20.4| 2.1   | 20.2| 1.3   | 15.3| 1.1   | 13.6| 1.7   | 14.2|

| TOTAL                        | 10.9  | 100%| 9.3   | 100%| 9.9   | 100%| 8.5   | 100%| 8.1   | 100%| 7.8   | 100%|

| TOTAL                        | 28.9  |     | 27.6  |     | 29.6  |     | 27.4  |     | 26.6  |     | 29.8  |     |

Source: Tanganyika Statistical Abstract (Annual)
## TABLE NO. 11
GROSS CAPITAL FORMATION: 1955-60 Money Economy

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<td>7.4 79.6</td>
<td>7.8 79.6</td>
<td>7.2 84.7</td>
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<td>1.9 20.4</td>
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<td>21.2</td>
<td>25.0</td>
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</table>

Source = Tanganyika Statistical Abstract (Annual)

## TABLE NO. 12
Subsistence Economy

| (A) Private       |           |           |           |           |           |           |
|                   | 4.2       | 5.4       | 4.3       | 4.7       | 4.8       |

Source: Tanganyika Statistical Abstract (Annual)
### TABLE NO. 13

**Capital Formation By Type of Asset 1955-1961**

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<thead>
<tr>
<th>Asset</th>
<th>1955 %age</th>
<th>1956 %age</th>
<th>1957 %age</th>
<th>1958 %age</th>
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Source: Tanganyika Statistical Abstracts (Annual)
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<th>%</th>
<th>1960</th>
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<td><strong>100%</strong></td>
<td><strong>29.53</strong></td>
<td><strong>100%</strong></td>
<td><strong>27.40</strong></td>
<td><strong>100%</strong></td>
<td><strong>26.58</strong></td>
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<td><strong>23.79</strong></td>
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**Source:** Tanganyika Statistical Abstracts (Annual)
Table No. 15

<table>
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<th>Age</th>
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<th>Age</th>
<th>1959</th>
<th>Age</th>
<th>1960</th>
<th>Age</th>
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<td>2343</td>
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<td>4125</td>
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<td>7.3</td>
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<td>2575</td>
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<th>Age</th>
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<th>Age</th>
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<th>Age</th>
<th>1960</th>
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<td>28.9</td>
<td>9558</td>
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<table>
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<th>100%</th>
<th>39275</th>
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<th>33568</th>
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<th>34456</th>
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<th>37817</th>
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*Note: Tanganyika Statistical Unit takes net imports. The amount shown in Table 1 therefore consists of net imports of £57,661 plus inter-territorial imports of £7,726 thus amounting to £45,387 and not £47,001.*

Sources: Tanganyika Statistical Abstract (Annual)
<table>
<thead>
<tr>
<th>Item</th>
<th>1955 %</th>
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<th>1957 %</th>
<th>1958 %</th>
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**Source:** Tanganyika Statistical Abstracts (Annual)
### Table No. 17
Total Revenue and Expenditure of the Government Sector
Current Account: 1954-1960

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<th>%</th>
<th>1957</th>
<th>%</th>
<th>1958</th>
<th>%</th>
<th>1959</th>
<th>%</th>
<th>1960</th>
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<td>1841</td>
<td>9.1</td>
<td>1862</td>
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<td>18. Total Current</td>
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<td>17725</td>
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<td>3316</td>
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<td>2137</td>
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<td>1294</td>
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<td>1335</td>
<td>6.2</td>
<td>1542</td>
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<td>2302</td>
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<td>20. Total</td>
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<td>7819</td>
<td></td>
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<td>7782</td>
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</table>

**Sources:** Public Finance in Tanganyika, Dar-es-Salaam, 1959; Tanganyikan Statistical Abstracts (Annual) subject to modifications of the date for 1960 contained in the Abstract for 1962.
## TABLE NO. 18

**Central Government Capital Account 1954-1960**

<table>
<thead>
<tr>
<th>£'000</th>
<th>1954 %</th>
<th>1955 %</th>
<th>1956 %</th>
<th>1957 %</th>
<th>1958 %</th>
<th>1959 %</th>
<th>1960 %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Surplus</td>
<td>2519</td>
<td>16.9</td>
<td>1069</td>
<td>24.9</td>
<td>-75</td>
<td>2.5</td>
<td>-167</td>
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<tr>
<td>Capital Grants from abroad</td>
<td>865</td>
<td>12.7</td>
<td>785</td>
<td>18.3</td>
<td>826</td>
<td>27.5</td>
<td>916</td>
</tr>
<tr>
<td>Loan Repayment Received</td>
<td>94</td>
<td>1.3</td>
<td>91</td>
<td>2.1</td>
<td>103</td>
<td>3.4</td>
<td>81</td>
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<tr>
<td>Capital Transfers &amp; Loans</td>
<td>3353</td>
<td>49.1</td>
<td>2354</td>
<td>54.7</td>
<td>2150</td>
<td>71.6</td>
<td>2253</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6831</td>
<td>100</td>
<td>4299</td>
<td>100</td>
<td>3004</td>
<td>100</td>
<td>3083</td>
</tr>
<tr>
<td><strong>Expenditure:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Gross Capital Formation</td>
<td>3291</td>
<td>48.2</td>
<td>3920</td>
<td>91.2</td>
<td>4960</td>
<td>165.1</td>
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<tr>
<td>Loans and Advances</td>
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<td>4.2</td>
<td>380</td>
<td>8.8</td>
<td>-431</td>
<td>14.3</td>
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<td>Loan Repayments</td>
<td>56</td>
<td>0.8</td>
<td>83</td>
<td>1.9</td>
<td>80</td>
<td>2.7</td>
<td>34</td>
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<tr>
<td>Expense Account Net</td>
<td>-201</td>
<td>2.9</td>
<td>106</td>
<td>2.5</td>
<td>38</td>
<td>1.3</td>
<td>40</td>
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<tr>
<td><strong>Total Capital Expenditure</strong></td>
<td>2858</td>
<td>41.8</td>
<td>4489</td>
<td>104.4</td>
<td>4647</td>
<td>154.7</td>
<td>5233</td>
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<td>Depreciation of Investment Surplus (equal to change in financial assets)</td>
<td>240</td>
<td>3.5</td>
<td>685</td>
<td>16.0</td>
<td>325</td>
<td>10.8</td>
<td>-55</td>
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<tr>
<td><strong>Total</strong></td>
<td>6831</td>
<td>100</td>
<td>4299</td>
<td>100</td>
<td>3004</td>
<td>100</td>
<td>3083</td>
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<table>
<thead>
<tr>
<th>Table No. 19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Government Capital Account: 1954-1960</strong></td>
</tr>
<tr>
<td>£'000</td>
</tr>
<tr>
<td><strong>Revenue:</strong></td>
</tr>
<tr>
<td>Current Surplus</td>
</tr>
<tr>
<td>Grants from Central Government</td>
</tr>
<tr>
<td>Grants from abroad</td>
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<tr>
<td>Loan Repayments received</td>
</tr>
<tr>
<td>Capital Transfers and Loans raised</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Expenditure:</strong></td>
</tr>
<tr>
<td>Gross Capital Formation</td>
</tr>
<tr>
<td>Loans and Advances</td>
</tr>
<tr>
<td>Loan Repayments</td>
</tr>
<tr>
<td>Expense Account Net</td>
</tr>
<tr>
<td><strong>Total Capital Expenditure</strong></td>
</tr>
<tr>
<td>Depreciation of Investment</td>
</tr>
<tr>
<td>Surplus</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

**Source:** *Public Finance in Tanganyika. Dar-es-Salaam, 1959.*

## TABLE NO. 20

**Capital Account: Central and Local Government 1954 - 1960**

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<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Revenue:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Surplus</td>
<td>3316</td>
<td>2137</td>
<td>1294</td>
<td>1335</td>
<td>1542</td>
<td>2309</td>
<td>2577</td>
</tr>
<tr>
<td>Capital grants from abroad</td>
<td>865</td>
<td>785</td>
<td>826</td>
<td>916</td>
<td>1091</td>
<td>1323</td>
<td>1592</td>
</tr>
<tr>
<td>Loan Repayments Rec'd</td>
<td>94</td>
<td>111</td>
<td>182</td>
<td>165</td>
<td>158</td>
<td>312</td>
<td>-</td>
</tr>
<tr>
<td>Capital Transfers and Loans Raised</td>
<td>3896</td>
<td>2668</td>
<td>2150</td>
<td>2253</td>
<td>849</td>
<td>1688</td>
<td>2745</td>
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<td><strong>Total</strong></td>
<td>8171</td>
<td>5701</td>
<td>4452</td>
<td>4669</td>
<td>3640</td>
<td>5625</td>
<td>6914</td>
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</table>

| **Expenditure:**            |       |       |       |       |       |       |       |
| Gross Capital Formation     | 4129  | 4878  | 5845  | 6609  | 5796  | 5955  | 5380  |
| Loans and Advances          | 288   | 335   | -431  | -193  | 62    | 205   | 662   |
| Loan Repayments             | 72    | 125   | 181   | 104   | 63    | 494   | 695   |
| Suspense A/C net            | 201   | 106   | 33    | 40    | 56    | 62    | -     |
| **Total Capital Expend.**   | 3721  | 5494  | 5653  | 6560  | 6977  | 6716  | 6737  |
| Depreciation of Investments | 240   | 655   | 125   | -35   | -91   | -191  | -     |
| Surplus                     | 4219  | -478  | -1506 | -1836 | -3246 | -87   | 177   |
| **Total**                   | 8171  | 5701  | 4452  | 4669  | 3640  | 5625  | 6914  |

**Sources:** Public Finance in Tanganyika, op.cit; Tanganyika Statistical Abstracts, 1959-62 subject to modifications of date for 1960 as in the Abstract for 1962.
**TABLE 21**

**Government Sector (excluding East African Layer of Finance)**

<table>
<thead>
<tr>
<th>Payments</th>
<th>1954 %</th>
<th>1955 %</th>
<th>1956 %</th>
<th>1957 %</th>
<th>1958</th>
<th>1959</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To H'holds:</strong> -</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>1. Purchases of current goods and services:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Wages &amp; Salaries</td>
<td>7.3 31.5</td>
<td>8.3 34.2</td>
<td>8.7 38.3</td>
<td>10.2 41.5</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Transfer Payments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Grants to persons</td>
<td>0.3 1.3</td>
<td>0.3 1.5</td>
<td>0.1 0.4</td>
<td>0.2 0.8</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(b) Grants to inc. profit working organisations</td>
<td>1.2 5.2</td>
<td>1.4 6.3</td>
<td>1.5 6.6</td>
<td>1.7 6.9</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(c) Public Debt. Int.Pd.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Loans &amp; Advances</td>
<td>0.1 0.5</td>
<td>0.1 0.4</td>
<td>-0.1 -0.4</td>
<td>-0.2 -0.8</td>
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<td></td>
</tr>
<tr>
<td><strong>To Firms:</strong> -</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Purchase of current goods and services:</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(a) Maintenance</td>
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<td>1.5 6.7</td>
<td>1.7 7.5</td>
<td>2.0 8.1</td>
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<td></td>
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</tr>
<tr>
<td>(b) Other goods and services:</td>
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<td>3.1 13.9</td>
<td>3.5 15.4</td>
<td>3.6 14.6</td>
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<td></td>
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<tr>
<td>2. Transfer Payments:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Subsidies</td>
<td>0.1 0.8</td>
<td>0.7 3.0</td>
<td>0.7 3.1</td>
<td>0.1 0.4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(b) Public debt. Int.Pt.</td>
<td>-</td>
<td>0.1 0.4</td>
<td>0.1 0.4</td>
<td>0.1 0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Loans &amp; Advances</td>
<td>-0.2 -1.0</td>
<td>0.2 0.8</td>
<td>-0.2 -0.9</td>
<td>-0.5 -2.0</td>
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</tr>
<tr>
<td><strong>To Capital Account:</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Capital Formation</td>
<td>4.0 19.3</td>
<td>5.4 24.2</td>
<td>5.8 25.5</td>
<td>5.3 21.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**To the rest of the World:**

<p>| 1. Interest Payments | 0.4 1.7 | 0.3 1.3 | 0.4 1.8 | 0.5 2.0 | | | |
| 2. Grants | 1.8 7.8 | 1.7 7.6 | 1.8 7.9 | 2.0 8.2 | | | |
| 3. Loan Repayments | 0.1 0.5 | 0.1 0.5 | 0.2 0.9 | 0.1 6.4 | | | |
| 4. Other (Suspense a/cs) | -0.2 -1.0 | 0.1 0.5 | - | - | | | |
| <strong>Saving/</strong> | 2.1 9.5 | 2.2 9.9 | 2.4 10.6 | 2.6 10.6 | | | |</p>
<table>
<thead>
<tr>
<th>Payments</th>
<th>1954%</th>
<th>1955%</th>
<th>1956%</th>
<th>1957%</th>
<th>1958%</th>
<th>1959%</th>
<th>1960%</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-2.2</td>
<td>-1.5</td>
<td>-6.7</td>
<td>-2.4</td>
</tr>
<tr>
<td>Total</td>
<td>23.2 100</td>
<td>22.3 100</td>
<td>22.7 100</td>
<td>24.6 100</td>
<td>21.1 100</td>
<td>28.2 100</td>
<td>30.9</td>
</tr>
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**Sources:** Public Finance in Tanganyika, Table 19, p.32 (adjusted to excende the East African High Commission); Tanganyika Statistical Abstracts (Annual)
## Table 21

(Government Section (excluding East African Layer))

<table>
<thead>
<tr>
<th>Receipts</th>
<th>1954 %</th>
<th>1955 %</th>
<th>1956 %</th>
<th>1957 %</th>
<th>1958 %</th>
<th>1959 %</th>
<th>1960 %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>From households</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) School, medical, court fees</td>
<td>0.5 2.16</td>
<td>6.5 2.2</td>
<td>0.5 2.2</td>
<td>0.6 2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Other</td>
<td>0.3 1.30</td>
<td>0.4 1.6</td>
<td>0.4 1.7</td>
<td>0.4 1.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Income from Property.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Rents</td>
<td>0.4 1.92</td>
<td>0.4 1.8</td>
<td>0.4 1.7</td>
<td>0.5 2.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Market Ones</td>
<td>0.2 0.86</td>
<td>0.2 0.8</td>
<td>0.3 1.3</td>
<td>0.3 1.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Other</td>
<td>0.2 0.86</td>
<td>0.2 0.8</td>
<td>0.3 1.3</td>
<td>0.4 1.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Transfer Receipts:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Tapes on income</td>
<td>5.8 25%</td>
<td>5.8 25%</td>
<td>5.9 25%</td>
<td>6.6 27%</td>
<td>5.7 25%</td>
<td>5.9 24%</td>
<td>6.7 33.6</td>
</tr>
<tr>
<td>(b) &quot; &quot; Expend.</td>
<td>6.4 27%</td>
<td>7.5 32%</td>
<td>7.7 33%</td>
<td>8.10 32.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Loans.</td>
<td>0.4 1.92</td>
<td>-</td>
<td>-</td>
<td>0.1 0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14.2 61.2</td>
<td>15.0 65.0</td>
<td>15.5 67.0</td>
<td>16.9 66.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>From Firms</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Receipts from the Provision of Goods and Services</td>
<td>0.2 1.62</td>
<td>0.2 0.8</td>
<td>0.2 0.8</td>
<td>0.2 0.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Income from Property Royalties</td>
<td>0.6 2.60</td>
<td>0.7 3.0</td>
<td>0.6 2.6</td>
<td>0.6 2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Transfer Receipts:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Taxes on Income (profit)</td>
<td>2.5 10.80</td>
<td>2.2 10.0</td>
<td>2.1 9.2</td>
<td>2.0 8.2</td>
<td>2.5 11.3</td>
<td>2.38 8.2</td>
<td>2.89 1.1</td>
</tr>
<tr>
<td>(b) Taxes on Expend.</td>
<td>0.5 2.2</td>
<td>0.6 2.5</td>
<td>0.8 3.9</td>
<td>0.9 3.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Export Duties</td>
<td>0.3 1.30</td>
<td>0.3 1.2</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Loans &amp; Capital Transfers</td>
<td>1.4 4.7</td>
<td>0.5 2.0</td>
<td>0.2 0.8</td>
<td>0.2 0.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.5 23.5</td>
<td>4.5 19.5</td>
<td>4.0 17.3</td>
<td>3.9 15.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>From Capital Acc.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0 8.6</td>
<td>2.0 8.7</td>
<td>0.5 2.2</td>
<td>0.5 2.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>From the Rest of the World.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Income from External property</td>
<td>0.5 2.2</td>
<td>0.6 2.5</td>
<td>0.5 2.2</td>
<td>0.4 1.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Grants</td>
<td>0.9 3.9</td>
<td>0.9 3.8</td>
<td>0.9 3.9</td>
<td>1.1 4.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Loan repayments</td>
<td>0.1 0.3</td>
<td>0.1 0.5</td>
<td>0.2 0.8</td>
<td>0.2 0.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Loans</td>
<td>-</td>
<td>-</td>
<td>1.5 6.6</td>
<td>1.5 6.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5 6.4</td>
<td>1.6 6.8</td>
<td>3.1 13.5</td>
<td>3.2 13.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23.2 100</strong></td>
<td><strong>25.1 100</strong></td>
<td><strong>23.1 100</strong></td>
<td><strong>24.1 100</strong></td>
<td><strong>22.16 100</strong></td>
<td><strong>27.34 100</strong></td>
<td><strong>30.9 100</strong></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Taxes on Income</td>
<td>8251</td>
<td>8203</td>
<td>8478</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income tax collected</td>
<td>3904</td>
<td>3654</td>
<td>4135</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance</td>
<td>4347</td>
<td>4549</td>
<td>4343</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rates of Firms - Total I.T. x Rates</td>
<td>(2336)</td>
<td>(2844)</td>
<td>(3653)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T. from Firms - Total I.T. x Rates</td>
<td>2494</td>
<td>2325</td>
<td>2809</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot; Employees - Residue</td>
<td>1410</td>
<td>1329</td>
<td>2948</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Special and Appropriation Funds</td>
<td>2,404</td>
<td>2,237</td>
<td>2,010</td>
<td>1,652</td>
<td>1,705</td>
<td>1,453</td>
<td></td>
</tr>
<tr>
<td>P.O. Savings Bank</td>
<td>211</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Custodian Enemy Property</td>
<td>118</td>
<td>128</td>
<td>153</td>
<td>169</td>
<td>198</td>
<td>241</td>
<td></td>
</tr>
<tr>
<td>Other Funds</td>
<td>1,368</td>
<td>1,223</td>
<td>2,084</td>
<td>2,074</td>
<td>2,181</td>
<td>2,461</td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>642</td>
<td>655</td>
<td>827</td>
<td>2,179</td>
<td>1,325</td>
<td>491</td>
<td></td>
</tr>
<tr>
<td>Drafts</td>
<td>42</td>
<td>23</td>
<td>16</td>
<td>18</td>
<td>21</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Unexpended Balance of Funds</td>
<td>790</td>
<td>597</td>
<td>425</td>
<td>638</td>
<td>603</td>
<td>633</td>
<td></td>
</tr>
<tr>
<td>Specific Reserves:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex-Enemy Property Acquisition</td>
<td>744</td>
<td>701</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Development Plan</td>
<td>403</td>
<td>311</td>
<td>1,723</td>
<td>1,109</td>
<td>668</td>
<td>279</td>
<td></td>
</tr>
<tr>
<td>Agricultural Development</td>
<td>497</td>
<td>277</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Other Reserves</td>
<td>1,808</td>
<td>2,133</td>
<td>458</td>
<td>469</td>
<td>408</td>
<td>515</td>
<td></td>
</tr>
<tr>
<td>General Reserve Funds</td>
<td>5,221</td>
<td>4,825</td>
<td>3,581</td>
<td>2,662</td>
<td>2,527</td>
<td>2,176</td>
<td></td>
</tr>
<tr>
<td>Treasury Bills</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>General Revenue Balance</td>
<td>3,782</td>
<td>2,250</td>
<td>1,614</td>
<td>1,828</td>
<td>1,894</td>
<td>2,530</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18,486</strong></td>
<td><strong>15,906</strong></td>
<td><strong>13,720</strong></td>
<td><strong>13,274</strong></td>
<td><strong>11,467</strong></td>
<td><strong>14,319</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Assets**

| Cash - In Tanganyika                            | 1,883| 1,013| 1,649| 653  | 543  | 543  |
| Abroad                                         | 710  | -1,514| -213 | -663 | -3,845| 183  |
| On Deposit                                     | -    | -    | -    | -    | -    | -    |
| Investments                                    | 12,241| 11,143| 9,939| 8,236| 8,523| 8,211|
| Advances in anticipation of funds              | 1,758| 1,305| 1,372| 4,031| 5,320| 4,002|
| Other                                          | 1,774| 1,305| 763  | 750  | 664  | 598  |
| Misc. Accounts                                 | 119  | 169  | 212  | 267  | 293  | 611  |
| **Total**                                      | **18,486** | **15,906** | **13,720** | **13,274** | **11,467** | **14,319** |

Source: Tanganyika Statistical Abstracts (Annual)
### TABLE 23

**General Reserves of the Government of Tanganyika as on 30th June, 1960.**

<table>
<thead>
<tr>
<th>Description</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Fund</td>
<td>2800</td>
</tr>
<tr>
<td>General Reserve Balance</td>
<td>2508</td>
</tr>
<tr>
<td>Agricultural Development Reserve</td>
<td>32</td>
</tr>
<tr>
<td>Development Fund</td>
<td>414</td>
</tr>
<tr>
<td>Balance of fund set aside to meet losses on former government monopoly of export of maize and rice (further see Ch. 8, 3.6 below)</td>
<td>128</td>
</tr>
<tr>
<td>Total</td>
<td>5082</td>
</tr>
</tbody>
</table>

Less: Advances from Crown Agents: £1072

Net Balance of General Reserve: £4010

**Note:** The Securities in which the stated reserves are held are deposited with the Crown Agents for Overseas Administration in London. Against these securities the Crown Agents make advances to the Government of Tanganyika. The figure shown is the amount of advances outstanding at 31st June, 1960.

**Source:** I.B.R.D. Economic Development of Tanganyika, Dar-es-Salaam, 1961, Table 11, p, 29, which obtained these figures from the government of Tanganyika.
### Table No. 24

**Tanganyika Government: Public Debt as on 30th June.**

<table>
<thead>
<tr>
<th></th>
<th>£'000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Loans from Imperial Funds</strong></td>
<td>779</td>
</tr>
<tr>
<td>Guaranteed Loan 1952/72</td>
<td>-</td>
</tr>
<tr>
<td>Government Loan</td>
<td>500</td>
</tr>
<tr>
<td>Inscribed Stock 1970/73</td>
<td>4,030</td>
</tr>
<tr>
<td>Inscribed Stock 1957/72</td>
<td>4,410</td>
</tr>
<tr>
<td>Lint and Seed Marketing Board Loan</td>
<td>1,000</td>
</tr>
<tr>
<td>Inscribed Stock 1973/72</td>
<td>-</td>
</tr>
<tr>
<td>Tanganyika Registered Stock 1975/79</td>
<td>-</td>
</tr>
<tr>
<td>Development Bonds</td>
<td>-</td>
</tr>
<tr>
<td>Tanganyika Registered Stock 1966/67 and 1980/83</td>
<td>-</td>
</tr>
<tr>
<td>&quot; 1967/68 and 1981/84.</td>
<td>-</td>
</tr>
<tr>
<td>Williamson Diamonds Ltd.</td>
<td>-</td>
</tr>
<tr>
<td>H.M. Exchequer Loan</td>
<td>-</td>
</tr>
<tr>
<td>Barclays Overseas Corporation Development Loan</td>
<td>210</td>
</tr>
<tr>
<td></td>
<td>10,929</td>
</tr>
</tbody>
</table>

**Source:** Statistical Abstract, 1961. The above figures barely constitute funded debt but exclude short term loans, loans and overdrafts guaranteed and liabilities to post office savings bank. Tanganyika Statistical Unit analysed the structure of Public debt and contingent liability as on 30th June, 1958 as follows:

<table>
<thead>
<tr>
<th></th>
<th>£'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock and Bonds</td>
<td>14,627</td>
</tr>
<tr>
<td>Long Term Loans</td>
<td>1,752</td>
</tr>
<tr>
<td>Total Funded Debt</td>
<td>16,379</td>
</tr>
<tr>
<td>Short Term Loans</td>
<td>2,205</td>
</tr>
<tr>
<td>Total Public Debt</td>
<td>18,584</td>
</tr>
<tr>
<td>Loans and Overdrafts guaranteed</td>
<td>2,703</td>
</tr>
<tr>
<td>Liability of Post Office Savings Bank</td>
<td>556</td>
</tr>
<tr>
<td>Total Debt and Contingent Liability</td>
<td>21,843</td>
</tr>
</tbody>
</table>

We cannot carry out each analysis as the requisite information is not available in the Financial Statements and also because the methodology used in carrying out such an analysis is not explained by the T.S.U. in *Public Finance in Tanganyika*, op.cit.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>National Debt* as a % of Gross Domestic Product</td>
<td>6.9%</td>
<td>6.4%</td>
<td>10.1%</td>
<td>10.2%</td>
<td>9.0%</td>
<td></td>
</tr>
<tr>
<td>Debt Charges as a % of Gross Domestic Product</td>
<td>0.33%</td>
<td>0.36%</td>
<td>0.47%</td>
<td>0.58%</td>
<td>0.65%</td>
<td></td>
</tr>
</tbody>
</table>

*National Debt as on 30th June of the year for which Gross Domestic Product is related.

Sources: Public Finance in Tanganyika: Annual Statistical Abstract (Tanganyika)
<table>
<thead>
<tr>
<th>Period</th>
<th>Imports</th>
<th>Exports</th>
<th>Visible Bal. of Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£'000</td>
<td>£'000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tanganyika</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>34,356</td>
<td>47,218</td>
<td>+12,762</td>
</tr>
<tr>
<td>1960</td>
<td>37,817</td>
<td>56,570</td>
<td>+18,753</td>
</tr>
<tr>
<td>1961</td>
<td>39,686</td>
<td>50,600</td>
<td>+10,914</td>
</tr>
<tr>
<td></td>
<td>Kenya</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>61,508</td>
<td>38,385</td>
<td>-23,123</td>
</tr>
<tr>
<td>1960</td>
<td>70,069</td>
<td>40,197</td>
<td>-29,872</td>
</tr>
<tr>
<td>1961</td>
<td>68,937</td>
<td>41,736</td>
<td>-27,201</td>
</tr>
<tr>
<td></td>
<td>Uganda</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>25,534</td>
<td>43,228</td>
<td>+17,694</td>
</tr>
<tr>
<td>1960</td>
<td>26,030</td>
<td>42,926</td>
<td>+16,896</td>
</tr>
<tr>
<td>1961</td>
<td>26,546</td>
<td>42,257</td>
<td>+14,711</td>
</tr>
<tr>
<td></td>
<td>East Africa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>121,493</td>
<td>128,831</td>
<td>+ 7,333</td>
</tr>
<tr>
<td>1960</td>
<td>133,916</td>
<td>139,693</td>
<td>+ 5,777</td>
</tr>
<tr>
<td>1961</td>
<td>135,169</td>
<td>133,593</td>
<td>- 1,576</td>
</tr>
</tbody>
</table>
### TABLE 26.
VALUE OF INTER TERRITORIAL TRADE

(a) Tanganyika

<table>
<thead>
<tr>
<th></th>
<th>1959</th>
<th>1960</th>
<th>1961</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>1,848</td>
<td>1,875</td>
<td>1,844</td>
</tr>
<tr>
<td>Uganda</td>
<td>726</td>
<td>450</td>
<td>390</td>
</tr>
<tr>
<td>Total</td>
<td>2,574</td>
<td>2,325</td>
<td>2,234</td>
</tr>
<tr>
<td>Imports from:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>6,513</td>
<td>7,608</td>
<td>8,901</td>
</tr>
<tr>
<td>Uganda</td>
<td>1,587</td>
<td>1,574</td>
<td>1,704</td>
</tr>
<tr>
<td>Total</td>
<td>8,100</td>
<td>9,182</td>
<td>10,605</td>
</tr>
<tr>
<td>Balance</td>
<td>-5,526</td>
<td>-6,857</td>
<td>-8,371</td>
</tr>
</tbody>
</table>

(b) Kenya

<table>
<thead>
<tr>
<th></th>
<th>1959</th>
<th>1960</th>
<th>1961</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanganyika</td>
<td>6,513</td>
<td>7,608</td>
<td>8,901</td>
</tr>
<tr>
<td>Uganda</td>
<td>5,784</td>
<td>6,163</td>
<td>7,047</td>
</tr>
<tr>
<td>Total</td>
<td>12,297</td>
<td>13,771</td>
<td>15,948</td>
</tr>
<tr>
<td>Imports from:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanganyika</td>
<td>1,848</td>
<td>1,875</td>
<td>1,844</td>
</tr>
<tr>
<td>Uganda</td>
<td>3,640</td>
<td>5,120</td>
<td>5,152</td>
</tr>
<tr>
<td>Total</td>
<td>5,488</td>
<td>6,995</td>
<td>6,996</td>
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<tr>
<td>Balance</td>
<td>+6,809</td>
<td>+6,776</td>
<td>+8,952</td>
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</table>

(c) Uganda

<table>
<thead>
<tr>
<th></th>
<th>1959</th>
<th>1960</th>
<th>1961</th>
</tr>
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<tbody>
<tr>
<td>Exports to:</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Tanganyika</td>
<td>1,587</td>
<td>1,574</td>
<td>1,704</td>
</tr>
<tr>
<td>Kenya</td>
<td>3,640</td>
<td>5,120</td>
<td>5,152</td>
</tr>
<tr>
<td>Total</td>
<td>5,227</td>
<td>6,694</td>
<td>6,856</td>
</tr>
<tr>
<td>Imports from:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanganyika</td>
<td>726</td>
<td>450</td>
<td>390</td>
</tr>
<tr>
<td>Kenya</td>
<td>5,784</td>
<td>6,163</td>
<td>7,047</td>
</tr>
<tr>
<td>Total</td>
<td>6,510</td>
<td>6,613</td>
<td>7,437</td>
</tr>
<tr>
<td>Balance</td>
<td>-1,283</td>
<td>+81</td>
<td>-581</td>
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</table>

Source: Tanganyika Statistical Abstracts (Annual)
<table>
<thead>
<tr>
<th>To / From</th>
<th>London</th>
<th>Kenya</th>
<th>Uganda</th>
<th>Tanganyika</th>
<th>Zanzibar</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>—</td>
<td>3,475</td>
<td>840</td>
<td>250</td>
<td>—</td>
<td>325</td>
<td>4,890</td>
</tr>
<tr>
<td>Kenya</td>
<td>2,785</td>
<td>—</td>
<td>7,870</td>
<td>5,788</td>
<td>1,288</td>
<td>4,861</td>
<td>22,592</td>
</tr>
<tr>
<td>Uganda</td>
<td>1,750</td>
<td>9,783</td>
<td>—</td>
<td>936</td>
<td>—</td>
<td>2,872</td>
<td>15,341</td>
</tr>
<tr>
<td>Tanganyika</td>
<td>595</td>
<td>6,133</td>
<td>2,845</td>
<td>—</td>
<td>—</td>
<td>366</td>
<td>9,939</td>
</tr>
<tr>
<td>Zanzibar</td>
<td>—</td>
<td>875</td>
<td>—</td>
<td>10</td>
<td>—</td>
<td>15</td>
<td>900</td>
</tr>
<tr>
<td>Other</td>
<td>1,195</td>
<td>4,097</td>
<td>2,263</td>
<td>2,035</td>
<td>—</td>
<td>1,268</td>
<td>10,858</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6,325</td>
<td>24,363</td>
<td>13,818</td>
<td>9,019</td>
<td>1,288</td>
<td>9,707</td>
<td>60,520</td>
</tr>
</tbody>
</table>

*Sources: Tanganyika Statistical Abstract; E.A. Currency Board Report.*
TABLE 28
Commercial Banks’ Liquidity ratios

<table>
<thead>
<tr>
<th>Year</th>
<th>Balanced due from Banks Abroad</th>
<th>E.A. Shs.</th>
<th>KENYA</th>
<th>Loans/Advances</th>
<th>Deposits</th>
<th>Demand</th>
<th>Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Liquid Assets, Incldg Cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>26.7 (3.1)</td>
<td>20.3</td>
<td>43.9</td>
<td>39.3</td>
<td>68</td>
</tr>
<tr>
<td>1952</td>
<td>23.6</td>
<td>-</td>
<td>24.8 (2.3)</td>
<td>20.3</td>
<td>42.0</td>
<td>37.6</td>
<td>59</td>
</tr>
<tr>
<td>1953</td>
<td>17.0</td>
<td>1.4</td>
<td>19.0 (2.0)</td>
<td>31.0</td>
<td>53.0</td>
<td>46.8</td>
<td>36</td>
</tr>
<tr>
<td>1954</td>
<td>12.5</td>
<td>2.2</td>
<td>12.7 (2.2)</td>
<td>35.7</td>
<td>51.4</td>
<td>43.4</td>
<td>25</td>
</tr>
<tr>
<td>1955</td>
<td>10.2</td>
<td>2.2</td>
<td>10.5 (2.5)</td>
<td>39.2</td>
<td>53.0</td>
<td>43.0</td>
<td>20</td>
</tr>
<tr>
<td>1956</td>
<td>8.3</td>
<td>2.2</td>
<td>8.7 (3.0)</td>
<td>34.2</td>
<td>52.2</td>
<td>40.0</td>
<td>26</td>
</tr>
<tr>
<td>1957</td>
<td>3.7</td>
<td>2.2</td>
<td>13.9 (2.3)</td>
<td>37.5</td>
<td>57.0</td>
<td>44.0</td>
<td>24</td>
</tr>
<tr>
<td>1958</td>
<td>13.4</td>
<td>2.2</td>
<td>3.8 (3.1)</td>
<td>42.2</td>
<td>50.2</td>
<td>40.3</td>
<td>6</td>
</tr>
<tr>
<td>1959</td>
<td>8.4</td>
<td>2.2</td>
<td>10.5 (2.0)</td>
<td>39.0</td>
<td>52.5</td>
<td>41.2</td>
<td>17</td>
</tr>
<tr>
<td>1960</td>
<td>- 6.6</td>
<td>6.4</td>
<td>12.5 (1.9)</td>
<td>36.7</td>
<td>49.0</td>
<td>40.3</td>
<td>6</td>
</tr>
<tr>
<td>1961</td>
<td>- 1.0</td>
<td>6.7</td>
<td>13.9 (2.2)</td>
<td>37.5</td>
<td>57.0</td>
<td>44.0</td>
<td>24</td>
</tr>
</tbody>
</table>

**Average** 30.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Tanganyika</th>
<th>Abroad</th>
<th>from T.T</th>
<th>E.A. Shes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>7.9</td>
<td>0.10</td>
<td>9.0 (1.1)</td>
<td>0.9</td>
</tr>
<tr>
<td>1953</td>
<td>15.8</td>
<td>0.04</td>
<td>17.4 (1.6)</td>
<td>5.9</td>
</tr>
<tr>
<td>1954</td>
<td>13.0</td>
<td>0.05</td>
<td>15.2 (2.2)</td>
<td>8.6</td>
</tr>
<tr>
<td>1955</td>
<td>14.3</td>
<td>0.13</td>
<td>15.8 (1.5)</td>
<td>10.8</td>
</tr>
<tr>
<td>1956</td>
<td>14.3</td>
<td>0.14</td>
<td>16.5 (2.2)</td>
<td>9.2</td>
</tr>
<tr>
<td>1957</td>
<td>11.3</td>
<td>0.10</td>
<td>15.5 (4.2)</td>
<td>12.0</td>
</tr>
<tr>
<td>1958</td>
<td>12.8</td>
<td>0.37</td>
<td>14.8 (2.0)</td>
<td>10.2</td>
</tr>
<tr>
<td>1959</td>
<td>13.2</td>
<td>0.31</td>
<td>15.7 (2.5)</td>
<td>13.8</td>
</tr>
<tr>
<td>1960</td>
<td>11.4</td>
<td>0.29</td>
<td>13.7 (2.3)</td>
<td>15.7</td>
</tr>
</tbody>
</table>

**Average** 77.9

Sources: Territorial Statistical Abstracts (Annual)
Appendix B

Approximate Distribution of National Income in Tanganyika in 1958

In Tanganyika no adequate data are available to ascertain the distribution of income in terms of total income. This note however attempts to compile such a table and determine the shape of the Lorenz curve in the light of very scanty information available.

The sources of data which can be used here are; the East African Income Tax Department Statistics on income tax proper; the Department of Labour Statistics and personal tax statistics. There is a satisfactory record of income distribution in the first two sources, but the personal tax data in the Provincial Commissioners' reports are generally poor, except for those relating to Tanga Province and Southern Province. Data for Tanga Province are for a very limited range, i.e. up to about the lower middle income group, whereas those for the Southern Province cover the whole range of personal tax assessments, i.e. for incomes of £100 up to £600 which are the minimum and maximum limits for personal tax in 1958. In applying the pattern of income distribution of the Southern Province to the rest of the territory, it has to be assumed that the pattern of income distribution of this Province is indeed typical for the whole country. As will be seen shortly, this is not an unrealistic assumption. The procedure in arriving at the total income distribution from personal tax and income tax statistics, is as follows:

Take the regional distribution of income under personal tax as given. This will however exclude income of that section of the population that was not liable to personal tax (e.g. women, minors and aged as well as infirm) or the income of the population that earned some income but was not taxed owing to poor administration or the strong local opposition rendering tax collection impossible or undesirable. To adjust for this it is reasonable to assume that all adult males in the country earn some small income; those who pay
personal taxes in the lowest brackets earn about £75 per annum and those who do not pay such a tax earn about £25 per annum. In so far as some adult male individuals do not earn any income owing to infirmity or disability, their non-earnings will cancel out against the earnings of females and minors who are excluded. As for the tax-payers in the middle income group, the middle value of their group income will be taken to be their actual income. For income over £600 however it would be impossible to take the middle value in similar fashion as the highest upper limit is unknown, hence the income tax statistics of those who have been assessed are superimposed on personal tax distribution for which the highest actual income is taken as £600. Possible evasion of income tax does not significantly alter the true picture as evasion of personal tax in the middle and high income groups is not as feasible as the evasion of income tax. In so far however as the companies are tax-exempt because of depreciation and initial allowances their actual income is left out of such compilation, but this can be taken as a residual difference between the regional gross domestic product and national income so arrived at from personal tax assesses' income plus proportional income (one-eighth) of income tax assesses. The regional national income (which is checked against the regional gross domestic product at factor cost first attempted by the Tanganyika Statistical Unit in 1957 in a haphazard way for monetary sector and which we not only increase proportionately for 1958 in proportion to the growth of monetary national income, but which we apply to the subsistence sector national income for 1957 and increase for 1958, in the same way) so arrived at for a given region is then applied to the whole country in proportion to the tax collected in the remaining Provinces and the resultant total is somewhat equal to the total gross domestic product.

The next step is to compile the distribution of income by computing
the total taxable population of the whole country and applying the regional
distribution of income to the total taxable population. The lower limit to
the distribution of income is provided by the labour department's statistics
together with the income tax statistics. As to the upper limit, the above
derivation of national income with the help of tax statistics (personal tax
and income tax) serves this purpose, e.g. when the total distribution of the
whole country is taken and on the basis of the frequency number in each
group distribution (taking middle value of a group income to be the actual
income of the individuals in the group) their actual income is compiled,
it does not exceed the total national income of the economy.  

Table 29

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male adult population of the southern Province in 1957:</td>
<td></td>
</tr>
<tr>
<td>African Adults</td>
<td>266,131</td>
</tr>
<tr>
<td>Non-African Adults</td>
<td>3,109</td>
</tr>
<tr>
<td>Total Population in Southern Province in 1957:</td>
<td></td>
</tr>
<tr>
<td>Other Population (minor, female)</td>
<td>269,240</td>
</tr>
<tr>
<td>as above (See Table C.7)</td>
<td></td>
</tr>
<tr>
<td>1958/1957 = \frac{89 \times 0.26}{87 \times 0.26} = 1.02</td>
<td></td>
</tr>
</tbody>
</table>

Hence total adult population liable to personal tax in 1958 = 269,240 \times 1.02 =
274,623 out of which 196912 has already been assessed, leaving 77781 as shown
above.
Table 30

<table>
<thead>
<tr>
<th>Province</th>
<th>Tax collected / Tax collected in S.F.</th>
<th>Total Income of region liable to personal tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Prov.</td>
<td>127,462 / 127,464</td>
<td>£ 12.7 million as above</td>
</tr>
<tr>
<td>Central Prov.</td>
<td>129,898 / 127,464</td>
<td>12.950</td>
</tr>
<tr>
<td>Eastern Prov.</td>
<td>186,840 / 127,464</td>
<td>17.750</td>
</tr>
<tr>
<td>Dar-es-Salam</td>
<td>34,068 / 127,464</td>
<td>3.302</td>
</tr>
<tr>
<td>Lake Province</td>
<td>296,307 / 127,464</td>
<td>27.591</td>
</tr>
<tr>
<td>Northern Prov.</td>
<td>136,451 / 127,464</td>
<td>13.589</td>
</tr>
<tr>
<td>S.Highland Prov.</td>
<td>173,385 / 127,464</td>
<td>17.272</td>
</tr>
<tr>
<td>Tanga Province</td>
<td>110,538 / 127,464</td>
<td>11.049</td>
</tr>
<tr>
<td>Western Prov.</td>
<td>166,748 / 127,464</td>
<td>12.573</td>
</tr>
</tbody>
</table>

Total income of the country in respect of personal tax £128,776 million

Add income above £600, i.e. personal tax (highest) limit 17,931

£ 146,707

Residue representing depreciation and initial allowances to companies 20,483

G.D.P. at factor cost £167,990

Table 31/
Table 31

Distribution of Income as assessed under Personal tax and under Income Tax Proper

<table>
<thead>
<tr>
<th>Group</th>
<th>Nos. in S.Province</th>
<th>Proportion</th>
<th>Nos. in the whole country and middle income of total Nos.</th>
<th>Actual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-50</td>
<td>77,713</td>
<td>(77,713 / 27455) = 23254.0</td>
<td>657,900 x 25</td>
<td>16,447,500</td>
</tr>
<tr>
<td>50-100</td>
<td>192,019</td>
<td>(192,019 / 23254.0) = 83</td>
<td>1,625,000 x 50</td>
<td>81,250,000</td>
</tr>
<tr>
<td>100-150</td>
<td>2,102</td>
<td>(2,102 / 83) = 25</td>
<td>17,790 x 125</td>
<td>2,223,750</td>
</tr>
<tr>
<td>150-200</td>
<td>833</td>
<td>(833 / 25) = 33</td>
<td>7,050 x 175</td>
<td>123,575</td>
</tr>
<tr>
<td>200-250</td>
<td>345</td>
<td>(345 / 33) = 10</td>
<td>2,920 x 225</td>
<td>65,700</td>
</tr>
<tr>
<td>250-300</td>
<td>213</td>
<td>(213 / 10) = 21</td>
<td>1,830 x 275</td>
<td>50,325</td>
</tr>
<tr>
<td>300-350</td>
<td>313</td>
<td>(313 / 21) = 15</td>
<td>2,370 x 350</td>
<td>829,500</td>
</tr>
<tr>
<td>350-400</td>
<td>313</td>
<td>(313 / 15) = 21</td>
<td>2,650 x 500</td>
<td>132,500</td>
</tr>
<tr>
<td>400-450</td>
<td>737</td>
<td>(737 / 21) = 35</td>
<td>6,238 x 600</td>
<td>3,722,800</td>
</tr>
</tbody>
</table>

Actual Income under personal tax: £ 104,865,650

<table>
<thead>
<tr>
<th>Group</th>
<th>Nos. in S.Province</th>
<th>Proportion</th>
<th>Nos. in the whole country and middle income of total Nos.</th>
<th>Actual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>600-800</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800-1200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200-1600</td>
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<tr>
<td>1600-2000</td>
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<td></td>
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</tr>
<tr>
<td>2000-2500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2500-3000</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3000-4000</td>
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<td></td>
</tr>
<tr>
<td>6000-7000</td>
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</tr>
<tr>
<td>7000-8000</td>
<td></td>
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</tr>
<tr>
<td>8000-9000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9000 &amp; over</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

£ 17931,022

Depreciation and Initial Allowances to Cos. 3,383,000
Residue: Possible Evasion .................... 167,090,000
G.D.P. at factor Cost ...................... 167,090,000

(1) Total African Male Adult Population in Tanganyika in 1957 Census: 2,245,322
Total Non-African .......................... 33,638
Hence Total Adult Male Population in Tanganyika in 1958 = 2,278,960

(2) E.A.I.T.D. Statistics: Group Incomes

<table>
<thead>
<tr>
<th>Number</th>
<th>Actual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>968</td>
<td>£ 392,887</td>
</tr>
<tr>
<td>8798</td>
<td>£ 5,915,405</td>
</tr>
<tr>
<td>3940</td>
<td>£ 4,762,946</td>
</tr>
<tr>
<td>1920</td>
<td>£ 2,381,475</td>
</tr>
</tbody>
</table>

Not included in the income assessable under personal tax £17,932,022
Total Income Assessed by E.A.I.T.D. in 1958 ...... £26,621,788
As for the distribution of actual income in the form of a Lorenz Curve, we have no indication of the size of the actual income of the companies which are completely tax exempt owing to the depreciation and initial allowances as well as that of the income tax evaders' group income; nor are we certain as to whether the companies which have been actually assessed have been put in the correct group as the E.A.I.T.D. statistics group income on the basis of the actual net true income rather than the net value added. For the time being however we have to accept the statistics of the E.A.I.T.D. and their method of grouping net true income and also leave out the income of the tax free companies in addition to accepting the distribution of monetary and subsistence income as reflected in the personal tax data in so far as they are available and have been analysed under gross assumptions above. The distribution of income is therefore limited to the actual net income of £122.7 million. The results are difficult to accept but it has also to be borne in mind that the distribution covered is much below the total gross domestic product. When further information on depreciation and tax evasion becomes available and more accurate records of personal tax collected and the actual income assessable are compiled and published it should become possible to derive more plausible results of income distribution.

