THE IMPACT OF FISCAL POLICY ON ECONOMIC GROWTH IN KENYA: 1964 - 1985

BY

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Research paper submitted to the Department of Economics, University of Nairobi, in partial fulfilment of the Requirements for the Degree of Master of Arts in Economics.

JUNE, 1988

This research paper is my original work and has not been presented for a degree in another University.

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ACKNOWLEDGEMENTS

I wish to extend my gratitude to all people who assisted me and made this study a success.

Special thanks to my supervisors Doctor Shadrack O. Kwasa and Professor Pathak for their cooperation and guidance. Without their help, this paper could not have been possible. Needless to say, I alone am responsible for any errors which may remain.

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ABSTRACT

This study looks at the impact of fiscal policy on economic growth in order to determine the role of fiscal policy in a developing country like Kenya. In an attempt to control or regulate the country's economic activity, the Kenyan Government through her fiscal policy measures influences domestic demand. Consequently, this study looks at the average annual fiscal policy effect on domestic demand to characterize the overall impact of fiscal policy on Gross Domestic Product (GDP).

The main finding was that fiscal policy effects were positive during the period under consideration, but very small especially when you consider the share of Government sector to GDP. This shows that on average, fiscal policy pushed the economy upwards.

The pure GDP growth rates showed that the economic activity without fiscal policy fluctuated highly around the average annual growth rate. Actual GDP growth rate showed small fluctuations. This portrays fiscal policy's stabilising effects on economic growth.

The actual GDP growth rate in the eighties' has a declining trend. The paper recommends that the Kenya Government should review her fiscal policies to ensure that this trend is contained or reversed.

Otherwise fiscal policy had played a positive role in the economy but there is still room for improvement.

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CHAPTER ONE: INTRODUCTION

Government activities in Kenya have had an important influence over the whole economy. Changing budgetary expenditure and tax structure rates (tax/and base.) are two fiscal policy instruments, through which the Kenya Government influences the economy in general. Specifically, it reduces or increases the level of aggregate domestic demand in the country in particular. This in turn affects the level of economic activity both directly and indirectly. Consequently, fiscal policy plays an important role in the country's economic growth or depression, depending on whether it is correctly implemented or not.

1.1 BACKGROUND

Prior to independence, most of the government expenditure went to recurrent expenditure. For instance, in the years 1960/61, 1961/62 and 1962/63, recurrent expenditure was 84.9, 86.4 and 83.7 per cent respectively of the total government expenditure as shown in table 1.0. Most of this recurrent expenditure went into the wages and salaries of government employees, most of whom were foreigners.

Table 1.0: Gross Central Government Expenditure 1960/61 - 1963/64 (K£M)

Year	(1) Recurrent Expenditure	(2) Development Expenditure	(3) Total Expenditure	(4) % of (1) to (3)	(5) % of (3) to GDP
1960/61	43.26	7.68	50.94	84.9	29.1
1961/62	45.56	7.16	52.72	86.4	29.8
1962/63	48.27	9.40	57.67	83.7	31.9
1963/64	54.42	14.08	68.50	79.4	35.6

Source: Economic Survey, 1965, P.59, Table 42

Table 1.1: Gross Receipts on Recurrent Account: 1960/61 - 1963/64 (K£M)

Year	(1) Taxation	(2) Other non-tax Revenue	(3) Grants	(4) Loans	(5) Total
1960/61	28.57	8.49	4.30	-	41.36
1961/62	30.98	8.84	4.95	-	44.77
1962/63	34.92	9.39	2.65	0.25	47.21
1963/64	36.77	10.2	5.1	3.87	55.94

Source: Economic Survey 1965, P.62, Table 46

Table 1.2: Development Revenue Account: 1960/61 - 1963/64 (K£M)

	EXTERNAL SOURCES		INTERNAL SOURCES			
	(1)	(2)	(3)	(4)	(5)	(6)
Year	Grants	Loans	Grants	Loans	Other	Total
1960/61	1.62	6.12	-	0.40	1.03	9.18
1961/62	2.41	5.3	-	0.36	1.19	9.26
1962/63	3.96	6.74	-	-	0.69	11.40
1963/64	4.74	6.86	0.07	0.03	1.55	13.26

Source: Economic Survey, 1965, P.65, Table 48

The few funds left for development expenditure by the Colonial Government was used to set up social-economic infrastructure in the areas of their interests only, like agriculturally productive areas, urban areas and the like. Here, they set up roads, railways, schools, hospitals, playgrounds and other recreational facilities. As a consequently, most of the country remained undeveloped.

In the period 1960/61 - 1962/63, recurrent expenditure exceeded recurrent revenue only slightly as shown in Tables 1.0 and 1.1. In 1963/64, recurrent revenue exceeded recurrent expenditure. Tables 1.0 and 1.2 show that Development revenue exceeded development expenditure during the three year period prior to independence. In 1963/64, development expenditure exceeded development revenue. During the period, the percentage of total

expenditure to monetary GDP averaged as 30/given in table 1.0.

Upon independence, the formation of Kenya's armed forces and diplomatic representation placed new financial burdens upon the Kenya government. In addition, funds had to be provided for an intensive training effort as British civil servants were replaced by Kenyans. Educational and other training facilities set up by the colonial government in an inadequate quantity and low quality had to be provided for by the new government. Socio-Economic infrastructure which includes roads, hydro-electric power generation, water supplies, hospitals, posts and telecommunications, et cetera, had to be set up to support economic activities like agriculture, industry, and others for the newly independent country. The creation of new Ministries and land settlement required a lot of funds. Unlike pre-independence days, most of these funds spent by the Kenya Government found their way to the Kenyans' hands, in the process of the Kenyanization of the economy. The expenditure of the government started increasing domestic demand for both goods and services, directly and indirectly. Those who got some income as a result of government employment and other expenditure could now spend it on domestically produced goods. This increased economic activity within the country.

On the other hand, this expenditure was a heavy burden to the new government. Consequently, in the first years of independence, that is, between 1964 and 1969[1], there was firstly, a firm restraint on the spending Ministries. Most expenditure was financed from the tax revenue which rose gradually from 20% at the time of independence to about 25% by the end of the 1960s[2]. These fiscal policy and other monetary measures enabled the then Minister for Finance to achieve a steady reduction in the independence of the Kenyan Treasury on external funds.

When a new Minister Kibaki for Finance took over in 1970, he felt that all the indicators which were available to the

authorities suggested that the economy was suffering from a depression in 1969[3]. This new Minister embarked on an expansionist policy based on more positive government direction of the economy, using Keynesian techniques of fiscal policy. To the Minister, many resources were lying idle due to a low level of aggregate domestic demand, and something had to be done to put them to use, in order to expand the level of economic activity. In mid-1970, in his first budget, the Minister increased the level of Central Government expenditure by 17%. In his own words, he said that the budget,

> "is designed to utilize human and capital resources that were lying idle and to achieve an acceleration of the economy to a level that its quite capable of achieving without inflation"[4].

The 1970 budget appeared to the treasury as insufficient for the purpose it was designed for and the 1971 budget proposed a further increase in the expenditures. An additional KShs 190 million of short-term borrowing was initiated. In the Minister's own words,

> "once again,.....my budget is a budget of expansion. This is because there are still unutilized resources in our economy and we want to put them to work"[5].

✓It is clear then that the Kenya Government through the fiscal policy instruments has explicit and implicit influences on the level of economic activity.

A study[6] done in 1976 showed that the tax structure in Kenya during the period 1962/63 to 1972/73 was income

inelastic (0.81). Consequently, the country could not rely on the elasticity of its tax structure alone to finance increments in government expenditure. This accounts for the discretionary changes introduced in Kenya's tax structure in an attempt to raise revenue in 1973.

This rapid growth of government expenditure on investment and other goods and services has been in keeping in line with the objective of promoting African socialism through increasing the state control and direction of the nation's resources. While this policy of increasing the government share in economic activities was right at that time and has served its purpose, it is now felt that there is need to restrain further expansion of this share[7].

Throughout the eighties, expenditure restraint is a key element in the Government of Kenya's fiscal policy. Fiscal stringent is central to the 1986 Sessional Paper No. 1[8]. The Sessional Paper states that the government is to exercise restraint on its recurrent spending, especially with respect to education, health and other social welfare sectors; growth of development expenditure is to be contained, and budgetary resources for this purpose are to be restricted to fewer but highly productive projects.