The detailed analysis of income distribution is set out in a more comprehensive form below and plotted in the form of Lorenz Curve:

Table 32/
### Table 32

<table>
<thead>
<tr>
<th>Group Income</th>
<th>Actual No.</th>
<th>Actual Income</th>
<th>% of Nos.</th>
<th>Cum. % Nos.</th>
<th>% Total y</th>
<th>Cum. % y</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 50</td>
<td>657,900</td>
<td>16,447,500</td>
<td>28.2300</td>
<td>13.400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 - 100</td>
<td>1,625,000</td>
<td>81,250,000</td>
<td>69.7200</td>
<td>97.5000</td>
<td>66.180</td>
<td>79.580</td>
</tr>
<tr>
<td>100 - 150</td>
<td>17,790</td>
<td>2,223,750</td>
<td>0.7635</td>
<td>98.7135</td>
<td>1.811</td>
<td>81.391</td>
</tr>
<tr>
<td>150 - 600</td>
<td>16,820</td>
<td>1,201,600</td>
<td>0.7214</td>
<td>99.4349</td>
<td>0.979</td>
<td>82.370</td>
</tr>
<tr>
<td>600 -</td>
<td>6,238</td>
<td>3,742,800</td>
<td>0.2677</td>
<td>99.7026</td>
<td>3.047</td>
<td>85.417</td>
</tr>
<tr>
<td>600 - 800</td>
<td>1,920</td>
<td>2,381,474</td>
<td>0.0524</td>
<td>99.7540</td>
<td>1.940</td>
<td>87.357</td>
</tr>
<tr>
<td>800 - 1200</td>
<td>2,036</td>
<td>3,381,713</td>
<td>0.0874</td>
<td>99.8414</td>
<td>2.754</td>
<td>90.111</td>
</tr>
<tr>
<td>1200 - 1600</td>
<td>839</td>
<td>1,707,638</td>
<td>0.0360</td>
<td>99.8774</td>
<td>1.391</td>
<td>91.502</td>
</tr>
<tr>
<td>1600 - 2000</td>
<td>511</td>
<td>1,268,088</td>
<td>0.0220</td>
<td>99.8990</td>
<td>1.033</td>
<td>92.535</td>
</tr>
<tr>
<td>2000 - 9000</td>
<td>909</td>
<td>3,870,775</td>
<td>0.0390</td>
<td>99.9380</td>
<td>3.152</td>
<td>95.687</td>
</tr>
<tr>
<td>9000 &amp; over</td>
<td>125</td>
<td>5,322,337</td>
<td>0.0536</td>
<td>99.9916</td>
<td>4.334</td>
<td>100.021</td>
</tr>
</tbody>
</table>

| Total       | 2,330,088  | 122,797,676  | 100       | 100         | 100       | 100      |
This sort of approach reflects some reasonable conjectures rather than a precise form of statistical exercise based on a consistent set of data. No attempt is made to allocate profits of companies to individual share-holders. Also, Income Tax Department's Annual Reports do not indicate which of the individuals liable for income tax proper are allowed half the personal tax paid for which an adjustment would be required. An arbitrary adjustment is made for such income recipients by assuming that all assesses for income tax proper with an income below £4.00 and half of those with income between £4.00 and £6.00 are assessable for personal tax. Needless to say, any generalisations made from such scanty data can only be very tenuous and no policy recommendations can be based on them. The analysis will, however, serve its purpose if personal tax collecting authority sees the value of such information for the purpose of consistent income tax policy. Finally, it will be seen that the personal tax data have been heavily relied upon in this note, the income distribution is not only restricted to the monetary sector but also extends to the subsistence sector, hence in relation to the whole economy.

A.R. Prest, "Government Revenue and the National Income", Public Finance, 1951, pp.238-252. See also "Budgetary Concepts: A Symposium" in the Review of Economics and Statistics, May 1963 where in the necessity of adjusting government accounts on both Cash and Gross Product basis to take into account the relationship of budgetary policy to fiscal policy is stressed and this could be done by tying the Gross Product and Cash budgets to the Federal Reserve flow of funds; see Introduction by Seymour E. Harris, p.114.


Andic, S. and Andic, F., op.cit.


I was notified to this effect by the Government Statistician, Central Statistical Bureau, Tanganyika, in August 1963.

Prior to 1961, the years to which our Tables relate, no income tax proper was receivable at the East African level of financing. Finances needed for the operation of various services were voted by each territory until 1961. After 1961, such services are being financed by a distributable pool which contains income tax revenue. Further see, Section (4) below.

Tanganyika Statistical Unit did however carry out such an analysis, in Public Finance in Tanganyika, op.cit., p.43, on the basis that a large part of external grants, item 16 Table 4 (Current Expenditure of the Government sector) paid to the East African Organization would represent revenue of East African layer of finances. It should be deducted and items 10, 11, 12 would be increased because of an increase in expenditure by the East African Organization, in Tanganyika on these items. What is not spent in Tanganyika constitutes its capital expenditure and is added to item 25 in the Table relating to the capital expenditure of the government sector. Then the government sector consists of the three-tier system of financing. A separate Table for the East African layer can also be drawn up by putting item 16 of Table 4 relating to the current account of the central government as receipts and items 10, 11 and 12 as the expenditure, and item 25 as capital formation in Tanganyika. The same procedure is followed for expenditure on defence except that there is no capital expenditure (and hence no equivalent of item 25) in this case.

For the method of complete verification of government sector with the social accounts see the U.N. Classification of Social Accounts and Supporting Tables, New York, 1960, Chapter 4.


This cash basis of recording Public Debt can of course be converted into functional basis. The purpose of functional classification of Public Debt would be different from the cash basis which is purely meant to be indicative of the degree of government reliance on borrowing. Thus, Public Debt can be reclassified (as the Tanganyika Statistical Unit has done for 1954 to 1957) according to the nature of the debt, viz. funded, marketable securities, small savings, etc., the holder of the debt, viz. persons, financial institutions, companies or government, and the residence of the owner. For a discussion of these points see E.G. Jones and E. Nevin, "The British National Debt", Economica, August and November, 1957; Public Finance in Tanganyika, op.cit., pp. 35 et-sequitur; E. Nevin, Public Debt and Economic Development, the Economic Research Institute, Dublin, Paper 11, December, 1962 where the purpose of classifying Public Debt according to its structure in developing economies is discussed, pp. 5-10.

The Tanganyika Statistical Unit reclassified, in Public Finance in Tanganyika, op.cit., income taxes as between households and firms by allocating, with the help of the East African Income Tax Department Statistics on income tax proper, company taxes to the latter. The Statistical Unit did not however allocate, for the reasons not obvious to us, income tax proper paid by non-residents to the "rest of the world" sector.

These reserves have to be distinguished from sterling reserves with which the East African Currencies are backed. See Section (4) B below.

The fact that government assets and liabilities are not reclassified from financial to current year or from cash to functional basis may have to do with the fact that the Anglo-American system of national income accounting does not go so far as does the French system under which a statement of national assets and liabilities is computed and the size of the government assets and liabilities presumably ascertained.

Perhaps it ought to be noted at this stage that full explanations may be had only if the details relating to government securities, cash and public debt were available as on 31st December rather than as on 30th June of each year.


(22) We understand that Mr. A. Barnes of Hull Co-operative Society has submitted a Report recommending the introduction of consumers' co-operative societies in the country.


(24) Chesworth Report, Minimum Wage Legislation, 1962, Government Printer, Dar-es-Salaam. This Report followed one of the recommendations of the Report of Methods of Determining Wages, Professor D.T. Jack, Government Printer, Dar-es-Salaam, 1959. In implementing the suggestions for minimum wages it was remarked by the Government: "government hopes that the new statutory efficiency and that any increase in labour costs which might be envisaged as a result of these higher wages will more than offset by economies derived from increased production". This is indicative of the fact that the institutional changes as to minimum wages were probably meant to be more for the purposes of economic growth rather than income redistribution.

(25) This plan is not available as yet, but its main objectives were made clear by Mr. N. Swai, the Minister for Development Planning, to the Dar-es-Salaam Chamber of Commerce in October 1963.


(27) Over 47.0% of the civil service was Africanized by the time the government decided to put an end to the Africanization policy.

(28) See generally Ch. 3 above. It is true to say that the research studies in the post-war period to early 1960's dominated this general aspect of fiscal policy.

(29) This is not to say that no concessions are given from import duties. Where the item imported is desirable, such concessions are indeed made by the Tariff Commission in East Africa on industry-wise basis rather than on an ad hoc basis to various applicants. See J.P. Due, op. cit. p. 86.

(30) As reported in the Economist (17 August, 1963) Mr. Weifelt, a Dutch economist from the U.N. Economic Commission for Africa has been assigned this task and it is expected that "he should ... be able to suggest some simple way of operating a company tax system that would guide rather than direct the location of industries so long as the political leaders agree that company tax should be a federal tax": page 585.
(31) As an outcome of Ormsby-Jones Commission (Cmd. 2367, London, 1925), recommendation against the formation of the East African Federation, such common arrangement had been agreed upon. For a discussion of the development such common arrangement over time see the Debates of the U.N. Trusteeship Council, 4th Session, 3rd Supplement, where the Visiting Mission's Report, 1949, Annex 1, was also discussed.


(37) Kaisan Commission, paras. 100-101.


(40) Benton F. Masael, East Africa, U.S. Aard Corporation. Although we have not as yet seen the report itself, we have relied on its summary and extracts published in The Reporter, a fortnightly magazine, March 13, 1964, Nairobi.

(41) Even if what we discuss here in relation to income tax would be of little relevance to the new Federation as and when it emerges, we shall have the satisfaction that such an academic exercise may be of some interest to the historians in future. However, N.G.V. Krishna, "Some Economic Aspects of an East African Federation", East African Economic Review, December 1961, has argued that the distributable pool is a first useful lesson for the necessity and basis of reallocation in favour of backward areas.


(43) Mr. Ors, however, tells us that since 1956, distribution is based on export earnings, deposits in Commercial banks and population in each country. The weights are however arbitrary in the formula.

(44) Brain Solomental, op. cit., paras. 47-49.

(45) Ibid, Para. 46.


(47) These Tables are perhaps partly repetitions of the earlier Tables. But while the earlier Tables were net of Customs and Excise these are gross of such taxes.

E. Blumenthal, op.cit., paras 54 and 74 (e).


See I.B.R.D.: Economic Development of Kenya, op.cit., p.182, where it is suggested that such capital reserves would however be needed for establishing a central bank. To what extent the present basis of distribution of surplus as mentioned in (43) above can indeed be altered is also uncertain.


See footnote (9) above.


East African High Commission Order in Council 1947 (No.2863) or its Amendment (1954/2126 etc.) made no provision for the inclusion of East African Court of Appeal in the East African High Commission. The East African Common Services Organization had been in existence from as early as 1909 constituted as under the separate East African Common Services Organization Statutory Rules and Orders, 1909 and its subsequent amendments for which further see, A.K. Datta, Tanganyika: Government in a Plural Society, op.cit., East African Common Services Organization Order in Council 1950 in particular providing for defraying the expenses of the court by the territories as agreed by them with the approval of the Secretary of State.

It is difficult to see how the United Kingdom government would be responsible for appeals, as provided by the Constitution of East African Common Services Organization, by the litigants in Kenya, Uganda and Tanganyika after Kenya becomes independent. It is also difficult for a nationalist to see how the litigants from the Republic like Tanganyika would be dependent on the responsibility of the United Kingdom government even before Kenya became independent. Is it not the joint responsibility of the United Kingdom government and the governments of independent Uganda and Tanganyika to see that justice is done to the litigants?

Raisman Commission, Para. 144.

Raisman Commission's views on import duties, paras.148-53.

Raisman Commission, para. 154.

See footnote (40) above.
(64) United Nations Technical Assistance Mission to the Government of Tanganyika, *The Economic Implications of East African Federation*, 30th June, 1962, Addis Ababa, expressed the view that the operation of the common market and its importance is probably overestimated and size has been given too much credit for the performance of an economy. It did however go on to say that there was much potential in the East African common market and a lot to be gained from its existence.

(65) D. Carney, "Income Distribution, Income Taxation and Economic Development in Ghana and Nigeria," *Indian Journal of Economics*, Volume XLI, No. 160, p. 33 takes a different approach for incomes not liable to income tax proper in so far as he assumes that "...it is possible to guess intelligently (italics added) at the probable shape of the income distribution for each country both from the limited income tax data available and from the well-known fact that in most areas outside urban centres incomes are too small to be levied on a graduated scale."

(66) It will be seen that the distribution of income is in relation to the income flow matched by output and not in relation to personal incomes which include transfers. See U.N.: *National Income and its Distribution in Underdeveloped Countries*, 1953, XIII, 3, New York.

(67) Mr. Ord has however called my attention to the fact that the white Highlanders could succeed in mortgaging their lands only with the Land Bank as the commercial banks generally exercised caution in giving credit on the security of the prospective borrowers' landholdings. In so far as this state of affairs did indeed prevail, the strength of my assertion is reduced.
CHAPTER SIX

HISTORY OF INCOME TAX

Section (1) Introduction.

The historical evolution of the present system of income tax in Tanganyika will be discussed at three different levels of government: East African, national government, and local authority. Although we have already touched upon the East African level, we have not really dealt with the history of income tax itself, which is administered, allocated, and a part of which is retained by the East African administering authority. Moreover, the influence of developments in the field of taxation in the neighbouring East African territories on the development of the system of income tax in Tanganyika has been quite pronounced.

The major share of discussion will be on income tax proper and poll or personal taxes rather than on education tax or export tax at the central government level, company tax at East African level, and native authority (or district councils as they are called now) rate rather than local government tax at local government level. As the process of the chronological evolution of the system is avoided, wherever possible, it becomes quite essential that the main sources of the historical survey be made clear at the outset. These are: the debates on the budget and respective legislation in the territorial parliaments, legislative debates on income tax proper in the Central Legislative Assembly of the East African Common Services Organisation, the debates on the annual reports of the Administering Authority to the Permanent Mandates Commission and the Trusteeship Council, the reports of the various Commissions of
Enquiry on taxation and other relevant matters throughout East Africa and finally the territorial and inter-territorial tax legislation.

In Section (2) we discuss the history of poll taxes and personal tax as a source of central government revenue. In Section (3) we go on to look at local government income tax and we do so for two main reasons. Firstly, the present income tax at local government level emerged from the former native poll tax which was a main source of central government revenue. Secondly, the government accounting machinery has been such that some of the local government taxes which we discuss in Section (3) belong to the central government as we saw in Chapter Five. In Sections (4) and (5) income tax proper is examined historically with respect to Tanganyika but largely in an East African context. Section (4) is mainly concerned with the historical examination of the income tax and Section (5) is concerned with specific developments, such as the determination of taxable income and allowances and rates of tax, administrative and statistical procedures.

Section (2) History of Personal Taxes in East Africa.

The present personal taxes in Tanganyika emerged from the amalgamation of native poll and hut taxes and the non-native poll taxes. The two taxes had different characteristic as the former was a flat rate levy and the latter a roughly graduated tax. They were racially based as the objectives of imposing them were different. It will be appropriate to consider them each in turn.

A. Native Hut and Poll Taxes. The origin of these taxes goes back as far as the German Colonial days of the Tanganyikan tax history. From 1897 to 1912 the tax was known as House and Hut Tax; in 1912 this tax was replaced by a Poll Tax payable by each adult African male. In 1922 the tax came to be known as Hut and Poll Tax and its purpose was, as Lord Lugard
has put it, "to assert the colonial authority and thereby cause some psychological effects on the indigenous population so that it will act as a potent instrument for social and institutional changes in the territory". The tax was first of all payable by those who owned huts; in the case of those who had none there was, in the alternative, a poll tax on each adult male. There was, of course, a Municipal House Tax or rates under Township Ordinance already in existence in the early twenties, the rates under either of these ordinances were payable by the non-natives as the natives did not own houses in towns. This meant that a part of the hut or poll tax collected had to be reimbursed to the native authorities when they formed their own treasuries in the mid-twenties. This system clearly indicates that poll and hut taxes payable by the natives were indeed a joint central and local government tax. They were imposed on the evidence of property or alternatively of potential income of adult males. They were not graduated according to the type of property or the size of potential income but the rates of tax varied from region to region. As the hut taxes were payable by either sex, Plural Wives Taxes were imposed for each additional wife to counter evasion and to discourage overcrowding. The taxes were thus not only a combination of central and local government taxes but also a combination of taxes on income and wealth.

A strong criticism was levelled against this form of non-graduated tax in the early 1930's from several quarters. First, Sir Sydney Armitage-Smith made a bitter comment that the taxes on the natives were unduly high and government expenditure on them low and that in principle the tax should be made a graduated one. Second, there was a strong feeling in the Permanent Mandates Commission that the natives were taxed heavily in
comparison with the non-natives. Eventually, the non-graduated native tax had to be replaced by a graduated tax in 1934. A House Tax in respect of only native unless the owner is liable to the tax under sub paragraphs (3) or (4) immediately following. A Poll tax payable by every able-bodies adult male not liable under any other remaining headings, i.e., (1), (3) or (4). A graduated personal tax payable instead of (1) or (2) by every native resident in a 'specified' area whose taxable wealth has been assessed at more than £100. A communal tax payable by the head of the tribe in money or in kind on behalf of the members of the tribe.

No serious attempt was however made to enforce the graduated tax or the communal tax in any way. It is not clear why this was the case as there was practically no opposition to the system of graduated tax on the natives. There is some evidence however, of opposition to this form of tax and this is perhaps of interest to sociologists. The opposition was made by one Fortie in his petitions to the Permanent Mandates Commission during mid-thirties. His basic objection arose from the following:

"... His concern at the fact that a cash tax, and particularly this graduated tax, represents for the population a Western system alien to the native mind, and is therefore likely, in the petitioner's opinion, to destroy the foundations of native society. It is inevitable... that a money economy will emphasize the importance of wealth in the form of cash, accentuate class distinction, and expose the native, who has had no time to develop ethical defences, to all the temptations implied by money wealth.

... his anxiety regarding the new powers which are to be conferred on the native chiefs with regard to the assessment of taxes - powers the importance of which, in their unskilled hand, threaten to degenerate into means of oppression on the one hand, and of officious subservience to their European masters on the other. ... the introduction of a "money economy" is accompanied in Tanganyika by a disproportionate encouragement of crops for export to the detriment of food crops."
... too much of the tax-money is expended for purposes which have no relation with the lives and occupations of the natives."

These views were further amplified in his second and third petitions to this effect:

"... that over-taxation obliges the natives to work on roads, which is only camouflaged compulsory work, that whole villages are depopulated because the inhabitants leave them in search of work for cash to help them pay their taxes, and that this state of affairs is agreeable to the local administration, because the villages can be grouped into larger settlements and the land given up becomes available for exploitation by non-natives".

The Administering Authority denied these charges by saying that the local chiefs had co-operated in raising revenue. The special committee of the Permanent Mandates Commission appointed to deal with these petitions reported in favour of introducing the type of tax that the Administering Authority sought to enforce. The committee disposed off the petition by making the following observations:

"There remain two statements of a general economic character: first, that any system of money tax and particularly the graduated income tax, is alien to native society and tends to undermine its basis, and secondly, that the encouragement of economic crops shows a neglect of the essential interests of the native population as represented by the foodcrop".

"As regards the first point, the mandatory power confines itself in observing that 'the introduction of economic systems differing in some respects from those which preceded them is an inevitable result of the advent of civilization and the establishment of European rule in Africa', and that opinions as to the degree of native happiness under one or other system must necessarily differ, while, in any case, an "alien money economy" cannot now be displaced in Africa".

"The petitioner's other general allegation, condemning the encouragement given to economic crops, is totally refuted by the mandatory power. Once again it emphasised - and this should be specially noted - that the local government fully maintains its belief that food crops take precedence over all others".

The Administering Authority stated also that the enforcement of graduated tax was abandoned in one of the two provinces where it had been sought to be enforced and that in the other further enquiries had been ordered.
Having failed in its first objective of introducing the above system, the authority diverted its attention in early 1940's to considering if the Local Authorities had reached sufficient maturity to raise their own rates on graduated basis so that the native tax could be separated from the local levy of rates. The native authorities tried this experiment first in Pare District; they failed miserably because, it is alleged, the high income and educated group opposed it violently.9

In the early post-war years it was found that the concern of various local authorities with the problems of war had led to the loss of contact with the people. Under any system of taxation based on graduated assessments such a contact is extremely desirable. As no such contact existed, it was appreciated by everyone, including the protagonists of graduated poll tax, that the time for vigorous action had not then been reached. Thus even though graduation had been accepted in principle it could hardly have been considered as a possible source of addition to the limited resources of the territorial and local authority treasuries.10 Social advantages had to be viewed against the background of administrative difficulties. However a Taxation Inquiry Committee in Kenya in 1947 suggested that the African Poll Tax be amalgamated with the non-African graduated Poll Tax.

A vigorous movement in favour of introduction of graduated tax for low income group did not however start until 1950 when a Committee12 on Graduated African Taxation was appointed in Kenya. In rejecting the view of the earlier committee on the amalgamation of non-African and African Poll Taxes, it came to the conclusion, from the evidence of their African witnesses, who were opposed in general to the graduated taxation of individuals, that the assessment of such a tax would be impracticable as the wealthier Africans did not keep the accounts. It nonetheless recommended
assessments in two grades, a reflection of the fact that the Committee members were, in principle, in favour of the graduated tax on the basis of ability to pay. The demand for an early introduction of a graduated personal tax on all taxpayers began to be made not only in the territorial Legislative Council but also from certain other quarters such as the Trusteeship Council on the same basis as from the Permanent Mandates Commission in the earlier years. Personal Tax was consequently introduced in 1955 but native tax was still retained for those who were neither liable to this tax nor to any form of local rates. As such a levy would generally be payable by very low income-recipients who are house owners, when personal tax on such income-recipients was abolished, they were made liable in lieu of the ownership of the house to the local authority. The native tax was eventually abolished however in 1962 for various reasons. The main reason was that the liability of women to personal tax was foreseen correctly. The liability of women to local native authority rates was also already in operation as expected in 1955 and further the new urban house tax was not to make any distinction as to sex for urban local liability as the local government tax (for which only personal tax payers were liable) did. Women became liable to personal tax in 1962.

B. **Non-Native Poll Tax.** The history of this tax does not go as far back as that of native hut and poll tax as there was no specific objective in mind in introducing this tax as for native hut and poll tax. Until 1932 there was no direct levy on non-Africans except perhaps in the form of Profits Tax for a short period and Trade Licences.

The Profits Tax were leviable during the German period of colonial rule as Industries and Trade Taxes at 1½% and as turnover taxes where
profits were not ascertainable. These were replaced in 1925 by the British Administering Authority by Profits Tax and Trade Licenses; the former were imposed at 4% on net profits and the latter represented minimum Profits Tax varying from £1 to £20 and were deductible from Profits Tax when the profits tax exceeded licence fees. The Profits Taxes were abolished in 1927 so as to be replaced by licence fees only varying with the size of business, the size initially being determinable by whether the business was wholesale or not but later by whether the business was for exportation or importation.

In view of this situation, any suggestion that they did not pay any taxes or any direct taxes was strongly resented by the non-natives as well as the Administering Authority; it was nonetheless recognized by the government that the non-natives had a comparative freedom from such taxation.

The European population was furthermore bitterly against the introduction of such a tax. Arising from the revenue shortage in the depression of 1930's and the criticisms against the relative freedom of the non-natives from the tax in the Permanent Mandates Commission and elsewhere the government could not pay much attention to the bitter feeling or threats of the European population and introduced the tax. It began in 1931 as a levy on official salaries and was replaced by the non-native Poll Tax in 1932. The tax payable was levied on adult males at rates varying with the level of income. At first the graduation was often found to be 'illusory' as there were far too many scales; it had to be altered in 1933. There was a further change in rates in 1939 in anticipation of the introduction of income tax proper. There were also several other changes until its amalgamation with the native poll tax in
1955 in the form of personal tax and these changes in rates are shown in Appendix 'C' below.

When income tax was introduced half the non-native tax paid to be offset against income tax but this right appeared\textsuperscript{23} to have been suspended;\textsuperscript{24} there was thus no right of off-set of this tax against the income tax liability until 1955.

C. Personal Tax. This form of tax replaced the flat rate native poll and hut tax and the non-native poll tax with one single graduated tax on all adult male members of all races. The Ordinance was then amended to alter rates in 1957. Further alterations occurred in 1961 and 1962. The first alteration was concerned with eliminating the 'Poll' element in this graduated form of tax and exempted those income-recipients whose earnings were below £100. The second alteration made single adult women liable and provided for the inclusion of married women's income in their husband's assessable incomes.\textsuperscript{25} The changes in rates are recorded in Appendix 'C' below.

Originally, half the personal tax paid was allowed as an off-set against the income tax liability\textsuperscript{26} but this right was withdrawn in 1961.\textsuperscript{27}

D. Education Tax. This tax which was payable by non-natives, began in 1950 as a \textit{cuid pro quo} levy on the non-natives but was soon replaced by the non-native poll tax. It was reimposed as additional to non-native poll tax in 1948, but was abolished in 1961 as a consequence of the elimination of racial schools after independence.

The interim changes in rates of education tax before its abolition are recorded in Appendix 'C' below.

E. Export Tax. The history of export tax again goes back to the German colonial days. The German export taxes were abolished in 1923
and provision made for the free interchange of locally grown produce or manufactured articles to which also some measure of protection was afforded. The specific export taxes and cesses came to be levied during the second world war on beeswax, coffee and hides and skins. These were extended to sisal at a sliding scale ad valorem rates in 1952 to counter inflationary tendencies arising from the primary commodity price boom during the Korean war. By 1960 the export taxes continued on the same items but as the rates had to be lowered in the light of the fall in prices, these export duties became insignificant sources of revenue. Although a Visiting Economic Mission recommended, in 1961, an extension of export tax to almost all export items at a small uniform rate, it was not until the recent boom in the sisal market that the government was prompted to introduce an ad valorem export tax on sisal at a sliding scale in 1963.

The cesses on cotton and coffee imposed during the war continued until 1952 and 1959 respectively whence the price fixing by the newly established Marketing Boards made the imposition of such levies unnecessary. Local cesses in native authority areas (or district councils as they are now called) were imposed on cattle or local produce at a flat rate or a flat rate plus some sliding scale rate towards late 1950's.

Section (3) Local Taxes in Tanganyika.

A. Local Government Development in Tanganyika. A brief review of the historical development of Local Authorities in Tanganyika can be very rewarding in studying the history of local government income taxes or rates. From the beginning of the Mandate Period there had been some form of urban authorities but it was not until 1925-27 that separate Native Treasuries were established to provide local services in rural areas on a systematic basis. By 1949 one township had reached maturity to become an autonomous municipal council and seven others became autonomous
Town Councils, the rest of the 28 to 30 townships still being non-autonomous. Native Authorities were perhaps a little more autonomous than the Township Authorities; whilst the officials of the former (other than the hereditary chiefs) were elected those of the latter were nominated. Whilst a few of these Township Authorities have gradually been reaching the status of the Town Councils, a full-scale programme launched recently for converting the Native Authorities into District Councils reached virtual implementation in 1962. The main forms of Local Authorities now in existence in Tanganyika are therefore: Town (or Municipal) Councils; Township Authorities and Minor Settlements; and District Councils.

B. History of Local Government Finance. The history of local sources of revenue can be taken as far back as 1920 when rates were first levied on houses (but not huts) in townships. In 1922 a somewhat more comprehensive provision was made for applying rates on houses situated outside townships; rates were to be payable by those entitled to receive rack-rents on the property and were thus meant to be the equivalents of the rates already in existence in townships. Such house taxes were distinct from hut or poll taxes because while houses have identifiable occupants or owners, occupants or owners of huts have no titles or identity and huts lack the permanence which houses possess. At first, the rates or House Taxes were payable under the provisions made and collected in the autonomous townships were retained by them, but as there were no rural authorities, the central government retained the House Taxes collected therein. With the formation of the native Treasuries in 1925-27 they were conferred with a right to receive a rebate of the Native Hut and Poll Tax at varying rates. As the House Tax was no'
to be applicable to the rural, native authority areas where native hut and poll tax was already payable by the inhabitants, it was discontinued as being redundant in 1935\[sup]32\] in these areas.

As already noted previously, an attempt was made in 1942 to try and ascertain if the Native Treasuries could raise their own rates at graduated rates so that the system of rebates would be dispensed with. It proved altogether\[sup]33\] abortive, and therefore the system of rebates had to be continued until 1955 whence with the introduction of graduated personal taxes provisions were made so that local authorities could raise their own rates. These provisions\[sup]34\] were two-fold. First, the native authorities were empowered to levy rates on the basis of the provisions made similar to those in 1942; these rates could be levied on the basis of property, existence of an individual in the native authority rural area or wealth such as cattle. Second, the emergence of autonomous Municipal or Township Council meant that a little more sophisticated form of urban rates had to be established;\[sup]35\] this was brought about by empowering the Town and Municipal Councils to levy site rates in lieu of house taxes on annual (rental) values. Township authorities and minor settlements continued to levy house tax in the form of what came to be known as local government tax. In all areas, whether rural or urban, where an individual paid no personal tax, local government tax or any form of rates, former Native Tax continued to be payable. This Native Tax belonged to whichever authority collected it and there was no rebate to the native authorities.

The local government tax and native taxes were finally abolished in 1961 and were replaced by the urban house tax applicable also to those with a short-term right of occupancy in townships and surrounding areas and the
extension of house tax again to rural native authority (or district councils as they are called now) as before 1935. The urban house tax covers the short-term right of occupancy and thus renders urban squatters at whom the provision is directed liable.

C. Recent Developments. To recapitulate, the position as to the local government income tax is this: the Municipal and Town Councils raise either site rates or Municipal House Tax where there is no valuation of sites from the owners (including not only rack-rents receivers but also short-term occupants); the minor settlements surrounding Town Councils raise urban house tax for the Town Councils. The District Councils raise rates under power conferred in 1935 on the native authorities to raise their own rates. The urban house tax payable in Township Authority areas accrue to the central government as the Township Authorities are financed by the central government directly. The current trend of development is that the property rates are not equitable enough as they take no account of needs which have to be financed by individual charges. This can be rectified by some form of graduated personal rate in addition to property rates. The urban personal rate can be varied by proportionately reducing the amount applicable to rural services not enjoyed by the urban population; it would thus not only make the contribution equitable but also make urban dwellers pay for a part of the rural services they would use.

Section (4) History of Income Tax in East Africa.

The non-native population in Tanganyika was greatly opposed to the ideas of any form of tax on income, let alone the introduction of a sophisticated form of highly graduated income tax. Indeed, this sort of tendency prevailed throughout East Africa and attempts to introduce income
tax in Kenya in 1922 and 1932 were simply abortive. Outside opinion was however strongly in favour of such a tax in Tanganyika and repeated demands were being made over since 1930 by the Permanent Mandates Commission requiring the Administering Authority to introduce income tax or else provide a sufficient explanation for failing to do so. In 1938 the United Kingdom government finally sent a Memorandum to the Permanent Mandates Commission to the following effect:

(1) The analysis had to be based on adequate statistical data, not all of which are available. Only the data relating to the non-Africans have been used and in order that differentials in the tax rates, etc., would not lead to evasion and discontent it is assumed that the tax rates in Tanganyika would have to be the same as in Kenya.

(2) There is not much difference in the levels of wealth between different classes of persons as exists in a country like U.K. The main reason for the arrival of the non-Africans to this country is its more temperate climate rather than the economic rewards. There are a few large companies most of which have the main offices in Kenya with only branch offices in Tanganyika. Out of the 436 possible assesses for Income Tax, 334 are government officials; about 13,550 had an income below £200 in 1936 and 2,250 between £200 and £600.

(3) In a country with a heterogeneous population, the needs of each sector varies and to lay down different tables of abatement (e.g., European adolescent children need to travel abroad to develop into mature, youths, and the Asian children need not) would mean racial discrimination and contrary to the provisions of the Mandateship.

(4) As the possible assesses for Income Tax would be too far scattered all over the country, the expense of assessing would be enormous. The present 'makeshift' system under which the income declared by the assessors are either acceptable as such or are open to challenge and to be subjected to the submission of returns by the assessors and this is more adapted to the conditions in the territory.

(5) The main criterion for the change appeared to be whether it would yield extra revenue and as the introduction of Income Tax meant withdrawal of Non-native Poll Tax and also Trade License fees, etc. (the latter which are highly graduated on replacing the Profits Tax in 1927). All-in-all, there would be a loss of about £5,000 in the government revenue in addition to the possible cost of administering Income Tax and
this would have to be recovered from the possible 500 assesses plus the non-residents and the companies, the yield of the last two of which is non-ascertainable as yet. So the possible tax (which would be given as a set-off to the Income Tax payers) would, under the present calculation in so far as it is possible, lead to the diminution of the government revenue. Hence income tax has only a problematical revenue advantage and contrary to the interests of the territory.

Naturally, certain members of the Permanent Mandates Commission found the views of the Administering Authority in this Memorandum most unpalatable. The disagreement arose mainly from the fact that "the Administration showed no alacrity to introduce an income tax, in view of the high cost of assessment and collection and the small amount of revenue that would be obtainable". There was also the feeling that the discussion ought not perhaps to be so exclusively on the precedent of Kenya, as Tanganyika was a different territory and an attempt could therefore be made to draft an income tax law adapted to its requirements. Moreover, a very pertinent question was also raised on inter-territorial finance when it was asked if in view of the paucity of large and prosperous companies operating in Tanganyika and in view of those that existed (as branches in Tanganyika) being directed from Kenya, the entire revenue ought to go to Kenya. 40

Finally, Administering Authority's views on racial problems were, as may be expected, criticised on the grounds that to the knowledge of the speaker no financial system of the world built in objections of that nature into the system. 41 The Administering Authority replied that the government was most interested in introducing income tax as the only fair form of taxation but only where it was found expedient.

The Permanent Mandates Commission did not sanction for the introduction of income tax as no such motion was moved, but on the outbreak of war income tax was introduced in Tanganyika in 1939 42 on almost identical basis as
it had already been introduced in Kenya in 1937\(^4\). The local population willingly agreed to shoulder this burden as a sign of sacrifice\(^4\) by the dependency to the mother country, which was involved in the war. It was taken to be only a temporary war time levy and had to be renewed every year in the Tanganyikan legislature. Certain changes in rates, undistributed profits tax, taxation of income from alien property etc. took place until the end of the war but these are of minor\(^45\) interest for our purpose except that it was only in 1943 that the Tanganyika income tax came to par with the rest of the East African income tax system. The Excess Profits Tax was also being levied simultaneously from 1941 but it ceased after the war in 1947\(^45\).

In 1946 after considerably heated debates in the legislatures,\(^47\) it was finally realized that the system had come to stay as a permanent feature of the territorial budget and was again renewed for a year. In 1947 with the establishment of the East African High Commission it was probably foreseen that the Central Legislative Assembly would codify the massive income tax legislation then in existence, hence no steps were taken in this direction by the Tanganyika government. Thus, until 1949 the income tax legislation was being renewed each year\(^48\) with certain changes in rates, allowances, etc. which will be considered in their appropriate places presently. In 1949 an East African Revenue Advisory Board was appointed to draft an entirely new legislation on an East African basis. The Board however became confronted with two issues: first, if the territorial legislatures are to maintain, as they desired, the territorial sovereignty in respect of rates and allowances and the principal legislation is only to deal with administrative and general matters, how exactly were the rates and allowances to be defined; second
to devise the legislation in such a way as to minimise the amount of tax avoidance. This delay meant not only additional complexity in the increasing mass of legislation on income tax but also inconvenience to policy-makers each year. Finally, the income tax law for Tanganyika was codified in 1950; the annual renewal however remained necessary for some unobvious reasons.

In the meantime, the East African Revenue Advisory Board was able to make the preliminary survey of the proposed legislation by September 1950 and present its first draft bill in September, 1951 for the government consideration; the government produced the first public draft in December 1951 to give the public an opportunity to send representations to, and discuss the Bill with, the Board. In March 1952 the Board sent its recommendations to the Central Legislative Assembly where they were debated and passed as East African Income Tax (Management) Act, 1952. This Act largely did what it was intended to do and there is no need for us to go into its details as those will be referred to in the next Section if they are significant enough for the purpose of this study. This Act was further amended in 1954, 1955, and 1956 before being replaced by the new East African Income Tax (Management) Act, 1958 after a full-scale review of the recommendations of Inquiry on Income Taxation in East Africa. This legislation which is still in existence was amended in 1960, 1961, and 1962. There have also been simultaneous enactments of territorial legislatures to provide for the rates of tax in each territory and partly to take into account the changes made by the territorial budgetary adjustments.

Section (5) Specific Developments

The income tax proper introduced in East Africa in the late 1930's
was a colonial model not quite suited to the local requirements and certain specific developments have had to occur. In this Section for the sake of making most of the points in the later discussion quite emphatic the principal lines of development are described instead of dealing with a chronological account of each of the Commissions of Enquiry and the embodiment or rejection of their recommendations in various legislations. This will no doubt entail a loss of details for a legal historian. As this is inevitable, such a loss will, wherever possible, be made good in the footnotes.

In order to get a clear picture of the way in which the specific developments affected the various persons liable to income tax proper perhaps a little need be said at this stage about the income tax on ordinary individuals and companies. Income tax proper as introduced in 1939 was applicable to both individuals and companies. Tax on individuals was progressive while company income tax was proportional subject to a small exemption limit. Private controlled companies not distributing tax to evade high rates of income tax were made liable to undistributed income tax soon after the introduction of income tax in 1939. Tax on dividends distributed could be set-off against individual liabilities of the dividend-recipients. This position remained unaltered until 1962 whence corporation income tax was introduced. This was not to be allowed as an off-set to the dividend recipients. In 1963 whilst total company tax rate remained the same, the rate of corporation profits tax was increased by means of a simultaneous reduction of company income tax rate.

The specific points are classified under four different headings with
sub-headings but as the content matter of each heading overlaps to such a degree, the categorising procedure is somewhat arbitrary in the sense that a single subject matter categorised under one specific point may as well belong to another heading.

A. **Taxable Income.** The usual problems one is liable to find in the definition of taxable income are questions such as inclusion or exclusion of (a) foreign income; (b) the imputed income of owner-occupied houses; (c) income of non-residents; (d) dividends; (e) undistributed profits of private 'controlled' companies or capital gains; and (f) the method of evening fluctuating income of those liable to the tax on income. We deal with them seriatim.

(a) **Foreign income.** The original income tax law made the income of a resident individual from the foreign sources (i.e. income from other East African territories excluded from the income of the foreign sources) taxable only in so far as it was remitted to East Africa. There was no objection to the payment of such a tax despite the absence of Double Taxation Relief agreement with many countries but in early 1950's it was first questioned whether the income of residents not earned at home ought really to be taxed. It was resolved for the time being in 1957 that there was indeed a full justification for taxing such income, but that there should be a relief for foreign tax paid in countries with which East Africa could have Double Taxation Relief Agreements and even by means of unilateral relief. When Double Taxation Relief Agreements were entered into some time in 1958-59 foreign income was being taxed but subject to such reliefs as provided for in the Double Taxation Relief Agreements and not by means of unilateral reliefs. At a later date in 1961, it was finally decided that such income be made exempt probably
with a view, it appears, firstly, to encourage the residents investing abroad to bring in their earnings at a time when, with the outcome of independence uncertain, capital was flowing out of East Africa, and secondly, to relieve the Tax Department of the complications of the Double Taxation Relief adjustments. 57

The Rates of tax payable and allowances in taxing foreign income are shown in Appendix 'C' below.

(b) Resident and Non-Resident Incomes. In discussing this problem the question of taxable income of those deriving income from Tanganyika but residing elsewhere in East Africa is excluded as it will be dealt with later. 58 Ever since the introduction of income tax in East Africa the income of the non-resident derived from East Africa has had to be taxable except for a temporary exemption during the war years. 59 There were different rates of allowances and exemptions but the same tax rates not only for residents and non-residents but also as between British and non-British non-residents. There was no Double Taxation Relief arrangement until 1952 whence the Double Taxation Relief agreement provided that the country of taxpayer's residence would entitle him to a credit of tax paid by him in the non-resident country from which he derived his income. Thus, a British resident deriving income from East Africa would be entitled to a credit of the tax paid by him whilst being assessed for the United Kingdom tax, i.e. he would pay only the bigger of the two taxes, namely the United Kingdom and the East Africa Tax. This practice, which largely continues to exist today, had been found to be very complicated in 1956-57 60 and could not be rectified. There has been one recent change to the position as it then was in 1952 in regard to the dividends paid to non-residents. This change known as "franked dividend" was made in 1962 whence it was
laid down that tax would be deducted from the dividends distributed to non-residents at the standard rate and there would be no off-set against it. 61

(c) Imputed Income of Owner-occupied Houses. Initially the owner-occupiers of houses were liable for the imputed income ever since the introduction of income tax in East Africa. The liability was not only in respect of owner-occupied houses but also the estimated income of free quarters to employees and the amount by way of excess of annual value of rented residence over the rent paid. The liability in respect of the latter was not challenged until 1954 whence it was again only partly challenged on the basis that the club deriving more than three-fourths of its revenue from its members (viz. non-trading organization) ought not to be liable for owner-occupied property tax. 62 This challenge was not however met with by the government policy. 63 Thus although the liability for this tax remained in 1955, it was beginning to be felt that the basis of valuation, based on the cost of construction in 1944, 64 was obsolete and a more realistic basis of valuation ought to be devised taking into account the supply of houses and the cost of houses as if erected at the average level of building costs in the immediately previous decade. This new basis of valuation having been devised in 1958, the tax on owner-occupied houses came to be abolished in 1961 65 but the estimated value of the quarters to employees still remains taxable.