This decision by the Kenya Government leaves much to be desired, about the role of the Government activities in the Kenyan economy. Consequently, one asks: Given whatever influence other economic policies have had on the level of aggregate domestic demand and hence, on economic activity, what has been the total discretionary and automatic fiscal policy effect in helping or hindering the growth or performance of the Kenyan economy? This study confines itself to the fiscal policy effects on aggregate domestic demand only in Kenya, and therefore, its contribution to Gross Domestic Product (GDP). No attempt will be made to elaborate on the other effects of the fiscal policy on economic growth.

1.2 PROBLEM STATEMENT

The general problem to which this study addresses itself is the determination of the role of fiscal policy in an under-developed economy. The specific problem is that of identifying the impact of fiscal policy on economic growth as manifested in the pattern of growth during the period 1964/65 to 1984/85 of political independence in Kenya.

The fiscal policy is often viewed as the most powerful instrument available to the government for choking the economy upwards towards her economic development goals. Every year, the Minister for Finance in Kenya launches new budget measures. Among them, he introduces new tax rates (and sometimes new bases) and reduces or increases government expenditure. The effects of these fiscal policy measures on economic growth is completely unknown in Kenya.

Fiscal policy in Kenya seeks to influence the economy by the amount and direction of public revenue that is raised on one hand, and expenditure on the other. Discretionary tax measures used to raise revenue to finance development have bad psychological effects on incentives to save, work and invest. They create uncertainty in the tax structure which in turn is inimical to sustained growth of business and industry. Government expenditures are productive in that they create income, develop skills, create capital, and satisfy human needs for a great variety of goods and services. In other words, Government's activities in an economy have both explicit and implicit effects on economic growth.

Kenya's 1984-88 Development Plan's main fiscal aim has been to restrain the share of Government's activities in the economy because "they have served

their purpose". Sessional Paper No. 1 of 1986 had the following to say on the effect of fiscal stringency.

> "Fiscal stringency has reduced the real level of resources to finance the development budget. Consequently, the implementation of many projects has been stretched out and, once completed, many projects do not receive adequate recurrent allotments for operating costs"[9].

This portrays the danger entailed in fiscal stringency in form of capacity under-utilization of government financed projects. This leads to resource waste and unemployment. Kenya being a young developing country with a partially developed entrepreneurial class requires increased share of government activities to ensure high and sustained economic growth. Consequently, one asks: What has been happening to economic growth in Kenya in the period 1964/65 to 1984/85 as a result of all these expansionary and contractionary measures introduced to the economy by the government through fiscal policy? Has the government been a major stabilising or destabilising force in the economy through fiscal policy instruments? Should the Kenya Government restrain its spending or look for other ways of raising revenue internally, like the introduction of user charges?

1.3 OBJECTIVES AND PURPOSE OF THE STUDY

The main objectives of this study are:

(1) To analyze the size of the Government sector, and the composition of Government revenues and expenditure patterns on which the magnitude of fiscal policy effect may depend.

(2) To show how successful the fiscal policy was employed in Kenya in creating conditions conducive to sustained economic growth in the period 1964 - 85. This is done by estimating the quantitative impact of total discretionary and automatic budget policy changes in fiscal parameters on Gross Domestic Product (GDP).

The purpose of this study is to enable the researcher to make some recommendations and suggestions related to the country's fiscal policy. This study brings to focus the nature of the impact of the fiscal policy changes on economic growth. It reveals whether the budget changes have been a stabilising or destabilising force in the economy as a whole.

1.4 SIGNIFICANCE OF THE STUDY

Very little is known on Kenya's macro-economics. Reasons include the standard developing country's assumption that long run development is overwhelmingly the most important macroeconomic objective of policy and that this can be treated independently of short-run fluctuations in economic activity. Another reason is that for the first decade of political independence in Kenya, the country was able to maintain a remarkably steady growth rate and was scarcely troubled by financial or foreign exchange difficulties, price inflation was unheard of, the government budget was in a healthy condition and balance of payments sufficiently strong enabling the external reserves to rise in most of the years. Times have changed and since 1973 macroeconomic instabilities have set in. Consequently, if it were ever true, it is not true today that the long run performance of the

economy can be independent of the success of the government in its attempts at short-run stabilization. Therefore, researchers should concern themselves more with these issues, and this study takes a step toward this direction.