The problem of taxing estimated income of free residential quarters to employees by their employers has its own intricate but somewhat short-run history. Owing to the special conditions of the Korean boom period and consequent introduction of the Rent Control legislation, certain complaints began to be made in the early 1950's 66 and these were principally in two
forms. Firstly, it was suggested that the estimated income in kind (i.e., from free quarters) be restricted to 10% of the salary or total income (income in kind from quarters excluded from total income or from the salary as is the case) whichever was the greater. Those who had to rent houses and pay higher rent would get inequitable treatment under this arrangement but they would on the other hand have a free choice in housing, hence the extent of unfairness may diminish altogether. Secondly, that such income be made tax free and those who had to pay rents would get an equivalent allowance thereon. These suggestions were received by the East African Revenue Advisory Board in 1952 and were referred to the territorial governments but nothing emerged therefrom; they were probably "killed stone dead" wherever they were sent for further consideration. Even with the abolition of tax on owner-occupied houses recently, no steps have been taken to deal with the grievances of the employees residing in residential quarters provided by their employers, hence the estimated income therefrom continues to be taxed to-day.

(d) Dividends. Since 1939, the dividends received net of tax were treated as income of the recipient, the tax deducted at the source being an off-set to the taxpayer's liability. The historical developments of this system fall into two rather distinct parts: first, the rate or the way in which the tax is to be deducted by the distributor; second, the amount of off-set. As regards the first point it was alleged that this sometimes created difficulty in an extreme form where dividends were paid by a resident company out of a mixed fund of taxable and non-taxable profits. The Committee looking into the matter therefore recommended that the law in relation to interest and dividends should be radically
amended so as to put the treatment of dividends on a similar basis to that applied then in the case of interest and (with some exception, these being where the income received by the company consisted of income which had already been liable at source whence the production of certificates of tax first deducted at source by the final recipient of such dividends would be an adequate discharge of liability) tax should be deducted at source on payment of all interest and dividends. It was also further indicated that such an arrangement would not be objectionable if it was made quite clear that such tax could not be regarded as a payment on account of or in respect of tax chargeable on the company in respect of its own loss.\(^68\) This recommendation was however rejected in 1955\(^69\) on the grounds that it had no precedent in any other country and that as the existing practice has been known and established, it would not assist the administration of the law as was suggested by the Committee recommending it.

As to the question of off-sets, the original treatment was that the full amount of tax could be deducted from the taxpayer's final liability. This position changed substantially in 1962 when a separate tax called Corporation Profits Tax was imposed in addition to the normal company income tax and this was not to be allowed as an off-set. This trend of development towards the American form of taxing corporations was strengthened in 1963 when the rate of C.P.T. was increased at the cost of the reduction in company income tax for which full off-set of tax on dividends distributed to non-residents as "franked dividends" has already been noted above.

Variations in the rates of tax deductible from dividends at various times are shown in Appendix 'C' at the end of the Chapter.
(e) Undistributed Profits of Private 'controlled' Companies.

Throughout the history of the operation of the system there has been no specific provision for the taxation of capital gains. There has however been one form of capitalization of income which has been very strictly prevented: this is the undistributed profits of private 'controlled' companies. The first provision was made in 1943 whereby the Income Tax Commissioners were empowered to treat a certain portion of the non-distributed profits - non-distribution with a view to avoiding the payment of higher rate of income tax or sur-tax by the dividend recipient - as distributed. This position continued until 1952 whence the provision was made that the profits that were to be taken as distributed should be taken on the same basis as in the United Kingdom, i.e. taken as 60%. There was a departure made from this general provision by the Tanganyika government which provided that the governor be empowered to allow private controlled companies to plough back their undistributed profits free from the undistributed income tax at penal rate if he considered that this would be desirable in the interest of the economic development of the territory. This privilege had to be withdrawn in 1958 as a result of the new Act which, arising from the recommendations of the Commission of Inquiry in 1956-57 and somewhat controversial debate in the Central Legislative Assembly thereon, provided for exemption limits based on the nature of the enterprise the private controlled companies were engaged in. These provisions have been made stricter, and the amount of allowances decreased or increased in the light of the imposition of C.P.T. by certain changes since in 1961-63.

(f) Fluctuating Incomes. In the case of fluctuating income like that of the plantation farmers it was felt that progressive tax rates are inequitable. The tax system provided remedies in two ways in the first instance.
The cattle owners were given an option to treat their profits on the cash basis (i.e. productive herd basis for dairy cattle, etc.) or stock valuation (i.e. trading) basis, the latter being allowed to spread the profits over a period of six years. In 1946 the cattle owners sought to have even the former spread over a six year period; their demand was rejected. Those who were assessed on stock valuation basis also demanded that as they often had to sell the stock in the periods of diseases or drought, they should be allowed to reinvest in any capital asset. No steps appeared to have been taken to meet this demand in 1946. For those who were assessed on productive herd basis it was proposed that so long as the money received on eventual realization of the herd for a certain purpose (viz. the need to re-organize the business) were employed in certain fixed ways (such as purchase a stock of different kind or alteration in the type of business operation carried on) to the satisfaction of the income tax commissioner the proceeds were not to be taken as taxable income. It appears that the taxpayers expressed dissatisfaction with the conferring of such discretionary powers on the income tax commissioners in 1952 and sought to have a system of standard herd basis to be then found in the U.K., Australia and such other countries. Under this system a farmer is not allowed to deduct the cost of an additional animal but can deduct full cost of replacements from his proceeds so as to be able to maintain his standard herd. He can provide a concrete test of the fact that he is not trying to trade in cattle but is genuinely realizing a fixed asset so as to maintain a productive herd by undertaking not to replace the herd with a similar beast whenever he sells an entire or a significant part (over 20%) of his given herd at any time. This suggestion was accepted in principle but its actual implementation was found
unfeasible on the grounds that it would involve maintenance of detailed records and that prevalence of diseases in East Africa rendered maintenance of a standard herd difficult in practice.

Then in the case of farmers they were theoretically entitled to spread their costs in proportion to their sales to reduce the degree of fluctuations in income. This provision was, owing to the special market conditions, falsely interpreted and availed of by the coffee-farmers only for whom the percentage rate of profit on sales was determinable and the profits assessable for income tax were then taken as that percentage or the year preceding the year of assessment, the succeeding years' percentage to be revised by including the coming year's figure after eliminating one for the previous year. When this arrangement on the basis of its interpretation then was opted for by the non-coffee plantations farmers, their demand was not met for some inexplicable reasons. The unsoundness of the whole arrangement was brought to light in 1956 and it was revoked in 1958.

As the provision for the averaging of income did not exist (except for the coffee farmers only), the taxpayers in general whose incomes fluctuated began making demands, in early 1950's, for some sort of averaging of income which they asserted was rather essential in the conditions of Tropical Africa. In 1954 a Committee of Enquiry in Kenya considered various possible means of averaging and recommended to the following effect: "For the purposes of assessment to Kenya income tax an individual should be entitled to elect, not later than one year after the end of the year of income, that he should be charged to tax on the basis that his income for that year of income and each of the preceding four years of income should be aggregated and the tax payable for the last year of income computed as the aggregate of the tax which would be
or would have been payable for the last year of income computed as the aggregate of the tax which would be or would have been payable in respect of that and the preceding four years together on an amount of income in each case equal to one-fifth of the aggregate income after deducting from the tax so computed the tax assessed in respect of the preceding four years of income and that tax should be paid accordingly; provided that no such election should be available in respect of a year of income if an election has been made in respect of a year of income or if an election has been made in respect of any of the four preceding years of income. This recommendation was rejected by the Kenya government on the grounds that as it would be availed of practically by everybody it would involve a revenue loss and considerable embarrassment to the government financially.

The taxpayers with fluctuating income, however, continued to press their demands further and the problem of averaging fluctuating income was considered again by a Commission of Enquiry in 1956-57. The Commission considered the previous recommendation and found it undesirable but recommended a simple two-year averaging of fluctuating incomes.

B. Allowances. These fall mainly in two categories; business allowances and individual allowances. The extent of individual allowances like marriage, child, housekeeper and dependent allowances over the period of operation are shown in Appendix 'C' at the end of the Chapter. Some allowances like depreciation and legal costs belong to both the categories, hence they are discussed together. The main allowances with some historic significance are: (a) depreciation allowances; (b) losses; (c) Pensions and Provident Funds; (d) Passage, Medical and Educational Allowances; and (e) Legal Costs and Charitable Donations.

(a) Depreciation Allowances. The original system made a proviso for a reasonable wear and tear of the assets. As a result of the granting
of concessions in 1944 in the United Kingdom,\(^{82}\) the Income Tax Commissioners of the three territories published a memorandum on depreciation allowances in 1945,\(^ {83}\) which was strongly supported in 1946. The proposals in the memorandum widened the scope of the allowances on buildings, plants and machinery and increased the allowances for plants and more liberal concession was made available for capital expenditure on minerals, more specific clearance, trademarks, scientific research, etc.

Industrial buildings and structures were made subject to the initial and annual allowances in 1947. In 1954,\(^ {84}\) the houses of African employees were included in the buildings and structures entitled to such allowances. The concession was also extended to the hotels in 1958 as a result of demands made therefor in 1956-57.\(^ {85}\) As the original provision of 1947 did not allow such concessions on the expense of 'preparing, cutting, tunnelling or levelling of any land', some strong demands were made therefor in 1956,\(^ {86}\) but these were rejected. From 1962 onwards,\(^ {87}\) no initial allowances are allowed and annual allowances (except for hotels) have been doubled. An investment allowance was also substituted for initial allowances in addition to the doubling of annual allowances but this originally extended only to factories which did not engage themselves in the subjection of goods or materials to any process. In 1963,\(^ {88}\) this limitation was extended to factories processing local raw materials. Whilst the annual allowances were being doubled and investment allowances granted in the place of initial allowances, the system of balancing charges or allowances on the sale of assets, etc. which existed since 1947 was also abolished in 1962.

Plant and Machinery were also entitled to the annual, initial and investment allowances in 1947. The investment allowance was found to be unsuited to the East African conditions and its abolition was recommended.\(^ {89}\)
in 1956-57; the investment allowance on plant and machinery was thus abolished in 1958. In the interest of simplicity of tax assessment, the initial allowances have however also been abolished in 1962 but the annual allowances have been considerably raised instead. The rates have been on the written down value with no balancing allowances or charges so long as the business continues. The plant and machinery ordinarily included non-commercial private cars used for business purposes since 1947 and were entitled to initial and annual allowances until 1962 whence the initial allowance was withdrawn and the annual allowance was made allowable as if the car cost below £1500.

The 1947 provision included allowances of a reasonable fraction of capital expenses on scientific research or trademarks. The position is largely the same to-day except that the scientific expenditure has been allowable as and when incurred since 1962 and the recoveries of expenses incurred since 1962 have no longer to be treated as trading receipts as was the case since 1947.

In respect of mining the first provision for the deduction of certain capital expenditure in mining was made in 1947 and it substantially remained the same until 1958. The original legislation made an allowance for initial and annual allowances on capital expenditure in searching for, discovering and testing deposits of minerals, on plant, machinery and equipment, on the construction of buildings, structures or works, and on development, general administration and management prior to the commencement of production. There was no allowance made on the acquisition of sites although the cost of acquiring mining rights (i.e. royalties) was deductible as a revenue expenditure. The annual allowance was to be written off over the estimated remaining life of the mine subject to a
minimum allowable deduction. The prospector who sold his lease after discovering minerals was not taxable on his capital gains and the purchaser was allowed capital deductions on the original expenses incurred by the prospector. Similarly, when a prospector sold part of his rights, no balancing allowance or charge was made and the purchaser was entitled to deduct capital expenditure on the written down value in vendor's books. The position as regards the capital deduction on the cost of exploration incurred by the owner of a mine already in operation was not clear in law although it was allowable in practice. As a result of certain recommendations made in 1956-57 the position was altered in 1958 so as to increase initial allowances, make capital gains of a prospector taxable by ad hoc charges or take balancing charge as a part of the taxable income of the operator, make capital expenditure incurred in obtaining mining rights (excluding expenditure on site rights) admissible for amortization rights and finally to clarify the law on the allowances of capital expenditure (incurred in exploring new mines) incurred by an owner of an already operating mine. A suggestion for depletion allowances was rejected. This provision was slightly altered in 1961 whence arising from certain recommendations of the World Bank Mission capital expenditure incurred on prospecting for minerals like metals, metal ores, mica and phosphates or any other minerals, as the Finance Minister would direct, were made fully allowable in the year in which they were incurred. A further change was brought about in 1962 when the system of balancing allowances and charges was abolished. It was provided that only the residue of expenditure unallowed would be allowed to the purchaser on a change of ownership thereby substantially restoring the pre-1958 position in respect of capital allowances to a purchaser. The system of
balancing allowance was retained only in respect of mining expenditure where a mine ceased to be worked.

The first provisions were made in 1947 in respect of capital expenditure in agriculture and these continued until their modifications in 1958 and 1962. The position in 1947 was roughly this: capital expenditure incurred in preventing soil erosion and for clearing agricultural land was allowable fully in the year in which it was incurred; capital expenditure on the clearing of agricultural land and planting it with semi or permanent crop would be written off either in the year in which it was incurred or over a number of years. The initial and annual depreciation allowances were being given on plant and machinery (including dipping tanks, drains, water pipes, harvesters, tractors, fencing, boreholes, binders, reapers etc.) and also on industrial buildings. The annual allowances differed on different assets and were five-fourths of the rates laid down. There were also initial and annual allowances on individual buildings taken as one-third for farm purposes; there was a special provision for a rapid write off of mud, wattle or such weakly constructed buildings. The cost of cattle imported for stud purposes and certain other imported livestock was completely allowable in the year of expenditure.

In 1958 the position was altered so as to make equal annual allowances on plant and machinery specially connected on agricultural land and eliminate the practice of five-fourths of the usual allowable rates: allowance on cost of imported cattle for stud was out. Other plant and machinery to be dealt with as before; the system of balancing allowances and charges was however retained in 1962 and the purchaser was allowed to write off over the remaining nine years at either written down value or purchase price.
whichever was lower. The system of write off of the cost of clearance and planting was retained in 1958, but this was again altered in 1962 so that it has now to be written off in the year in which it is first incurred. The system of initial allowances on expenditure on farm works has also been abolished and annual allowances raised instead for a more rapid write off. There are no investment allowances on expenditure on farm works.

The history of depreciation allowances in the Tanganyika income tax would be incomplete unless a reference is made to the question of tax-holidays in the discussion. First demands for tax holidays to certain industries or to agriculture began to be made in the early 1950's but no provision was made to meet with this demand. One concession was however made in Tanganyika for a rather short period in mid-fifties and this, as has already been noted, related to the granting of exemption, under the discretionary power of the Governor, from undistributed income tax to private controlled companies who by virtue of their development needs for expansion of certain 'desirable' industries retained their profits. This privilege was withdrawn when the special provisions for the development needs of such companies were made as a result of certain recommendations in 1956. It was suggested that tax holidays to pioneer firms were undesirable under the existing system in East Africa and that usual depreciation and initial allowances were quite adequate to encourage such enterprises. This suggestion was accepted by the Tanganyika government subject to recognizing the need to review the matter in the light of the changes in the other parts of the world but by 1960/61 the tax holidays were found to be unwarranted in Tanganyika. Very recently, however, certain opposing recommendations as to their introduction and rejection have been made in Uganda and Kenya by some reliable authorities; and although some
academic opinion from Great Britain supports its introduction in Uganda, if only somewhat grudgingly, the trend of events in Tanganyika appears to favour the generous depreciation and investment allowances rather than tax holidays.

(b) Losses. The income tax system as introduced in 1939 made allowances for losses incurred in business subject to a time limit of five years for off-set of losses provided the off-set did not reduce the tax which would otherwise have been payable by over 50%. This limit as to the amount of off-set in any year had to be removed some time before the time limit for carry forward of losses was also removed in 1950. In 1956-57 it was demanded by a few taxpayers that the losses ought to be allowed against all previous year's income infinitely, but it was found infeasible to do so for administrative reasons. Generally the losses incurred by taxpayer himself had been allowable since 1939 but the position had to be slightly altered in 1957 to allow a beneficiary the losses incurred by the deceased in his business and the beneficiary continued to carry on the deceased's business. There was also a considerable amount of public representation in favour of losses being allowable against previous or subsequent year's income even though not made in the trade, business or profession by the taxpayer and this demand was conceded in 1954.

(c) Pensions and Provident Fund Schemes. The history of this aspect of income tax goes back to 1940 when the Minister for Finance under the authority of the income tax legislation was thought to be empowered to make special rules as regards the Pensions and Provident Funds. In 1955 this power, the origin of which was somewhat dubious over the period of fifteen years, was specifically conferred on him and was made exercisable through
the Income Tax Commissioners in his name. The rules provided for the amount of contribution that employee and employer can make to either of the schemes to be allowable as a relief from current tax liability of the contributor, the amount that could be taxed and commuted on receipt and the limitations on rate of relief on contributions as a part of the relief for life assurance premiums. There was no provision for self-employed's retirement benefits. In the case of non-approved pension schemes neither employer nor employee could deduct the contributions made. There was a strong feeling that the employer should be allowed to deduct his contribution as a business expense but this demand was not responded to in 1954.107

The position was altered in 1958 in this way: to provide for the self-employed; to lay down special rules of commuting pensions; to provide for specific limits on the receipt of benefits of pension schemes and provident funds (viz. comparable to those of public employees for pensions and not exceeding 10% of employees' contribution for provident schemes) and also for self-employed schemes (viz. lower of the 12½% of the earned income or £1000); to waive the condition that the scheme must be established in East Africa where it would be onerous for employer with large interests outside East Africa to do so; and finally to give relief on contributions to a pension scheme or provident fund in the form of an allowance at arriving total income in consequence of retirement benefits (then available to everyone) being made as supplements to rather than as substitutes for Life Assurance policies. One further change was made in 1960 whence the pension schemes outside East Africa were placed on the same footing as the domestic pension schemes.

(d) Passage, Medical and Educational Allowances. The passage allowances began in 1939 whereby the passage paid by an employer to his
employee in cash or in kind was to be taxable; but in 1940 this proviso was not re-enacted and in practice the passage money received in cash were made taxable whilst that in kind were not. For those who had to buy their own passages, rules were made for passage allowances limiting the amount for the taxpayer and his family members. In 1955 some grievance was expressed against this that the existing system of allowances firstly discriminated between those who were paid in cash and those in kind (for the former had limited allowances) and secondly that those who took no leave got no allowance. These grievances were not met with for rather naive reasons, such as the indispensability of passage allowances to a European contemplating taking upon job in East Africa, impossibility of giving allowances to all for the loss of revenue yield and impracticability of taxing the excess of the amount paid in kind. The original system is therefore still in operation.

Medical allowances do not exist in Tanganyika at present, nor have they ever existed in East Africa before, but strong representations had been made in its favour by the tax-payers. However their claim was rejected.

Education allowances came into operation in 1947 with a flat rate allowance per child. These were raised in 1951; and in 1952-53 the system was altered to take differing expenses of tuition fees into account. Primarily, it was a flat rate basic allowance with an additional allowance varying with the cost of education provided and to a certain extent also the boarding expenses; the basic allowance for the first child was double the flat rate equal allowance for each of the next three. Some dissatisfaction was expressed against this arrangement and the basis of allowances had to be revised, so as to take account of boarding fees minus twice the tuition fees plus a definite fraction (one-third) of the
bursaries, government contribution causing reduction in full fees chargeable. This system was altered in 1961 when education allowances were merged with the ordinary child allowance and the latter was graduated on the basis of the age of a child which would be a determining factor for educational expenses incurred on him. 113

(e) Legal Costs and Charitable Donations. The original system provided for the allowance of legal costs incurred solely for the purpose connected with trade and the scope of allowable legal costs in this way was rather restricted. Thus, the expenses such as that of legal costs of appeals in tax cases and the cost of acquiring premises for trade, were not allowed at first. There was a considerable amount of representation for this and 114 except for the cost of appeals against a claim for passage allowances this demand had to be fulfilled in 1952. 115 Finally all the costs of appeal were however made allowable in 1958. 116

Charitable subscriptions made to approved charities have not been allowable in East Africa against income tax assessment at any time. It was recommended in 1956-57 117 as a result of the public demand therefor, that these be allowable provided they were made under a deed of covenant for six years, but the recommendation was rejected by the Tanganyika government in 1958. 118

C. Evasion and Avoidance. Here we are not concerned with the history of the investigation section of the tax department but rather with the legislative steps taken to reduce the avoidance or evasion by countervening measures. These consist of: (a) the powers of the commissioners to prevent avoidance of liability as a result of the setting up of trusts on children or otherwise; (b) to ask the person leaving the country to produce tax clearance certificate; (c) ask for an inspection of books
or any other details necessary for assessment; (d) power of "distrain."
There are other ways of combating avoidance and evasion by a device of
tax reserve certificates and employers' voluntary tax deduction scheme,
a simple P.A.Y.E. scheme, etc. but as these have no legislative authority
conferring power on tax administrators, they can best be left for later
discussion under administration below.

(a) Settlements. As the original income tax system did not make
 provision for the prevention of settlements devised for tax avoidance, the
East African Revenue Advisory Board was very much concerned with this
problem. In 1952 an anti-settlement provision was made for preventing
the use of settlement by parents who settled the income-bearing corpus
on children in order to have the income derived therefrom taxed at lower
rates. It was laid down in 1952 that any such income paid over to the
child (who is under twenty-one years old, the age later reduced to
eighteen in 1954) or for his benefit by virtue of a settlement should
be treated as the income of the settlor for the purposes of income
taxation. In 1956-57 it was claimed by certain taxpayers that the
anti-avoidance provision be made inapplicable to the irrevocable settle-
ments for six years provided the beneficiary lived that long and also
that those infants who were married be excluded. This was found to be
an unacceptable situation by the taxing authorities, hence the
position to-day is the same as in 1952.

One additional change brought about in 1952 was in connection with
the creation of trusts by wealthy people in order to avoid paying higher
rates of tax, for charitable, benevolent or family objects. The anti-
avoidance made in 1952 provided that where the settlor did not fully part
with the capital but maintained a de facto control over it and where
such control is for accumulating income for lengthy periods in the hands of the trust, the income tax commissioners can take action to defeat such an objective. In 1956-57 it was however found desirable to provide specifically that if the settlement were irrevocable for the purpose of having the income of such corpus of funds to be treated not as that of the settlor and that a settlement is necessarily revocable if the income or the asset is in any way retransferable to the settlor or it gives him power over the income or the corpus of the trust.

(b) **Tax Clearance Certificates.** Originally, there had been a provision requiring those leaving the country to pay a tax or give security therefore, but this was hardly enforced. As late however as 1950's no public opinion had been expressed in favour of its rigid enforcement either. The problem came up first in the report of the East African Revenue Advisory Board in 1951 and the debates of the Central Legislative Assembly while legislating in 1952. The opinion of the Central Legislative Assembly members was divided and the views of those opposing it prevailed. The same question came up again in 1958 whence the idea was backed by the Commission of Inquiry in Income Taxation, 1956-57 and it was very rigorously debated. Again the views of the antagonists prevailed as it was argued that for such a pre-condition to be laid down there ought to be up-to-date assessment of tax in the first instance and that a person who was determined to avoid the issue of such certificates could in any case always leave by private transport across the territorial frontiers. Therefore, all that was done in 1958 was to empower the income tax commissioners to prosecute those he suspected of leaving the country without paying the tax due. In 1960 the income tax commissioners were empowered to assess
such persons arbitrarily. Eventually however in the light of substantial revenue losses from those leaving the country and also the pressure of the staff provision was made in 1961 whereby the commissioners were empowered to require the travel agents not to issue a ticket for thirty days after they have notified the commissioners of such necessary particulars of the applicant for the ticket. This would enable the commissioners to take action against the applicant if necessary and also make it obligatory on those wishing to travel at short notice to get the clearance certificates to avoid inconvenience. This requirement, originally made for a temporary period of one year, is still in operation to-day.

(c) Inspection of Books. The tax commissioners have had power in the original legislation, as it stood in 1950, to call for an inspection of books thirty days after a service of notice. This position was altered in 1952 whereby the commissioners could examine the taxpayer's accounts immediately and also require anyone who can give evidence in any tax evasion case. The position is the same to-day as in 1952.

For a long time in the history of the system the question of language has come up and although the tendency throughout the 1950's on the whole had been to enforce English as an official language in this multi-racial society, the attempts were fruitless.

The system has had, right from the beginning of the introduction of the system, proper devices for the penalty arising from fraud, non-payment of tax or failure to make returns, arbitrary assessment and appeals, tribunals, etc. From the historical point of view, all that one needs to note is the public vigilance of harshness in the material content of the legislative provisions or in the execution of such provisions.
D. Administration. The history of the East African income tax has been
of stress and strain as whilst income tax was introduced in East Africa
there was a considerable amount of difficulty for the local population to
administer an altogether alien system and it was not possible for the
colonial power to release its own staff for East Africa. As the income
tax proper is most complicated to administer and is liable to undergo
many changes as it continues to operate over a long period, it experienced
most stress and strain. For instance in the field of personal tax
there appears to be too little change over the period of its administration.
The main changes relate to the consideration of appeal against assessment
by an assesssee to an Appeal Board in the place of an Appeal Commissioner
and heavier responsibility on local authorities in respect of collecting
the tax.\[128\] This change was made in 1963 to replace the Commissioner
appointed under the provisions of the personal tax legislation of 1955.
The department administering income tax proper somehow managed to survive
the war however and took recruitment measures by way of release of the
U.K. officers and training in the U.K. of East African tax officials,
from 1950 onwards and with some success. It is, nevertheless, perhaps
true to say that the department remained dominated by the European
expatriates and the present concern of the department with the recruitment
of Africans as a first priority is causing not inconsiderable staffing
difficulties. In other directions than staffing the following
developments may be noted as historically of some interest:

(a) Investigation Department: This was formed in 1953 to counter
evasion by selective methods of evasion. According to the latest report of
the department, the work of this branch over the past 9½ years is extremely
fruitful with the gradual increase of results.
(b) The process of **decentralization** of income tax offices, originally located in the three capital cities, also began after the staffing problem had been controlled after the war and has been quite fruitful as several large towns in each territory now have branches of the tax offices.

(c) **Tax Reserve Certificates**: This was a device first introduced in 1955-56 with the issue of certificated at 3½% tax free interest in the denominations of £5 each. As the results were quite encouraging in making taxpayers lay aside funds for the tax liability especially where the P.A.Y.E. scheme is inoperative, its continuation was recommended. The rate of tax-free interest was raised to 4½% in 1961.

(d) **Employers' Voluntary Deduction Scheme**: This was originally installed, and is much availed of, in Tanganyika. It has been acting as a satisfactory partial substitute for P.A.Y.E. which is still not in operation. The possibility of having P.A.Y.E. was first suggested in East Africa in 1956-57 but it was thought to be administratively unworkable. It was thought proper to consider installing a non-cumulative system in the course of the next few years and the current trend is that time is considered ripe enough for some positive action in this direction.

(e) **Publicity**: The service of sending literature on income tax, legislative or otherwise, had been recently installed at the suggestion of the East African Committee of Inquiry in Income Tax 1956-57 and it not only succeeds in keeping the professional advisers, academic people etc. well-informed but is able to keep the tax-payers as well acquainted with them as it can. It also issues specific advisory booklets since 1958 or so on matters such as deduction of tax at source by banks and building societies, farm income and its assessment, etc.
(f) **Statistics:** The East African Income Tax Department produces annual reports since 1950 and these provide impressive statistical data. No similar data have been produced by those concerned with the administration and collection of poll or personal tax, local government tax, export tax and education tax. We therefore deal only with the history of compilation of statistics on income tax proper.

Although income tax as a wartime levy survived the war, it could not at first operate smoothly owing to the shortage of staff as well as the difficulty of assessing a complex war levy such as the excess profit tax which crippled a very young Department operating in a country with few professional advisers and a low standard of literacy. From the very first year of its operation it lagged behind by six months in its assessment work and by the end of the first decade of its operation the department was in arrear with its assessments representing well over one year’s work. The statistical section of the Department operated only for a year during 1935 (for Kenya) and has had to be suspended until its reinstatement in 1946 and full-scale mechanized operation in 1950. The earliest post-war Report of the East African Income Tax Department produced statistics relating to the number and amount of assessments made as well as the amount of tax revenue collected for each territory during the previous calendar years; these indicate nothing more than the ability of the Department to deal with the maximum number of assessments, the diligence of the taxpayers to submit their tax returns in time and discharge their liability immediately on assessment as well as the initiative of the members of the department to enforce the payment of the tax assessed.

From 1951 onwards the department undertook the task of relating the total number of assessments made in any year to the theoretical year of
assessment (i.e. as the year of assessment should be in practice, e.g. if income is earned in 1956, it should be assessed during 1957, which is the theoretical year of assessment, in the absence of any major administrative dislocation). In 1951 the statistics of tax payable (and not total or chargeable income) relating to 1937 to 1944 (for Tanganyika 1940 to 1943) years of assessment were analysed according to the trade groups, status of the taxpayers, etc. In the Departmental Report of 1952 the statistics of tax paid (but not of the actual total or chargeable income) relating to 1947 to 1949 years of assessment were once again analysed in general terms, i.e. according to the trade groups. The Report for 1952 however also analysed the data for the 1949 year of assessment much more comprehensively including the income to which the assessment related, i.e. to the 1948 year of income. This process of fully comprehensive analysis of reasonably completed years of assessment was brought more or less up-to-date in the Annual Report of the Department for 1954/55. In the meantime however the East African Income Tax Act, 1952, was passed when it was envisaged that these references to the theoretical year of assessment caused some confusion in the minds of the taxpayers especially when assessments had been very much in the arrears. It was therefore enacted that for the years of income from 1952 onwards the Department would have to use the terminology of 'year of income' rather than the 'year of assessment'. Consequently, although in analysing the tax returns statistically, the department referred to the years of assessment for all the assessments it analysed up to 31st December, 1954, from 1955 onwards the analysis of the tax statistics was in terms of completed years of assessment - in effect in terms of the preceding years of income, viz. 1949, 1949, and 1950; for analysis carried out of assessments raised
Up to April 1955 and May 1955, it was in terms of 1951 and 1952 years of income; for analysis of assessments raised up to June 1956 and June 1957 it was in relation to the 1953 and 1954 years of income respectively. Finally during the fiscal year 1957/58 the Department carried out an enormously large number of assessments to become up-to-date and was subsequently able to analyse the tax data relating to the immediately preceding year of income on which the assessments were made. The assessments that were raised and analysed up to June 1958 therefore referred to the 1955 and 1956 years of income. Since then, the analysis of assessments raised in any year relates, as far as possible, to the previous year of income. In this sense, there is a complete series of income tax assessed as related to the year of income on which the assessment was made from 1948 onwards. These data are of course being classified on the basis of the size of income, of those assessed for a particular year of income, their occupational status (viz. individuals, companies, clubs or employees) residence, sectoral occupation, etc. but these will be dealt with in chapter Eight as they have less historical than analytical significance.

On close scrutiny of the tax data available in this form it becomes obvious that the Department has a certain number of unexamined returns varying from 5 to 12% of the total assessments raised in any year since 1957/58; furthermore, a certain number of cases are under appeal. If one is to compare this full-scale analysis even subject to these arrears of 5 to 12% of the unexamined returns, with the U.K. system of analysing the completed years of assessment of Schedule D and company returns, one begins to wonder if the East African Income Tax Department is, in terms of its size and the amount of work, really more efficient than the Income Tax
Department in the United Kingdom where there is a lag of about two years before the results for any year of assessment (representing the year of income preceding the year of assessment in usual way) are ready. This lag in respect of adjustments for appeals outstanding, adjustments for tax deducted at the source and later repaid, arbitrary assessments etc. The analysis is subject to an arrear of about 8% of the returns representing the earlier years in respect of which it is assumed that when the assessments are reasonably up-to-date, one year's arrears would cancel out against some other year's arrears and more or less represent the income for a given year. In effect therefore what the East African Income Tax Department calls 'year of income' through the legal obligation is neither the same as the year of income as under the United Kingdom Income Tax system nor is it the same as the year of income in the social accounting sense. As for the discrepancy with the former, the Tanganyika analysis of Income Tax which ignores the settlement of appeals, etc. is nothing more than a hasty and over-anxious step to treat the year of assessment which is not really complete as being reasonably complete without further adjustments in future. This procedure requires an immediate rectification.*

* Postscript: The Annual Report of the East African Income Tax Department for the year 1961/62 has however introduced analysis of tax payable as related to the year of income instead of the previous analysis of assessments reasonably completed (i.e. representing the preceding year of income, unadjusted) in Table II. It is stated in the footnote to this Table that the analysis is as a result of deduction of repayments in cases where tax deducted at source exceeded tax chargeable, i.e. this is what we consider in effect the revised figures for a particular year of income. The data produced in Table II date back to 1953.

This change removed the first discrepancy stated above. The second difficulty still remains arising from the tax returns relating to the previous years of assessment. Although East African Income Tax Department has stopped publishing details of the unassessed cases it would be too optimistic to assume that unassessed cases have been completely eliminated and do not arise any more now.
The position in respect of the analysis of tax collected or collectable after the assessment is this: the East African Income Tax Department keeps a record of the assessments made during any year and against it the tax collected, net of the cost of collection. The cost of collection to each territory is obtainable but when the gross of net tax collected is compared to the assessments raised, discrepancies arise. This is explicable only through the arrears, fines and penalties or remission. The arrears of collectable revenue are an entirely distinct matter from the arrears in assessment because whereas the former arise through the non-enforcement or non-requirement of tax clearance certificates against or from those leaving the country, leniency of the courts against the tax assesses or the loopholes in bankruptcy laws which are further intensified through the arrears of assessments, etc. the latter arise through the administrative chaos because of the inadequate staff or otherwise. In 1958/59 the East African Income Tax Department as well as the territorial Treasuries undertook this particular analysis which does not as yet appear to be satisfactorily complete for our purposes. Although the nature of the arrears has in general been distinguished by eliminating 'desirable' arrears (such as those arising from appeals against assessment, court orders for payments by instalments, etc.) not adequate analysis has been carried out to relate the arrears of revenue to the exact year in which the assessment for the collectable tax was raised as well as to the year of income to which it related. Nor are the overall receipts of tax in any year related to the current-year-liability-receipts and to the previous-year-liability-receipts respectively so that liabilities which are over six years old can be written off without much hesitation.
Moreover, no attempt is made to determine which of the arrears of tax in the other territories (or for that matter in the London Tax Office) would finally be handed over to Tanganyika as and when recovered. The internal Auditor of the Tanganyika Financial Statements states that this would be looked into by the Auditor of the East African High Commission Financial Statement who in turn does not do anything beyond stating that he has examined the copy of the Balancing Statements from the Income Tax Offices in Tanganyika or that he has not as yet received these Balancing Statements. The task of reconciling is therefore impossible as the contents of the Balancing Statements are never published as a part of either the territorial Financial Statements or the East Africa High Commission Financial Statements or for that matter in the East African Income Tax Department Reports for our information. The statistical data relating to assessments, tax collection and their relationship to the years of income is nonetheless shown in Table 33.

On the basis of the discussion of history of arrears we can now draw up a Table (see Table 34) of total current revenue of the government sector, i.e. central and local government in which income tax proper is recorded according to the liability incurred rather than actual receipts. Moreover, total current revenue of the government is classified to take account of the way in which we have defined taxes on income rather than the way in which the Tanganyika Statistical Unit defines it. The Table is limited to government revenue only because it is impossible to determine how exactly the government expenditure would be functionally distributed if the expenditure were based on the expected revenue from tax liability already incurred by the taxpayers. Needless to say, the rest of the government accounts cannot be completed in a way we have
done in the last Chapter without completing the Current account of the government sector. This Table reveals that income taxes on an accrual basis amount to 5.9% of the Gross Domestic Product at factor cost as against 4.7% in Table 17.
Table 33

Income Tax assessed, collected and as related to the year of Income in the Calendar Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Assessments in Number</th>
<th>Amount (£)</th>
<th>As related to the year of Income</th>
<th>Amount (£)</th>
<th>Collections made</th>
<th>Amount (£)</th>
<th>Cost of Collection (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>698</td>
<td>1940</td>
<td>82,346</td>
<td>6791</td>
<td>1,960,480</td>
<td>26,803</td>
<td>652,565</td>
<td>20,767</td>
</tr>
<tr>
<td>1941</td>
<td>1640</td>
<td>1941</td>
<td>207,154</td>
<td>10842</td>
<td>3,611,998</td>
<td>1,884,158</td>
<td>343,775</td>
<td>30,730</td>
</tr>
<tr>
<td>1942</td>
<td>2522</td>
<td>1942</td>
<td>356,076</td>
<td>12140</td>
<td>6,366,669</td>
<td>1,972,615</td>
<td>381,444</td>
<td>50,779</td>
</tr>
<tr>
<td>1943</td>
<td>2304</td>
<td>1943</td>
<td>350,957</td>
<td>13013</td>
<td>5,893,644</td>
<td>3,886,371</td>
<td>463,789</td>
<td>62,259</td>
</tr>
<tr>
<td>1944</td>
<td>3233</td>
<td>1944</td>
<td>346,617</td>
<td>14204</td>
<td>6,211,495</td>
<td>4,87,942</td>
<td>664,300</td>
<td>61,376</td>
</tr>
<tr>
<td>1945</td>
<td>2699</td>
<td>1945</td>
<td>379,036</td>
<td>15408</td>
<td>6,314,293</td>
<td>5,374,651*</td>
<td>652,565</td>
<td>79,208</td>
</tr>
<tr>
<td>1946</td>
<td>2988</td>
<td>1946</td>
<td>400,303</td>
<td>16883</td>
<td>7,155,550</td>
<td>6,209,121</td>
<td>644,900</td>
<td>81,259</td>
</tr>
<tr>
<td>1947</td>
<td>3030</td>
<td>1947</td>
<td>621,495</td>
<td>18024</td>
<td>7,930,881</td>
<td>5,274,651*</td>
<td>n.a.</td>
<td>132,937*</td>
</tr>
<tr>
<td>1948</td>
<td>3387</td>
<td>1948</td>
<td>715,550</td>
<td>19007</td>
<td>8,762,797</td>
<td>4,553,812*</td>
<td>138,092*</td>
<td>138,092*</td>
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<tr>
<td>1949</td>
<td>6623</td>
<td>1949</td>
<td>975,266</td>
<td>20823</td>
<td>3,454,312</td>
<td>4,286,555*</td>
<td>138,092*</td>
<td>138,092*</td>
</tr>
<tr>
<td>1950</td>
<td>6815</td>
<td>1950</td>
<td>1,732,573</td>
<td>21669</td>
<td>3,650,590</td>
<td>4,174,604*</td>
<td>138,092*</td>
<td>138,092*</td>
</tr>
<tr>
<td>1951</td>
<td>9155</td>
<td>1951</td>
<td>3,195,175</td>
<td>22332</td>
<td>3,650,590</td>
<td>3,803,814*</td>
<td>138,092*</td>
<td>138,092*</td>
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<tr>
<td>1952</td>
<td>11790</td>
<td>1952</td>
<td>5,650,590</td>
<td>22332</td>
<td>3,650,590</td>
<td>4,174,604*</td>
<td>138,092*</td>
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<td>13645</td>
<td>1953</td>
<td>5,909,572</td>
<td>22332</td>
<td>3,650,590</td>
<td>3,803,814*</td>
<td>138,092*</td>
<td>138,092*</td>
</tr>
<tr>
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<td>19264</td>
<td>1955</td>
<td>3,762,797</td>
<td>22332</td>
<td>3,650,590</td>
<td>4,174,604*</td>
<td>138,092*</td>
<td>138,092*</td>
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<td>20823</td>
<td>1956</td>
<td>3,454,312</td>
<td>22332</td>
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<td>22332</td>
<td>1959</td>
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<td>4,174,604*</td>
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<tr>
<td>1961</td>
<td>n.a.</td>
<td>1961</td>
<td>n.a.</td>
<td>1988</td>
<td>4,809,088</td>
<td>4,133,912*</td>
<td>151,270*</td>
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</table>


Explanations:

(1) These figures represent * two-year averages of the consecutive fiscal years. Thus, collections made during 1955 and the cost of collection during 1955 are an average of the fiscal years 1954/55 and 1955/56 obtained by adding the figures for the two fiscal years divided by two.

(2) n.a. means not available.
### Current Revenue of the Government Sector on Liability Basis in Tanganyika

<table>
<thead>
<tr>
<th>Year</th>
<th>Provision of Goods and Services</th>
<th>Incomes from Property and Sources of Goods</th>
<th>Total</th>
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### Notes
- **1.** Provision of Goods and Services includes:**
  - Current Revenue of the Government Sector on Liability Basis in Tanganyika
- **2.** Incomes from Property and Sources of Goods includes:**
  - Taxes on Expenditure
  - Rent on Government Property
  - Rent on Public Property
  - Interest on Loans
  - Interest on Government Debts
  - Interest on Public Debts
  - Income from Property
  - Income from Property
- **3.** Total includes:**
  - Provision of Goods and Services
  - Incomes from Property and Sources of Goods
(1) Cap. (Chapter) 63, No. 12 of 1922.


(3) Municipal House Tax Ordinance, 1922, Cap. 185 of the Laws of Tanganyika.


(6) 18th Session of the Permanent Mandates Commission, Geneva, pp. 29-30.

(7) The preliminary steps were taken by the government in detailing an administrative officer, Mr. Kitching, to carry out an inquiry into the then existing Hut and Poll Tax system. The report, only the extracts of which were submitted to the Permanent Mandates Commission in the Administering Authority's report for 1934, recommended, inter alia, the introduction of a graduated personal tax, "in order that natives in certain districts can be taxed according to their wealth and also raising of the age to eighteen for tax liability and also the abolition of plural wives tax."

(8) 29th Session, 1936 Permanent Mandates Commission. Annex 24 Tanganyika Territory (TM 1941 (1)).

(9) See thus, The Report of the United Nations Trusteeship Council's Visiting Mission, 1948, New York, p. 90: "... the system broke down, the Mission was informed, under the pressure of educated Africans who claimed that since all men are equal they should pay equal taxes. A close colleague of mine, Mr. Mambo Makoko who and his family resided there at the time, however tells me that the failure had largely to do with the way in which the colonial Administrator of the District concerned tried to enforce this form of tax.


(13) Hon. Charles Phillips, Bayldon and Chief Khaida were the main spokesmen in the Tanganyikan Legislative Council.

(14) See the views of the Russian representative in particular, Trusteeship Council Debates.

(15) See Urban House (Rates) Tax Ordinance No. 62 of 1961 (s.3); Personal Tax (A) Ordinance 1962 (No. 5). Although the former was enacted prior to the latter, both became operative on 1st January, 1962.
(16) Permanent Mandates Commission Debates, 31st Session, p. 32; also reply to Rappard and Jardine, 30th Session.

(17) As to the silly nature of their objections (such as the boycott of the first class railways, withdrawal of money from the bank, etc.) see 32nd Session, p. 146; London Times, 28th September, 1932.

(18) Rappard and Jardine in 30th Session, Details of the Permanent Mandates Commission, pp. 29-30.

(19) Financial Mission, 1932, Sir Sydney, op.cit.; See also A.K. Datta, Tanganyika, Government in a Plural Society, op.cit., who refers to the criticisms of the relative freedom of non-natives from tax appear to have begun in 1925 made by Mr. Ruciman in the House of Commons at Westminster, "What must strike intelligent natives in the Colonies of East Africa is the extraordinary contrast between the amount of taxation raised from them and the amount raised from the white settlers... These white settlers are still the least heavily taxed white citizens in the world". Parliamentary Debates, House of Commons, 1925, Vol.167, Col. 96. Speaking specifically on Tanganyika he said (Col. 97), "According to the right hon. gentleman's doctrine, nothing whatever is raised from the English settlers there and yet £550,000 p.a. is raised by the hut and poll tax. It is true the white population is small and coloured population is large, but these figures show that the government of Tanganyika is supported entirely on black shoulders."

A Memorandum submitted to the Joint Committee of Closer Union in East Africa (1930) estimated that although only £241,928 out of a total of £562,623 collected from Customs Duties are paid by the indigenous people, they contribute as much as £721,181 by way of direct taxation, the similar contribution by the non-indigenous people being £103,388. Considering the incidence of taxation as a whole, direct as well as indirect, the indigenous people paid £963,109 out of a total of £1,387,192 so that the percentage contributed by the Africans came to about 70% of the total. Report of the Joint Committee on Closer Union in East Africa, Vol. III, App. No.(26) - Correspondence with the Governor of Kenya relative to the above Memorandum on the Incidence of Taxation (App. 25), together with a Memorandum by A. Walter, Statistician to the Governor's Conference, pp. 216-17.