In order to improve the performance of fiscal policy or even in its application, a decision maker must have some quantitative knowledge of the impact of the budget and of the effects, of changes in fiscal parametres on target variables in particular GDP. Measures of the fiscal policy influence should enable the economist to prescribe the right dosage of fiscal stimulus (or restraint) when an insufficient (or excessive) level of demand is forecast.

Finally, the study satisfies my own curiosity in this area.

1.5 DEFINITION OF TERMS

Fiscal Policy: is used here to mean changes in government expenditure and in tax structure (tax rates and base). No other aspect of fiscal policy is considered here.

Economic Growth: is taken in this study to mean increase in the volume of real goods and services or an increase in real Gross Domestic Product (GDP).

Economic Stability: in this study refers to the fluctuations of the economic activity or Gross Domestic Product. The smaller the fluctuations, along the average annual growth rate for the period, the more stable the economy, and the wider the fluctuations, the more unstable the economy.

Aggregate Domestic demand: This term as used here is derived from the definition of National Income Y≡E≡O≡. That is, National Income is identical to National expenditure which is identical to National output. Aggregate domestic demand is part of National expenditure. Consequently, it plays a great role in economic growth of a country. The higher the aggregate domestic demand, the greater the utilization of a country's resources. This leads to increased economic activity and hence increased GDP.

General Government: Includes the Central and Local Governments

1.6 FOOTNOTES

1. KING, J.R., Stabilization policy in an African setting: Kenya 1963 - 73, Heinmann Educational Books Ltd, London, 1979, P.61.

2. Ibid. P.61

3. Ibid. P.65

4. Budget Speech 1970, P.6

5. Budget Speech 1971, P.12

6. Ole, A.M., "Income elasticity of tax structure in Kenya. 1962/63 - 1972/73, Unpublished, M.A. Research paper, University of Nairobi, 1976.

7. Republic of Kenya, Development Plan 1984/88, Government Printer, 1983, P.2

8. Government of Kenya, Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth Nairobi.

9. Ibid. P.18

CHAPTER TWO: LITERATURE REVIEW

On surveying the vast Literature on the Kenyan economy, one cannot fail to find serious areas of neglect by researchers. As Killick (1981)[1] noted, apart from King's (1979)[2] study on stabilisation upto 1973, very little have been published in Kenya on the range of subjects dealt with in the text books of macroeconomic theory and policy like the determination of national income and its components; the use of fiscal and monetary policies; and the balance of payments with the rest of the world. ".....there is in the economic department of most Universities (of LDCs) a strong bias towards microeconomic interests, a bias that has certainly been evident at the University of Nairobi"[3].

The Literature on the quantitative impact of fiscal policy in Kenya on economic growth is very scarce, and the studies carried out on this issue in other countries, particularly developing countries are also few. Consequently, this study reviews the Literature available on this issue but mainly from other areas as follows.

Brown (1956) used measures of the quantitative impact of fiscal policy to analyse past fiscal performance in the United States. He wanted to investigate whether the government was a stabilising or a destabilising force in the economy. To get these effects, he used the following formulae:

The expansion of equilibrium output associated with real government spending is:

$$G/P_g + \frac{bG}{P_p} + \frac{b^2G}{P_p} + \ldots\ldots = G/P_g + \frac{bG}{P_g}\left(\frac{1}{1-b}\right) \ldots\ldots (i)$$

Where

G is government purchases in money terms,

P_g is price Index to base 1 of government purchases

b is the marginal propensity to spend

P_p is the price Index to base 1 of private purchase.

The contraction of equilibrium output from the tax is:

$$\frac{aT}{P_p} + \frac{baT}{P_p} + \frac{b^2aT}{P_p} + \ldots\ldots = \frac{aT}{P_p}\left\{\frac{1}{1-b}\right\} \quad \ldots\ldots(ii)$$

Where

a is change in spending resulting from marginal tax changes. T is money taxes minus transfers.