In 1931 the Report of the Retrenchment Commission, Sessional Paper No. 1 of 1931, affirmed that "the native population pays approximately 70% of the revenue of the total direct and indirect taxation, including customs duty and... more than 70% of the revenue of the Territory is expended on services to natives, if consideration is given to the benefits they derive from general services such as defence, the Judicial Machinery, Police and Prisons, the Labour Department, etc. It is obvious that the calculation of such benefits is bound to be arbitrary to a large extent. Reference to 70% of revenue is to the revenue from Heads I and II of the Estimates!"

(20) 32nd Session, op.cit.


(22) Non-native Poll Tax Ordinance, 1933.
(23) The right was suspended for the years of assessment after 1942, see Income Tax Ordinance (Consolidation) 1950, s.33, marginal note.

(24) Woods Survey (op.cit.) and Revenue Committee of 1945.

(25) Personal Tax (Amendment) Ordinance No. 5 of 1962.


(29) There was one County Council, called South East Lake County Council, in existence from 1955 to 1959.

(30) Township Act, 1920.

(31) House Tax and Municipal House Tax, 1922.


(33) Native Authority (Rates)(Allowances) Ordinance, 1942. (No. 29), 5.2.

(34) Local government tax and Native Authority (Rating) Ordinance, 1955.


(36) Native Authority (Rating) and Local Government Tax Ordinance 1955.

(37) Report on the Services to be Administered by Local Authorities in Tanganyika and the Consequential Financial Arrangements, A.W. Kent, Paras. 27-29, 70, 75-85, Government Printer, Dar, 1962. The Kent proposals about the personal rate have been accepted at least in principle by the government although their implementation is thought to be impracticable at present in Tanganyika, Government Paper No. 1 of 1963, Chapter II.

(38) There is also a rather different point as to why exactly the personal rates would have to play an important role in local revenues. It relates to the local authorities having a genuinely independent source of revenue. It appears that the local authorities derive over 50% of their rates from government property, although the fact that the lessor of a lease of government property for under five years is himself liable to tax and furthermore the rates on government property would be generally shifted. See as to this point, J.R. Hicks, "Unimproved Value Rating" (with reference to Kenya) in Essays in World Economics, Oxford University Press, 1959 (page 144).
(39) **Financial Mission, 1932, op.cit.,** Sir Sydney Armitage-Smith had this to say: "There would be much gained by a formal repudiation of the theory that it is the proper destiny of East Africa to provide a sanctuary where the immigrant capitalist shall be privileged to exploit the resources of the land without being required to pay income tax, super tax or death duties." See also the 18th Session of the L. Lugard Permanent Mandates Commission.

(40) 34th Session; 37th Session, Permanent Mandates Commission, L. Hailey, p. 28.


(43) Based on the Colonial Model of 1922, cmd. 1788, H.M.S.O.

(44) See Tanganyika Debates, 1939.

(45) An interested reader may refer to the Ordinances 21 of 1941, 1 of 1943, and 25 of 1945.


(49) For a brief statement of the main changes, see Annual Report of the Income Tax Department, 1952, Nairobi.

(50) This was meant to incorporate some of the proposals made by Gill Committee whose main concern was with making the tax system equitable by suggesting proper basis of deductible expenses, taxable income, etc. as a result of the rapidly rising incidence of taxation.


(53) Gill Committee, 1953-54.

(54) Coates Commission, paras. 130-161.


(57) Central Legislative Assembly Debates; Budget Speech, 1961/62 (Tanganyika)
(58) See Chapter 6, Section (2) E.

(59) War Revenue (Non-Residents' Exemption) Orders, 1940, 1941 and 1945.

(60) Coates Commission, para. 232.

(61) Tanganyika Budget, 1962/63.

(62) Gill Committee.

(63) Kenya White Paper on Gill Committee.

(64) Coates Commission, paras 522 to 544. One of the reasons, presumably, for the non-revision of the annual values of owner-occupied houses was the existence of rent control provisions which necessitated that the annual values of owner-occupied houses be lower than the controlled rental values, on the other hand, it was also felt that the inflated values of houses of the Korean boom period would in turn increase the annual values and give rise to collecting additional tax by way of heavier burden on the taxpayers, East African Revenue Advisory Board Report, p. 22.


(66) East African Revenue Advisory Board Report, para.

(67) Gill Committee, 1954.


(70) See the Tanganyika Debates, 1954.


(73) East African Revenue Advisory Board Report.


(75) Ibid.

(76) When Sir Wilfred asked for an explanation, it was explained to him, again falsely, that the arrangement was a legally correct interpretation; see para 129 of the Woods Survey. Woods survey however expressed the view in para 130 that there was no reason why the arrangement should not be extended to other plantation farmers.

(77) Coates Commission, paras 397 to 406.

(79) Ibid.

(80) Gill Committee.

(81) Income Tax Ordinance, 1939; Petrie Commission, 1952-54, Appendix "C".

(82) For the history of the position in the U.K. see D. Walker, Depreciation and Royal Commission, Accounting Research, 1955.


(84) See Tanganyika Debates, 1954-55. It was in fact as early as 1952 that the demands for this type of allowances for sisal and cotton estate owners were made, see East African Revenue Advisory Board Report, p. 57.

(85) Coates Commission, para 258. The demands for the extension of depreciation and initial allowances to all sorts of buildings were made by 1952 in Tanganyika as a result of Tucker Committee's recommendations therefore in the U.K. See East African Revenue Advisory Board Report, p. 57.

(86) Ibid, para 265.


(88) Budget (Tanganyika), 1963/64. Finance Act, 1963.

(89) Boates Commission, para 269.

(90) A demand was made for this in early 1950's in representations to the East African Revenue Advisory Board but it was rejected on the grounds that this would mean that the sale price of mines would be increased; it would give rise to a need for overcapitalization which would not be to the benefit of East Africa.

(91) Representations were made to the East African Revenue Advisory Board in 1952 explaining the position in some other parts of the world (viz. Australia, U.S.A., etc.) but these demands were rejected even at that time on the grounds that comparisons with other countries were untenable as whilst these demands reduced the effective rate of tax in those countries, the East African actual tax rate (without much capital or depletion allowances) was already low enough to be further reduced.

(92) Tanganyika Budget, 1961/62: the government has not arranged for an expert study to deal with recommendations such as tax holiday (to be followed by once and for all) write off of exploration rapidly and pre-production costs as well as plant and machinery, depletion allowances, etc. It did however confer the privilege of special reduced rates of tax on mining profits.

(94) Coates Commission, paras 234-243.
(95) Right Hon. Tinley's Budget Speech, 1959/60.
(100) Tanganyika Budget, 1963/64.
(101) Not on loans; these are not allowable, see Coates Commission, para 507.
(102) Petrie Commission, 1952-54, Appendix "G".
(103) Coates Commission, paras 508-9.
(104) Coates Commission, para 509.
(105) Gill Committee, op.cit.
(108) East African Income Tax (M)(A) Act, 1960 and Debates in the Central Legislative Assembly on the Bill.
(109) Coates Commission, paras 474-482.
(110) Coates Commission, paras 483-487; Gill Committee.
(111) Arising probably from the Plewman Commission's view earlier that the incidence of income tax in the higher income range may prove to be a deterrent. This was followed by generous tax concessions embodied in the Income Tax Ordinance No. 9 of 1947 in Tanganyika.
(112) Coates Commission, paras 203, 212-15.
(113) Income Tax (R & A) Ordinance, No. 28 of 1961.
(114) East African Revenue Advisory Board Report, op.cit.
(117) Coates Commission, para 504.
(118) Government Paper No. 3 of 1958, op.cit. The educational trusts for children were sought to be excluded by the public but nothing was done in this matter in 1952, East African Revenue Advisory Board Report, p. 45.
(119) The East African Revenue Advisory Board reported against it as it would cause inconvenience to public travelling by air. It also sought to have the power of impounding passports as laid down in the original draft legislation in 1951 by the power of arrest on order of a judge, pp. 55-56. See also Coates Commission, para 656 for the recommendations on this matter in 1956-57.

(120) See in particular the views of the Finance Member and Income Tax Commissioner.

(121) Coates Commission, para 651.

(122) See in particular the views of the legal secretary on the East African Income Tax (M) Bill, 1958 in the Central Legislative Assembly.

(123) As to further explanations to the public, see Central Legislative Assembly Debates on the East African Income Tax (M) Bill, 1961.

(124) Gill Committee; Coates Commission, para 690.

(125) An enthusiastic reader may refer to the Coates Commission, paras 178-184 for an illustrative example of public vigilance in their objection to the conferment of the power of distrain on the regional or assistant income tax commissioners, Clause 14 of the East African Income Tax (A) Bill, 1960.

(126) Coates Commission, paras 362, 369.


(128) It recently became possible to increase the burden of responsibility of local authorities in administering the personal tax as a result of reorganization of the local government. They were relieved of administering the government land and property as this responsibility was transferred to the judiciary. See W.J. Warrell-Bouring, "The Reorganization of the Administration in Tanganyika", Journal of Local Administration Overseas, 1963, p. 188.

APPENDIX 'C'

The rules of tax and personal allowances for various taxes on income can be set out in the following order.

I. Non-native poll tax and personal tax.
II. Education Tax
III. Income Tax Proper: For Residents.
IV. Income Tax Proper: For Non-residents.
I. Non-African Poll Tax and Personal Tax

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<th></th>
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<th></th>
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<td>Income Tax</td>
<td>£</td>
<td>£</td>
<td>£</td>
<td>£</td>
<td>£/−</td>
<td>£/−</td>
<td>£/−</td>
</tr>
<tr>
<td>0- 200</td>
<td>40/−</td>
<td>0-120</td>
<td>2</td>
<td>40/−</td>
<td>20/−</td>
<td>0-100 10/−</td>
<td>0-100 12/−</td>
</tr>
<tr>
<td>200- 300</td>
<td>60/−</td>
<td>120-200</td>
<td>3</td>
<td>60/−</td>
<td>30/−</td>
<td>100-120 20/−</td>
<td>100-150 20/−</td>
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<tr>
<td>300- 400</td>
<td>80/−</td>
<td>200-300</td>
<td>4</td>
<td>80/−</td>
<td>50/−</td>
<td>200-300 40/−</td>
<td>150-200 40/−</td>
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<tr>
<td>400- 500</td>
<td>100/−</td>
<td>300-400</td>
<td>5</td>
<td>100/−</td>
<td>70/−</td>
<td>300-400 100/−</td>
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<td>400-500</td>
<td>7</td>
<td>140/−</td>
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<td>300-400 180/−</td>
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<tr>
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<td>500-600</td>
<td>9</td>
<td>180/−</td>
<td>90/−</td>
<td>400-600 150/−</td>
<td>300-400 180/−</td>
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<tr>
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<td>220/−</td>
<td>600-700</td>
<td>11</td>
<td>220/−</td>
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<td>400-600 150/−</td>
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<td>700-800</td>
<td>13</td>
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<td>130/−</td>
<td>600 &amp; over 180/−</td>
<td>500-600 350/−</td>
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<td>800-900</td>
<td>16</td>
<td>300/−</td>
<td>150/−</td>
<td>over 600 450/−</td>
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<tr>
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<td>900-1000</td>
<td>19</td>
<td>340/−</td>
<td>170/−</td>
<td>600-700 450/−</td>
<td></td>
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<tr>
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<td>380/−</td>
<td>1000-1100</td>
<td>20</td>
<td>380/−</td>
<td>190/−</td>
<td>700-800 525/−</td>
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<tr>
<td>1200-1300</td>
<td>420/−</td>
<td>1100 &amp; over 25</td>
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<td>420/−</td>
<td>210/−</td>
<td>over 800 600/−</td>
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</tr>
<tr>
<td>1300-1400</td>
<td>460/−</td>
<td>1100 &amp; over 25</td>
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<td>460/−</td>
<td>230/−</td>
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<td>1400-1500</td>
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<td>500/−</td>
<td>250/−</td>
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<td>600/−</td>
<td></td>
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<td>600/−</td>
<td>270/−</td>
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<tr>
<td>Rising by 40/−</td>
<td>for every £100</td>
<td></td>
<td></td>
<td>40/−</td>
<td>290/−</td>
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<td></td>
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<td>up to £2500</td>
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<td></td>
<td></td>
<td>290/−</td>
<td>310/−</td>
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<tr>
<td>followed by 500/−</td>
<td></td>
<td></td>
<td></td>
<td>500/−</td>
<td>330/−</td>
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<tr>
<td>for every £500 up to £4,000 and then by 1000/− for every £1000 up to £10,000.</td>
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## II. Education Tax

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<th>No.8 of 1930</th>
<th>No.3 of 1932</th>
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<th>Cap.264 of 1954</th>
<th>No.28 of 1961</th>
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<td>0-100</td>
<td>Flat Levy on every Adult Non-Native African Male</td>
<td>Replaced by Non-Native Poll Tax</td>
<td>Europeans Asians</td>
<td>Europeans Asians</td>
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<tr>
<td></td>
<td></td>
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<td>40/-</td>
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<td></td>
<td></td>
<td>60/-</td>
<td>45/-</td>
<td>60/-</td>
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<tr>
<td>100-200</td>
<td></td>
<td></td>
<td>100/-</td>
<td>80/-</td>
<td>100/-</td>
</tr>
<tr>
<td>200 and over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Abolished</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>100/-</td>
<td>100/-</td>
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</tr>
</tbody>
</table>
### Income Tax

#### Allowances

|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Residents: £
| Single | 350 | 350 | 350 | 350 | 200 | 200 | (450 if also child allowance) | Provided for a right of set-off of \( \frac{1}{2} \) the personal tax paid against income tax (prop) liability |
| Married | 150 | 150 | 150 | 200 | 350 | 350 | 500 | the right of set-off of \( \frac{1}{2} \) personal tax paid removed |
| Child | 75 | 75 | 75 | 80 | 80 | 120 | 120 | 240 |
| Education | - | - | - | 50 (per child) | 75 | 75 | 75 | 75 |
| Dependent | 100 | 100 | - | - | - | - | - | - |
| Old Age | - | - | - | - | - | - | - | - |
| Age | - | - | - | - | - | - | - | - |

#### Life Assurance

<table>
<thead>
<tr>
<th>Rates</th>
<th>Standard Tax rate (for companies)</th>
<th>1/6th of Income</th>
<th>1/6th etc. of £200</th>
<th>(max.) £100</th>
<th>(max.) £250</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st £7000/40</td>
<td>1/-</td>
<td>2/-</td>
<td>up to £250</td>
<td>1/-</td>
<td>up to £250</td>
</tr>
<tr>
<td>next £5000/10</td>
<td>1/50</td>
<td>2/50</td>
<td>then 10th of a cent for</td>
<td>1/- then</td>
<td>1/- then</td>
</tr>
<tr>
<td>next £1500/50</td>
<td>2/-</td>
<td>3/-</td>
<td>each £ of income</td>
<td>2/-</td>
<td>2/-</td>
</tr>
<tr>
<td>£1000/50</td>
<td>3/-</td>
<td>4/-</td>
<td>1/- for every £1000 with a maximum limit of 1/2 for over £2000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Education

- 50 (per child)

#### Old Age

- £100

#### Age

- £175

[(1) Provided for a right of set-off of \( \frac{1}{2} \) personal tax paid against income tax (prop) liability]

[(2) Abolished]

[(3) Old age and age allowable merged with age allowance of £250 (7)]

[(4) Simplified to allow total amount of insurance where income is below £2500 and annual premium falls below £200]
<table>
<thead>
<tr>
<th>IV. Non-Residents (British)</th>
<th>33 of 1939</th>
<th>19/40</th>
<th>19/40</th>
<th>38/40</th>
<th>War Revenue order 1941</th>
<th>War Revenue order 1945</th>
<th>War Revenue order 1949</th>
<th>53 of 1952</th>
<th>15/55</th>
<th>50/55</th>
<th>7/59</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>160</td>
<td>180</td>
<td>180</td>
<td>200</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>130</td>
<td>136</td>
<td>350</td>
<td>280</td>
<td>245</td>
<td>280</td>
<td>300</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td>25</td>
<td>25</td>
<td>40</td>
<td>60</td>
<td>85 (max. 4)</td>
<td>130</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earned Income Relief</td>
<td>1/4 th</td>
<td>1/4 th</td>
<td>(8)</td>
<td>(9)</td>
<td>1/5 th</td>
<td>1/5 th</td>
<td>1/5 th</td>
<td>2/9 th</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rates of Tax:

- on first 700: 1/40 1/- 2/- 0-750 @ 2/-
- next 500: 2/10 1/50 2/50 over £750
- next 1500: 2/80 2/- 3/- 2/- + 1/10th
- remainder: 3/50 2/50 3/50 of a cent for every £

If chargeable income is below £800 @ 2/- or as above for residents.

Non-U.K. Non-Residents:

<table>
<thead>
<tr>
<th>Personal</th>
<th>100</th>
<th>100</th>
<th>115</th>
<th>130</th>
<th>195</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>130</td>
<td>155</td>
<td>180</td>
<td>195</td>
<td>130</td>
</tr>
<tr>
<td>Child</td>
<td>25</td>
<td>40</td>
<td>55</td>
<td>85</td>
<td>85 (max. 4)</td>
</tr>
<tr>
<td>Earned Income Relief</td>
<td>1/4 th</td>
<td>1/4 th</td>
<td>1/4 th</td>
<td>1/4 th</td>
<td>1/4 th</td>
</tr>
</tbody>
</table>
Notes:

(1) Reduced by ½ for excess over £200 or £350 as is the case.

(2) On the first £400 of income @ 1.50 in the £, 401-1600: 1.50 + 1/8th of a cent for every £ of income over £400. Over 1600: 3/- in the £ and 5/- over £1600.

Surtax: first £2000 - none

next £5000: income tax plus 25 cents in a £ increased by 1/8th of a cent for each £ over £2000.

next £5000: rate is 1/0 in a £ increased by 1/20th of a cent for each £ in excess of £3000 (maximum is 8.25 in a £). Over £8500 @ 3/- in a £.

(3) Old age relief (man 60, woman 55):

least of the three: (i) his or her earned income;

(ii) the biggest of £350, £160+150; £60 or £200 each reduced by earned income;

(iii) single allowance reduced by half of the maximum of W/A, G/A, Education allowance or dependant allowance.

(4) £7 10s. 0d. Tuition fees below £2

£22 10s. 0d. " " " £2 - £4

£45 0s. 0d. " " " £4 - £8

£60 0s. 0d. " " " £8 - £12

£75 0s. 0d. " " " over £12

Where the chargeable income exceeds £250, upon the whole of the chargeable income @ 2/- for every £ with the addition to such rate of 1/8th of a cent for every £ of chargeable income in excess of £250 up to 5/- in a £. If the income exceeds £3,000 surtax on excess of chargeable income over £3,000 @ ½ in a £ plus 1/20th of a cent on every £ in excess of £3,000 (maximum rate 7/50)

(5) School College

Only tuition fees 75 100

Boarding & tuition fees 125 175

No tuition fees 50 75

(7) Conditions for married - income limit £1250 (with child £1500)

Conditions for Single - income limit £1000 (with child £1250) excess reduced by ½.

(8) If earned income does not exceed £500, it is exempt. If it does, ½ of such earned income is exempt - in any case minimum of £250 is exempt.

(9) 1/4th of the sum total of £160 + £200 + £40 or 1/5th of the earned income.

(10) For premiums below £200, the deduction of premium is not to be such as to reduce the tax payable by more than 25% or the premiums paid and for premiums above £200, the deduction is not to be such as to reduce the tax payable by 25% of the first £200 of the premium and by 12½% of the excess of £200.

(11) 75 children under 6

100 (6-12)

150 (12-19)

250 (University) etc.
CHAPTER SEVEN

Income Taxation in Tanganyika - A Comparative
Review of Definitions and Problems

Section (1) Introduction:

The object of this chapter is primarily to offer a number of comparisons between the system of Income Taxation in Tanganyika and other Commonwealth countries. Having had a common association with the British system of taxation, Commonwealth countries provide perhaps more appropriate data with which to contrast the East African experience. With this broad consideration in mind, we proceed in Section (2) to outline the system of income taxation now in operation in Tanganyika and to compare the treatment with other countries. In Section (3) we take up some of the problems of revenue allocation and derivation procedures for dealing inter-territorially in East African with the liability to income tax.

Section (2) Comparative Review of the Present Tanganyikan System of Income Tax:

A. General Description of the Present System. As already stated at the inception of this study, the system consists of several types of taxes on income, viz. income tax proper, personal tax, local government tax, education tax and export tax. Whilst some of these taxes have been described sufficiently already, there are others such as personal tax and local government tax which will be described under the special features of the Tanganyikan system of aggregate taxes on income. At present our concern is with the description of income tax proper.

Income tax proper in Tanganyika is levied on the income of individuals, companies and trusts and clubs. The tax is payable on all income of residents in Tanganyika and on company profits which accrue in Tanganyika. It is levied on gains and profits from any trade, business profession or vocation, gains for profits from any employment; dividends, interest or discounts; any pension, charge or annuity; actual rent receipts, royalties premiums and any other profits arising from property. In effect, all
Income is taxable if it either arises in Tanganyika or in the case of resident companies income which arises abroad but is brought into the country. Special provisions exist to exempt temporary visitors to the country and there are also double taxation relief agreements with several countries.

Tax is charged on net income, after deducting all expenses which are exclusively incurred in the production of gross income. There are current and capital expenses. The expenditure on repairs, plant and machinery, buildings, construction and structure are subject to annual capital allowances and investment allowances in the first year. The current expenses include interest on borrowed capital, rent, etc. Losses are deductible from the income of the current year with a proviso for a carry forward for six years and offset on the preceding year's income.

The individual allowances consist of personal and marriage allowance, children's allowances up to three children, no dependent allowance or old age allowance. Contributions to life insurance, pension and provident funds and self-employed's savings scheme are available up to maximum limits. The incomes of husband and wife are jointly assessable but in the case of special request for separate assessment one relief can be divided pro rata.

This is a broad outline of income tax proper in Tanganyika. There are many ways in which the existing system of income tax differs from the system elsewhere but at the moment perhaps we need only note the differences in this broad outline of income tax.

It can be seen that the present base of income tax is a global one rather than a schedular one as in Italy and some other countries; nor is it a combination of a schedular tax and a complementary or general tax on
aggregate total income as in Latin America, Egypt and certain countries of Europe which were previously on a schedular system. The Tanganyikan system does not make any distinction between earned and unearned income as in the United Kingdom. Tax is assessed on a joint basis for husband and wife and not on the basis of the U.S. system of income-splitting or its modified operation in Ghana. Tax allowances for special family circumstances, e.g. number of dependents or children is not quite so adequate as in Malaya, Latin American countries like Argentine, and Tunisia, nor is there the quotient system as in France and Ceylon. This is not necessarily because the system of government expenditure is in favour of such dependents as in Sweden where children allowances can be completely dispensed with under such sophisticated system of government expenditure allocation to 'desirable' items. The children allowance in Tanganyika is thus limited to the maximum of three and there is no allowance at all for other dependents.

The owner-occupied houses are no longer assessable for imputed income as is the case with most of the countries with the British form of income tax. There is no provision for the taxation of capital gains as in the U.S.A., India and most of the countries of Europe. Foreign income of an East African is no longer liable to the East African tax and this has to be compared with the U.K. or the U.S. system where income earned abroad and remitted to these countries is taxable to the extent of remittances into the country.

Business allowances are not quite so different from what they are elsewhere. There are however two main differences: first, in respect of imputed salaries and the second as to depreciation allowances. The latter is however to be dealt with under the special features of income tax proper in Tanganyika and need not be dealt with here. The point relating
to salaries allowed as business expenses is that it lacks stringent provision made for the imputed salaries of income of the members of the family who participate in business, as say in Belgium, where the income of the business proprietor's wife or any member of the family is not to exceed a certain percentage or as in New Zealand where there is a proviso for 'unreasonable remuneration' which may be disallowed. The present practice in Tanganyika also fails to provide inducements, on the other hand, to foreign technicians (which are provided in India and Pakistan in the form of tax exemption or special reduced rates) except of course those serving under international agencies.

As for the taxation of companies, two points are worth noting: the rate structure and the recent introduction of the Corporation Profits Tax in line with the systems prevailing in the United Kingdom and Eire at a flat rate of 10% with no offset to the shareholders as for the company income tax. The company income tax is levied at a flat rate after an allowance is made by way of a small exemption limit. Thus it conforms to the almost universal practice found elsewhere except perhaps in the former Belgian colonies in Africa where company income tax has been progressive, the rate of progression being dependent on the rate of return on invested capital. Company income tax has been in a position different from the U.S., Canadian or Indian system of taxing the companies. With the raising of corporation profits tax to 17\(\frac{1}{2}\)%, of which the 7\(\frac{1}{2}\)% was at the cost of reducing the company income tax of the British or Irish type from 25% to 17\(\frac{1}{2}\)% very recently, with no provision for offset, taxation of income of companies is now placed in between the American and the British system where a full offset against the company income tax is allowed. As to the American type of corporation tax, the position is slightly different in each country
Thus, in the United States, the Corporation Tax is one levy at a fixed rate on all the profits of a company and the shareholders are entitled to a very small offset of less than a part of their income. In India, the companies deduct income tax at a fixed rate of 20% from the distributed profits and pay the corporation profits tax on the remaining undistributed profits; credit is given to the shareholders in respect of the former but not for the latter. In Canada, income tax is deducted from the dividends and paid by the corporation profits tax at a fixed rate of 20% from the distributed dividends received and assessed as a part of their income. In Australia, the legal requirement of taxation under one head and to appear in the same column meets with some resemblance to the United States Corporation Tax; the corporate profits tax and income tax are entitiled to a very small offset of less than a part of their income. Thus, in the United States, the Corporation Tax is one

...
deduction is to be made only from the dividends distributed to non-residents, or with that in Sweden where there is no scheme of deducting tax at the source from interest and dividends paid or distributed.

One salient point in the description of the system and the enumeration of the special features so far should be noted. This relates to the failure of the present system to provide for the balance of payment as a policy objective. Its failure consists of not providing for income tax concessions to the domestic producers expanding the foreign markets as is done in Eire, Australia, Japan and Mozambique. Further, it fails to restrict tax concessions on capital assets purchased from within the economy than from outside as the policy in Greece strives after by laying it down as a pre-condition to the entitlement of an accelerated depreciation. Finally, the Tanganyikan system makes no provision for a small, extra, penal tax rate on the profits of non-resident companies or foreign companies remitting profit or distributing dividends abroad as is the case with the Ghanaian income tax system at present.

B. Special Features Defined. More comprehensive picture of the present system of income taxes and the problems it raises can however be obtained by dealing with their special features in Tanganyika. These special features are: (a) agricultural income; (b) undistributed income tax; (c) depreciation, investment and pioneering industry allowances; (d) mining income; (e) settlements; (f) superannuation funds; (g) non-resident incomes; (h) personal tax; (i) local government or urban house tax.

(a) Agricultural Income: In respect of agricultural income, the provisions of the various systems of income tax vary considerably as a result of the difficulties of determining the exact income and of relieving farmers from
hardship arising from fluctuating income under progressive tax. As to the problem of ascertaining the exact income of the farmers, each country has to devise its own rules in the light of its own needs. In India and Pakistan where agriculture and processing or manufacturing activities are so closely combined by the producers to reduce the tax liabilities that specific rules as to the proportion of total final output that is to be attributed to the agriculture and that to non-agriculture have to be laid down. Again, in Canada where hobby farming is a common practice, special rules as to the maximum amount of income that can be treated as income of a gentleman farmer have been devised. In the United Kingdom, with a special programme of agricultural subsidy which is not to be found at anything like the scale elsewhere in the world, special rules have been laid down for treating the receipt of grants. These subsidies are based on the acreage (mainly for small farmers), on improvement of land or are paid by way of deficiency payments. Clearly, when subsidies paid are based on the improvement of land and are liable to be treated as taxable receipts in some cases, rules have to be devised to ascertain whether such grants are capital receipts or current receipts. In the case of deficiency payments, which are also taxable, the size of the payment is generally dependent on the date of sale and delivery of the local crop. Therefore, special rules have been devised for the way in which accounts should be drawn up and income ascertained for the purpose of taxing it. Again, in the United Kingdom and Eire, where income derived from land can be taxed under Schedule B or Schedule D, rules have to be made for ascertaining which Schedule the taxable income belongs to because the deductible business expenses, on which the amount of income depends which is taxable out of the total income of the farmers, allowable under these two Schedules are not the same. In both countries income from market gardening is however made taxable under Schedule D in recent years.
In East Africa, no such problem of ascertaining the exact income has arisen as such so far, but with the expansion of traditional agricultural sector into a monetized economy may give rise to such problems in the near future. Indeed the problem of taxing the agricultural income of the agricultural co-operatives needs to be noted with interest.

According to the present income tax regulations, Tanganyika co-operative societies whose sales per head of members do not exceed £150 and are related to agricultural produce, dairy produce, handicraft or fish, of which the members are primary producers are exempt from income tax. Similar provisions for the taxation of co-operative societies exist in countries like Israel, Denmark, Netherlands and Burma. In Israel, co-operative societies are subject to the same tax treatment as companies, except those co-operative societies which deal only with their members and, under certain conditions, those whose main business is the marketing of the farm goods or products of their members or the supplying of farm goods, to their members. In Denmark, there are special provisions for the co-operative societies, production and marketing organizations, etc., and under these whilst ordinary companies are taxed at the rate of 44% the wholesale co-operative societies and production and marketing organizations are taxed at the rate of 18%.

In Netherlands, the co-operative societies are liable to company tax but subject to specified exemption. In Burma, co-operative societies are exempt from income tax and super tax on 32% of their profits and the remaining 68% of the profit is subject to a special reduced rate of 13% (as against an ordinary company tax at the rate of 18%) on an income exceeding 25,000 kyats.

Most of the countries with an income tax system try and relieve the farmers by giving them an option to be assessed either on trading basis or on cash basis and further allow averaging of the income on trading basis;
there are special provisions for relieving farmers from the loss of compulsory sale of livestock in the drought period or other such cases of hardship. Elsewhere, there are special relief funds (e.g. in Japan, Australia) and the tax reliefs take the form of contribution to these funds as deductible allowances; such a system ensures minimum fluctuations in the government revenue. In East Africa, none of these or any other of the provisions for fluctuating agricultural income are to be found. All fluctuating incomes, including the agricultural incomes, are entitled to the two-year averaging in East Africa just as the incomes for any year for tax purposes in Switzerland are arrived at by an average of two years income.

Although there are no provisions for the averaging of income from agriculture, some times hardships are relieved by means of generous deductions of capital expenditure. Thus the capital expenditure incurred in the clearance and planting of land are allowable in the year in which they are incurred in East Africa as is the case in Rhodesia and Nyasaland, New Zealand, Fiji and the High Commission Territories in South Africa. This is a radical departure from the British Tax jurisprudence where expenditure incurred in cutting, levelling and tunnelling land are available but not for clearing and planting it. The capital expenditure allowances on the prevention of soil erosion are also available as elsewhere in Africa but compare favourably with the High Commission Territories where these are limited to the standard amount spent on soil erosion and eradication of noxious plants.

(b) **Undistributed Income Tax.** The undistributed income tax applies\(^3\) to private limited controlled companies which distributed unreasonable amounts of dividends to avoid the payment of either sur-tax or an equally steep rate of income tax as the sur-tax rate. This type of provision is found in almost all the income tax systems and in its simplest form a large
percentage (60%) of it is taxed at a rate equal to the maximum sur-tax rate or income tax rate and the standard rate of tax paid by the company, or else the whole of the undistributed profits are taken to be distributed as in the case of partnerships. The private controlled companies are defined as those in which the public are not substantially interested, i.e. controlled by less than five persons and the 'person' is so defined as to exclude directors and officers of the company and certain near relatives or any person holding not more than 20% of the shares of the company. In taxing the undistributed profits of such companies subject to a relief of 40% special requirements of the controlled companies are normally taken into account in granting a further relief (e.g. in the U.K.). But for the sake of administrative simplicity in countries such as South Africa and Rhodesia the special requirements are being taken to be, in the light of the stage of economic development of the country, tantamount to the necessity of expanding capital assets. This concept has been accepted in East Africa, but with modifications in the light of her own requirements as well as the former Central African and Australian concepts which in turn are variations of the original concept. Briefly, in the former Central African Federation a flat allowance of £2,400, or if greater, two-fifths of the excess, to companies mainly concerned with the construction of roads, buildings, farming, mining, manufacturing and transport is given; for other companies the flat deduction is £2,000, or if excess, one-third of the excess. It varies in two respects from the original concept. The amount of initial flat deduction is made to small company enterprises to the extent of 100% for undistributed profits up to a certain limit; such allowances in their total amount vary with the type of enterprise the company is engaged in. For larger enterprises, the amount of development allowance is limited again
depending on the nature of the enterprise - 40% for companies which are capital intensive, 33\% for other companies but there is no restriction, as in the original concept, as to the item (capital asset or otherwise) in which such tax-exempt profits are used. In Australia, the undistributed profits are liable to tax subject to a retention allowance which tapers off as follows: 50% on first £1,000; 40% on the second £1,000; and 35% on the rest of the undistributed profits. In East Africa, first of all, the companies are divided into three groups:

(1) Companies in which expansion is meant for heavy fixed investment in both fixed and working capital. In such a case allowances are: 20% of the profits; gross dividends paid; and capital expenditure exclusive of cars but inclusive of half the investment outlay on commercial buildings (including shops, warehouses and go-downs). The last of those items form development allowances.

(2) Where the expansion is primarily for the increase in working capital: 25% allowance and dividends paid are deductible.

(3) On the companies which can expand irrespective of a proportionate increase in capital these are further defined as those which obtain more than 75% of their trading income from fees, commissions, etc. and are thus not dependent for expansion on investment in fixed assets or stocks: they get an allowance of 10% and dividends paid are deductible.

The East African system is mid-way between the South African and the Rhodesian systems, the latter of which embodies the Australian feature of more generous allowance to small, expanding companies. In East Africa, (1) is akin both to the South African system and the Federation system with
the special features such as physical asset or the development allowances; (2) is quite akin to the Federation system; and (3) is unique to East Africa itself. It is to be noted that (1) favours capital intensity on physical asset or development thereon rather than loan basis.

One more system of Undistributed Income Tax may perhaps be considered at this stage to indicate how it could be varied to take into account the special factors created by a system of Undistributed Income Tax or to embody some multiple policy objectives therein. Thus in Philippines, a tax of 25% is levied on the undistributed portion of profits or surplus of a corporation that is formed or utilised for the purpose of avoiding the taxation of its stockholders by accumulating profits instead of dividing them. This tax which applies both to foreign and domestic corporations is not however levied upon any accumulated profits or surplus if invested in any dollar-producing or dollar-saving industry or in the purchase of bonds issued by the Central Bank of the Philippines. Banks, insurance companies, and domestic and foreign personal holding companies are not affected by this type of tax. Corporations which can be classified as personal holding companies are subject to a 45% tax on undistributed net income in addition to the regular corporate tax of 22%.

(c) Depreciation, Investment and Pioneering Industry Allowances. The depreciation allowances in Tanganyika are somewhat simple in nature and extend to plant and machinery, fixtures, industrial structures and to a limited extent to the transport equipment used in business. Capital expenditure on technical research is fully allowable in the first year in which it is incurred, whilst capital expenditure on the education and training of the staff are probably not allowable especially where they are incurred on the employee who could indeed earn his living without such
training. The present depreciation allowances on equipment seem to ignore such factors as double-shifting in the use of capital equipment (contrary to the practice in India, Pakistan, Israel, Austria, etc.), modernization or rationalization of capital equipment (contrary to provisions in Canada) and technologically more efficient equipment (contrary to the policy in Japan). It also fails to take into account the necessity of training local staff a fact recognized in Eire; nor does it provide for the problem of regional disparity of growth as is done under the Italian, Belgian and (the recent) United Kingdom systems.

Depreciation allowances in East Africa are granted on such a basis that no further adjustments on transfer or final scrapping of the asset need to be made by way of balancing charges and allowances on the depreciated value of the asset. Practically in every other income tax system of the world that we are considering, an adjustment for balancing charges or allowances has to be made when the ownership of business which has enjoyed depreciation and initial allowances in the past changes or ceases, or when the asset is scrapped or destroyed. This recently introduced system of no balancing charges or allowances on depreciated asset like industrial buildings, mining expenditure and expenditure for planting and clearing of land for permanent or semi-permanent crops has meant that the residual value of these assets is taken to be the book value for new owner for his tax purpose; the owner who sells such an asset at a profit escapes tax on his gains and the new owner's allowance is instead reduced. Only in the case of cessation of mine and on the sale of plant and machinery arising from sale or cesser of business the balancing charges or allowances are made. When a depreciated asset is scrapped and fetches some value, such an amount is not taxable. To what extent this arrangement introduced primarily for administrative simplification makes income tax more or less effective
policy instrument is worth considering, and in so doing one ought perhaps to bear in mind that in countries like Japan there is a provision whereby some fixed percentage (10% in Japan) is laid down as the residual value of a depreciated asset and this is presumably liable to tax on sale, exchange, transfer, etc.

The Tanganyikan tax system does not incorporate any tax concessions and the explanation given therefor is, as we have already indicated in the last Chapter, that the investment allowances are adequate and fair bases of encouraging economic development. For the purpose of ascertaining the conceptual basis of the investment allowances, it is however necessary to compare this type of tax concessions with the systems elsewhere. Clearly, as tax incentives are a rather vast field to survey, in view of its widespread nature as a separate aspect of tax economics, we cannot hope to do more than describe the various concepts of tax reliefs, with a few examples relating to some of the less-developed economies to illustrate the concepts.

The relevant concepts in an analysis of tax concessions are: extensiveness and intensity of tax relief; dimensions of the relief. How extensive a tax relief is depends on the sectors of the economy to which it is to be applied. Various bases of extensiveness to be found in practice are: the industrial sector as against the agricultural sector; the fastest growing as against the slowest growing enterprises in all sectors of the economy; the foreign as against the domestic enterprises; enterprises beneficial as against non-beneficial ones, to the economy; newly established as against existing enterprises. There need however be no one watertight pre-condition as to extensiveness, viz. pioneering industrial firms, or the new firms which earn maximum export income, or industrial firms using at least 50% of the domestic capital (El Salvador), 100% of local raw material (Columbia) or over 50% of the domestic capital and 90% of the local staff (Iraq)
The intensity of the relief is governed by the amount of benefits available to those ready to utilize them. Generally the intensity of tax reliefs can only be calculated by long, statistical exercises with different results in each case depending on the concepts of extensiveness and dimensions of tax reliefs and further also the behavioural assumptions made.

The tax dimensions consist of whether concessions apply through the tax rates, tax basis or both, its period of operation, certainty, constancy and choice as to which of the several reliefs can be utilized.

Whilst in Tanganyika tax concessions take the form of investment allowances, they are widely extensive; they are not so limited as in the Caribbean where they tend to be confined to newly emerging pioneering industrial firms, to hotels and tourist industry, nor do they provide additional incentives to such sectors as exports as in Mozambique. However in so far as the investment allowances are confined to capital equipment and houses of employees, they are less intensive than the incentives in Mozambique where the tax exemptions are given so long as there is capital invested in business (not necessarily in capital equipment), the amount being the governing factor for the period of concessions. Investment allowances in Tanganyika are again different from the tax holidays in India, Pakistan, Ceylon, Burma, etc. where utilization of equipment is not the only pre-condition for tax holidays as the use of manpower may be substituted for capital equipment to be eligible for tax holidays.

In terms of tax dimensions, they reduce the tax base in Tanganyika except in the case of mining where the tax concessions take both the form of reduction of the tax base and the tax rate. But this form of reduction of the tax base through a deductible business expense is to be
distinguished in turn from the flat rate or complete reduction of the tax base in certain industries. For instance, in Egypt and Iran the reduction of tax base consists of a partial, flat percentage deduction (10%) from income earned by companies exploiting industrial enterprises, mining, tourism, etc. There is, on the other hand, a complete exemption of income in Mozambique earned by new industries for a fixed number of years. Furthermore, whilst in some countries the tax base exempted from tax includes not only the enterprises subject to tax concessions but also the recipients of its dividends, in others it is confined to the income of the enterprises only.

The period of operation varies in various systems of the world. In some cases there is a fixed period (three to five years generally but in countries like Puerto Rico as long as ten years) during which there is thought to be no need for writing off depreciation and investment allowances simultaneously. In others, the period of concessions is such that it tapers off from 100% exemption in the first three years to 50% in the fourth and eventually to zero in the fifth year or so. During such a period depreciation allowances may or may not have to be written off during the operation of tax concessions, depending on the system concerned. There is a good deal of certainty during the operation of concessions as the period of their operation is stated beforehand, and in view of the fact that such concessions are not generally followed by tax increases in some other directions, on the same enterprises at any rate, the benefits are fairly constant. Most of the systems however do not leave much choice to the enterprises entitled to concessions as they are confined to capital equipment, as in Tanganyika, or at the most to capital equipment or certain units of manpower as in India, Pakistan, Ceylon and Burma.
(d) **Mining Income.** The position as regards the treatment of mining in Tanganyika has already been dealt with fully in the previous Chapter. It may, therefore, be profitable to compare it, straight away, with the systems such as Canada, United States, etc. The usual practice under the Canadian system is to grant tax holiday for three years to mining concerns. In addition, the enterprises are allowed full write off of exploration expenses with a right of carry forward at any time in addition to the right of depletion allowances representing one-third the profits of the mines. Further, there is a right of writing off pre-production expenses (which consist of total pre-operation expenses reduced by exploration expenses together with depreciation of plant and machinery) at the rate of 25%. The Tanganyika system departs from this practice in so far as there are no depletion allowances which are hotly contested in the countries where they are found. The full write off of exploration expenses is limited only to certain minerals and there is no tax holiday for mineral profits. There is however a special reduced rate of company tax for mining companies. The system of taxing mining concerns also differs from the United Kingdom system in some ways. First, the annual allowances on capital expenditure are not based on the remaining expected life of the mine but are by reference to the output during the base period. Second, on the sale of the mine although the operator or prospector selling mineral rights is liable to pay tax on balancing charges, the purchaser gets his allowance on lower of the vendor's book value or purchase price. Finally, the expenditure incurred on the site value is not allowable if the mine is in the United Kingdom but it is if outside the United Kingdom.

In examining these special provisions for the deduction of expenses, it would perhaps be worth bearing in mind the special exploitation tax on such sources of income as mining, agriculture, forestry, cattle raising,
fishing, petroleum in Angola where income from these sources may be assessed on the basis of the tax on exploitation rather than usual income taxes so long as such taxpayers are engaged in the production and processing of local raw materials.

(e) Settlements. This feature is again a British heritage in the East African tax system and may best be compared to the British income tax system and its treatment of settlements. In Britain the income from settlements by the parents on their children is taken to be that of the settlor in the same way as in East Africa. The position as regards the accumulation of income from settlement funds by a settler on someone (parent-infant case excluded) is the same as in East Africa, i.e. it is irrevocable and the settlor has no right over the settlement funds, except that it has to be for more than six years. One feature of settlements which is lacking is the treatment of annual sums payable under an irrevocable covenant for a period not less than six years to someone who is not the covenanator's infant child as an annual charge of the payer, and tax free income of the payee. The most common case of such covenants is the one for contributions to a charity but it is altogether absent from the East African income tax system.

(f) Pensions and Provident Funds (Superannuation Schemes). The provident and pension schemes as well as the retirement benefits are additional arrangements to the usual life assurance allowances for inducing private savings. In the absence of a fully comprehensive national insurance scheme in Tanganyika, at present these schemes provide reliefs in respect of savings for retired individuals. These schemes are again typically British in character and as they came to be introduced in East Africa whilst a comprehensive national insurance scheme was not operative in the United Kingdom, they are
only comparable to the private schemes of pensions in the United Kingdom to-day. In general these schemes lay down certain conditions on the basis of which they may be approved by the income tax commissioners; there are general provisos as to the amount of contribution that can be made by an employee and by the employer respectively (or by a self-employed or by an employee not participating in a pension scheme of his employer) for the purpose of obtaining contributions as allowances deductible from taxable income, for the assessment of income on receipt of pension, etc. for the determination of capital portion of the annuity sum or for the amount that can be commuted, rules for returned contributions of pensions, etc. The pensions funds are established by allowable contributions of the employer and employees (provided they are payable on the same basis as pension schemes of similar government services); provident funds apply in cases where savings funds are much too small to be practicable as pension schemes and only employers' contributions by self-employed subject to a maximum limit and the annuity benefits (exclusive of capital element in it) are taxable although the income derived therefrom by the investing companies are not taxable. These schemes differ from the British schemes in some respects. First, the provident fund contributions are not allowable deductions from the tax assessment, nor are the proceeds of the funds on retirement taxable as in East Africa. Secondly, the amount of commutable funds in pension schemes cannot exceed three-fourth in the United Kingdom, whilst in Tanganyika this is permissible provided the usual tax is paid on the non-tax-free portion of the pension funds on maturity.

(g) Non-Residents' Income. The non-residents deriving income from Tanganyika obtain personal reliefs as indicated in the previous Chapter in Section 5 D; the United Kingdom residents not resident in Tanganyika but deriving income from Tanganyika obtain primary allowances, other non-
residents being entitled to secondary allowances. This is typical of East Africa as only a few of the income tax systems of the world offer such reliefs to non-residents deriving income from their country except perhaps complete exemption of income of non-residents derived from movable property in Denmark. Further, non-residents deriving income or dividends from companies resident in Tanganyika from the income of the year 1962 onwards are paid these dividends net of the standard rate of tax. These are treated as "franked", i.e. they are not grossed up for tax purposes, nor is the taxpayer allowed any off set of the tax deducted. This system is worth comparing with the Indian system and its origin. The particular arrangement in India arose from the difficulty of obtaining requisite information of non-resident shareholders of the companies not resident therein but operating in and deriving profits therefrom. The conceptual issue here is to evolve an acceptable rate of deduction whereby the recipients of the 'franked' dividends is higher than that paid by the residents, the reasons therefor, such as the penalty for the remittance abroad of profits, ought to be made clear.

(h) **Personal Tax.** The typical feature of personal taxes in Tanganyika is that they are imposed upon the lowest income groups on both their money income and subsistence income. Although they have a progressive rate structure generally, they differ a great deal from income tax proper in respect of rate, structure, administration, etc. and ought to be distinguished as "poor man's income tax" from income tax proper or "rich man's income tax". Although in origin they are comparable to the land tax or "distress levy" on the farmers exempt from income tax in countries like India prior to 1947, they are at present distinct from the flat rate land tax or presumptive tax on income as they are imposed on the basis of evidence of actual income. Personal taxes are also being imposed in Nigeria, Uganda and the New Zealand
dependencies such as Papua, New Guinea, Tonga and in Fiji. In Uganda, it is more of a local rather than central government autonomy to impose and raise personal taxes. The personal taxes are however a little more sophisticated as they are imposed on the basis of certain ingenious rules as to the acreage and fertility of land, number of coffee trees, the amount of turnover, as the case may be and also make some personal allowances such as education expenses incurred by the taxpayers on children's education. In Nigeria, personal taxes have two distinct features; first, they have been collectable on regional basis and until recently applied only to the Africans, the non-Africans being liable to income tax proper on Federal basis; secondly, in the Northern region of Nigeria personal taxes have been, until now at any rate, a combination of tax on income and capitation tax based on the wealth of cattle per head, etc. With the merging of personal taxes and income taxes to avoid double taxation of Africans who lived on the regional frontiers, only one distinct difference of the Nigerian personal taxes from the Tanganyikan personal taxes remains. This is that those who are liable for income taxes are not at the same time liable for personal taxes as they are in Tanganyika with no right of offset. In Tonga, the poll tax paid is allowed as a complete offset against income tax liability; in Papua and New Guinea, there is presumably no right of offset but there is a limit to the maximum poll tax that can be imposed. In Fiji, it is known as a secondary graduated tax and is wholly a substitute for provincial rates.

The discussion of personal taxes so far makes it sufficiently clear that such a tax makes a large section of the population liable to the payment of tax on income and displaces a general belief that the exemption from tax on income granted to the lowest income groups in less-developed countries like Tanganyika is relatively larger than in the developed countries. Such devices no doubt exist in other countries not mentioned here so far but
perhaps under a different name and subject to slightly different rules. Thus, in Uruguay there is a basic tax of 10% on the annual net income (with complementary tax rates ranging from 5% to 10% on income above 5,000 pesos) and is applicable to all single persons. Again, in the German Federal Republic income below a certain amount is subject to a certain minimum rate of tax. The feature of these systems worth noting is that although they do not make the minimum income earned free of tax as a 'subsistence minimum', in so far as such income is taxed it takes into consideration the individual responsibilities (viz. whether a taxpayer is single or married) in deciding to whom such a tax would be applicable.

In Tunisia taxpayers over 30 who are single, widowed or divorced and without children are required to pay an additional tax, referred to as sur tax, at the rate of 30% of the basic income tax. Although the explicit purpose of such a tax levy is not to take account of the individual responsibilities of those with very small incomes, it is nonetheless true that in terms of relative burden on different taxpayers it does become lighter on such income-recipients.

(i) **Local Government or Urban House Tax.** The urban house tax applies to those who are not liable either to native rates or to town council rates on site or annual rental value. In contrasting the urban house tax with the two other forms of levies namely the native or district council rates and the town council rates, a word or two ought perhaps be said on the district council rates and town council rates each.

The main source of district council revenue is not only the rates but also a produce cess. Now cesses are normally substitutes for income taxes on agricultural income or for land taxes in countries which neither have a well-developed system of taxing all sources of income nor land tax department. In countries where agricultural income is however fairly
effectively taxable - as is the case under personal tax in Tanganyika - such taxes continue to exist only at local juridical level as land taxes. At district council level, they are therefore supplements to the personal rate which are basically levied not on the evidence of ownership of property such as land but on 'poll'. These supplements are not however taxed at juridical local level in the context of Tanganyika as they are not imposed on all different produces of land as would be the case when cesses are meant to be substitutes for level taxes. Personal rates are therefore local taxes on income, whilst cesses are local taxes comparable to export taxes at central government level.

The town council rates are based either on the site values, or where the site valuation has not been possible so far on the basis of rental values. Most town councils impose rates on valuations which are based on only the value of unimproved land, regardless of structure of land. The valuation is on the basis of market value of the freehold land every six years; as for leaseholds land value is ascertained by deducting the replacement cost of the improvements from the total value. The rental values are based on expected rent of property as is prevalent in Nigeria, but this pre-1955 feature of rates is diminishing very rapidly in Tanganyika. In such a situation we can infer that these rates are local property taxes as distinct from local income taxes. This inference is reinforced by the fact that this levy is liable to be further supplemented by an extension of the district council rates on differential basis.

The urban house tax falls between the district council rates and town council rates but as they are based on the occupation rather than ownership of land, mostly by squatters (in whom there can be no ownership of land), they are more akin to taxes on presumptive income. They are thus once again supplements to the central government income tax or personal tax.
It is possible that with the merger of these urban non-town-council areas with the district councils the urban house tax would come to be replaced by a personal rate. If this is so, such personal rate would be based on the presumptive income of the occupier of land rather than on the ownership of land as is the case with the town council rates.

C. Problems Raised by the Present Form of Income Tax. This comparative analysis of the existing income tax gives rise to certain definitional problems in the existing framework, economic as well as administrative, of the country. Some of these problems have been prevalent in public opinion whilst others have not at all been given thought. We can only take a few examples here of the kind of problems raised.

First, there is a controversial question as to whether the system of taxing dividends at the source and granting off-sets against aggregate liability of the tax-payers is the right one and whether in view of the shortage of administrative staff the American system of not granting offsets for tax deducted at source is not more appropriate. With the current trend in favour of the American system, it is probable that in due course this particular definitional problem will be resolved and remain one of only academic interest. Second, a strong body of business opinion appears to dispute whether the development allowances granted for the purpose of undistributed income tax should not include the investment in the purchase of stocks of goods. This definitional problem has arisen purely as a result of the alleged demands of the business community carrying on business as controlled private limited companies rather than from the experiences of the other countries system of undistributed income tax. Third, the elaborate nature of the scope of pension schemes has given rise to the problem of seriously considering the definitions or by reducing the
size of the private pension schemes falling under the income tax department through the establishment of a nation-wide scheme. Fourth, the existence of investment allowances for the purpose of encouraging certain 'desirable' economic activities in the place of specific tax holidays provisions gives rise to the problem as to whether both forms of allowances are at all conceptually comparable. To illustrate, whilst the pre-conditions for the privilege of tax holidays can be multiple (e.g. import-substitute or export-producing goods, use of some minimum labour, use of capital equipment, location in certain limited areas, limited number of years of exemption), it is virtually impossible to lay down multiple pre-conditions for the privilege of depreciation or investment allowances. Fifth, the fact that the income that does not fall into the net of income tax proper is made taxable under personal tax rather than let it escape tax on 'humanitarian' grounds and reduce taxable capacity of the economy does indeed raise the problem in the context of Tanganyika whether the system ought not, perhaps, to make allowances for special responsibilities of taxpayers. To say that there should after all be a provision for tax free 'subsistence minimum' is one thing but to say that such subsistence minimum be taxed at uniform rates irrespective of how many people are going to depend on the given subsistence minimum is quite another. It would be worth considering if the subsistence minimum ought not to be taxed at different rates depending on the status (viz. single or married, childless couple or not) of the recipient of the subsistence minimum. Sixthly, taxation of co-operatives may raise its own problems. The main forms of co-operative societies in Tanganyika at present are agricultural producers' co-operatives but there are clear trends in the direction of establishment of consumers' and wholesellers' co-operatives of which there are few and far between in existence now in Tanganyika. The fact that co-operative societies are conferred with
certain tax exemptions is bound to give rise to the problem of defining the criterion on which such exemption is to be given.\textsuperscript{17} Thus, if exemption is to be restricted to producers' associations only rather than be extended also to cover consumers' co-operative societies, the scope of the productive activity would have to be restricted as it may be arguable that the producers' co-operative society which concerns itself beyond the use of raw materials belongs to the same category as consumers' co-operatives. The difficulty of distinguishing the earnings from dealings in primary products from those in the processing of raw materials would then be revealed as the price offered to the producers of primary products would be influenced by the existing demand from the co-operative associations. Ultimately a decision would have to be reached whether or not the criterion for tax exemption should be that the association is one whose primary objective is not to strive to increase the specific productivity of capital and further that its membership is open to one with similar interests.

It can clearly be seen that the sort of definitional problems illustrated here are not liable to radically alter the nature of the existing income tax system as for instance some of the problems analysed in Part I could possibly do. Nor can it be said that these examples of definitional problems exhaust the problems raised by the comparative analysis of the existing system. It is nonetheless important to bear them in mind while appraising the system.

D. Conclusions. From the preceding comparative review of the system of taxation in Tanganyika, one can safely conclude that although the system has its own particular features, it is, nonetheless, similar to the British or Dominion system of income taxation. It appears that rather inadequate attention has been paid to the systems of less-developed countries where tax
policies are generally related to the policies of economic development. This is quite indicative of the fact that the external authority was perhaps much too conservative in familiarizing itself with systems of taxation found outside Britain and the Dominions and applying some of the typical features of such systems to suit the requirements of Tanganyika. Even the independent government appears to have inherited such conservatism or else it has been in power for much too short a period to indulge in incorporating some of the typical features of taxation alien to its own.

This comparative review will however have served its purpose if our acquaintance with some of the unique features of the systems of taxation alien to our own will help us relate them to our recommendations of changes.

Section (3) Inter-territorial Problems in East African Income Taxation.

There are reasons for believing that the East African inter-territorial system is unique in its fiscal arrangement. We might proceed to rehearse some of the problems in connection with the derivation principle in relation to the income tax in a number of countries having a federal fiscal system. If it were true that the three East African countries were united federally, there would be a good deal of point in making this kind of comparison. However presently there is no federal structure in East Africa, yet the federal governments co-operate in individual matters relating to taxation of income of companies and individuals. In this Section our aim is to deal more fully with some of the principles of allocation and look at some problems which the East African system generates.

B. Definition of Revenue Allocations and Its Basic Components.

(a) Allocation of Revenue. It is an acceptable principle of taxation that each country or region has a right to levy tax on persons resident within its own borders on the total income of such residents, as well as on the non-residents on the income originating within its borders. Although
taxes are levied on this basis in practice, they are further subject to
the Double Taxation Relief or some form of unilateral relief usually in
vogue. It may be helpful to examine what are the conceptual bases of
the fact that both the country of origin of income as well as the country
of residence of the individual who receives income originating abroad
because it might provide the principles on which the system of unilateral
or bilateral reliefs is based.

If tax is defined to include a contribution that an individual
enterprise seeking to mobilize economic resources makes, then the country
of origin of income is entitled to levy a tax thereon on a quid pro quo
basis. If however tax includes contribution that the individual consumers
of government services should make, for the personal satisfaction they
derive from its consumption, according to their ability to pay, then the
country of residence of an individual is entitled to impose tax on the
total income of such an individual at progressive rates. Thus, if a
Tanganyikan resident invests abroad say in Great Britain and is also
deriving his normal earned income from Tanganyika, he ought to pay proportional
income tax for the use of productive government services to Great Britain and
progressive income tax on his total (domestic and foreign) for the use of
consumer government services and proportional tax on all government services
which he uses in order to earn his income in Tanganyika. If however it is
a company which is investing say in Great Britain and is also deriving income
from within Tanganyika, it will pay proportional rate of tax on both domestic
and foreign income, but its shareholders would pay progressive tax rate on
their total income to the country in which they are resident.

This sort of conceptual treatment of the subject matter leads one
into the age-old problem of Kuznetsian distinction between the business tax
payments and personal tax payments and their expenditure equivalents. This
is however a practical difficulty and not a conceptual one and it, therefore, remains a sound principle that income in both the country of origin as well as that of recipient's residence should be taxed subject to approximate adjustments by arbitrary rates and the Double Taxation Relief Agreements.

(b) Components of Allocative Basis: These are taxable income and rates; taxable income in turn depends on residence and origin of income, hence we deal with each separately.

Residence is a legal concept which has somewhat similar characteristics in various parts of the Commonwealth where company law and private international law practices are uniform. The origin of the concept of residence in East Africa is in the English legal system and residences of individuals and companies are by no means based on the same criteria.

The residence of an individual depends on whether or not he has his home in the country concerned and he is present there. Even if he has no home, he may still be a resident of a country if he is either present in the country for a period or for periods exceeding in all six months in a given year of income or if he is present in the year of income in each of the preceding two years of income for a period averaging over four months.

For the purpose of inter-territorial finances, where a person is resident in more than one of the East African countries, he is taken to be a resident of the country where he has been for the longest period during a given year of income.

A company is resident in the country where the control and management of its affairs are exercised. This is not considered clear enough and the question of where the real control and management are situated is determined in each case by reference to the circumstances of each company. For this purpose, although registration of a company in one country is not a sufficient test of residence - for the establishment of a registered office in a country
and compliance with other statutory obligations is not adequate — it is a
circumstance to be taken into account. A company can have double
residence only when its general affairs (such as board meeting and executive
decisions) are simultaneously dealt with in more than one country. The
place and control by shareholders is not a material fact in ascertaining a
company’s residence.

The 'Origin of Income' is a somewhat difficult concept. Prima facie
the place of origin of income and the residence of a company or an individual
are identical. An exception arises where a company resident in one country
has either a permanent establishment (i.e. a branch, management, factory or
other fixed place of business, in which case the profits of such an
establishment are said to originate in a place where it is located) or a
resident agent with authority to conclude contracts on its behalf. Agency
is not a permanent establishment unless the agent has, and habitually
exercises, a general authority to negotiate and conclude contracts on behalf
of the business or has a stock of merchandise from which he regularly fills
orders on its behalf. The carrying on of business through either a bona
fide broker or through a subsidiary company does not constitute a permanent
establishment.

Wherever a business is carried on through a permanent establishment
profits of such establishment are computed as if it were a separate
establishment dealing at arm’s length with the company resident elsewhere.

The rates of tax which are progressive for individuals and fixed
proportions for companies are at present identical throughout the three
territories but in theory they can be at variance and by virtue of such
definitional characteristic of rates may give rise to certain problems to
be examined in sub-section(c)(iii) below.
(c) Problems. In the context of East Africa three specific problems arise with this principle of derivation in the allocation of revenue. The first two relate to companies and the third to individuals. Possible non-uniformity in rates raises the fourth problem.

(i) Companies: First, the existing definition of 'residence' of the companies is somewhat uncertain and in the context of East Africa where the rates of tax are identical in practice, and the concern of the tax commissioners is with the total tax yield rather than total yield of each territory, no occasion arises when the interpretation of 'residence' for allocating company tax to each territory by the tax commissioners is challenged.

Second, the 'origin of income' is difficult to ascertain even if the residence of a company can be determined on somewhat consistent basis in the first instance because there is the difficulty that the operations of the companies normally out-run state boundaries. There are two ways in which a company resident in one country but having a permanent establishment elsewhere can out-run its state boundaries: firstly, by having a permanent establishment in a country where it is not resident; secondly, by treating such an establishment as completely distinct from the principal resident company elsewhere. It is the second of these ways which gives rise to conceptual problems of a metaphysical nature. Such tax metaphysics necessitates the Federal Governments themselves to retain the company tax collected within a closely knit political federation but as East Africa is not a political federation, and further as the size of the budget of the East African Common Services Organization is by no means as large as that of the Federal Governments in the Federal countries of Africa, company tax has to be allocated and gives rise to difficulties. To illustrate, a company resident in Kenya but having a permanent establishment or a resident agent in Tanganyika is liable to pay the Tanganyika tax on the profits made
by the permanent establishment in Tanganyika, i.e. on the income originating in Tanganyika. The conceptual problem is, whether it is only the activity of the agent or the permanent establishment plus the proceeds of sale itself which gave rise to income originating in Tanganyika or the overall activity of the resident company in Kenya and its permanent establishment in Tanganyika plus the proceeds of sale which generate income in Kenya. The activity of the company resident in Kenya most usually consists of manufacturing the goods and sending it over to the permanent establishment and the question is what exactly is it that induces the resident company of Kenya to carry out this manufacturing activity? The most probable answer obviously is that its sales expectations in an import-duty-free country like Tanganyika do so. This permanent establishment likewise bases its activity not only on the expectation of sales within Tanganyika itself but also on the probability of supply of such goods from Kenya even though the whole transaction of piling goods and selling them occurs within Tanganyika itself. The problem one is up against is therefore that of ascertaining what percentage of total manufacturing activity of a company resident in one East African country but having permanent establishment elsewhere is induced purely by expectations of duty free sales elsewhere; and if so, what should be the basis of allocating the profits as originating in one particular territory. One body of opinion has gone so far as to say that the whole of the profits made by a resident company plus its permanent establishment elsewhere could be said to originate in the country with which it traded, i.e. where sales took place. The present solution to this problem is that this would amount to $\%$ of the manufacturing and finance companies total profits all over East Africa and are to be divided equally. Clearly, there are various alternative ways in which allocation can be made and an illustrative example of the extent to which the amount allocable to each territory may
vary is given in Appendix 'D' below. Our concern in this Chapter is not however with the extent to which the present allocative basis is satisfactory or the extent to which it would be satisfactory if the allocation is made according to the opinions or demands of the various bodies referred to so far.

(ii) **Individuals:** This third problem relates to the individuals resident in one country but deriving income from all over East Africa and is mainly two-fold. It is first of all thought that the question of an enterprise located in one country but being induced with the expectations of duty free sales elsewhere can be extended to the non-corporate enterprises in manufacturing, finance and wholesale sectors. Secondly, it is thought that the basis of allocating revenue under the old Commonwealth Relief basis (whereby half the credit for tax paid in the place of origin of income is given by the country of residence of the taxpayer) is somewhat archaic and should be replaced by a modern form of Double Taxation Relief agreement which confers a primary right on the country of origin of income. If the second problem is implemented according to what is felt in favour of having a Double Taxation Relief agreement in the place of the Commonwealth Tax Relief agreement, its immediate implication is that the place of origin of income will have to be ascertained with more positive certainty in the case of individuals as for companies. It reinforces the first problem and its importance in relation to the place of origin of income of a non-corporate enterprise engaged in manufacturing, finance and wholesale sectors of the economy.

(iii) **Rates:** A taxpayer can be liable to one of the three East African types of income: income accruing in or derived from a country where he is resident and where he is being assessed; income derived from any East African country irrespective of the country of origin of income and of
residence of the assessee; and income derived from as well as the income actually received (irrespective of its place of earning) in the country of his residence. As for the case of income derived from a country of residence, no question of imposing a different rate of tax or of allocating the tax revenue arises as the country of residence as well as the country of the origin of income coincide and no other country has a right to levy the tax on him. As to the country of origin of income, the country of residence as well as the country of origin of income each will assess him, the former on total income irrespective of the country of origin and the latter on the income of the non-resident originating within its own borders each at its own respective rate subject to Double Taxation Relief if any. Finally as to the actual receipts of income, the taxpayer will be assessed on his actual receipts at the rate of tax prevailing in his country of residence; he will by then have been assessed on the income that originated in the country of his non-residence.

Each of the East African territories are under the Double Taxation Relief agreements under which not only are the tax rebates to be given to the taxpayers but the joint assessment is to be carried out to avoid the duplication of work. Hence, the form that a joint assessment may take place in each case under the variable rates of taxes is to be determined and thus nine different possibilities arise as indicated in Appendix 'E'.

Clearly, as not only are the remittances from one country to another difficult to ascertain under the common banking system all over East Africa but also the practice of taxing income earned abroad and received by individuals in East Africa discontinued, the inter-territorial incomes have to be assessed on either the basis of income of origin or on the total income-earnings throughout East Africa. If the former approach is followed, then the differences in rates of taxes in the other territories are immaterial.
and assessment is made at the rate of tax prevailing in the territory of the origin of income; but there is the difficulty at practical level when the tax is to be deducted at source from the dividends of the companies on the basis of the rate at which the incomes from which the dividends are distributed and the income of the company cannot be determined until at a later stage when the amount of trading in a given territory is ascertained. If the latter approach is pursued, the tax is levied on the income of the resident irrespective of where it arose but when the tax assessment along this basis is subjected to Double Taxation Relief it becomes obvious that the tax assessing authority of the resident individual will have to recoup the other territory (of origin) in respect of the income that the assessee derived as a non-resident from the other territory, hence they ought, by way of precautionary measure, lest their own collections happened to be inadequate, to levy taxes at the higher rate of the other territory. Thus practical consideration (that of deducting tax at source out of dividends) in the former case discourages its acceptance whereas reinforces the need to accept the latter although conceptually both are equally sound (see further Appendix 'E').

C. Conclusions: It is often the case that the lack of understanding of the component parts of the principle of derivation which intensifies the problems which are inherent in any principle of revenue allocation. The preceding treatment of the principle of derivation has, we hope, simplified some of its complexities and will help in reducing friction as between the East African territories especially at the time when it is increasingly being felt that a supranational body such as the East African Common Services Organization with no political power is liable to cause destabilizing effect on the close unity and anticipated formation of the East African Federation.
A company resident in Kenya has a permanent establishment in Uganda and Tanganyika. The goods are manufactured and transferred to the other two territories permanent establishment for sale there. The cost of the raw materials is £450 but there are three possible prices at which they can be transferred to Uganda and Tanganyika as tabulated below:

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<tbody>
<tr>
<td>Cost of Raw Materials in Kenya:</td>
<td>450</td>
<td>450</td>
<td>450</td>
</tr>
<tr>
<td>Profits on Manufacturing</td>
<td>50</td>
<td>100</td>
<td>Nil</td>
</tr>
<tr>
<td>Price of Transferred goods</td>
<td>500</td>
<td>550</td>
<td>450</td>
</tr>
<tr>
<td>Sale Price in Uganda and Tanganyika</td>
<td>600 (650)</td>
<td>600 (700)</td>
<td>600 (600)</td>
</tr>
<tr>
<td>Profits made in Uganda and Tanganyika</td>
<td>100</td>
<td>50</td>
<td>150</td>
</tr>
</tbody>
</table>

The degree of manufacturing activity occurring in Kenya may vary to the extent that its profits thereon may be zero, £50 or £100. The variations in the degree of manufacturing activity may arise purely through the geographical conditions or through the expectations of sale of goods (amounts therefore shown in brackets beside the figures of actual sales in the remaining two territories).

The profits arising from the location of the manufacturing activity in Kenya and the transfer of such goods therefrom to Uganda and Tanganyika may be thus zero % or as high as 66⅔% of the total profits (i.e. £100 out of £150 in column II), hence the variation is great. The material question is of course what fraction of the manufacturing profits in Columns I and II (£50 and £100 respectively) is the result of duty-free sales to the extent of £600 net of the fraction of the profits in the other territories (£100 and £50 in columns I and II respectively) induced by the adequate supply of
of goods. This is what 3% of the total profit of £150 or tax thereon is meant to represent. The accuracy of the rule of thumb would depend primarily on the correct selection of the Column I or II in the light of the conditions prevailing in East Africa and secondly correctness of arbitrarily assigning the percentages to the inducement of duty-free sales and certainty of adequate supply.

For illustrating the demands made by a body of the opinion for the allocation of tax revenue to a territory either in proportion to the companies' sales in each territory or in relation to the whole of the income secured by a company of one territory by trading with a company of another territory, the following example may be given:

Say a company manufactures goods in Kenya where it is resident from the raw materials worth £600 and makes a profit of £100 thereon. It does so by transferring goods worth £150 and £230 respectively to Uganda and Tanganyika and retaining goods worth £320 in Kenya. The total sales amount to £900 of which £400, £200 and £300 are in Kenya, Uganda and Tanganyika respectively; there is no trading stock left over.

Those who claim that each territory should be credited with the whole of the income secured by a company by trading with it will allocate as follows:

- **Uganda:** sum of \[100 \times \frac{150}{700}\] and \[200 \times \frac{200}{900}\]
- **Tanganyika:** \[100 \times \frac{230}{700}\] and \[200 \times \frac{300}{900}\]
- **Kenya:** sum of \[100 \times \frac{320}{700}\] and \[200 \times \frac{400}{900}\]

Those who suggest that the revenue obtained from tax on the incomes of manufacturing companies should be attributed to the territories in proportion to the companies' sales in each territory would attribute £300 to K: U: T:: 400: 200: 300 with similar results.
APPENDIX 'E'

Take three different possibilities that may arise for individuals and companies resident in East Africa between Kenya and Tanganyika, viz.
(i) where income derived from Tanganyika is £300; (ii) where income of a Tanganyika resident wherever derived from is £500; (iii) where income derived from and received in Tanganyika is £400. Further, there are three possibilities of the rates of taxes in both the territories: (a) Kenya rate may be equal to Tanganyika rate; (b) Kenya rate may be more than the Tanganyika rate; (c) or Kenya rate below Tanganyika rate.

Under (i):

(a) Tanganyika will assess him for £500 to be made up of: £300 at T rate and £200 at Kenya rate.

(b) Same as (a): Tanganyika resident pays on his own lower territorial rate at lower rate on income derived from Tanganyika and on his Kenya income at a higher Kenya rate.

(c) Same as (a) and (b): Tanganyika resident pays on his high territorial rate on income derived from Tanganyika or lower Kenya rate on his income derived from Kenya.

Under (ii):

(a) Tanganyika will assess him for £500: £400 at the Tanganyika rate less Double Taxation Relief on £50 of his Kenya income at K=T rate. Therefore, £350 at T rate and £150 at K rate.

(b) £400 at T rate less Double Taxation Relief on £50 of his Kenya income at the lower rate. £200 at K rate less £50 at Kenya rate plus excess of Kenya rate over T rate.

(c) £400 at T rate less Double Taxation Relief on £50 of his Kenya income at lower K rate. £200 at K rate less £50 at Kenya rate.

Under (iii):

(a) £500 at T rate less £200 Kenya (Double Taxation Relief) = £500 T rate less 100 K rate = £400 T rate, £200 K rate less 100 K rate = £100 K rate.

(b) £500 at T rate less £200 K or T rate (lower of the two) = £400 at T rate £200 at K rate less £100 T rate = £200 K rate less £100 at T rate.
(c) £500 at Tanganyika rate less £200 (Double Taxation Relief) with
K rate below the T rate.....
£200 at Kenya rate less £200 at Kenya rate = get her share of tax on
(Double Taxation Relief) £100 at Kenya rate.

Suppose a Kenya resident company 'trading in' Uganda and Tanganyika
derived profits of £2000 and £3000 from each of these territories respectively.
It distributes £2100 in Uganda and £1400 in Tanganyika thereby retaining £1500
in its office in Nairobi. As the company is resident in Kenya and the tax
is levied, Kenya assesses it for £5000 at Kenya rate if all the territorial
rates are equal; if Kenya rate exceeds the rates in the other two territories,
the company is assessed at the Kenya rate irrespective of where the income of
the company arose; if Kenya rate is below the other two rates, all tax is
paid at higher rate again irrespective of the origin of income. Thus,
when the dividends are distributed, the dividends are, for the purposes of
determining the rate of tax deductible, assumed to have been derived from
Kenya; these dividends (gross) will be included as their non-resident
incomes, when the shareholders in Tanganyika and Uganda are assessed as
residents at their own local rates. These shareholders however get the
Double Taxation Relief for tax paid on income derived from Kenya (if any).
The remaining tax which is a pure company tax on £1500 will be divided in
proportion to the income derived from each territory thus: Kenya gets
nothing.

\[
\begin{align*}
\text{Tanganyika:} & \quad 1500 \times \frac{2000}{5000} \\
\text{Uganda:} & \quad 1500 \times \frac{2000}{5000}
\end{align*}
\]

As for the income paid by the shareholders, the final position will
be: Uganda gets tax on £2050 @ Uganda rate and on £50 @ Tanganyika rate;
Tanganyika gets tax on £1500 at Tanganyika and on £1000 @ Kenya rate.
Tax deducted in Kenya at Kenya rate in the first instance (or at the higher rate if the other territorial rates from which income is derived are higher), will be offset against the tax payable by each shareholder in the individual territories and the individual governments will be reimbursed by the Kenya government appropriately; they will similarly get their share of the company tax from Kenya.

If however the proportion of the profits derived from each of the three territories were as follows, the position would be different. Suppose the company derived £1500 from Uganda, £1200 from Tanganyika and £2300 from Kenya and distributed £2100 in Uganda, £1400 in Tanganyika, £1000 in Kenya and retained £500 in Nairobi. Further that Kenya rate is higher than the identical rates in Uganda and Tanganyika. Tax will in the first instance be deducted at Kenya rate. When the dividends reach the shareholders resident in Tanganyika and Uganda they will have to be grossed up and taxed as: Uganda on £1800 @ Uganda rate and £300 @ Kenya rate; Tanganyika on £1300 @ Tanganyika rate and £100 @ Kenya rate; and Kenya on £1000 @ Kenya rate. Tax on retained profits is divisible as:

\[
\begin{align*}
\text{Uganda: } & \quad 500 \times \frac{1500}{5000} = \£150 \\
\text{Tanganyika: } & \quad 500 \times \frac{1200}{5000} = \£120 \\
\text{Kenya: } & \quad 500 \times \frac{2300}{5000} = \£230
\end{align*}
\]

Tax at Kenya rate has already been deducted on the whole of £5000 of the taxable profit income. Hence tax on £1800 plus £150 at the Uganda rate and on £1300 plus £120 at the Tanganyika rate will be reimbursed from the original collections in Kenya at the Kenya rate.
The main sources of information, generally used in this study, unless any other studies are mentioned specifically, are the publications of the United Kingdom Inland Revenue, Income Taxes in the Commonwealth and Income Taxes Outside Commonwealth, H.M.S.O., London, 1961-62. The latter deals with the U.S.A., Eire, about eight different countries of Europe, Burma and Israel. Other sources of information are derived from Bibliography on Taxation in Under-developed Countries, Harvard Law School, International Program in Taxation, Cambridge, 1961, covering ninety-three countries but it is not claimed here that the conceptual analysis is based necessarily on comprehensive details of the diverse income systems the world over as the access could not be had to all the references made therein and also because they are not necessarily up-to-date. Moreover, even where further sources, not referred to in the Bibliography, were found, these did not help in making the coverage comprehensive enough owing to the language difficulty.


The origin or undistributed income tax and its modifications for the East African conditions in contrast to S. Africa and Central African Federation have been explained in the debates on East African Income Tax (Management) Bill, 1958 in the Central Legislative Assembly of the High Commission.

Taxation and Economic Development in Ghana, op.cit., Table 12.

Tax Incentives for Private Industrial Investment in Less-Developed Countries, Johannes, R. Kahaba, Report EC102, I.B.R.D. (not representing, of course, the views of the Bank or I.D.A.).


This proviso has been criticised by A.W. Lewis in Industrialization of Gold Coast, Government Printers, Accra, 1953.


Spicer and Peglar's Income Tax and Profits Tax, op.cit., p.276 et-seq.

Coates Commission, paras 270-289.

(14) Cf. Personal Tax in Ceylon which is a central government levy and is a tax imposed as a combination of gift, expenditure and wealth tax.


(16) We do not propose to enter into the controversy here whether or not cesses or export taxes are direct taxes or taxes on income. See however introduction to Part I above.


(19) This question is of academic interest only unless Tanganyika has her own currency and a different rate of tax on income. It may however become a pragmatic discussion in the light of threat by Tanganyikan government to impose tariffs on Kenyan and Ugandan imports and establish her own currency without necessarily withdrawing from the Common Services.


(21) Normally it is the country of residence that charges excess of the difference between its own rate of tax and the rate in the country of origin of income to its resident taxpayer; but in this case as joint assessments between East African countries occur the country of residence in practice hands over, as it were, the respective tax to the territory where income originated.
PART III

APPRaisal and RECOMMENDATIONS OF CHANGES
CHAPTER EIGHT
APPRaisal OF THE INCOME TAX SYSTEM

Section (1) Introduction.

The purpose of this Chapter is to appraise the actual system of income taxation that has been in operation in Tanganyika since the early 1930's. One of the questions we shall have to deal with is the extent to which the authorities may or may not have been hampered by lack of suitable information in formulating their tax policies.

This is dealt with in Section (2). In Section (3) we seek to analyse statistical data which could be made available for appraising each of the income tax policy objectives, viz. income redistribution, growth and stabilization. In Section (4) we deal with the income redistribution objective with the help of what documentary evidence there is available on the scope of the objective. In Section (5) we attempt to appraise the growth and allocation objective as defined in various policy statements but subject to some serious inadequacy of the statistical data. In Section (6) an appraisal of the stabilization objective is attempted though considerable difficulties are encountered as not only are there statistical difficulties, as in the case of growth and allocation objective and partly also in the case of income redistribution objective, but there is also some difficulty in interpreting the exact scope of the objective in terms of static economic theory. In Section (7) the revenue objective or what may alternatively be called the taxable capacity of the economy with respect to taxes on income is appraised. Although there is not much difficulty in defining the scope of the policy objectives or obtaining requisite statistical data, there are some theoretical difficulties of measuring taxable capacity of a given form of tax; a certain degree of
success is however achieved by relying on approximate or rule-of-thumb bases of measurement. In Section (8), we deal with the way in which the operation of the three-tier inter-regional fiscal system, its recent working mechanism through Raismen proposals, with respect to taxes on income has affected various policy objectives as between the regions. Finally, in Section (9), we sum up our conclusions and attempt to define the present policy objective of the government in relation to taxes on income.

Section (2) **Statistical Data for Formulating Income Tax Policy.**

To ensure the fulfilment of policy objectives it is desirable, even essential, that the revenue estimates can be compared in numerical detail with the actual out-turn. To do this at all presupposes a minimum level of available and relevant information. To illustrate, if income tax is to be effective in curbing excess of effective demand, income should be curtailed at the right point in time; if income from one group to the other is to be redistributed, in real terms, in the year $Y_t$, the redistributive objective is not properly served if the redistributive effect is realized in the year $Y_{t+1}$; hence; nor is it conducive for growth to begin to effectively tax the business community exactly at the time when they are seeking to expand.

Now the main information necessary for a reasonable estimation of revenue yield from income taxes is the taxable capacity of the population. Wherever a tax is based on income which is to be generated in future, i.e., is assessed and paid on current basis, it is expected that such taxable capacity can indeed be predicted. Thus, it may be said that the national income data and prediction techniques are essential in estimating the amount of income tax revenue that can be raised. These data and techniques are also useful for formulating the income tax policy, but before dealing with their usefulness in formulating various policy objectives we have to
ascertain whether or not the operation of the system so far would, in fact, lead a shrewd observer to expect taxes on income to be useful policy weapons.

A. Statistical Data for Revenue Estimation.

(a) Analytical Usefulness. The nature of the use of national income data and prediction techniques depends on the form and structure of the taxes on income. Obviously, the form or rate and structure of a tax depends on the policy functions it is meant to perform. Although we are abstracting from the analytical usefulness of suitable information for the purpose of formulating policy objectives, we are nonetheless aware of what their rate and structure are. To recapitulate, whilst most of the taxes on income in this study are progressive (with or without some reliefs for special circumstances of the tax payers such as large family) some taxes on income are proportional or even poll taxes. In form, all taxes are payable in cash. Whilst some taxes on income are based on the income of the preceding period, others are currently assessed and paid.

From this brief statement of the nature of taxes on income, it can be said that an aggregate of national income would not serve any purpose for estimating income tax revenue. Nor is the technique of prediction dispensable where some of the taxes are assessed on current basis. Taxes which are imposed at different rates on various levels of income, viz. personal and education taxes, can be ascertained only with the help of data on distribution of personal income. Taxes such as income tax proper on individuals are ascertainable by means of data on the distribution of personal income weighted by some frequencies to take account of family allowances. Local government or urban house tax is determinable by data of Census of Population classifying urban and rural population in an appropriate manner. Company taxation can be estimated by examining profits.
of companies where taxes are based on profits of the preceding year. Export taxes can be ascertained if the volume of exports and the price of commodity exported are known.

Prediction is based on a combination of trend factors such as the past growth in output, population, capital formation and exports. It is a statistical technique of extrapolating the future on the basis of the past trend; and it is the nature of the past trend which helps econometricians use the appropriate equation out of many equations available for extrapolating.

(b) Operational Usefulness of "Suitable Information." It would be a fruitful line of approach to state briefly the way in which national income data and other basic statistical information (vis., population, value of exports, etc.) became available, the form in which they are classified for various policy purposes and the extent to which the prediction technique is indeed necessary in the case of Tanganyika. We will hazard a guess as to the way in which various sources of taxes on income are estimated.

(a) National Income Data. While many of the less-developed countries have now begun equipping themselves with national income accounts of more or less sophistication, it still remains a general complaint that national income data in these countries are to some extent inadequate for the purposes of economic policy. It was not until 1945 that East African countries, in general, could lay claim to one full-time economist, so that income tax estimates were pretty much a matter of guesswork in the early stages. Tanganyika began imposing income tax by modelling herself on Kenya's experience, limited as it was, and it was not until the late 1940's that the fact that national income series would afford guide to the process was recognized. It is debatable how much of the information needed by way of national incomes ought to have become available from 1950 onwards when the statistical section
of the Income Tax Department began functioning. As we have seen already in Chapter Six, there was however a good deal of time lag arising from the administrative delay in assessments and not until the middle of 1955 did the data for the preceding but one year become available and it was not until the middle of 1958 that the data for the immediately preceding year became available covering that section of the economy which was liable to proper income tax.

The national income data became available by way of the G.D.P. for 1952-54 in 1957. These were on sectoral basis and unless the compilation of such data were continuously brought up-to-date, they could hardly be of much use for estimating income tax revenue for the following year. Fortunately, the compilation of these data was accepted by the Statistical Unit in Tanganyika with some changes such as the additional compilation of subsistence and monetary output separately, regional distribution of monetary output, etc., and these data have now been made more up-to-date.

The presentation of a statistical picture of the main economic aggregates a year in advance of the actual national income estimates came to be recognised as an aid to formulating budget policy. Consequently, the government began to publish an Annual Budget Survey in 1956/57. First of these Budget Surveys was in a pretty crude form because it only contained some scattered data on Export and Import Trends, Price Indices of a few consumer goods and the figures on components of revenue and expenditure summarised from the Financial Accounts. Budget Surveys from 1957/58 are a little more comprehensive as the national income data on the basis of G.D.P. became available by then for a better dissection of the economy. It will be seen that these data are still inadequate for a complete social accounting framework. For instance, national income by income and product
approach has not been computed as yet; no reliable data on consumer expenditure are available as savings cannot be ascertained and the consumption figure is derived as a residual by deducting investment, exports, etc. from total G.D.P. Moreover, there are no data on personal incomes and their distribution covering the economy as a whole.

Population Censuses began to be made in the late fifties. The first (only) complete Census took place in 1957 and results have been compiled in quite some detail. These results have been projected for following years in global terms rather than in terms of various Tables under which the results of the original Census were classified and are useful in a very limited number.

(b) Problem of Prediction. The nature of the prediction required for estimating revenue would depend on the revenue of the financial year for which the estimation is based and the method of tax assessment and collection and it is with these problems that we propose to deal first. In Tanganyika the revenue estimates have to be made for the coming year for which the budget is being presented, say 1963/64. In practice however it so happens that the financial accounts for the 1963/64 year are not ready by the time the budget for 1964/65 is due to be presented. The Finance Minister in his 1964/65 Budget is therefore concerned with the outturn of the 1962/63 budget and generally revising his estimates for the 1963/64 budget in the light of further development. In so far as the details of the revenue and expenditure for the immediately preceding year are not available, it may appear that the revenue estimates for the year for which the budget is being presented may be unrealistic as the errors in estimation would be compounded. But as the estimates for the financial year which is about to end or which has just ended are revised, the possibility of compounding the errors is reduced.
Now, let us be clear as to the method of assessment and tax collection. Taxes collected on the current basis are those under the Employees' Salary Deduction Scheme, Personal Tax and a system whereby firms opt to be assessed on current rather than previous year's income basis. Thus a Financial Secretary basing his estimates on taxable capacity of the population for say 1963/64 will do so on the basis of what the national income for 1962 has already been in respect of income assessable on previous year's basis, and on the basis of what the income of personal tax payers, who pay tax on 1st January, 1964 from their income in 1963, together with data on the income of the salary earners and optional firms for 1963/64. Now in a country like Tanganyika where the system of current basis of assessment such as P.A.Y.E. covers a much smaller number of tax payers than it does in Great Britain and has no system of estimated basis of Assessment as in Canada and the United States a much smaller fraction of the total collectable tax requires to be estimated on the basis of future events than would be the case in these other countries. On the other hand, owing to the prevalence of personal tax, the national income of the personal taxpayers for the latter half of 1963 (the financial year starts in June) requires to be predicted with much precision. As personal tax is largely payable by the peasant community and the harvest season has started by June, there is not much difficulty here. Against this advantage of not having to estimate the tax yield on the basis of the future, the possibility of the introduction of P.A.Y.E. and also a rapid growth of optional firms seeking to be assessed on current basis has to be borne in mind.

From the discussion so far it follows that the amount of prediction of taxable capacity of the economy in the coming year is not required to be
as much as it is in countries where tax is assessed and becomes payable without much time lag, i.e. is payable on current basis. The present trend of developments in favour of current assessments however emphasises that prediction technique cannot really be dispensed with.

Some attempt is made in the annual Budget Surveys to predict the course of the economy to which budgetary changes are going to be applied. The great difficulty is, not surprisingly, that predictions in Tanganyika tend to be as inaccurate, if not more so, as elsewhere in the world. This ubiquitous problem is much worse for an economy where output of agriculture, which constitutes a large portion of the total output, is dependent on weather fluctuations and international market prices for exports. Moreover, the estimates of various potential resources available between various components such as consumption, investment, savings, exports and imports on which the prediction is based are inadequate.

(c) Present Bases of Estimation. It can be seen from the discussion of "suitable information" for analytical and operational purposes that there are no comprehensive data on national income by income approach for the whole economy and that the prediction technique has its usual shortcomings. Although the data covered by income tax proper are now up-to-date, they only comprehend about one-third of the monetary G.D.P. as will be shown in the next Section. Furthermore, there is also the question as to whether income tax data in respect of the preceding year can indeed be so processed in the following year as to be acceptable estimates of national income by the income approach. Even if such data can, indeed, be processed in time they would not be useful in the case of current assessments for which the national income of the previous year would have to be inflated or deflated according to
whether national income predicted for the coming year is liable to rise or fall.

Once these difficulties of processing income tax data in time and predicting the income assessable for the coming year on current basis are overcome, no further obstacles arise in estimating the yield of company income taxes as such levies are collected at proportional rates. Undistributed income tax is, however, a special case with its own intricacies as the proportion of their income that the private controlled companies do not distribute and the type of development allowances to which they would be entitled to in so doing cannot be ascertained beforehand. In the case of progressive taxes on individuals, the appropriate data would need to relate to a distribution of personal incomes rather than aggregate incomes of various factor shares, viz. gross operating surplus, wages and salaries, interest, rent and dividends, etc. or of status of income recipients, viz. company, individual, employee, etc. Distribution of income of those assessable on current basis, viz. personal taxpayers and employees under Voluntary Deduction Scheme in the case of income tax proper, would have to be predicted as in the case of companies assessed on current basis. Further, where progressive taxes on income make allowance for individual circumstances, viz. marriage or child allowance, certain weights would have to be assigned to such distribution of income. Such weights would also need adjustments for anticipated increase in the married population and birth rate where an additional child born would make taxpayers eligible for extra child allowance and thus raise the amount of allowances made.

In order to ascertain the way in which the revenue yield from income taxes, particularly income tax proper, is at present estimated, we should deal very briefly with the way in which it is being ascertained in Tanganyika
since it was for the first time introduced, i.e. 1939, and the date of first compilation of proper statistics thereon in 1950, the estimates were no more than informed guesses. The continuation of this practice was thereafter found utterly dissatisfactory.

As for income tax proper, as we have argued already, estimation was based on a "shot in the dark" to begin with and thereafter on the basis of previous year's experience until about 1958. The continuation of this practice thereafter was found utterly dissatisfactory for the years 1952 to 1954/55 and aroused a certain amount of public reaction but with little success as the authorities could do nothing more than try and clear the unassessed cases as quickly as possible. By the time the unassessed cases were cleared fairly reasonably, the amount of uncollected taxes also increased until the process of estimating became somewhat chaotic. The Committee of Inquiry in 1956/57 recommended the analysis of assessments and uncollected taxes based on the "age" of tax returns. The practice of estimation appears to have altered since the 1950's and is generally in three steps: (i) the revenue yield as compared to the previous year subject to adjustments for changes in rates and also for the growth of income; (ii) an increase arising from the clearance of some unassessed returns; (iii) an increase arising from the uncollected taxes that may be anticipated as collectible in cases such as the court order for instalments, undertaking by taxpayers to discharge liability, etc.

It is, perhaps, obvious that the national income data and the prediction technique are, to a certain extent, being used under (i) above, but even here the tendency probably is to estimate in respect of those who were assessed in the previous year and ascertain their possible actual income in the light of the total national income for the preceding year as well as total national income.
predicted for the coming year; the taxable income for the coming year can be ascertained subject to the changes in allowances to the taxpayers. There appears to be no evidence as to whether any distinction is drawn between estimation of income tax proper on individuals and that of company income tax.

In the case of a poll or personal tax estimation also begun by way of some guesswork. Regarding non-native poll and education taxes, the difficulty was somewhat similar to that for income tax proper. In the case of native poll taxes, a flat rate levy could be ascertained from the Population Census. When personal tax and graduated local rates were introduced, some difficulty was experienced as the data on the assessment of non-native poll taxes were not available and those on native taxes could not be relied upon even if they were available (owing to the non-recording of actual income of taxpayers on which tax payable was just the same). The procedure for estimating personal tax at present seems, in all probability, to be to rely on data for the previous year subject to alterations arising from adjustments in rates and growth of national income. In the case of local government tax, there appears to be difficulty in ascertaining who would be liable to such tax owing to the lack of systematic compilation of previous records on native poll taxes, identification of such taxpayers by way of taxpayers' roll, occupational breakdown of the population, and registration of property ownership distinguishing title-holders from squatters in townships. With regard to the estimation of export tax, the supply conditions have been fairly predictable in the face of possible dangers.

We can sum up the effectiveness of such bases of estimation by comparing estimates of total income tax revenue with its outturn\(^8\) in Table 35 below.
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<td>1949</td>
<td>700,000</td>
<td>1,097,064</td>
<td>910,000</td>
<td>961,486</td>
<td>50,000</td>
<td>61,889</td>
<td>810,000</td>
<td>719,000</td>
</tr>
<tr>
<td>1950</td>
<td>875,000</td>
<td>1,088,158</td>
<td>975,000</td>
<td>990,106</td>
<td>60,000</td>
<td>66,068</td>
<td>1,264,000</td>
<td>1,219,000</td>
</tr>
<tr>
<td>1951</td>
<td>1,525,000</td>
<td>1,972,415</td>
<td>1,050,000</td>
<td>1,132,299</td>
<td>65,000</td>
<td>70,130</td>
<td>1,351,000</td>
<td>1,345,000</td>
</tr>
<tr>
<td>1952</td>
<td>2,100,000</td>
<td>3,387,416</td>
<td>1,425,000</td>
<td>1,538,186</td>
<td>75,000</td>
<td>72,982</td>
<td>380,000</td>
<td>145,000</td>
</tr>
<tr>
<td>1953</td>
<td>2,675,000</td>
<td>4,269,121</td>
<td>1,775,000</td>
<td>1,722,885</td>
<td>4,000</td>
<td>11,377++</td>
<td>30,000</td>
<td>28,000</td>
</tr>
<tr>
<td>55/56</td>
<td>3,550,000</td>
<td>4,600,308</td>
<td>x</td>
<td>1,872,623</td>
<td>30,000</td>
<td>50,000</td>
<td>20,000</td>
<td>24,000</td>
</tr>
<tr>
<td>56/57</td>
<td>4,250,000</td>
<td>4,506,715</td>
<td>560,000</td>
<td>624,197</td>
<td>500</td>
<td>2,272++</td>
<td>20,000</td>
<td>24,000</td>
</tr>
<tr>
<td>57/58</td>
<td>3,500,000</td>
<td>4,066,395</td>
<td>23,000</td>
<td>64,109</td>
<td>500</td>
<td>812++</td>
<td>25,000</td>
<td>29,000</td>
</tr>
<tr>
<td>58/59</td>
<td>4,250,000</td>
<td>4,282,810</td>
<td>23,000</td>
<td>30,357</td>
<td>10</td>
<td>4,912++</td>
<td>25,000</td>
<td>21,000</td>
</tr>
<tr>
<td>59/60</td>
<td>3,900,000</td>
<td>3,780,617</td>
<td>23,000</td>
<td>19,796</td>
<td>--</td>
<td>--</td>
<td>30,000</td>
<td>46,000</td>
</tr>
<tr>
<td>60/61</td>
<td>4,000,000</td>
<td>4,488,662</td>
<td>20,000</td>
<td>19,139</td>
<td>--</td>
<td>--</td>
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<td>--</td>
</tr>
</tbody>
</table>

*x* As Personal Tax was to be introduced during this fiscal year, one estimate of Personal Tax amounting to £1,425,000 was made; the Personal Tax did not however become leviable during the fiscal year, hence normal Poll Taxes on Africans and Non-Africans were collected.

**x** Represents that although the Non-Native Poll Taxes were abolished some small amounts, arrears or otherwise continued to be collected until 59/60.

**++** Represents additional collections of Personal Taxes and Local Government Taxes as tabulated below:

<table>
<thead>
<tr>
<th>Source: Financial Statements of the Government of Tanganyika (Annual) 1940 to-date.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated</td>
</tr>
<tr>
<td>55/56</td>
</tr>
<tr>
<td>56/57</td>
</tr>
<tr>
<td>57/58</td>
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<tr>
<td>58/59</td>
</tr>
<tr>
<td>59/60</td>
</tr>
<tr>
<td>60/61</td>
</tr>
</tbody>
</table>
(d) Conclusion and Criticism. We are led to conclude that the lack of statistical data has not caused serious difficulties and that the authorities deserve credit for introducing the system, to begin with, so boldly on the basis of an informed guesswork. But even if the administrative difficulties in tax assessment and classification of tax statistics are recognized, there was, on evidence, perhaps a sense of complacency at a later stage in not modifying the basis of estimation; it was not modified on such occasions as in the early middle fifties. In the case of non-native or personal taxes there has almost been a sense of oblivion to what possible use can be made of recording and analysing details of actual incomes of taxpayers for estimating revenue and also for other policy objectives as we shall see later in this Chapter. In the case of local government tax or urban house tax we have already made appropriate comments as to keeping identification records of such taxpayers from their previous assessments or otherwise. One general comment can here be made on the procedure of estimation of personal tax, local graduated rates, and local government tax; it relates to the necessity of recognizing the administrative ability, as for income tax, of those in assessing and collecting such taxes in the light of the administrative state of the government machinery concerned with it. As regards the estimation of export taxes, little can be said since the existing bases are the best available and it would be too much to hope to measure the elasticity of the demand of exports abroad and other related statistics on export commodities liable to export tax.

Thus, although the outturn of certain forms of taxes on revenue such as native poll tax or present personal tax may have been or may be generally satisfactory and that of others such as local government tax not quite so satisfactory, the degree of discrepancy between total budgeted taxes on income and their outturn may be very significant. What the policy-formulators ought
to understand is that the present basis of estimation, no matter how satisfactory its outturn has been, could indeed be a hit-and-miss affair. It can, however, be improved in two ways. Firstly, a more satisfactory basis of estimating revenue has to be devised by co-ordinating various sources of statistics available from the administration of different forms of taxes on income. Unless this kind of procedure is used, the total discrepancy between estimated revenue and its outturn is liable to be underestimated. Secondly, existing bases of estimation of some forms of taxes on income can, on the other hand, be improved by distinguishing those taxes which can be easily estimated, e.g. company tax, from other forms of income tax proper, viz. income tax proper on individuals.

As the revenue estimation has turned out to be a satisfactory process, we can conclude that one could expect the system of income taxation in Tanganyika to have served as a useful policy weapon. This conclusion leads us to consider what sort of data would be analytically useful and operationally available for the purpose of formulating various policy objectives.

B. Statistical Data for Policy Formulation.

(a) Analytical Usefulness. As in the case of estimating revenue yield, the national income data prediction techniques are desirable. For instance, to ascertain the degree of maldistribution one needs data on the distribution of personal income among various income-recipients. This may have to be supplemented by the distribution of income among income-recipients of differing family size. For stabilization purposes, one needs to know various components of national income such as consumption, savings, exports and investment so that the extent of excess of investment over savings in a full-employed economy can give some indication of the degree of instability. For the growth-inducing tax policy, some information is needed on the division of factor-shares, level of savings and investment, and depreciation.
The importance of prediction for income tax policy purposes is that the main economic variables to which the tax policy is to be applied have to be ascertained in the first instance. When the variables become available, the policy makers have to extrapolate them and in doing so they are forced to make explicit the assumption on which their policies are based, and whether or not they are consistent.

As the requisite information is not by any means available in the case of Tanganyika, it would be useful to review the information that the policy formulators could rely on in making policy decisions.

(b) Operational Usefulness of Available Data. Historically, the policy formulators have had no statistical data at their disposal until the statistical data on income tax proper became available and national income statistics were first computed. Whilst poll tax did not raise any problem so long as the Census data on regional and racial basis were available, the policy problems in relation to income tax proper, company tax and export tax have had to be solved on the basis of the general feelings of the public as to what sort of budgetary changes should be made and their reaction to such changes as the government considered to be desirable. In fact, it was not until the late 1940's that the value of compiling statistics on income tax proper for guiding policy makers was brought to the attention of the government. The compilation of such data began in 1950 but did not become up-to-date until 1958 as we have stated earlier on. The policy making in the interim period continued, therefore, to be based in general, on the demands of the taxpayers, their reaction thereto and what was thought to be administratively feasible. Some concrete evidence of the use of such statistics in policy making is, for the first time, however found in the analysis of issues arising from the terms of reference by a Commission of Enquiry in 1956-57. Arising from some of the
the recommendations of this Commission and also the fact that the statistical data on income tax became quite up-to-date, it appears that income tax statistics are used to some extent as a guide to policy making by those concerned with its formulation and implementation. One can get a clear idea of the extent to which such data would be useful by reviewing what sort of statistical data are published by various tax collecting or administering authorities.

(i) Income Tax Proper. Generally, speaking the statistical data compiled by the East African Income Tax Department in its Annual Reports fall into five to six different schedules for each territory. As we stated earlier on in this study, it was only by 1952 that the data analysed could be related to specific years of assessment or those of income. Therefore we should leave aside for all practical purposes data classified for the years prior to 1952 and discuss the various schedules for the years 1952 to-date. Schedule 1 classifies total assessments raised according to residence and status (also race for earlier years) of the taxpayers, their various sources of income, personal allowances and main deductible business expenses (viz. losses and interest on capital but not on initial and depreciation allowances) on the basis of which chargeable income and income tax payable (the latter subject to adjustments for double income tax relief and tax deducted at source) are determined. Schedule 2 classifies actual income, total allowances, chargeable income, total tax payable according to the status, residence and race (for earlier years only) of the taxpayers; the average actual income, average tax payable and average rate of tax on actual income are also classified in the same way. Schedule 3 classifies the taxable income of each of the trade group sectors together with the source of income of each trade sector, allowances granted to and total tax payable (subject to double taxation relief adjustment) by each. It is to be noted that the allowances granted to each sector include, the interest paid and losses; personal allowances
are also shown on the same bases. Schedule 4 analyses the income and tax assessed of individual tax payers, companies and employees according to their respective trade groups. It also takes percentage of total tax assessed for each sector, average actual income and tax assessed in relation to the various trade groups and ascertain these from the average rate of tax in the £ payable by each trade group. Moreover, it indicates the amount of actual income that the individual taxpayers, companies and employees of the respective trade sector groups derive from the group in which they are classified. This gives us some indication of the extent to which sectoral sources of income, but not the factor-shares, overlap. Perhaps it should be noted that Schedules 3 and 4 contain trade group sectors which are slightly different from various sectors to which the Gross Domestic Product relates, but as most of the sectors for the purpose of Gross Domestic Product and national income by factor shares overlap, the differences between these two classifications can be easily adjusted. Schedule 5 sets out distribution of actual income relating to the status, residence and race (the last of which is limited to earlier years again) of those assessed by the East African Income Tax Department. Schedule 6 (often erroneously referred to as Schedule 7 in earlier reports) has been added from 1957/58 financial year to cover 1955 and the following years of income. It classifies chargeable income into the distribution of chargeable income under the status group and residence.

(ii) Other Statistics on Income Tax. No systematic details of the personal tax data are at present compiled in Tanganyika. This is probably due to the nature of the graduation of personal tax by way of an increase of tax by a flat sum against each increase in stratum of income rather than an increase of rate against each stratum of income. Thus, income tax on sophisticated basis cannot be assessed without any details of exact income of a taxpayer; personal
tax can on the other hand be assessed so long as the details of the income-stratum to which a taxpayer belongs are available because the tax does not need to be ascertained by multiplying the exact income of taxpayers by appropriate rate of tax. Moreover, personal tax is decentralized on regional basis and Regional offices in almost all probability have no statisticians who can compile meaningful data from these administrative sources of information. Nor does the Statistical Unit in Tanganyika attempt to obtain these records to its main office where somewhat useful data can be compiled either from whatever details of taxpayers are available from the copies of personal tax receipts issued already or by requiring the tax collectors to specifically record the actual income (rather than the income-group to which taxpayer belongs - only that which is required by personal tax collectors for tax collection) in personal tax receipts issued.

The only sources of data, in so far as they exist, on personal tax are the Annual Reports of the Provincial (or Regional as it is now called) Commissioners. In some cases they record the actual numbers assessed against each income group, whilst in others only an aggregate of tax, inclusive of fines and penalties, is recorded. Such a record therefore at the best gives only a regional distribution of personal tax which is not incidentally available for income tax proper. The Statistical Unit does not even include any details of personal tax in the Statistical Abstract except in so far as total personal tax receipts are shown as revenue receipts in the details of government accounts.

(c) Conclusions. It is perhaps obvious from the discussion of the statistical data available that the income tax policy has had to be formulated on the bases of whatever statistical data on income tax were analysed fully for the most recent years. Thus, the weight of emphasis has been, not surprisingly, on
income tax proper. Where no such statistical data had been available to guide the policy makers, the policies relating to such sectors of the economy would be based on what is the "obvious" or "reasonable" way of dealing with the policy objective. For instance, as the statistics relating to the distribution of income as between different assessees for income tax proper are available, income redistributive objective itself is rigorously sought to be achieved. Juxtaposed with this is the income tax policy relating to the rest of the economy; policy of income redistribution or equity here means anything that does not lead those assessed in such sectors, i.e. poll or personal tax or local government tax assessees, to express grievances or commit riots. Obviously, this line of discussion begs the question that policies based on some statistical data are better than those based on none. Its importance in the context of Africa, where the quality of the national income and other such related statistics collected by income approach is of some significance, needs no emphasis. Similar comments apply to growth and allocation policy. For instance, depreciation and initial allowances are the means of inducing the assessees for income tax proper to expand output. Those assessable for personal tax are, on the other hand, expected to raise their output through the compulsion that the tax would bring about on the producers to abandon subsistence activity in favour of an occupation in the monetary sector.

Whether or not what appears to be this "dualistic" form of income tax policy has been so devised as to be "partial" (or even discriminatory) for political reasons or on economic grounds in the less-developed economy of Tanganyika can be ascertained by appraising the system. On the other hand one finds it tempting to conclude that until the tax authorities compile more statistical data in the course of collecting and administering taxes on income there is no sense in appraising income tax policies most of which have, in any case, been based on non-professional opinion. For instance, obviously there would
be no sense in appraising policy objectives in "partial" terms, i.e. in relation to one or two forms of taxes on income applicable to limited sectors of the economy. For instance, anyone interested in the redistribution of income brought about by income tax proper can look up the annual reports of the East African Income Tax Department or even draw impressive Charts on the marginal and effective tax rates with the help of such data and the information on rates, and allowances shown in Appendix 'C' at the end of Chapter 6.

This line of approach would not however take us any further from what the Commissions of Enquiry already suggested, without fruitful results, earlier on, namely that statistics compiled by the income tax authorities would be useful in guiding policy makers. It is, therefore, indeed very desirable first of all to consider the sort of additional data one can lay one's hands onto to try to appraise some of the objectives, and then go on to appraise each of the objectives. This would help the policy makers to improve upon the statistical bases on which they formulate their income tax policies according to a given set of static, partial equilibrium set of principles.

Section (3) Statistical Data for the Appraisal of the System.

To ascertain the consequences of a given tax policy, it is necessary to ascertain not only the magnitude of the actual components of the national income and other related data but also the size of taxes, the date of their accrual and collection, payment of fines and penalties and liability discharges through instalments. We have already dealt with the latter earlier on in this study and need not dwell on it here. One of the obvious ways of relating income tax statistics to other sources of statistics for the purpose of obtaining adequate data necessary for the appraisal of the system is to attempt to compute national income by the income aggregate approach. Although under the legislation relating
to income tax proper income in kind of which subsistence income is the principal source is liable to be taxed, it is fairly realistic to exclude it as it will very probably be small enough to fall outside the net of income tax proper. As for the monetary national income, the monetary Gross Domestic Product should coincide with the monetary domestic income if all income were liable to income tax and were so assessed. As this is not the case in Tanganyika where there is a subsistence minimum which is not liable to be taxed under the "richman's income tax", such tax exempt income has to be estimated. For this purpose we rely on the principal sources of data which may be of some direct relevance for our purpose. These are: the social accounting statistics; details of the registered companies and the business names; statistics of the labour department covering results of the Annual Enumeration of Employees since 1952; Population Census of 1957; Censuses of Agriculture and Industrial Production (held only occasionally); and finally the records of personal tax collection as contained in the Provincial Commissioners' annual reports to the central government annually.

For the purpose of this exercise we select 1957 as an illustrative year as in that year an accurate census survey with an enumeration of occupational status (as a part of the periodical Population Census covering the whole country and all races) was held. In addition, for non-personal bodies data of companies registry can be used. There are two difficulties in using the data on income tax proper on the top of which these other data are to be superimposed so as to get more information on the existing set of social accounts. First of all, as already indicated in Chapter 6, the tax data for a particular year of income are not strictly speaking in relation to any "year of income" in the statistical sense, but only in the legal sense. This is because not only the number of assessments unassessed or not received at the end of a given year are indicative of this but also the lack of adjustment in respect of the "Coffee Agreement"
(whereby averaging of fluctuating income was allowed until 1958) raised doubts. Secondly, there are no data on the amount of depreciation and initial allowances made to those who submitted returns or were assessed. This makes the task of estimating income of lower group very difficult, but here again we try to get some indication of it from the size and composition of capital formation item of the social accounts of the country. The income of labourers does not raise much difficulty except in that the actual income of a particular month of the year in which enumeration takes place may not be sufficiently representative of the full year. We however have no alternative but to treat it as representative and multiply it by twelve to get their total annual income. The estimation of the income of petty shopowners, and small family companies does however raise some difficulty because if they impute salary to family members, their income is reduced and ceases to be taxable for income tax proper. As the East African Income Tax Department does not seem to insist on the submission of tax returns by such individuals irrespective of their liability to tax, no information relating to the income of such individuals is available. However, on the basis of the information given in companies and business names registry and occupational data in the Census we estimate their income by taking the maximum personal allowances they would be entitled to as their actual income. Total national income estimated in this way would be as follows:

£ mln.

26.6 Net actual income assessed under income tax proper
15.6 Income under statistics of labour earnings compiled by the Department of Labour
14.3 Income in respect of tax exempt employees and proprietors not included in the tax office records but recorded as profitably employed in the Census Table of Occupational status.
56.5 Total net aggregate income

This result is not sufficiently close to the monetary domestic product (gross) for 1957; there are discrepancies, no doubt, between the methods of
obtaining income for tax purposes and value added data for the purpose of Gross Domestic Product e.g. estimation of rents for taxpayers and for the purpose of Gross Domestic Product, but these discrepancies cannot be so great. Even if we dispute some of the bases on which the Gross Domestic Product is being compiled and also make some allowance for the initial and depreciation allowances, the remaining discrepancy is still so large that it can be explained through tax evasion and avoidance. 16

It can be shown that, with the help of depreciation allowances to companies and non-corporate enterprises, it is possible to obtain more information on consumer expenditure as well as capital formation. Ideally speaking, it is best to have aggregates of consumption and savings by companies, employees and other individuals as such; in practice one has to rely on the best that is available. As no consumption expenditure or savings surveys have been conducted in Tanganyika this information is simply lacking. Clear records of the depreciation and initial allowances may make possible more accurate estimation of company profits (which can be cross-checked in the Companies Registry now that even the private limited companies are required to file an Annual Statement and Accounts every year, due to the enactment of new Companies Ordinance in 1962). Furthermore, tax records provide information on distribution of dividends and from these records corporate savings can be determined more accurately. So long as the present methodological limitations (approximate bases of data desired on depreciation and initial allowances, income of small shopkeepers and labourers) of such a distinction are borne in mind, it serves a useful purpose, for the retained profits of non-corporate enterprises may give rise to either the effective investment or effective consumer demand. This is because whilst a sole entrepreneur can decide, overnight, to withdraw his gross
operating surplus from business instead of ploughing it back in business; the corporate enterprise normally has to invest what it has decided, as a result of the resolutions at the general meeting of the company, to retain as an undistributed profit. Needless to say, such an analysis is significant in appraising the stabilization objective as the nature of the stabilization policy depends on the form of effective demand which creates instability.

This Section can be wound up by saying that the question relating to the quality of the national income and related data should be left aside for the time being and that some statistical data on the taxpayer’s actual income (and the income strata to which he belongs), his status, the sector of the economy from which he derives his income and his family size should be collected as an administrative by-product of personal tax collection. Although the nature of the information collected would be somewhat different, viz. no depreciation allowance for personal tax, they can be analysed and classified on the same bases as data on income tax proper would be classified. The analytical classification of the statistical data published by the East African Income Tax Department is, to say the least, rather overelaborate in terms of the information it provides. Many classifications cut across each other and they are no more than mere repetitions. The authorities themselves in the past often realized the wasteful character of some of their efforts and discontinued such practice promptly, e.g. classification of assessment work done in a particular year, racial classifications, etc. but one feels that various authorities responsible for administering and collecting various taxes on income are not sufficiently appreciative of the possible use to which these may be put and hence the possible economy and diversion of the same resources to some more fruitful ends. For instance, the Income Tax Department can concern itself more with the obtaining
of basic data on the distribution of income and factor shares covering even those exempt from income tax proper but liable to submit returns by insisting on the submission of such returns; it can also publish data on depreciation and initial or investment allowances, personal tax set off against income tax liability, etc. and other than with cross-classifying the same sort of data on income tax proper. The Department has not done so until now probably because of the fact that it was not until recently that the task of compiling the income tax statistics was transferred from the statistical branch of the department to the East African Statistical Department. Be that as it may, even though the Tanganyika Statistical Unit is bound to be aware of the usefulness of such data and the Tanganyika Statistical Unit is waiting to be asked by the Treasury to act in this way! We nonetheless feel that a beginning should be made, by way of classifying some form of personal tax, local government tax and export tax data. This would not involve a large financial burden on the government nor would it add to the pressure of work on the members of the statistical staff.

This point about the necessity of classifying some of the data which are at present being published at regular intervals and that of starting a compilation of some additional data, each with the possible use to which they may be put in mind, need not be overstressed. This is because any data on income tax are after all confidential and the various departments concerned with it are not generally willing to make them available to the members of the public or researchers as can be seen from Appendix 'F' below.

Admittedly, the task of relating such data to other sources of statistical data might necessitate a certain amount of co-ordination of the territorial statistical units, the Audit section of the Treasury, the East African Income Tax Department and its statistical section. It would however facilitate the
the formulation of income tax policies.

Section (4) Income Redistribution Policy Objective.

Although it has been indicated in the Chapter dealing with the history of income tax and the general features of the economy that the distribution of income is not particularly uneven in Tanganyika, the income tax policy as such has been designed to ensure the payment of income tax on the basis of capacity to pay. Certain policy statements can be quoted below to indicate the nature of the government redistributive policy bearing in mind the existing economic structure of the country. First of all, Sir Ernest Vaisey the then Financial Secretary addressing the Central Legislative Assembly of the East African High Commission in 1952 said:  

"What is equity (italics provided) in direct income tax? It is equity between individual and individual, or if you like to split them into groups, it is between the individual and a company (italics supplied)."

Secondly, in a matter relating to the East African Income Tax Act, Sir Charles Phillips told his fellow members of the Central Legislative Assembly: 

"Now Income Tax...has certain fundamental principles that we must admit and they are equity between individual tax payers and the ability to pay. (italics supplied)."

Thirdly, the Finance Minister addressing the Tanganyikan Legislative Council in 1960 said:  

"...inside this direct taxation...we have a personal tax...but whilst you have taxation of this kind which literally means the sacrifice perhaps, if you have a wife and children, of something which is regarded in to-day's social conditions as essential to them, you cannot really say that the spread of taxation is really fair and before we grumble very much about other taxation here is the element that needs readjustment...(italics supplied)."

Fourthly, Sir Charles Phillips addressing the Tanganyika Legislative Council in 1948 said:  

"I have referred to the established principle of ability to pay, and I would now go
on to a matter which is equally important and that is the amounts which have been expended and are being spent (on the education of Africans to which he is referring in this context)...(italics supplied)." Finally, a statement made by one of the fiscal commissions in recommending the measurement of money burden of a tax on income may also be mentioned. It was stated, "the money is admittedly not the same thing as the real burden, especially in countries containing different races and different standard of living...." Another fiscal committee of inquiry concerned itself with the burden or distribution of tax and emphasised the necessity of its periodic review so that distribution would in fact be based on "public policy" rather than resulting from "a growing part of the total tax burden...shifted as a result of inflation on to the individual income tax payer...."

Two observations can be made in this respect so as to define the policy objective fully. First, the taxation of income among the Africans on a graduated scale became possible only recently. The third policy statement quoted above makes it abundantly clear that the Financial Secretary in expressing the government policy on income redistribution recognized the limited scope of the progressiveness of personal taxation which failed to take account of the special individual circumstances. As it was directed to those liable to "richman's income tax" and seeking extra relief by way of personal and children allowances, it is safe to assume that he also recognized the limited allowances given to such taxpayers. Secondly, Sir Charles' second statement is indicative of the fact that the structure of any tax cannot be determined under the ceteris paribus assumption of a given government expenditure. It should be analysed in an overall budgetary context. These observations make one feel that the government policy makers have indeed been well aware of at least some of the limitations of the redistributive policy as defined by the classical theorists of Public Finance. In practice however redistributive policy meant nothing more than taxation of income according to the ability to pay with no
account being taken of the individual personal circumstances or the benefit principle. Shifting of tax is primarily taken into account in so far as it is shifted by the tax-evaders to the other conscientious tax payers but also, as can be seen from the quotations of the Fiscal Commissions above, also in terms of changes in factor and output prices.

To appraise the present system we require the statistics relating to the pre-tax and post-tax distribution of income with respect to all taxpayers. The statistics relating to the distribution of income are covered in Schedules 5 and 6 of the annual reports of the Income Tax Department which have been described earlier on in Section (2) above. As with the national income by income approach, the statistics covered here in respect of the monetary sector are nearly one-third of the total money economy. Furthermore, as the taxation of income in this study means taxation of all forms of income, little purpose would be served in analysing distribution of income in respect of the monetary sector alone. Even the existing data on income distribution recorded in Schedules 5 and 7 require further adjustments in respect of undistributed profits of companies - these will require to be imputed to each shareholder. If the data on personal tax were available, the extent to which they would overlap with the income tax data would have to be ascertained; this can be done by examining the off-sets of half the personal tax paid against income tax liability but no information is made available by the East African Income Tax Department in its annual statistics.

The possible alternative is to analyse the problem of taking the statistics of the factor shares. This is not an altogether unacceptable approach and is well-recognized in the literature of Public Finance. It is based on a reasonably acceptable and yet not quite an exact assumption that the wage income accrues to the low income group and the profits or rent income to the high income
group in the society. We must however emphasize the temporary nature of this approach as the assumption may not be quite correct in future as the rising wages may create conditions where wage-earners do not necessarily fall into the low income group. The present approach is essentially a classical method of determining redistribution among the factor shares, and is probably a valid one for a less-developed economy like Tanganyika. It would of course be more appropriate to divide the product in less-developed countries like Tanganyika to derive factor shares in terms of clearly ascertainable wages and profits and treat the rest of the income as earnings of the self-employed.\textsuperscript{25} It would be more appropriate still to divide the profits of enterprises into those accruing to entrepreneurs and to share-holders.\textsuperscript{17}

Let us first deal however with the possible sources from which factor-shares can be derived. The Enumeration of Employees began in Tanganyika in 1952 but it was confined to firms employing more than five African employees. In 1958 this was extended to cover employees of all races, and applied to any firm other than agriculture and domestic servants. It was not, however, until 1962 that the data in respect of total earnings of these employers for 1960 and 1961 became available. As the method of enumeration for 1961 was slightly altered, the release of these data for 1960 and 1961 are subject to a caution that they may have limited usage. Moreover, the enumeration did not cover all firms in the economy and the earnings of non-Africans do not include all their income, i.e. pensions and passage allowances are excluded. The year 1961 is not an average year because of the then prevalent floods and famine in Tanganyika. The factor shares for 1962 have, however, just become available, hence the data for 1960-62 are set out in Table 36 below.

The redistributive effect of income taxes can be ascertained by obtaining the post-tax factor shares; tax paid by the recipients of the respective factor shares
yields this result. In so far as this is paid in the form of income tax proper, it can be easily ascertained and deducted; any distortion that may arise from the lag and collection would simply have to be ignored. Even so, further adjustments would be necessary. In the case of individual employees not falling within the net of income tax proper but liable to personal tax, their liability for personal tax would require to be ascertained. In the case of companies, there is no such difficulty, but as to the profits not covered by income tax, e.g. profits of self-employed, for such an income is again liable to personal tax. Even in the case of those liable to personal tax, the amount of personal tax allowed as an off-set against income tax would have to be ascertained. Arising from all these difficulties, it is impossible to make any definitive statement as to the redistribution of income brought about through income tax as between the factor shares even at the cost of reducing the analysis in terms of factor-shares.

Table No. 36
TANGANYIKA: FACTOR SHARES DISTRIBUTION

<table>
<thead>
<tr>
<th>Year</th>
<th>1960</th>
<th>1961</th>
<th>1962</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total National Income:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monetary</td>
<td>113.9</td>
<td>115.4</td>
<td>123.3</td>
</tr>
<tr>
<td>Subsistence</td>
<td>71.6</td>
<td>73.2</td>
<td>80.0</td>
</tr>
<tr>
<td></td>
<td>185.5</td>
<td>188.6</td>
<td>203.3</td>
</tr>
<tr>
<td>Wages</td>
<td>33.6</td>
<td>40.5</td>
<td>40.9</td>
</tr>
<tr>
<td>Gross Operating Surplus (subsistence included)</td>
<td>151.8</td>
<td>148.1</td>
<td>162.4</td>
</tr>
<tr>
<td></td>
<td>80.3</td>
<td>74.9</td>
<td>82.4</td>
</tr>
<tr>
<td>Wages</td>
<td>33.6</td>
<td>40.5</td>
<td>40.9</td>
</tr>
<tr>
<td>Less Income Tax payable by employees</td>
<td>1.4</td>
<td>1.5</td>
<td>N.A.</td>
</tr>
<tr>
<td></td>
<td>32.2</td>
<td>39.0</td>
<td></td>
</tr>
</tbody>
</table>
Table No. 36 (contd)

<table>
<thead>
<tr>
<th>Year</th>
<th>1960</th>
<th>1961</th>
<th>1962</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Operating Surplus</td>
<td>80.3</td>
<td>74.9</td>
<td>82.4</td>
</tr>
<tr>
<td>Less income tax payable by companies, clubs, and individuals</td>
<td>3.2</td>
<td>3.9</td>
<td>N.A.</td>
</tr>
<tr>
<td>Less two-thirds Export Tax</td>
<td>0.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>76.7</td>
<td>71.0</td>
<td></td>
</tr>
</tbody>
</table>

Details relating to personal tax, local government tax and local rates payable by each factor share are not available.

Details relating to the income tax actually collected (paid by each factor share) from each factor share are not available, hence the tax payable by them is deducted from their gross factor shares here to derive post-tax factor share incomes.

Income Tax payable on the 1961 and 1962 years of income are not ascertainable until the end of 1962/63 and 1963/64 fiscal years; the reports relating to these years by the Income Tax Department are not generally ready until November 1963 and 1964 respectively and are not generally sold until the following month. It is assumed that two-thirds of export tax represents tax on income in the "partial" income redistribution policy of the policymakers it falls wholly on producers.


Section (4) Growth Objective.

In this Section the extent to which the income tax system has so far been used as a device to induce economic growth in Tanganyika is attempted. In appraising this policy objective, our primary concern is to evaluate the effect of the present system on the growth of the economy or on the growth of the particular factor shares to which the effects of tax policy on growth were applicable.

The documentary evidence relating to the income tax policy of the government indicates that throughout the early operation of the system the government has had in mind the effect of income tax on the general development of the economy. Its concern with the disincentive effect of specific
policies began to be seen in 1947 whence it took positive steps to encourage the development of the economy through tax incentives. In 1947 the Finance Member of the Legislative Council told the Council: "...some reliefs should be afforded in taxation......the income tax concessions concerned are not new, but the rather hackneyed trio (he is referring to depreciation, children allowance and Life Assurance Reliefs) which have been pursued in this Council on at least one previous occasion......increased and more comprehensive depreciation allowances......will benefit industry." These budgetary proposals made provision for depreciation and initial allowances on plant and machinery and industrial buildings. These allowances were also extended to cover capital expenditure in clearing land, mining exploration and development expenditure. The provisions for the tax treatment of undistributed income of private "controlled" limited companies also made concessions in 1958 on the ploughing back of profits to purchase fixed capital assets by such companies. The existence of pension and provident funds also presumably aims at encouraging accumulation of savings in the economy apart from its social objective of providing for the aged members of the society.

As to the effects of tax concessions on savings, sufficient information is available, but as the present knowledge of the way in which the savings in the economy are channelled into investment is inadequate, there is no practical purpose served in attempting such an exercise. The effect of low level of income tax, company income tax in particular, in enhancing growth is also difficult to measure statistically. As to the effect of development allowances to the controlled private companies on their investment decisions, there are once again no statistical data on such allowances published by the Income Tax Department. As to the effects of tax policy on capital formation, theoretically such a statistical measurement may be possible. because the effects of increasing
productivity on increase in capital formation can be distinguished from the effects of depreciation and initial allowances by making some *ceteris paribus* assumptions of simple nature.

Although the effects of tax concessions in favour of capital formation can be measured statistically only in a hazardous manner\(^{27}\) in this way, no statistical data on such concessions are available. We, therefore, have to rely on some alternative device to appraise the consequences of such allowances from income tax on the rate of growth of output. Table 37 gives the incremental capital-output ratios for various years in relation to Tanganyika.

**Table No. 37**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>36.6</td>
</tr>
<tr>
<td>1956</td>
<td>10.9</td>
</tr>
<tr>
<td>1957</td>
<td>7.2</td>
</tr>
<tr>
<td>1958</td>
<td>20.2</td>
</tr>
<tr>
<td>1959</td>
<td>3.2</td>
</tr>
</tbody>
</table>


The fluctuations in the capital/output ratios are very large. Without the actual statistics on depreciation allowances, etc. it cannot be said with certainty whether this is due to the misallocation of the tax rebates in favour of capital formation, in amount as well as the composition of the capital. Alternatively, the fluctuations may possibly be due to the changes in domestic as well as the foreign effective demand. If it is due to the fluctuations in the demand of the export sector, one wonders whether total tax concessions on the depreciation and initial allowances ought not to be reallocated to expand exports through tax concessions. On the other hand, if the fluctuations arise from the instability of the domestic effective demand, it is quite likely that
they are most concentrated among the seasonal wage-earners; it gives rise to a conjecture whether the possibilities of stabilizing labour earnings through the tax concessions to labour-intensive producers and tax inducements to the labourers ready to acquire skills through training should not be considered to ensure stable conditions of growth. The criticism of depreciation and initial allowances should by no means be taken as simply tantamount to its complete replacement by tax concessions of the sort discussed here; it rather necessitates the reallocation of it on some more realistic bases. Further, if the fluctuations in incremental capital-output ratio are as a result of an exogenous factor like weather changes, it raises a moot point as to whether tax concessions should not either be withdrawn altogether so as to enable the government to spend more on irrigation and meteorological research or be granted to the taxpayers who spend money on financing similar research projects or technological change to combat this form of instability. The possible effects of such tax concessions on total output are however much more difficult to ascertain and predict than those on depreciation allowances or labour subsidies.

In concluding this Section, two further income tax policy problems which may have had some consequences on economic growth ought to be mentioned. These relate to the consequences of personal or poll tax and export tax and cesses.

The purpose of poll tax was twofold. Firstly, it was meant to induce producers to engage in the monetary sector. Such an expansion would, in the absence of extreme seasonal fluctuations, ensure stability in supply and confer benefits of specialization. Secondly, it aimed at enabling those who desired to expand new sectors producing goods which would be competitive with similar imported goods in the domestic market, e.g. footwear, soft drinks, food canning and processing industries, etc. Even if the poll tax has, ceteris paribus,
the income "effect" which is higher than the substitution "effect", the
ultimate result on the economic growth depends on the terms of trade of
specialized goods. So long as the terms of trade between sisal, coffee,
cotton and other cash crops and the industrial goods are favourable to both
parties specializing in the two different kinds of outputs, the poll taxes
have been useful in inducing and promoting growth. The consequences of
monetization on the expansion of some of the domestic sectors may be ascertained
only through the amount of such goods consumed by those who are in the
subsistence-cum-monetary sector and are producing these cash crops.

The consequence of personal tax on monetization may be different in so
far as under such a tax, _ceteris paribus_, the net result of substitution and
income "effects" is different from what it would be under poll tax.

With regard to the consequences of export tax on output, it is possible
that the high levels of taxation may increase riskiness and reduce returns
to such an extent that the capital invested outside such export business would
fetch higher returns. As we lack evidence as to the consequences of export
tax on liable industries, nothing more can be said. We can only mention in
passing that a Commission of Enquiry on Coffee Industry was led to conclude, on
the basis of evidence which was available to them, that they have had a
distinctive "effect" on some small producers in the early 1950's when a
substantial tax was imposed on the exports of coffee.

Section (5) Stabilization Objective.

As we indicated in introducing this Chapter, whatever documentary
evidence that there is available on budgetary policy in Tanganyika does not
throw much light on the stabilization policy objective of the government. In
this Section we therefore state at the outset the sort of stabilization policy
that the government has been or may have been concerned with.
It appears that since the initiation of the development plans in the overall budgetary policy after the war it showed some concern with the building up of reserves to meet with the financial difficulty in a possible slump period. There are references at random to the policy of curbing excess spending power in the Korean boom period and at certain points in time the government showed some concern with the necessity of maintaining government expenditure at its previous high level. There are also some references to the reliance of the economy on the vagaries of weather and international economic outlook.

Admittedly, policy statements made by those in power tend to be expressed in terms of political cliche rather than those of academic or professional economists' terminology. Even so the sort of policy statements made by them are liable to lead one to infer that the government seems to have had a somewhat vague idea as to what exactly economic stability means in terms of generally understood Keynesian general theory and fiscal policy. At best one can infer that their thinking consisted of what a well-known authority in Public Finance had elsewhere, in the context of economic theory of stabilization in the twenties and early thirties, called "a weak mixture of unconnected conjectures, backed by a muddled state of mind that resulted from drawing implicit macroeconomic conclusions from the microeconomic reasoning."

This undoubted lack of familiarity with the way in which the level of activity, i.e. national income, employment, prices, wages, consumption, investment and savings, is related and is open to the influence of the fiscal policy can be shown by quoting the following statement made by a member of the East African Legislative Assembly:

"Income tax....is a tax on income of the individual. It is supposed
to be a tax that is equitable...we are faced with the fact that when considering claims for greater exemption for agricultural purposes, for mining...we must actually consider these in relation to the individual himself, and we must try and get a balanced budget (italics mine). It is no good attempting to use income tax measure for the sake of subsidisation....."

Be that as it may, we should perhaps leave on one side, the shortcomings of the authorities in precisely defining what stabilization means. It would be a more fruitful line of approach for us to begin the appraisal of this objective by first of all saying what we mean by stabilization in terms of Keynesian fiscal policy. We should then go on to deal with the sort of stabilization problem the authority did or could reasonably have been expected to concern themselves with, leaving the ascertainment of what have been the "unintended" consequences of taxes on income on the economic stability in Tanganyika to the end of this Section.

According to the simplest formulation of the Keynesian theory, let the amount of expenditure be independent of the price level. In Diagram 10, where the vertical axis represents actual output of consumption, investment and government, expenditure for each level of income can be shown by a line \((c + i + g)\). In the absence of a limit on output, income may rise to \(Y_b\). If, however, full employment is reached at a level of real income less than \(Y_b\), i.e. at \(Y_a\), actual expenditure of \(Y_a\) exceeds real output \(Y_a\). This produces an inflationary gap of \(OP\) and gives rise to a price increase. But if the price increase is not powerful enough (e.g. a change in interest rate not potent enough to reduce investment demand owing to the existence of speculative demand for money), the gap is not wiped out so long as \((c + i + g)\) expenditure continues to depend on factors other than income. If, however, the demand were represented by \((c' + i' + g')\) there would be a deflationary gap of
PQ which could be eliminated if prices went down by reducing output to $Y_a$.

**Diagram 10**

The crux of the analysis is in the relationship between consumption and income and also in the failure of interest rate to restore consumption to its previous level because of the speculative demand for money. Fiscal policy is used to adjust the level of consumer demand through such devices as taxes on income. Prices are not sought to be controlled because it is thought that if prices of certain items of output increase whilst those of other remain unchanged to begin with, this will give rise to a reduction in demand for and prices of the latter. Such a relative change in prices is desirable for the purpose of resource allocation and growth. This argument however loses its validity when the process of adjustment of production and consumption cannot be achieved in the long run thereby giving rise to fortuitous windfall incomes or profits.

Before deciding what the authorities did or could reasonably have been expected to deal with as regards stabilization policy we should perhaps put the matter in perspective by reminding ourselves of the way in which income taxes operated and placing the operation of the tax in the framework of Keynesian fiscal theory. Income tax proper remained to be assessed subject
to times lages until 1958. At the time of favourable international market
for primary produce in 1950-54, the amount of assessment and liability for tax
was at its highest. The liability for unpaid income tax proper is still
relatively high today. Until 1957 poll taxes by nature were somewhat in-
flexible because an increase in taxes could cause disturbances or riots whilst
decreases as and when necessities therefor arose were thought undesirable owing
to the difficulty of increasing them in future even at a level below the
maximum previously reached. In the case of export taxes, these were introduced
anew or their prevalent rates raised to reduce income of exporters. Changes
in the rates, allowances and reliefs for income tax proper and in rates of
education tax were rather infrequent.

Under such a situation it would be reasonable to assume that a shrewd
observer might expect the government to concern itself with the stability of
government revenue from income tax in view of its political aims and price
fixing in the light of the structure of the economy and nature of adjustments
in production and consumption in a free market.

A. Stability of Revenue from Income Taxes. Before the Great Depression and
the development of Keynesian thinking on economic fluctuations it was usual
for the government to identify its role in economic stability with avoiding
perpetual budgetary imbalance. In so doing it was thought necessary to
maintain a stable revenue yield from taxes. Now given that the distribution
of income does not change substantially, long-run stability in revenue yields
fails to correct or reduce the intensity of short-run fluctuations because
taxes with stable yield (in contrast to those with flexible yield) bear heavily
on taxpayers in depression and easily in boom. These remarks on the objective
of stable yield are meant to be a preliminary to its appraisal and also to show
that it runs up against the economic stability in a macroeconomic setting with
which we will be dealing presently.
The scope of the stable revenue objective can be seen from the following statements. The Financial Secretary told the Members of the Legislative Council in 1950:

"...should there be a fall in prices or a major trade recession with a resulting drop in revenue, this expenditure should be slowed down or deferred and the sum should be sufficient to take up the slack; but during the next few years large additional sums are likely to be required to meet recurrent expenditure... even to execute a general development plan, greater sums will be required than were originally estimated... It will not therefore be possible to consider any major reduction in taxation and such surplus of revenue over expenditure as may accrue should be used for development schemes."

Chief Kitaha M. Makwaia told the members of the Legislative Council in 1953:

"...a steep drop in income tax revenue is to be experienced in 1954 and 1955, if inflationary tendencies do not reassert themselves. We have got to think quite serious ways and means of getting additional revenue in order to maintain our recurrent expenditure..."

The Finance Minister in presenting his budget told the Legislature 1959:

"...one of the most important practical considerations so far as the revenue is concerned is that a country in which there is some tendency to booms and slumps the division of revenue between indirect and direct taxation produces a certain amount of stability. The revenue from indirect taxation is generally affected much more quickly by a change in the fortunes of the economy than the revenue from direct taxation... there is a delay of at least a year in the fall in the revenue from direct taxation..."

From the results of revenue collected by way of taxes on income it can be said that the government has been quite successful in achieving this objective. It ought to be noted that we are here concerned with absolute amount rather than the elasticity of a change in revenue from income taxes with a change in domestic output, an objective to be dealt with in the next Section of this Chapter.

B. Price Stability. Several devices of achieving this objective have been used by the government. Clearly it is arguable that our appraisal of stabilization objective ought to be restricted to economic stability achieved through taxes on income. There are however two main reasons for dealing with price stabilization objective. First, although it may be theoretically possible to analyse the stabilizing functions of various policy tools separately,
it is difficult in practice to evaluate the degree of economic stability brought about by a given policy tool, such as income taxation. Secondly, as is usually the case in many of the Tropical African economics (e.g. Uganda, Nigeria and Ghana) windfall gains are either taxed through export tax or absorbed by statutory price-fixing marketing boards. Thus the treatment of price stability before appraising the stabilization of income through taxes on income will be a helpful procedure in two main respects. First of all, knowledge of the fact that certain institutional factors can be useful stabilizing devices will make us wary of the extent to which maintained economic stability can be attributed to taxes on income. Secondly, it will enable us to dispose of the treatment of cesses and export duties in this subsection leaving us to concentrate on the stabilizing influence of aggregate income taxes later.

Government policy with respect to price stability can be classified under three main headings. First, control of prices to ensure adequate supply of foodstuffs in the war and post-war period; second, the establishment of advisory organizations of various outputs which in turn either provide useful information to members on marketing or indeed compel them to limit production and prevent them from selling their output through any other channels; third, the control of prices through the statutory boards or otherwise of exportable commodities.

As for the direct controls by the government, these took the form of produce and price control at the beginning of the war and by these devices it intervened directly in the marketing and distribution of local produce and exports; the prices of imports sold in domestic market were checked by price control rather than produce and price controls both as in the case of domestic output for local consumption and exports. At the end of the war, whilst produce
control came to be restricted to the foodstuffs which were inadequate in supply (control on exports like sisal and cotton was removed), government Grain Storage Department was established and producers were required to sell all their produce at a pre-determined price. The government acted as an agency to supply foodstuffs evenly all over the country and in so doing incurred losses or made profits as the situation demanded. The Grain Storage Department operated until 1957 whence with the adequacy of supplies it was wound up; its turnover over a period of eight years was £30 million and its stabilizing influence over the period of its operation can be seen from its net profits each year in Table 38 below.

Table No. 38

<table>
<thead>
<tr>
<th>Year</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>1949/50</td>
<td>+ 56,427</td>
</tr>
<tr>
<td>1950/51</td>
<td>- 38,305</td>
</tr>
<tr>
<td>1951/52</td>
<td>- 142,791</td>
</tr>
<tr>
<td>1952/53</td>
<td>+ 52,589</td>
</tr>
<tr>
<td>1953/54</td>
<td>+ 44,569</td>
</tr>
<tr>
<td>1954/55</td>
<td>- 431,789</td>
</tr>
<tr>
<td>1955/56</td>
<td>-1,076,852</td>
</tr>
<tr>
<td>1956/57</td>
<td>- 58,435</td>
</tr>
<tr>
<td>Total</td>
<td>£-1,517,977</td>
</tr>
</tbody>
</table>

Source: Annual Reports of the Grain Storage Department.

Price control was retained mainly on imports but it also applied to certain domestic outputs not falling within the activities of the Grain Storage Department. If the imports were the ones which were not subject to control during war, price control took the form of landed cost plus a percentage, the actual selling price being calculated by the price control on costing submitted by the importer; in the case of imports already under
control since the war period, prices were fixed according to the cost plus a fixed percentage, the cost being variant with the place of consignment. In the case of domestic produce not falling within the activity of the G.S.D., wholesale and retail prices were fixed by order which took account of transport costs in various places. These forms of price controls also came to an end by 1958 as a result of supply of various outputs becoming adequate.

At the end of the war, in anticipation of controls over various items of exports being lifted different commodity boards were established by legislation to act purely in an advisory capacity. Sisal, pyrethrum, coffee and tobacco Boards were established in this way by 1950, whilst in cases such as sisal and tobacco no statutory price-fixing has existed since but acreage has been controlled and in the case of pyrethrum and tobacco marketing through these non-price-fixing Boards has remained compulsory. For coffee co-operative societies no obligation as to price, production, marketing etc., has ever existed. What is worth noting in this context is the fact that these semi-advisory statutory bodies sought, in the process of advising their members, to achieve price stability through stability of production and distribution rather than price-fixing. The existence of the Sisal Board since 1945 gave rise to the formation, in 1948, of the Sisal Growers' Association. It was established when government control, which is estimated to have absorbed some £11 million from 1939 to 1949 through direct buying at fixed prices, came to an end. The S.G.A. then consisted of seventy percent of producers representing over fifty percent of the output and stability in channelling the output of members is certainly ensuring, through pooling of sales, regular monthly advances to growers based on production rather than on fluctuating sales. Members of the Tea Board have also been under a similar arrangement; but tea growers such as the Associated Tea Growers of the East African Organization enjoy such stability with respect to a pool of supply for the domestic market only and not
that of the foreign market as in the case of sisal.

In the case of cotton, whilst no estimates of the extent of intervention by government during war years and an interim period to 1952 are available as for sisal, the activities of the Lint and Seed Marketing Board, established statutorily in 1952 with its initial Price Assistance Fund of £3 million, are clear in Table 39 below.

Table No. 39

<table>
<thead>
<tr>
<th>LINT AND SEED MARKETING BOARD</th>
<th>PRICE STABILIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export and Earning of Cotton</td>
<td>Balance as on 30th June £ million</td>
</tr>
<tr>
<td>Vol.</td>
<td>Price</td>
</tr>
<tr>
<td>Tons</td>
<td>per ton £</td>
</tr>
<tr>
<td>1953</td>
<td>4.83</td>
</tr>
<tr>
<td>1954</td>
<td>3.36</td>
</tr>
<tr>
<td>1955</td>
<td>5.53</td>
</tr>
<tr>
<td>1956</td>
<td>7.49</td>
</tr>
<tr>
<td>1957</td>
<td>6.58</td>
</tr>
<tr>
<td>1958</td>
<td>7.25</td>
</tr>
<tr>
<td>1959</td>
<td>6.66</td>
</tr>
<tr>
<td>1960</td>
<td>8.83</td>
</tr>
<tr>
<td>1961</td>
<td>8.79</td>
</tr>
</tbody>
</table>

*There was a small transfer in these years from the price stabilisation Fund to the general funds to meet with the deficiency in the latter.*

Sources: Lint and Seed Marketing Boards Annual Reports; Administering Authorities Report to the Trusteeship Council to 1960

The fund was established for application to the maintenance of prices paid for cotton lint and in this way to ensure the meeting of the guaranteed prices to producers for seed cotton. The price stability achieved by the Board can be ascertained in one of the two ways. One can either compare the international prices fetched by the Tanganyikan cotton with the fixed prices paid to the producers or compare the total earnings on exports with the proceeds of sale paid to the growers. We show the latter in Table 39.
and also ascertain from it the prices which would be payable to growers who would then be liable to cesses raised by the Board to cover its administrative expenses. Although the prices shown in the last column of Table 39 are not fixed prices, they nearly reflect the fixed prices in that they are fixed prices gross of Board’s cesses and central government’s export tax.

So much for the institutional devices for stability of prices. Some of the outputs of Marketing Boards such as sisal, cotton and coffee have also been subject to exports tax which is being used for development projects in Tanganyika. Now there is not much doubt as to the insulating influences that many of these export taxes may have on the economy through reduction in personal disposable income. A useful way of ascertaining whether the rates of these taxes have been high enough to create insulating influence on the economy has been illustrated in a recent survey of East African National Income.34

This study uses the national income data in Uganda which are derived through factor shares. Factor shares consist of: income of African enterprises as such without distinction between wages and profits; profits of private business, surpluses of marketing boards and public enterprises; wages and salaries; and subsistence income. There are additional data on government surpluses or deficits and proceeds of outputs subject to export tax and price-fixing, viz. cotton and coffee. Personal income is derived by adding up income of African enterprises, private business profits and wages and salaries. Whilst these cotton and coffee incomes are reflected in gross domestic product they are also a component part of personal income. What this study infers is the extent to which the difference between the proceeds of these crops and what the farmers receive and government surpluses really reduce personal disposable income. Obviously, this study has its shortcomings because it does
not attempt to estimate the propensity to consume of the income recipients of personal income so that the price level at a given equilibrium level of income, viz. with savings equal to investment, can be ascertained. The purpose of ascertaining general price level in this way would be to determine whether or not export taxes have been sufficiently high and price fixing by marketing boards an adequate device. This study has, on the other hand, a merit because it at least illustrates the fact that stabilizing devices were utilized to the fullest. For instance in 1951 the difference between actual proceeds and the receipts of farmers was of the order of £25.2 million out of total proceeds of £39.1 mln.; farmers received £13.9 million, Marketing Boards £17.1 million and export tax of the government amounted to £8.1 million, personal income amounted to £96.4 million and government surpluses to £3.5 million.

Similar data with respect to the Tanganyikan economy can be obtained subject to some modifications. As there is no data on factor shares, we shall not attempt to obtain the disposable personal income and will instead concentrate on the extent to which total earnings of sisal, cotton, coffee and other producers who are subject to export tax are reduced by tax levies. In the case of cotton we shall further use the results of price-fixing Marketing Boards in absorbing income. In ascertaining actual income received by farmers we shall ignore the cost of administration by various Boards (met with from cesses imposed by the boards themselves as distinct from the local authority cesses) which export on behalf of the producers and assume that they retain no surpluses except the statutory price-fixing Cotton and Lint and Seed Board. In other words, we shall take the value of exports net of export tax, local authority cesses and statutory Marketing Boards surplus as the earnings of producers. The results are shown in Table 40.
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</thead>
<tbody>
<tr>
<td>Exports (Value):</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sisal</td>
<td>23.70</td>
<td>21.80</td>
<td>12.77</td>
<td>10.90</td>
<td>9.96</td>
<td>10.80</td>
<td>9.48</td>
<td>10.35</td>
<td>13.06</td>
<td>15.44</td>
</tr>
<tr>
<td>Cotton</td>
<td>2.77</td>
<td>4.68</td>
<td>4.83</td>
<td>3.36</td>
<td>5.53</td>
<td>7.49</td>
<td>6.58</td>
<td>7.25</td>
<td>6.66</td>
<td>8.85</td>
</tr>
<tr>
<td>Coffee</td>
<td>4.56</td>
<td>5.61</td>
<td>5.82</td>
<td>10.00</td>
<td>0.90</td>
<td>9.24</td>
<td>7.14</td>
<td>7.58</td>
<td>5.75</td>
<td>7.33</td>
</tr>
<tr>
<td>Hides and Skins</td>
<td>1.75</td>
<td>1.93</td>
<td>1.65</td>
<td>1.53</td>
<td>1.24</td>
<td>1.20</td>
<td>1.22</td>
<td>1.20</td>
<td>1.92</td>
<td>1.84</td>
</tr>
<tr>
<td>Total</td>
<td>32.78</td>
<td>34.02</td>
<td>26.17</td>
<td>27.14</td>
<td>25.35</td>
<td>29.59</td>
<td>25.36</td>
<td>26.38</td>
<td>27.39</td>
<td>33.49</td>
</tr>
<tr>
<td>Export Tax</td>
<td></td>
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<tr>
<td>Changes in the Price Assistance</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.50</td>
<td>0.60</td>
<td>-</td>
<td>0.10</td>
<td>0.20</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>Fund of the L &amp; S Marketing Board</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stabilization Measures</td>
<td>1.40</td>
<td>1.40</td>
<td>0.10</td>
<td>1.80</td>
<td>0.87</td>
<td>0.03</td>
<td>0.12</td>
<td>0.23</td>
<td>0.43</td>
<td>0.55</td>
</tr>
<tr>
<td>Govt. Surplus</td>
<td>1.5</td>
<td>2.54</td>
<td>0.44</td>
<td>2.14</td>
<td>1.14</td>
<td>1.28</td>
<td>0.20</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Less withdrawals</td>
<td>0.10</td>
<td>0.27</td>
<td>0.10</td>
<td>0.27</td>
<td>0.18</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net Surplus</td>
<td>1.5</td>
<td>2.44</td>
<td>0.14</td>
<td>2.04</td>
<td>0.87</td>
<td>1.10</td>
<td>0.20</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
C. **Stability of Income.**

As indicated previously, although the authorities do not seem to have indicated that taxes on income were to be used to adjust the level of income and hence consumption, investment, general level of prices, taxes on income nonetheless have been operating to have consequences on the prevalent state of stability. The accepted measure of ascertaining the extent of stability that may be brought about by given taxes on income is to evaluate the elasticity of revenue yield or its built-in-flexibility. Now with the sort of records of assessment and collection of income tax proper in relation to the year of income are such that this would be an impossible task and we have to rely on some alternative measures.

We can begin by considering the statistical data that are necessary for the purpose of diagnosing the existence of economic instability and further for the purpose of proper prescription. Generally speaking, the degree of instability in an economy can be diagnosed from the external balance of trade or balance of payment and the price indices of consumer and investment goods. For prescriptive purposes it is however necessary to ascertain the net disposable income at a given time as well as the output of production for a closed economy; balances of trade are further details required for an open economy. The method of disposal of net disposable income of each group should be ascertainable, e.g., the propensities to consume of each net disposable income group (or net disposable factor income, e.g. indices of wages) should be aggregated to indicate aggregate effective demand for consumer goods. Further, the propensity to save of each net disposable income group when aggregated will yield the personal savings in an economy. Under the flow of funds statistics the way in which these savings are channelled into the investment can be ascertained. When such investments are related to the non-personal savings, total investment in the economy is ascertainable. Thus total consumer demands should be related to the output of consumer goods produced and
the net balance of trade on consumer goods. Likewise, total demand for investment goods is related to the output of production and net balance of trade on investment goods. In each case the inventories have to be taken into account. All these data are usually difficult to get even in the developed economies, e.g. data relating to the marginal propensity to consume of each income group or of each source of income group and the inventory in business at any given time are difficult to ascertain with a fair degree of precision. It is usual to rely on the details of net disposable income of each group, the nature of their effective demand and the output of production for the whole economy. In the case of Tanganyika there are no exact details of net disposable income of each income group, nor of the time lag between the earnings of income and the actual payment of income taxes.

Arising from this difficulty of ascertaining net disposable real income in terms of its size and marginal propensity to consume and save as one possible statistically dependent variable, it is necessary to relate the effective demand to the net disposable income of the factor shares because it is possible that first of all small variations in the income size may not alter the propensity to consume much under the special consumption habits government by the tribal or regional customs; and further the lack of communication and proper distributive channels may impose certain limitations on the operation of the functional relationship between income size and consumption and saving decisions as in the Western economies. Hence, it will suffice to distinguish the disposable incomes of upper and lower income groups only. The net disposable income of both these groups require to be determined because if income tax were to be effective in curtailing effective demand, generally speaking the size of the tax as well as the time of the payment (rather than the announcement of tax liability) have direct effects on the effective demand; difficulties as to the determination of the size of the tax deducted in relation
to the redistributive objective have been stated, but here the time of collection of the tax is a more crucial factor. If the tax is not at once collected even an increase in the prices of consumable goods may give rise to an increase in effective demand because for one thing the tax savings offer biggest inducement to spend and also because the rise in prices may be taken to be a forerunner of a further possible price increase.

The extent to which the operation of the Tax Reserve Certificates creates a dampening influence can be ascertained only in aggregate terms as the amount of Certificates purchased is reported in terms of its total size and value rather than in terms of its total size and value or rather than in terms of the purchasers' income size or factor share. Details relating to the size and amount of such Certificates purchased each year are however produced below, so that some indication may be had of its overall dampening influence on the economy.

**Table No. 41.**

**TAX RESERVE CERTIFICATES**

<table>
<thead>
<tr>
<th>30th June</th>
<th>Balance on 30th June of Preceding Year</th>
<th>Receipts during the year</th>
<th>Payments during 30th June of current year</th>
<th>Balance on 30th June of current year</th>
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<tbody>
<tr>
<td>1957</td>
<td>N.A.</td>
<td>164.9</td>
<td>11.9</td>
<td>153.0</td>
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<td>1958</td>
<td>153.0</td>
<td>97.3</td>
<td>137.2</td>
<td>113.0</td>
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<td>1959</td>
<td>113.0</td>
<td>157.2</td>
<td>136.6</td>
<td>133.6</td>
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<tr>
<td>1960</td>
<td>133.6</td>
<td>216.9</td>
<td>110.3</td>
<td>240.2</td>
</tr>
<tr>
<td>1961</td>
<td>240.2</td>
<td>175.0</td>
<td>186.9</td>
<td>228.3</td>
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</tbody>
</table>


Thus, from the nature of the present tax records, the time of collection of tax as related to a particular period of earnings of income cannot be precisely determined. As our concern at present however is to appraise the
operation of income tax as an automatic stabilizer, the price indices relating to the domestic sector should suffice.

These are the Cost of Living Indices of the African wage-earners in Dar-es-Salaam based on consumer survey of African employees and wage-earners held in Dar-es-Salaam during 1950 and the Cost of Living Indices of the European Civil servants based on a similar survey conducted in 1947. These are shown in the Table below.

Table No. 42

COST OF LIVING INDICES IN TANGANYIKA

A. Cost of Living Indices of Europeans in Dar-es-Salaam: 1947 to 1957 (Dec. 1950 = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Index</th>
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<tr>
<td>1947</td>
<td>83</td>
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<tr>
<td>1948</td>
<td>86</td>
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<td>1949</td>
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<tr>
<td>1950</td>
<td>100</td>
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<td>1951</td>
<td>114</td>
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<td>1952</td>
<td>123</td>
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<td>1954</td>
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<tr>
<td>1956</td>
<td>135</td>
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<tr>
<td>1957</td>
<td>140</td>
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<tbody>
<tr>
<td>1951</td>
<td>..</td>
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<td>91</td>
<td>92</td>
<td>98</td>
<td>100</td>
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<td>112</td>
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<tr>
<td>1954</td>
<td>119</td>
<td>119</td>
<td>119</td>
<td>118</td>
<td>115</td>
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<tr>
<td>1955</td>
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<td>115</td>
<td>115</td>
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<td>113</td>
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<tr>
<td>1956</td>
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<td>111</td>
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<tr>
<td>1957</td>
<td>111</td>
<td>112</td>
<td>116</td>
<td>119</td>
<td>119</td>
<td>121</td>
<td>119</td>
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<tr>
<td>1958</td>
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<td>120</td>
<td>121</td>
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<tr>
<td>1959</td>
<td>125</td>
<td>124</td>
<td>121</td>
<td>121</td>
<td>120</td>
<td>119</td>
<td>117</td>
<td>116</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>118</td>
<td>120</td>
<td>117</td>
<td>121</td>
<td>122</td>
<td>124</td>
<td>123</td>
<td>127</td>
<td></td>
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</tbody>
</table>
**Explanation:** These are actual indices and are not adjusted for removal of seasonal trends because no seasonal adjustments for years before 1954 are available.


The above data are not perhaps indicative of perfect stability; there was a steep rise between 1950 and 1951 and 1956 and 1957.

For an economy like Tanganyika with not a serious balance of payment problem nor excessive reliance on one or two major export crops the destabilizing economic forces have not been until recently diagnosed as such. Certain recent findings reveal the type of forces which destabilizes the economy of Tanganyika. The genesis of these findings is the existence of "leads" and "lags" in the operation of the various Macro aggregates like imports, exports, government spending, etc. These are obvious limitations on the extent to which various macro-aggregates of a stability model can be analysed as no satisfactory social accounting data in respect of aggregates like consumption and savings are available. These findings indicate that the import demand does not respond immediately to the changes in export earnings or export prices, nor does the government expenditure or imports of foodstuffs, etc. react in a normal way to the decline in import prices. An analysis of such "leads" and "lags" and the resultant instability may refer only to the effective demand for consumer goods; no similar information is available on the effective demand for investment goods. All that can be learned from these data is that the European Consumers' Cost of Living Index is less liable to fluctuate than that of the non-Europeans.

We therefore turn to the other possible sources of information which might throw light on the degree of stability in the economy. There are two recent studies with rather different conclusions. Both studies are concerned with the effect of external fluctuations on the whole economy because Tanganyikan economy is fairly diversified in its exports all of which constitute (except perhaps sisal).
a small percentage of trade in the particular item of export concerned. These studies therefore deal with the overall effect rather than a partial effect on one sector of the economy, as is the case with countries with monocultural exports falling in balance of payment difficulties. The first study reveals the diffusion of external effects is subject to delayed responses and is such that import demand does not respond immediately to the changes in export earnings or prices, nor do the government expenditure and incomes of foodstuffs, etc. react in a normal way to the decline in import prices. This study attributed such "leads" and "lags" to the factors such as the inability of those concerned with the making of policy decisions to understand the nature of the forces affecting the economy and abstained from making comments on the way in which changes in rates, collection of tax, etc. would affect the repercussive effect of external forces on the economy. The second study tries to indicate that internal economic variables such as income, investment, prices, employment and government budget reveal very little sensitivity of fluctuations in merchandise export earnings. According to this view, such insensitivity arises from three factors: induced changes in the remitted profits of companies engaged in the main export item like sisal; the lag in the collection of income tax and relatively small variations in the rates of personal tax such that government revenue becomes somewhat stable; and finally autonomous factors such as aid from Colonial Development and Welfare Funds.

Our principal concern is with the way in which the method of assessing and collecting income tax affects the economic stability. In so doing, our main criticism of the latter body of opinion is that it is basing its conclusion as to the insensitivity of the domestic economy to external forces on much too slender an evidence. Secondly, even if the method of income tax assessment and collection to-date were, for the sake of argument, a partial stabilizing device of the domestic economy to external forces, the operation of income tax
as a stabilizer would be too much of a hit-and-miss process. There is no
reason to expect that the basis of income tax assessment and collection would
really be such as to rectify the short-term fluctuations as and when they
would arise. The case for the necessity of using income tax as a stabilizer
by means of deliberate variations in rates or certain built-in structural
features rather than by uncontrolled delays in assessment and collection or
built-in administrative (haphazard) features is further reinforced once it is
borne in mind that income tax is meant to be a stabilizer not only of external
repercussions on the domestic economy but also of the domestic fluctuations
themselves.

Section (6) Revenue Objective and Taxable Capacity With Respect to Income Tax.

It is one of the objectives of a fiscal system which is subject to the
political considerations to the greatest extent. In Tanganyika there has been
two major causes for an ever-increasing demand for the government revenue.
First, the continuation of war, at the commencement of which income tax proper
was introduced, demanded greater and greater sacrifice to the governing
administration, this sacrifice did not end until the late 1940's since even after
the war several post-war pressures, such as the disposal of the pool of
excess grain, the existence of refugees, etc. prevailed. Second, the development
plans were initiated and the necessity of a surplus balance on the recurrent
expenditure budget became very desirable.

One of the most obvious ways of ascertaining the taxable capacity is to
relate the income tax revenue to the Gross Domestic Product or to state the
number of income and personal taxpayers as a fraction of the total population,
and compare these results with the results in other countries. Whether or not
the revenue objective of the government has reached the level near enough to
its taxable capacity cannot be determined on the basis of a fixed minimum ratio
of income tax revenue as a percentage of the Gross Domestic Product. It is
only on the basis of its performance in similar and comparable countries that the appraisal of this particular objective can be carried out. Obviously, an increasing rise in the revenue receipts can, in purely economic terms, be owing to one of the two factors. First, an ever-increasing consciousness of the members of the community to help the government to maintain objectives of the tax system, i.e. willingness to make more sacrifice for the war efforts of the ruling authority or, at a later stage, an increasing appreciation of the government's need for more internal finance to carry out implementation of the development plans. Second, the growth of population and economic activity in general which expands the size of the population of the potential taxpayers. In less developed countries however with a limited departmental staff and lack of literacy, proper accounting practices, professional advisers and ever-increasing and omnipresent human ingenuity in tax evasion and avoidance, the growth in revenue may be the result of improvement in these administrative factors. Although it may be possible to isolate the heterogeneous non-economic cause of increase in revenue collections from the combined causes of a rise in revenue collections with the exact records of revenue collections, arrears in assessment and tax payments, there is still the difficulty of isolating the political (or rather patriotic) factor from the existing level of tax collection, administrative factors abstracted. So we have income tax actually collected as a percentage of Gross Domestic Product and also income tax actually assessed and receivable as a percentage of Gross Domestic Product. To represent the taxable capacity and the revenue yield as a percentage of the national income, we take an average percentage increase in each case and then take the middle value of the percentage increase in tax collected and the percentage increase in tax receivable as shown in Table 45.
Table No. A3

GROWTH OF PER CAPITA NATIONAL INCOME AND INCREASE IN
REVENUE FROM INCOME TAXES COMPARED

<table>
<thead>
<tr>
<th>Year</th>
<th>Per Capita Income (C. &amp; P.)</th>
<th>Increase %</th>
<th>I.T. Proper Actual Gain</th>
<th>Increase %</th>
<th>I.T. Proper Accrued Gain</th>
<th>Charge Gain %</th>
<th>Personal Tax Gain %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>£16.2</td>
<td>0.3</td>
<td>3.89</td>
<td>+1.8</td>
<td>4.67</td>
<td>+0.59</td>
<td>12.6</td>
</tr>
<tr>
<td>1953</td>
<td>£16.5</td>
<td>0.6</td>
<td>4.21</td>
<td>+3.6</td>
<td>5.26</td>
<td>-18.6</td>
<td>35.4</td>
</tr>
<tr>
<td>1954</td>
<td>£17.1</td>
<td>0.2</td>
<td>5.27</td>
<td>+1.3</td>
<td>3.40</td>
<td>+0.36</td>
<td>1.6</td>
</tr>
<tr>
<td>1955</td>
<td>£17.3</td>
<td>0.4</td>
<td>4.55</td>
<td>+2.3</td>
<td>3.76</td>
<td>+0.06</td>
<td>1.16</td>
</tr>
<tr>
<td>1956</td>
<td>£17.7</td>
<td>0.8</td>
<td>4.29</td>
<td>+4.5</td>
<td>3.82</td>
<td>-0.55</td>
<td>14.4</td>
</tr>
<tr>
<td>1957</td>
<td>£18.5</td>
<td>0.3</td>
<td>4.17</td>
<td>+1.6</td>
<td>5.17</td>
<td>+0.38</td>
<td>12.0</td>
</tr>
<tr>
<td>1958</td>
<td>£18.8</td>
<td>0.7</td>
<td>3.80</td>
<td>+3.7</td>
<td>5.55</td>
<td>-0.33</td>
<td>23.3</td>
</tr>
<tr>
<td>1959</td>
<td>£19.5</td>
<td>0.7</td>
<td>3.65</td>
<td>+3.6</td>
<td>4.38</td>
<td>+0.23</td>
<td>5.2</td>
</tr>
<tr>
<td>1960</td>
<td>£20.2</td>
<td>Av.</td>
<td>4.13</td>
<td>+2.8</td>
<td>4.29</td>
<td>Av. 2.18</td>
<td>Av. 5.05</td>
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</table>

<table>
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<tr>
<th>Year</th>
<th>Export Tax Gain %</th>
<th>Change</th>
<th>Local Government Tax Gain %</th>
<th>Change</th>
<th>Total Taxes on Income Gain %</th>
<th>Change</th>
</tr>
</thead>
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<tr>
<td>1952</td>
<td>1.35</td>
<td>-</td>
<td>0.01</td>
<td>+0.02</td>
<td>6.85</td>
<td>+6.25</td>
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<tr>
<td>1953</td>
<td>0.14</td>
<td>-1.11</td>
<td>-0.02</td>
<td>-200</td>
<td>6.15</td>
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<td>1954</td>
<td>0.33</td>
<td>+1.19</td>
<td>0.01</td>
<td>+0.13</td>
<td>7.58</td>
<td>+1.43</td>
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<td>1955</td>
<td>0.26</td>
<td>+0.26</td>
<td>0.01</td>
<td>+0.26</td>
<td>6.81</td>
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<td>1956</td>
<td>0.02</td>
<td>-0.24</td>
<td>0.01</td>
<td>+0.24</td>
<td>5.54</td>
<td>-1.90</td>
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<tr>
<td>1957</td>
<td>0.03</td>
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<td>0.01</td>
<td>+0.33</td>
<td>5.52</td>
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<tr>
<td>1958</td>
<td>0.04</td>
<td>0</td>
<td>0.01</td>
<td>-</td>
<td>5.52</td>
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<td>1959</td>
<td>0.04</td>
<td>+0.01</td>
<td>0.01</td>
<td>-</td>
<td>5.51</td>
<td>-0.19</td>
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<td>1960</td>
<td>0.05</td>
<td>+0.01</td>
<td>0.01</td>
<td>-</td>
<td>5.51</td>
<td>-0.17</td>
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</table>

Av. 0.85 Av. 46.7 Av. 1.97
On comparison it appears that income tax as a percentage of the national income in Tanganyika is fairly large, but perhaps not large enough if government requires still more domestic savings for its development plans. The comparison with the developed countries is not necessarily tenable as some of these countries have large war-time national debts unlike most of the less-developed countries.

If one were prepared to accept the existence of a political limit to raising government revenue nearing taxable capacity in respect of a given tax, an alternative standard of measurement is available. This is the measure under which the evolution of tax revenue (as related to a given year of income in order to eliminate administrative lag in assessment and enforcement of known assesses, not possible tax evaders) is compared to per capita income development. If over a period of five to ten years, the percentage increase and the tax ratio lags behind the percentage improvement of per capita income, this may be some evidence of the fact that government revenue objective did not approach close enough to the taxable capacity of the economy.

In Tanganyika the rise in income tax revenue has not kept pace with the rise in national income until 1960. Whilst the former is 2.6% the latter is 1.97%. In such a case the government could be said to have not taken adequate measures to syphon off increased taxable capacity. The company taxe were raised in 1962/63 and 1963/64 with the introduction of the Corporation Tax and are leviable on the 1961 and 1962 years of income. But as the data of income taxes collected or assessed are not available, or rather are not as yet prepared (taxes collected in 1962/63 and 1963/64 or taxes assessed in 1962/63 and in 1963/64 on the 1961 and 1962 years of income respectively), not a great deal can be said as to the extent to which these changes have absorbed the taxable capacity. If however the size of estimated Corporation Tax is examined against the tax revenue
yields for immediately preceding years. Corporation Taxes hardly appear to be large enough to cover the gap between 62% rise in income tax revenue and 24.7% rise of per capita income. Income tax amounting to 2.59% of the Gross Domestic Product in Tanganyika is by no means the highest ratio among the countries which are as economically advanced as Tanganyika. Thus, on the basis of comparison with similar other countries as well as of ratios of revenue rise and the rise in chargeable income, it appears that there probably is still some taxable capacity in Tanganyika at present.

Section (7) Inter-regional Operation of Taxes on Income.

The scope of this particular policy objective is obvious from Part II of this study. To recapitulate briefly however, the tendency has been to maintain parity of rates of taxes as between three territories and until recently no transfer of revenue, except that which was related to one territory but collected in another, was made. It was, however, realized that the "spillover" effect of higher growth in one region into another with lower rate of growth was inadequate owing, in all probability, to the resource immobility. In consequence, a distributable pool of revenue has been established. In dealing with the inter-regional matter as between a central government of a given territory and the East African level of government financing we therefore have to deal first of all with the influence of parity of rates on growth, income redistribution and stabilisation policies, and then go on to try to deal with the way in which policy objectives have been altered by the distributable pool. As for the local government relationship vis-a-vis territorial central government, it is once again clear that the only policy was in relation to the division of poll taxes between central and local government and that in the early stages of the operation of this form of tax rates of levy were made variable with the regional prosperity of various parts of the country. Apart from the relationship arising from the division of revenue from 1926 to 1957, the local authorities
have generally been self-financing with practically no grants from the central government except by way of loans.

Prior to the introduction of distributable pool, parity of rates of taxes had had no effect on income redistribution or economic stability. It nonetheless brought about unequal rates of growth and the benefits derived by most rapidly growing region did not obviously spill over in the least rapidly advancing ones. The Raisman Commission tried to estimate the extent of "spillover" effects but without success, and we would not wish to pretend that we could calculate it.\(^{39}\) Now the Raisman proposals inevitably induce growth in so far as the revenue of distributable pool (our concern here being rather with that part of the pool which consists of income tax proper) transferred to Tanganyika is expended by the government, e.g. expenditure on public roads creating external economies for private sector and thereby influencing location of enterprise. To the extent to which the Tanganyikan economy and her individuals enjoy the benefits of such transfers\(^{40}\) redistribution of income from Kenya occurs. In so far as effective demand of government in Tanganyika is at variance with that of Kenya government, the transfer of income tax revenue of the pool influences economic stability as between three regions. Lastly, the receipt of income tax revenue from the pool by the Tanganyika government from outside the territory reduces pressure on the part of the government to raise revenue from income tax to the extent of reaching taxable capacity to its limit and leaves extra capacity to raise revenue in future. Despite all these various possibilities of inter-regional income redistribution, it is generally felt that the Raisman Scheme is simply a stop-gap.\(^{41}\)

The relationship between central and local governments in Tanganyika has been somewhat limited. The system of one level of government collecting revenue from one particular source and dividing it according to the pre-agreed
ratios is a well-known one in the multi-level structures of government financing. It does now, however, emerge as to whether the arrangement in Tanganyika was really aimed at anything other than helping local authorities (mainly native authorities or the equivalent of current district councils) until they became responsible enough in administering their own finances rather than in developing potential taxable capacity. Whatever inter-regional redistributive, growth-inducing and stabilizing consequences that the system of central authority collecting revenue on behalf of local authorities and then dividing it might have had, would thus be purely incidental and need not be appraised.

Section (8) Conclusions.

Even though we began the Chapter by indicating that owing to a great divergence between the estimates and outturn of income tax revenue over the past years income tax system could be far from effective in its various functional objectives, we have indicated, we hope, that this need not necessarily be the case. The performance of this given system has to be examined in a given context and its functional efficiency thus examined in relative rather than absolute terms. Lack of statistical data made it virtually impossible to derive any conclusions even in relative terms. Thus, even though we attempted to compute distribution of income on the classical pattern of gross factor shares, the lack of data on the actual payments of income tax and personal tax by each individual factor share made it impossible to evaluate the redistribution of income brought about by the income tax policy. Again, lack of data on depreciation and investment allowances made it impossible for us to evaluate its effect on the growth of capital formation in the economy or on the growth of domestic product in the economy. As regards the
stabilization policy, we attempted to obtain the details of the net disposable income of each factor share rather than income size (as the latter is not obtainable) but the lack of data on the actual payment of tax by each factor share defeated our purpose. Needless to say, the necessity of obtaining data on actual payment of tax has been much more acute in this case than in the case of income distribution because few taxpayers base their decisions to spend in the light of their tax liability rather than tax payment per se. It is arguable that the redistributive policy can be examined over a wider time horizon, thereby enabling us to obtain income tax paid, deductible from gross factor shares, by some sort of averaging of the actual tax paid in a given year of income and the theoretical liability (as related to the year of income for which gross factors are computed). This is surely not the case with stabilization policy as the economy is subject to short-run fluctuations, and the time lag between gross and net factor share receipts is of utmost importance. The changes in rates and allowances are not, on the other hand, as short-run as are the economic fluctuations. Furthermore, the details of net disposable income have in any case to be related to the data on the output of production and such details are available for industrial production only and are also incomplete and in the form of a non-continuous time series.

We have discussed so far what we have not been able to do. What, then, have we been able to do? We have at least made it possible to spell out the order of priorities of the government policy in relation to income tax, and our immediate conclusion is that the order of priority of government policy in relation to income tax is such that it does not prove a general exception to the
fiscal policy. Thus, with income tax, as with import duties generally the government's main concern is to maintain a revenue yield so long as the process of raising revenue does not give rise to disincentive effects on the taxpayers. Income tax policy differs from the import and excise duties because, as in the case of the former, depreciation and investment allowances are used as incentives to induce growth whilst, in the case of the latter, there are no similar growth-inducing tax concessions. As for income redistribution, although the government's concern in the early stages remained with the equal treatment of equals as between the income taxpayers at progressive rates of tax, and eventually led to the equal treatment of equals as between the income tax as well as personal taxpayers again at progressive tax rates, it is perhaps true to say that the shift of emphasis of the government policy is towards the growth and allocation objective. This can be seen from the willingness of the government to slightly lessen its insistence on the "equal treatment of equals" view and discriminate in favour of mining and domestic raw material processing industries. The emphasis is still generally on the well-planned government expenditure which would make possible the exploitation of resources, rather than on the tax-induced incentives for growth, although the special reduced rates of tax for mining companies and special investment rebates to domestic raw materials processing industries are the examples of tax-induced incentives. As regards the use of income tax policy for economic stability of the economy, although the changes in rates of tax, exemption, etc. have been much more frequent in recent years, these are hardly aimed at adjusting the level of net disposable income for consumer and business investment expenditures. These changes seem more to reflect the change over from the external trusteeship government to the internal independent government and the change in policy.
To illustrate, the abolition of education tax as a tax based on income is in consequence of abolition of racial schools rather than the state of economic depression or at any rate stagnation which is believed to have been persisting in East Africa recently. The abolition of personal tax on income below £100 has likewise been due to the desire of the new government to confer more responsibility on local governments (rather than to bring about economic stability) and, for this purpose, leave more taxable capacity in this way in their hands. In general, the possibility of alteration in the amount of personal tax collected tends to be rather minimal owing to the low level of income which is not usually subject to personal allowances and reliefs and the stickiness of the rates of tax.

It is therefore true to say that income tax policy is not generally used to stabilize the economy; export duties are expected, instead, to perform this function in times of rising prices of primary produce but even so economic stability is a secondary objective, revenue yield being the primary one.
Appendix "F"

The purpose of this note is to bring to light some of the official or unofficial enquiries made through correspondence and the degree of response thereto.

I. At one stage I tried to ascertain whether the Economics and Statistics Division of the Tanganyikan Treasury could compile data on Personal Tax according to the size of the tax paid which I could combine with the income tax data and get some indication of the redistribution of income between various strata of income through taxes on income. I was given to understand that this would not be possible. When I further considered the possibility of my going there personally, I gathered that the copies of the receipts for personal tax issued to the taxpayers are not available in the Treasury and that they would be scattered in various regions and districts. Subsequently, the idea of appraising the distributional consequences of income taxes on various strata of income had to be dropped.

II. A Questionnaire was sent to the Commissioner of Income Tax in Nairobi in February 1963. He showed interest in the statistical problems raised in my questionnaire when he received and acknowledged it in March, 1963. As a result of complete silence on his part, I made enquiries about my questionnaire in May, 1963. He replied in July, 1963 to say that he would try and send some of the answers some time in August, 1963. There has been no communication since and at the time of summing up the findings of this research study, the questionnaire had to be left aside. It is nonetheless produced here to reveal its contents.
Question 1: What are the depreciation and initial allowances that are granted to the actual tax assesses in each year and could these be related to the respective columns in schedules 1 and 3 in your Annual Reports?

Observations: Schedules 1 and 3 provide data on the aggregate income and actual income; the latter is equal to the former reduced by the sum total of the losses, interest paid and passage allowances. These data are not quite as adequate as the data for gross true income, depreciation allowances, net true income, actual income, taxable income and tax payable as produced in Tables 32 and 33 of the U.K. Inland Revenue Annual Reports. The necessity of such data in formulating the tax policy for economic growth, e.g., in appraising the possible effects of such capital allowances on the capital formation or the growth of domestic productivity, has been recognized at least in one place in Africa. See, for example, the details of capital allowances (compiled from unpublished records of the government statistician) as incorporated in Table III in Taxation and Economic Development in Ghana (by Ferree) under the U.N. Technical Assistance Programme (TAG/GHA/4/Rev.1, July 1959).

Question 2: The details of the number of assessments made in any particular year do not appear to be in any way related to the cash collected and handed over to each government not of the cost of collection. It is absurd to find that the cash collections exceed assessments raised in any year up to the first half of 1954. (Thereafter the records of assessments raised and cash collected are really meaningless in the statistical or even the accounting sense because whilst the former refer to the calendar years, the latter to the financial years; the records of the London Office are however consistent in this sense as the assessments raised and the cash collected both relate to the calendar year. Even the London office records can be little more meaningful if the assessments raised and cash collected referred to both the calendar and the financial years and also if the respective details were in terms of each territory rather than East Africa as a whole).

Likewise there is no relationship between the assessments raised and the year of income to which they relate: as to this see Question 3.

Some attempts have been made to relate cash collected to the assessments raised in any year in analysing the arrears of tax collection on the basis of their "age" (arising from the Coates Commission's recommendations in paragraph 694). This attempt pursued since 1957/58 has not been quite so fruitful as can be seen from the following quotations taken from the 1961/62 Report:
"It is not easy to show in statistical form the true nature of arrears of tax since each individual case has its own special features ranging from the case of genuine inability to pay... to the where delaying tactics are deliberately employed to postpone the inevitable."

Could you be more specific as to what sort of "Statistical form" you have in mind?

Would you be in a position to provide copies (photostatic or otherwise) of the Balancing Statements (referred to by the Auditor of the E.A.C.S.O. accounts) to throw light on this matter clearly on an understanding that the individual items contained therein would be kept absolutely confidential at all times and the aggregate results derived therefrom may be made public?

**Question 3:**

The omission of the Table on Unassessed Cases has not been explained in the 1961/62 Report. Is it in any way indicative of the fact that there are no arrears of assessments or those of current returns not received?

Even the Table on Unassessed cases as it stood in the Reports prior to 1961/62 is open to criticism. For instance, the inclusion of current returns with the unexamined returns relating to the previous years of income, i.e., past returns received are to be taken as assessable on current basis. If so, it ought to be stated that the unexamined current returns are indeed the actual arrears for the year to which the Report refers. If not, it ought to be stated what percentage of the taxpayers are usually assessed (employees and companies both) on current basis so that the size of the unexamined returns can be determined. If none of the unexamined returns are liable to be assessed on current basis, the Report ought to say so and state the actual number of current returns not liable to be assessed during the closing year. It would then be possible to know what the actual arrears at the end of any fiscal year were against assessment in any financial (and not calendar) year.

One further criticism of the statistical data on the number of assessment raised is that there is no relationship shown between the assessments raised and the year of income to which these assessments related at the end of the financial year of assessment. No doubt this analysis is carried out a few years hence when all the assessable income of a given calendar year (theoretically assessable in the immediately following financial year, e.g., income earned during 1956 is, unless assessed at the assessee's option on current basis, assessable during 1957/58 financial year and tax payable on it in September 1957 and March 1958) is fully assessed (Your commendable Table III in
the last Report is a case in point), but this is not quite as useful as one would expect for reaching certain conclusions on the operation of the system over two decades. To illustrate, it is not possible to determine, say out of 1000 assessments raised during 1958/59 how many related to 1953, 1954, 1955, 1956, and 1957 years of income or 1954/55, 1955/56, 1957/58 and 1958/59 years of assessments (theoretical) each?

Likewise the Table of Unassessed Cases does not reveal the years of income (or theoretical years of assessment) to which the unassessed case related.

Is it possible for you to provide the requisite data filling in the gaps indicated above as well as indicate the size of the unassessed cases for 1961/62 as it is almost unthinkable that the arrears of assessments and (more so) (non-receipts of current returns have disappeared overnight)? The information of assessed and unassessed cases in the manner we have indicated above would be most desirable in view of the fact that many cases were assessed on current basis (and tax paid on current basis) for those leaving East Africa on independence of Tanganyika and Uganda.

Question 4: What are the costs of collection paid by each territory in respect of Income Tax collection?

Question 5: What is the amount of Undistributed Income Tax paid by the private controlled companies each year? Mr. Wedderspoon gave some indication of it for 1959 year of income in his Report for 1960/61 but there is no indication of its magnitude for 1960 or other previous years of income.

Question 6: During 1955 to 1961 the Income Taxpayers in Tanganyika were entitled to offset half the personal tax payable ( vide Income Tax Rates and Allowances Ordinances: No. 15 of 1955, No. 42 of 1959 and No. 28 of 1961). What are the relevant figures for these amounts of offsets and could these possibly be related to the last columns of Schedules 5 and 6 and also to the last row and all columns of the last row in Schedule 1?

Question 7: What are the special circumstances of the taxpayers? For instance, what is the relationship between the size of the income and the size of the family (number of children and dependent allowances) of the tax assesses as shown in Schedules 5 and 6? I am interested to know if the number of children and dependent allowances claimed rises or falls or is invariable with or to the rising or falling income groups in respect of those who are assessed.

Question 8: The data on tax assessed and collected in London are on aggregate East African basis. Could you provide data relating to the Tanganyikan companies, individuals and employees, assessed and taxed in London?
Footnotes:


2 The Finance Member referred to his appointment thus: "They have a way of bringing home to those concerned, often quite soon in no uncertain way, the results of any faulty decisions. It is against this background of urgency, and often without reliable statistics, that I and my colleagues of the Economics Control Board have had to work during the past several years...." The Draft Estimates for 1945 did not become available until much later.

3 Thus in presenting the Budget Estimates for 1940 the Finance Member said: "...these revenue estimates (meaning income tax estimates) must be treated with reserve. There are so many unknown factors that firm estimation is impossible....As regards the yields of the tax I should like to inform the Council that there are in fact no known data on which a firm estimate of the yield can be given at this stage. A yield of £45,000 has been suggested as a reasonable figure but that is nothing more than a shot in the dark...." In the debate on Income Tax (War Revenue) Ordinance that followed in 1940, he had this to say: "...This territory is not yet in a position, as income tax has been not long in existence, to know by reference to past assessments, with any great precision, what the total amount of income tax at the 1940-rates will produce in a year. A tentative figure is £60,000 and is based on Kenya experience the rates imposed by the Bill before the Council should produce £90,000 p.e. or a little more...."

4 See for instance Woods Fiscal Survey: "At present it is impossible to obtain any idea of the total national income or spending power of any of the three territories. It is, however, only upon such a calculation that the location of the burdens of taxation can even be attempted....."

5 This is not to say that there has been no difficulty in this respect before. Until 1954, the estimates had to be ready much earlier as the financial year coincided with the calendar year and as a matter of fact in order to obtain a better estimate of tax yield after the harvest season had started that the financial year was changed. For this see Coates Commission, paragraph 126.

6 In all fairness these are in fact the echoes of the early demands made by Sir Charles Phillips in 1952 and by Mr. Bayldon in 1954/55 and 1954 to the Finance Member. They asked for the amount and nature of the arrears. The latter went, in the course of the budget debates, as far as asking for the basis on which the Finance Member based his estimates. It is doubtful however if both these members of the Legislative Council were quite as concerned with being "scientific" in the process of income tax revenue estimation as we are attempting to be.

7 No record of such arrears had been kept by the authorities concerned until the attention of the Tax Department and Territorial Treasuries and Audit was drawn to it by the Coates Commission in connection with
the "age" of the arrears, paragraph 694.

8 Following facts may be noted from the historical point of view:
Financial Statements, 1940-44: "Income Tax yield fell below the
estimate because the commencement of assessments was delayed until the
introduction of the revised legislation." (1940) "Income Tax was
underestimated on account of lack of accurate information on which to
base estimate..." (1941) The explanation for discrepancies in 1942
and 1943 simply was: "due to increase in rates...." Between 1945 and
1950 the explanation generally was that the effects of war on the
economy were not over yet. From 1950 to 1955/56 the explanations
as given in the budget debates were that the discrepancy resulted
either from increased staff of the Income Tax Department or
the recovery of arrears or "the increased incomes of larger numbers
of persons falling within the taxable income, increased company
profits, etc." From 1955/56 onwards no explanations are being given.

9 See Peacock, A.T. and Dosser, D. National Income of Tanganyika,
op.cit., p. 58; Ede, M. and Peacock, A.T. National Income and Social
Accounting, Hutchinson, London, 1959, Ch. VI.

10 Woods Fiscal Survey, op.cit., para 4. Also paragraph 5, "....
statistics showing the money burden of each of the main taxes and
the total money burden of each of the main taxes and the fiscal
money burden of all taxes on each income group are what we have to
build up...."

11 Coates Commission itself experienced statistical problems so as
to be able to reach conclusions of the policy problems it was
trying to analyse, e.g. para 60.

12 For a general objection against the use of income approach for
national income purposes and other policy problems see H. Edey and
A.T. Peacock, National Income and Social Accounting, Hutchinson,
1959, p. 77. For objections in the context of Africa see A.R. Prest
p. 54.

13 The data relating to the "age" of returns do not provide the information
that the Coates Commission in all probability envisaged.


15 This adjustment has now begun since 1.60/61 but it is only for tax
payable and not also for the income on which tax is payable. See
also "postscript" in Chapter 6, Section 5.

16 See Appendix 'B', Distribution of National Income in Tanganyika, where
the extent of tax avoidance and evasion for the year 1958 is of similar
magnitude.

Countries and Some Related Problems," in Income and Wealth in Africa,
op.cit., pp. 14-15
18 Such a criticism may appear to be unfair because the Income Tax Department can hardly be expected to be familiar with the economic usage of such administrative tax collection data. If this is so, it may be questioned if it could not serve better purpose by more liberal publication of primary but unclassified data and also by making available to the benefit of later students or researchers of the society extensive appendices of statistics as say used to be the case in the U.K. between 1908 and First World War. For this view see, R.M. Titmuses, op.cit. p. 25.


20 Right Hon. B.W.R. Millner's Motion to Postpone East African Income Tax (M) Act, 1952, Central Legislative Assembly.


22 1959 Estimates, Tanganyika Debates.

23 At no stage has an attempt been made to analyse the incidence (i.e. redistributional consequences) of total taxes on income on a large section of the population. Woods Fiscal Commission was assigned with ascertaining inter alia the incidence of income tax and when it failed to do so there were so bitter criticisms of its report in the legislative council that one member referred to it as "so much of junk paper...." Tanganyika Debates, Draft Estimates for 1947: Sir Charles Phillips pp. 270-73, Anderson, p. 298. As personal tax was outside the terms of reference of the Coates Commission, incidence of tax on all the tax payers was not ascertained. In my conversation with Mr. A.D. Knox who was a member of the Coates Commission he however agreed with my view that it would have been much more fruitful to have measured the incidence on the whole population of income-earners and taxpayers. For a similar view see also David Walker in: "Coates Commission Report in East Africa" Conference at the East African Institute of Social Research, Kampala, 1959.

As to the type of bias that there may be built in by restricting the redistribution of income as between a limited sector of the total population, see generally R.M. Titmuses, "Income Distribution and Social Changes:" Allen and Unwin, London, 1962, Ch. 2.


25 See however, S.J. Patel, "The Distribution of National Income in India, 1950-51", Indian Economic Review, February 1956, p. 1 where the factor-shares are divided into wages, profits, income from property and income from land as well as income of self-employed. Income from land is however taken separately to relate to it land tax prevalent in India but in the absence of land tax in Tanganyika our break-down need not be the same.
Budget speech, Tanganyika Debates, 1947.

Hazards of co-relating the percentage change in the Gross National Product and the percentage change in private investment and then co-relating the percentage change in the latter with the percentage change in tax reduction through the initial or investment allowances are dealt with by A.T. Peacock and G. Hauser, "An Agenda for Analysis of Fiscal Systems in Southern European Countries", in Government Finance and Economic Development, O.E.C.D., March 1964, Paris, para. 23 p. 14.

For all these policy statements see generally Financial Debates, Tanganyika, for 1952 and 1954/55 Estimates.


Tanganyikan Debates on Estimates for 1950, p. 84

" " " " 1953, p. 86

" " " " 1959/60


Alasdair I. MacBean, "Instability in Tanganyika", Draft Paper written at the Centre for International Affairs, Harvard University (draft as on 22 May, 1963); forthcoming in Oxford Economic Papers.


This appears to have been the case in India. See V.K.R.V. Rao, "(Symposium on Taxation): Relation to the National Income", Illustrated Weekly of India, 13th August, 1961, p. 37.

Indeed P.K. Lomas, "The Report of the East African Economic and Fiscal Commission," East African Economic Review, June 1961 has gone so far as to say that such a calculation cannot be carried out for the system which has operated for so long. The advantages of the system to various countries through the spillover effects should rest on the theoretical grounds. Although the former part of his argument may be correct, we are sceptical of the latter in view of some of the institutional barriers to free mobility mentioned by J. Nye. "East African Economic Integration," Journal of Modern African Studies, 1963 viz., trade unions and labour mobility, industrial licenses and capital transfers, registration of companies in Kenya and civil service snobbery in Kenya.
40 Benton P. Massel, *East African Common Market*, Rand Corporation, 1964, however points out (as we find from the summary of the Report) that the transfer is in respect of customs and excise only.


CHAPTER NINE

Recommendations of Changes and their Applicability

Section (1) Introduction.

The purpose of this study has been to analyse the existing system in the light of theoretical considerations. We have investigated these in Part I. In conclusion we have to consider certain aspects of government policies with respect to income tax in Tanganyika. We shall retain so far as is practicable the three-fold distinction between the growth and resource allocations objective, the income redistributive objective and stabilization objective each of which is in turn subject to the overall revenue objective. We should emphasise that while some of our recommendations are suggestions for changes in principle including changes in the collection and classification of income tax statistics for substantiating such principles, others relate to the more limited problems of administrative efficiency and routine considerations of staffing and recruitment.

Section (2) Present Government Objectives with Respect to Taxes on Income.

We have already seen in Chapters 5 and 8 that the present priority of government objectives with respect to income tax is to induce maximum growth and maintain its existing level of revenue even at the cost of paying too little attention to income redistribution and virtually none to economic stability. Accepting that this order of priorities is appropriate we proceed to summarise in turn the growth and revenue objectives in the light of the discussion in Chapters 2 and 4 and the appraisal of the system in Chapter 8.

A. Growth and Allocation. For the purpose of inducing growth through
increased savings, income tax policy in Tanganyika has been concerned with the concessions to savings in the form of Life Assurance Relief, Pensions and Provident Funds. The extent to which this policy has induced a higher rate of investment within the country can however only be ascertained by reference to the Life Assurance Companies' portfolio. Where there is no indication of the flow of investments into and out of the country and the Insurance Companies are mainly expatriate firms, this is impossible to determine. In theory savings have a great part to play in a less developed country like Tanganyika in making possible not only expansion of capital but also in improving the labour skills, extending entrepreneurial knowledge and providing incentive to innovate. Whether or not concessions to savings in such special ways of life assurance and superannuation schemes have been sufficiently effective enough in making possible the supply of these inputs is difficult to say. It is a matter for conjecture whether concessions to savings in the form of tax-free interest on Post Office savings, on deposit in the co-operative Banks and other such developing financial institutions would not have enhanced the supply of these factor inputs from the indigenous low income group of the country.

Considering the use of these savings, concessions take the form of depreciation and initial allowances or investment allowances. The magnitude of such concessions as deductible business expenses as well as the cost of these to the Treasury is hard to state precisely. We have attempted to illustrate in Chapter Two that there may be other factors besides investment in capital equipment that are crucial for inducing growth. We do not yet know enough about the process of growth itself or
about the strategic importance of any one of the factor inputs to enable us to restrict tax concessions to such factor inputs in their order of strategic priority. Nonetheless we argued that it is obvious from various studies that there are factor inputs other than physical capital which are important and that if income tax concessions were based on the criterion of 'output per unit of available inputs' growth may be induced. We also emphasised that such an analysis of the process of growth should be modified for an 'open' economy because in the case of Tropical African countries foreign trade is a strategic factor. Then on the assumption that the effectiveness of tax concessions to the supply and utilisation of such inputs can indeed be measured, if only somewhat crudely, it was suggested that there is clearly more to be said for orientating tax concessions on this basis rather than by an appeal to arguments of physical productivity of capital equipment only. On this basis we proceeded to discuss how income taxes can be used to induce growth through the imposition of tax on the income of some factor owners and producers, viz: labourers, and firms with the least output per unit of input of given factors, and tax concessions to others, viz. the saving class, researchers and innovators. Two of these were dealt with more fully than others because not only are they thought to be probably most important but also because they generally receive scant treatment in this field of economics and general discussions. These two problems are: inducement of technical changes and its subsequent utilisation; and import-substitution or expansion of exports.

As to the measurement of the effects of tax concessions in inducing growth, the procedure is not as simple as that of making a ceteris paribus
assumption about the rest of the factors because there are remaining factor inputs which are also probably subject to the similar, if smaller only, sort of tax concessions. One is tempted to measure the effectiveness of each factor input in terms of divergence of actual from potential output but if it is borne in mind that the tax concessions are directed towards fuller utilization of factor inputs rather than optimum possible level of output this is not found to be helpful. The only possible measure of effectiveness of the tax policy would be the extent to which the resource inputs remain under-utilized. It is, of course, arguable that, in practice, it would be difficult to ascertain the exact reasons for the underutilization of factor inputs in a free enterprise economy. The difficulties would not, however, be quite so great if the stabilization policy were also being simultaneously pursued by the government in a vigorous manner because, under the conditions of economic stability, the growth tendencies are such, by definition, that the under-utilization of resources for reasons other than the ineffectiveness of tax concessions is at minimum. Moreover, as the tax concessions would be restricted to only a few factor inputs which are strategic in raising economic growth, the difficulties of the measurement of effects of tax concessions would again be reduced as our concern would then only be with the underutilization of these limited factor inputs and not for all the factor inputs available in the economy.

What is the effect of building such tax concessions into the existing system of income tax so long as the government income tax policy objective remains substantially the same? There are two different types of effects of such a change. First of all, it affects the structure of the existing system, and secondly, it necessitates certain
statistical changes in the compilation and analysis of statistics on aggregate income taxes.

The main effect on the existing system is that the investment and initial allowances that are at present granted can be reallocated to those using more labour, more entrepreneurial skill and incentive to innovate and to enterprises reaching a certain export target or producing import-substitutes. Or if tax holidays are to be introduced in Tanganyika for certain pioneering industries, the further question arises as to whether the body concerned with either drafting such a legislation of issuing certificates to 'desirable' pioneering enterprises should not use these criteria in their respective tasks.

Some statistical data ought to be collected to enable those who are to have a say in granting tax concessions which factor inputs are 'strategic' so that concessions may be given on 'scientific' bases. The income tax authority can easily ascertain the amount of expenses that an enterprise claims for the training of its labour force or the executive or managerial staff and expenses on research. It can also require its assesses to provide data as to what percentage of their profit they consider to be the normal rent for the use of its capital equipment per hour or per month and what percentage of it they take to represent the entrepreneurial reward as distinct from the wages of the entrepreneur himself. All these data together with the statistics on depreciation and initial or investment allowances ought to be classified and produced in the annual reports of the tax authorities and also possibly in the annual Statistical Abstract.

B. Taxable Capacity and Revenue Objective. We have indicated in the previous Chapter that the Tanganyika government has probably not been
raising its revenue from income taxation to a level approaching its taxable capacity because the level of per capita tax on income does not rise at the pace at which the per capita income is rising. The difficulty with relying on such a measure of taxable capacity is that one cannot have any idea as to why the sum of per capita tax paid fails to keep pace with an increase in per capita national income. For instance, the reason may be that the system is redistributive in respect of children allowances or progression of tax rates and the increase in the number of children allowances claimed reduces the taxable income or lack of progression in tax rates lessens the pace of increase in per capita yield of tax. Similarly, if deductible business expenses are much too generous for all taxpayers, a large part of an increase in per capita income is in the form of tax free income. Whatever its shortcomings we have to rely on it, for in a country with no statistical data on the distribution of income it is difficult to know, on the bases of the analysis of taxable capacity in Chapter Four, to which strata of income do the relatively lightly taxed members of the society belong. Nor can we ascertain which particular taxes on income, vis. personal tax, income tax proper or export tax should be increased to obtain tax yield which is compatible with the taxable capacity.

If our recommendation as to the absorption of extra taxable capacity is to relate to the revenue side only - as it clearly must until we know more about the distribution of appropriate amount of government expenditure and its consequences on growth and stability - we could, for instance, glance at the rates of personal tax and income tax proper and get some idea as to who should be taxed more on income received. If personal tax and income tax proper are sought to be co-ordinated, there is
something to be said for taxing those who belong to the income group with
the highest rate of personal tax and lowest rate or rate applicable below
middle income range of income tax proper a little more. Alternatively,
we could look at the rate of per capita increase of income taxes and tax
a little more heavily the per capita tax on income which rises least
with the per capita income. The rates of percentage increase of each
form of tax on income has already been compared with per capita rise in
the previous Chapter. On the basis of this comparison there is something
to be said for increasing the rate of income tax proper and export tax.
Section (3) Criticism of the Present Government Policy.

The present government policy does not appear to have recognised
certain real problems with which the economy is at present being faced.
It is generally a short-sighted policy, seeking to develop the economy
at maximum possible pace, irrespective of its social costs. For instance,
if the purpose of increasing the productivity of the agricultural land is
to induce the peasant community to specialise sufficiently and generate
higher money income and a larger market for the non-agricultural sector
which can at the same time absorb surplus manpower and other marginally
wasteful resources it is often overlooked that increase in productivity
of land is not sufficient unless such peasants are also ensured some
stability of income. The study of the present economic policy of the
government does not in any way suggest that problems of economic
stability are even recognised, let alone the fact as to whether instability
is corrected by the government when it arises.

One is also inclined to feel that the income redistributive policy
of the government is not sufficiently vigorous. It is one thing for the
government to impose minimum wages legislation and quite another whether
or not redistribution of income in favour of low wage-earning employees as a group occurs. The statistics of employment and earnings since the introduction of the wage legislation quite clearly indicate that the employers' reaction to it has been rather sharp and the number of individuals employed has declined with the wage bill for the whole economy remaining at its previous level. The nationalization of trade union activities has left employees with an option for wage negotiations and it is not clear what the bargaining strength of the employees under such a machinery is. Above all, it is questionable whether such a dubious institutional machinery to which only around half a million out of the total of three million income-recipients and taxpayers (representing nearly one-third of the total population, the remaining two-thirds being disabled; minors, women not engaged in any gainful occupations) belong is really adequate for effective income-redistribution. It is suggested that income tax policy should, perhaps, be used as a part of somewhat more vigorous redistributive policy.

A. (a) Redistribution Policy. At present the personal tax system takes no account whatsoever of the special circumstances of the taxpayer on the one hand, and the present income tax proper fails to provide for the relief against the family burden in excess of three children or any dependent. There is a good case for relief in both cases, subject to the revenue objective.

In view of the fact that the revenue from income taxes will be raised to make it compatible with the taxable capacity, the loss in revenue yield arising from the concessions to personal taxpayers or those liable to income tax proper and faced with special family hardships will not be large. Furthermore, it can also be recovered from redefining
income, as we have done in Chapter 1, to include gifts, accrued but unrealized capital gains, heavy discriminatory taxation of imputed income to the family members who are not genuine participants in family business or restriction on the amount of such imputed salaries and reduction of personal reliefs from taxable income to such persons. Withdrawal of offsets given to dividend recipients for company income tax deducted at the source can also yield extra source of income tax revenue.

Although the possible yield of revenue is extremely difficult to ascertain, we could say with certainty that it would not be large enough to make it possible to give tax reliefs or concessions to both the personal taxpayers and income tax (proper) payers, especially if a part of such an increase in revenue is to be used to stabilize the economy in a depression. A decision would therefore have to be made whether personal tax or income tax assesses should benefit from the given amount of tax reliefs that the government can afford to give. Income tax assesses are likely to argue that as the additional revenue is liable to come from them, they should be given tax reliefs in preference to personal tax assesses. But this seems to beg the question as to whether the government should not depart from its present scope of income redistribution policy. Personal tax assesses are likely to demand that their family circumstances are not taken into account at all, whereas those of the income tax assesses are, to a certain extent taken into consideration already. This argument in turn appears to beg the question whether the amount of additional taxes on income to be imposed mainly on income tax assesses does not materially alter (or for that matter reduce to nil) the extent of reliefs for family hardships given to income tax payers at present. It also begs the question whether
the government must alter its present scope of income redistribution objective, but this cannot be taken as a serious criticism of the demands of personal tax assesses as the criticism of the government's present scope of income redistribution has in fact led us to analyse this problem.

The sound economic basis would be to evaluate the effective rate of income tax and that of personal tax for each income group on the basis of limited family allowances and no family allowances respectively, under the special family conditions in each case and determine therefrom who should be entitled to reliefs. In view of the infrequency of doing so owing to the lack of statistical data, it would probably be logical to spread the reliefs to all personal tax payers, whether they are at the same time liable to income tax or not rather than restrict the reliefs to personal tax payers who are not liable to income tax at the same time.

In order to ensure that such a policy change brings about redistribution of income in real terms, the government should be vigilant of the changes in output and factor prices following the imposition of the tax. Furthermore, the government should also bear in mind, in examining the compositions of the government expenditure, the benefits it is likely to confer on various individuals.

By way of statistical changes it can be suggested that the tax authorities should produce details of the half personal tax which was offset against income tax liability for each income group or factor share for the years in question. An attempt should also be made to produce details of the family size against each factor-share of income group. They should also persuade regional personal tax collectors to record more details of taxpayers such as exact income and family size and such data ought to be further analysed and included in the Annual Statistical Abstract.
of the Tanganyika Statistical Unit on the bases discussed in Chapter Eight.

B. Stabilization Objective. As the statistical data on the price indices relate to one part of the country only and fluctuations therein do not provide sufficient evidence as to the existence of short-run cycles in the economy, it is just possible that income taxes are destabilizers. Whilst as a result of our recommendations on statistical changes, which we will make presently, adequate data on this particular aspect of income tax will become available shortly, one can insist on the possibility that undue time lags could make the income taxes act as destabilizers. As this would not be conducive to the smooth growth of the economy, our first recommendation would be to hasten the process of assessment and make stricter the rules on payment of tax by closing loopholes enhancing the 'postponement of the inevitable'. We would not go so far as to encourage the imposition of the practice of estimated assessments on an extensive scale because if the estimated assessments are unrealistic in relation to the existing state of economic affairs at a given point in time they can be destabilizing (perhaps much more) as the unassessed or unpaid tax liability can be. If P.A.Y.E. were to be introduced (which we think should be), the necessity of estimated basis of wage-earnings or salaries will not arise. As to the business earnings, a few appear to be assessed on current basis. As the cyclical variations in the earnings of business do not occur every year or every alternate year but every three years or so, some requisite adjustment in the net disposable income can be brought about with minimum time lag by requiring taxpayers to make an advanced payment of tax on the basis of the earnings of the previous year, or at best, on the basis of an average of the tax
liability in the preceding three to five years. This would not have
the possible destabilizing effect which the arbitrary basis of
estimated assessments might have on the economy.

What additional revenue from the elimination of unpaid tax
liability in future and the necessity of the advanced payment of tax
would arise, at least in the short-run, would be difficult to say.
Again, the additional sources of revenue mentioned earlier on would
enable the government, without undergoing a loss in the revenue yield,
to lay aside a small amount of revenue as a surplus. Such a surplus
would enable the government to forego, without incurring a loss of
tax revenue from income tax, on some of the gross disposable income. Which
source of income will be tax free or taxed relatively lightly in a
depression depends on the source of deficiency in effective demand,
vis. whether it is due to the consumer goods or investment goods
demand, whether due to imports or exports, and the income of those whose
effective demand would rectify the instability. Obviously, there are
limits within which the government can manoeuvre its stabilization policy
but, as the variations in the rates of tax and reliefs do not occur
every year in Tanganyika, it is virtually impossible to quantify the amount
of tax increase or reduction that the government within its given set of
priorities has been making to maintain stability. However, as it is
clear from the appraisal of the system that the variations in tax rates
have not been used for the stabilization policy objective we need only
recommend that they ought to be. Moreover, as it is difficult to
believe that the present government policy has preferred growth or
redistribution objectives to the absolute neglect of stabilization
objective, it may be suggested that the government should state its
scale, however small, in its set of priorities. It is recommended that, once this is done and the share of revenue reduction in the interest of economic stability ascertained, it can concern itself with whether or not the revenue that it foregoes by way of reduction in yield cannot be more effectively utilized by building into its stability objective some of the special problems indicated in Chapter Three. Thus, for instance it should consider the source of revenue as related to the propensity to consume, the family size and propensity to consume and save, the relationship between subsistence and monetary sectors, etc. in implementing its stabilization objective in a given set of policy objectives listed according to the predetermined order of priority.

The main recommendation in respect of stabilization policy can be briefly stated by saying that the government should make more frequent changes in rates and allowances to take account of the general economic activity, nature of the effective demand, external trade, etc. This is particularly desirable in respect of personal tax for which not only are the changes rather infrequent but the amount of tax deducted is also bound to be only rough and ready. The possibility of introducing the Pay as You Earn should also be considered on the same basis as has been done in respect of personal tax in Kenya. It should also be extended to income tax proper.

The statistical changes for the purpose of stabilization policy relate either to changes already recommended in respect to other policy objectives or to some changes of a broad nature which we now suggest. Some statistical data on the personal tax, export tax and urban house or local government tax should be compiled as an integral part of the administration and collection of these taxes. They should then be so
analysed that they can be easily related to the statistics of income tax proper, the classification of which in turn would have to be modified in a way suggested earlier on in Chapter 6. The authorities concerned with the compilation of statistics on income tax proper should provide details of delays in assessment and collection on such basis as would make measurement of elasticity of tax possible. It should also provide the basis on which tax can be deducted from pretax income to obtain post-tax or net disposable income of each income or factor group. It should also produce details of the spread of the Income Tax Reserve Certificates according to the status and income group of those who buy such certificates.

In general, the Tanganyika Statistical Unit should attempt a full-scale survey of distribution of income in the country by appointing an ad hoc team for such a purpose. When a consumer expenditure survey for the whole country is drawn up, as is at present envisaged by the government, the Statistical Unit should include questions on the benefits of the government services in it. On the basis of such a consumer survey, more comprehensive details on the cost of living indices for various parts of the country could be obtained. In constructing such indices it should be borne in mind that one of the purposes of such indices would be to be able to evaluate the extent to which the fluctuations therein was caused by the imposition of tax and its shifting through factor and output price changes. In anticipation of more accurate details of net disposable income becoming available, it would be helpful if the Statistical Unit tried to make more comprehensive and more frequent surveys of production; it would be helpful if similar surveys of distribution are also held once the ad hoc survey results become
available. When the details of the pre- and post-tax distribution of income and gross and net disposable income become available, it would be useful to relate the family size to ascertain the extent to which the inclusion of the family size affects the propensity to consume and to save, and the degree of redistributive and stabilization changes brought about by income tax. Such an exercise could of course be extended to take account of various sources of income in different income strata and also the extent to which income-recipients in various strata of income are affected by the growing national output through the accrual of a part of it on to them.

Section (4) Applicability of the Recommendations of Changes.

A. Administration. Under the present conditions in Tanganyika a very small proportion of the population is educated and an even smaller still proportion possesses a knowledge of ordinary commercial accounting technique on the basis of which the assessments for income tax can be made. It is arguable that the majority of the population is liable to the 'poor man's income tax' namely personal tax which does not require very exact records of business expenses, earnings, etc. This view is not necessarily tenable since, for the purpose of evolving a consistent base for taxing income, the availability of clear accountability is presupposed. The fact that a small percentage of such income is in monetary form does not reduce the gravity of the lack of accountability, as the problem of imputing subsistence income in the absence of any clear records is of a much more serious nature than the ascertaining of unrecorded money income. As regards the 'richman's income tax', the environmental constraints are even greater. Even though the practice of accountability is greater among those assessable
for income tax, there is the lack of uniformity in accounting practices and also that of one common language in which accounts are kept. Under the Trusteeship Administration of Tanganyika the compulsory recording of accounts in one language had been a matter of interest only but now that the country is a sovereign republican state, it would not be unreasonable to enforce Swahili as an official language. This would, no doubt, have some bearing on the existing staff of assessors in the tax office and would require to be reconsidered presently. From the point of view of the taxpayers once the illiteracy on their part is excluded, the language problem is not particularly serious. Some standardisation of accounting practice would be desirable with the African conditions and the type of recommendations made above in mind. Those who are familiar with the principles of accounting practices should not find it difficult, whilst, for those who are not so versed, the teaching of accounting under the government educational policy would seem warranted. As the government is concerned at this stage with the dissemination of accounting practices in the country, it might as well concern itself with the dissemination of some standardised form of accounting practices which takes into account the nature of recommendations of changes, in particular those of the statistical nature. Thus, although the recommendations of changes are affected by the environmental considerations such as lack of sufficiently wide-spread accounting practices, or lack of uniformity therein making the implementation of changes recommended virtually impossible in the short-run, these changes are not altogether unrealistic in so far as they are liable to be built into the development of accounting practices which is occurring now.
There is also the question of taxpayers' morality among income taxpayers in these special environments. It is difficult to assess the extent to which such immorality arises from dissatisfaction with administration, failure to realize that it is probably the best form of equitable tax, evasive attitudes of some who shift their burden on others, etc. Nor is the degree of evasion at all capable of being estimated. Several suggestions as to the scrutiny of books of accounts by the surprise visits of tax inspectors, by legal requirement of the issue of receipts for all sorts of transactions, etc. have been put forward in the past and have been treated with scant respect. One reason has been that it would cause inconvenience to the honest taxpayers. To what extent is the non-acceptability of the enforcement of such rules by the external 'democratic' authority still justifiable in the context of the new African democracy remains to be reconsidered. The problem of evasion has been dealt with by the special Investigation Branch of the Tax Offices throughout East Africa, but to what extent it relies on statistical data is not made at all clear. The critical analysis of the presentation of income tax data is however sufficiently indicative of the fact that not much reliance is probably being placed on it. Apart from these general observations on the environmental problems of tax evasion, what is most important from our own points of view is whether the recommendations of changes made so far are such as to encourage tax evasion, reduce it or be neutral. If they encourage it, it may be desirable to eliminate those that do so; if they are indifferent in their effects, the recommendations are not affected; if they reduce evasive practices, the weight of recommendations is that much increased.

From the point of view of the personal tax collectors, since they
are not more than the agents of the central government, there is very little enthusiasm on their part to assess on a consistent basis. Rather, this may act as a disincentive on their part to collect such tax as it reduces the taxable capacity of those with very low income in respect of local rates based on income. But, with the recent abolition of the personal taxation on very low income-earners, this is not likely to be the case unless the total liability for income tax, personal tax and local rate together has already reached its capacity on the middle or high income-groups. Whilst there is hardly any evidence that it has, one cannot help observing that the co-operative societies might be delegated some of the power to collect personal tax from its members, the societies being more likely to possess more exact records of the earnings of their members. In such a case, neither would the problem of accountability be serious, nor would there be any possible disincentive on the part of the co-operative societies to collect personal tax as on the part of the local authorities.

B. Staff. As for the income tax assessors and collectors, the Income Tax Department has largely relied upon the expatriates. Whilst we are considering the environmental obstacles that may arise from the question of the staff, it is relevant to consider the extent to which the solution to the problems such as having reliable or competent staff at reasonable emoluments and expanding the staff in terms of opportunity cost of having extra revenue has been tackled. It appears that such staff has been working at full capacity. There had been constant complaint against the availability of the skilled staff. The first issue might be related to the opportunity cost of expanding, say, the Investigation Branch of the East African Income Tax Department.
Here, although the number of known taxpayers has increased tremendously through the efforts of Investigation branch, one could not be absolutely certain as to the impossibility of bringing a few more, through the detection, into the tax net even at the existing rates and of increasing tax revenue as the existing statistical records have hardly been analysed for this purpose. No coherent analysis of opportunity cost of expanding or non-expansion of the staff has been made. Thus the tax authorities determining whether or not to recruit more tax officers have not attempted to analyse the cost of the personnel, to examine, say, company registry returns, or analyse the occupations of those in the census, against, the possible yield that may be expected through extra 'catches' of assesses. Similarly, if no reliable statistics are available for determining, say, the effect of extra depreciation allowances on certain capital assets or allowances on training and skill of labour on the long-run national income, the long-run revenue yield at the existing rates of tax cannot, first of all, be ascertained. Secondly, the cost of these concessions plus the increased cost of administering this sophisticated system plus the possible effect on future growth of national income could not also be ascertained. The result of this difficulty of analysing the priority of one objective over the other, in this case growth over administrative, on the long-run revenue yield has been to assume the problem away by saying, that in terms of administrative objective, "income tax simply won't stand for that!" One feels, on analysing the attitude of the authority (which has been until recently the external ruling power) on the recruitment of staff in the department, that the tendency to generalise in favour of administrative objective has been much stronger as the recruitment policy of the department had been to
recruit only the British tax assessing officers who, as it were, were the only people on earth with clear conscience as to the confidential nature of the income tax routine. 11

Since independence, although the recruitment policy has had to be modified in the light of the Africanisation policy of the Tanganyikan government, the general attitude of the department is that of conservatism in the tax policy. This is borne out by the process of simplification of tax administration on the basis of the staff shortage arising from the anticipated departure of the expatriate staff of assessors.

This recent staffing problem is however some times confused, among those who are responsible for recruitment as well as some of those liable for the payment of tax, with that of the necessity of raising more revenue from taxes on income. For instance, one extreme body of opinion (supported by the Kabaka of Buganda) 12 appears to favour a complete replacement of income tax proper by personal tax and still others the substitution of tax on business or company profits by a tax on gross sales of the business mean. Again, one further school of thought, as represented by P.J. Gill, 13 also aims at some sort of departure from the present practices, on a rather moderate basis, for administrative simplicity. His proposals can be summarised viz., (1) Taxation of rather low income in the form of proportional personal tax to affect some form of rough equity; (ii) deduction of income tax at the rate of 2/- in the £ on the P.A.Y.E. basis from the salary income and wages and collection of the rest of the tax due later when a full assessment is made. No redund of the minimum tax of 2/- in the £ collected at source when full assessment is made. (iii) Deduction of tax from business transactions on the basis of 2/- in the £ on turnover. This would mean that the income of
business would be defined in a broad sense and include such transactions as capital gains. On final assessment of profits of the business the amount of 2/- deducted would be given as an offset but if tax payable is less than 2/- in the £, no repayment would be made. In the case of companies, etc., the amount so deducted would not be given as credit to shareholders, but the amount of company's final taxable profits would be arrived at by deducting interest and dividends gross of tax from the normal net profits of the business. (iv) The maximum rate of income tax and the standard rate of profits tax would be equal (e.g. as in Ghana), so that no problems regarding the undistributed income tax would arise. This rate would be 6/- in the £. The rate of income tax which is in excess of 2/- would be called sur-tax and its schedule would be as follows: (a) wages and salaries; (b) interests and dividends; (c) rents and royalties; (d) profits of business, professions, etc. There would be a thorough check on the business expense 'rackets' in (a) above. This system is subject to the criticism that it can fulfil its functional objectives only in rough and ready way.

Only one body of opinion is clear about the distinction between the staffing problem and the revenue yield from income tax. However, it is also open to the criticism that although it deals with the revenue problem clearly, with regard to the staffing problem it does not seem to go beyond saying that it is very much exaggerated. What would appear to be satisfactory way of dealing with the problem is to encourage Africanisation or localisation on the basis of the experiences of the other countries in connection with this problem and then try to simplify the system, as has already been suggested elsewhere, to introduce
the American system of standardized accounts of personal deductions, the standardization of such deductions being carried out as meticulously as in the case of tax holidays or concessions for inducing growth.

C. Inter-territorial position. The extent to which the recommendation so far made would be acceptable to the remaining East African territories is rather difficult to say. Under the present system of inter-territorial fiscal arrangement, there is no theoretical obstacle to the adoption of a different basis of income tax by Tanganyika as each country is entitled to make its own rules about the rates of taxes, etc. to which most of our recommendations here relate. The practical obstacle, however, is the difficulty in assessing and dividing tax payable by taxpayers operating throughout East Africa. It is arguable that the cost of assessment would increase as a result of divergence in the tax laws of the different territories for it would demand two or more separate assessments rather than one single assessment and division of tax revenue as at present. Once again we are up against the possibility of additional administrative costs which we examined earlier on. In considering the long-run increase in revenue yield arising from the changes recommended the increase in administrative cost owing to the departure from the present institutional arrangement of single assessment should be added to the increase in cost analysed in the last Section.

The divergences in rates, allowances and concessions may give rise to the shift of location of enterprises but this possibility has to be seen in the light of the three countries of East Africa either federating more closely than hitherto with its own system of grants-in-aid, regional development and planning, location of industries, or disintegrating for all purposes.
The recommendations of changes arising from the discussion of the administrative and routine problems earlier on in the thesis should also be mentioned at this stage. Firstly, the concepts such as 'origin of income' and 'residence' should be defined more clearly for the purpose of inter-territorial taxes on income. This could be done in a formal document which would specify the bases of joint assessment and allocation of revenue on income earned in East Africa with a right to any of the territorial governments to challenge the decision of the Income Tax Commissioners as to the basis of allocations of revenue in the East African Court of Appeal. Secondly, the tax authorities should enforce even those members of the public who, if assessed, would not be liable to income tax proper to send in their tax returns. Thirdly, the legal machinery in respect of tax debt, bankruptcy, and civil proceedings should be made compatible with the income tax laws so that these matters would not defeat the objectives of raising income tax revenue as and when it becomes due.
(1) This is because the availability of the statistical data ought not to be and has not been the criterion for any analytical thinking. Far from it. In fact, as will be seen from the rest of this chapter, our analysis is not based on the statistical data even though we make earnest efforts to try and illustrate it statistically for policy purposes. In general we agree with Dudley Seers' view on the importance of statistics in analysis in "An Approach to the Short-period Analysis of the Primary Producing Countries," Oxford Economic Papers, 1959, p. 2: "Many of those who have worked east of Suez or (South of Rio Grande) will say that one has in fact little choice in one's analytical technique, because the statistics available, and their reliability will decide what, if anything, can be done. There is of course a point in this objection... One should, surely try in the first place to make up one's mind how one would handle a job of analysis, assuming that one had all the statistics one needed. Any one who starts by basing his work on what statistics are available, may easily fall into the trap of thinking that the important factors are those which can be measured..."

See Alan Williams, Public Finance and Budgetary Policy, op. cit., p. 277 for a similar view thus: "The disadvantage about the general theoretical approach adopted in this book is that by itself it is incapable of solving any real life problems at all. It is in fact an exercise in logic. But it is an essential pre-requisite for any purposeful empirical investigation, even of the individual case-study type. Fact-finding is a purely random activity unless the investigators have some meaningful questions to which they seek answers, and a conceptual framework within which they collect data can be appraised... No amount of theoretical analysis can replace empirical observations of this kind... and no fact-finding is of much use unless it is based on a firm theoretical analysis to which the data can be related."

(2) See the 1963/4 Budget, Tanga County, Government Printer, Dar-es-Salaam.

(3) See the UN, Technical Assistance Expert Reports to Israel, Reports 1 to 3: 1953 I H.3; 1955 II H.3; 1958 II H.2.
M.D. McWilliams, "Savings Experiment in Kenya", East African Economic Review, December, 1961. The scheme was however withdrawn too soon although it appeared to be rather effective in its early stages. The experience has therefore been rather short-run to judge, as McWilliams has argued, its effectiveness.


(6) Although Coates Commission had suggested that the possibility of introducing the P.A.Y.E. system for income tax proper at a future date in East Africa should be borne in mind, no steps were taken until the World Bank Mission to Kenya in 1961/62 suggested that this policy problem should then be dealt with. The Kenya government introduced a monthly basis of P.A.Y.E. in respect of personal tax in 1963.
(7) To what extent Income Tax statistics for the purpose of income distribution are however acceptable is an entirely different matter as R.M. Titma, Income Distribution and Social Change, op.cit., has put forward the view that income "is becoming less and less valid as a measure of change in the command over resources enjoyed by different sections of the population".


(9) It appears that the Tanganyika government kept a very thorough check on the rise of sugar prices arising from the imposition of an increase in the import duty on it in 1962/63. Such a course of action involved imposition of a limit of maximum price in each district depending on its distance from the coast. This is a rather commendable course of action and should be pursued earnestly especially after the budget changes in income tax, excise, etc.


(11) Coates Commission was appreciative of the ridiculous basis of such recruitment policy, paras 685-87.


Another example of an exaggerated situation can be had from a remark made by an observer who suggested that with the departure of the expatriates and reduction in the operational activities of virtually monopolistic expatriate businesses the sophisticated form of income tax will shrink to nil in the economy. This is surely a bit of nonsense because although a few of the expatriates who stay on in the country under the U.N. Technical Assistance and be tax exempt, a number of them as well as a number of expatriate firms are bound to be replaced by the citizens of these countries in due course and such people be in turn liable to income tax.


(15) The policy of training the Malayans to replace the staff of expatriates has been quite successful in a short period of time although the process has not been quite so rapid. See M.C. Taylor, "Income Taxation in Malaya", National Tax Journal, June, 1961.

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