The net expansion is:

$$G/P_g + \frac{1}{1-b}\left\{\frac{bG}{P_p} - \frac{GT}{P_p}\right\} \quad \ldots\ldots\ldots\ldots\ldots(iii)$$

Brown tested whether total full-employment demand is enhanced or reduced by fiscal activity and found that the trend of the direct effects of fiscal policy on aggregate full-employment demand was definitely downward throughout the thirties, not because it did not work but because it was not tried. In other words, what Brown meant is that fiscal policy would have been a successful recovery device in the thirties in United States if it was used.

This study did not specify in any detail the variety of different forms of government expenditures and revenues. One might want to distinguish between expenditure on investment goods, on consumption goods and services, and on labour employment, or between taxes on expenditure and on income. The study aggregated all Government expenditures and all taxes. In our study, these are disaggregated into various taxes and expenditures. From the Literature of the balanced budget multiplier, the discretionary effect of a unit change in indirect taxes has a larger effect than a similar change in direct taxes. In addition, a unit of discretionary change in government purchases will have a greater effect than a unit change in taxes. Hence, the necessity to disaggregate various taxes and expenditures. Otherwise, Brown's study stands as an important piece of work, because he pioneered in this area, giving us a starting point.

Cohen (1959) estimated and analyzed the quantitative importance of the individual Income Tax as a built-in stabilizer for the years 1948 - 53, assuming 1950 tax rates in United States. He tested the proposition that the built-in flexibility of the individual Income Tax have been roughly the same and of low magnitude since 1948 in America.

He defined built-in flexibility however, by breaking down the measure into two components. That is, the tax base flexibility, defined as the change in taxable Income (TI) in relation to a change in Adjusted Gross Income, or

$$\left\{\frac{\Delta TI}{\Delta AGI}\right\}$$

and the marginal rate of taxation defined as the change in taxes (T), or

$$\left\{\frac{\Delta T}{\Delta TI}\right\}$$

Then the built-in flexibility was defined as the product of these two components, thus

$$\frac{\Delta T}{\Delta AGI} = \left\{\frac{\Delta TI}{\Delta AGI}\right\} \left\{\frac{\Delta T}{\Delta TI}\right\}$$

He found out that a weighted measurement for the period 1949-53, was roughly 0.138, that is, the measurement of built-in tax flexibility was rather low. He therefore concluded that the built-in tax flexibility was not a very useful device for promoting economic stability during that period. The tax rates were not representative for the whole period in question. Cohen should have used a weighted average of the tax rates for

the whole period instead of assuming 1950 tax rates. The study looked at the responsiveness of a fiscal parameter, that is, individual income tax to economic growth. It shows that economic growth have influence on fiscal parameters thus affecting their effectiveness in the economy. Fiscal parameters on the other hand have effect on economic growth. Our study looks at the extent to which fiscal policy parameters modify the economy in Kenya.

Snyder (1969) carried out a study on measuring economic stabilization for Sweden, United Kingdom and the United States. He used potential Gross National Product (GNP) and an approximation that there did exist a well known path of development which if consistently followed would have been optimum with respect to the goals desired. In his study Snyder found out that the sum of the stabilising effects amounted to only 7.4 per cent, and of this 3.6 per cent were offset by destabilising effects. Hence, the net stabilising effects were reduced to a mere 3.8 per cent. On average, the net impact of budget changes was a positive factor in achieving economic stability and balanced growth, but the amount of stabilization achieved was very small in relation to the potential necessary. It was problematic to use such an estimation of potential output in measuring the budget changes effects because it was not independent of fiscal policy. Our study utilises similar method to the one used by Snyder but with a few modifications to suit the Kenyan situation and data availability.

Riha (1975) using the same method as Snyder carried out a similar study in the Philippines during the period 1947-73. Unlike Snyder, he measured total, discretionary and automatic budget effect on economic growth and stability separately. He used potential output which we have noted above was not used without problems. On average, he found out that the fiscal policy was a destabilising force in the economy not because it did not work but because it was

never used. Another major problem of the study was the unreliability of the data used. Most of it had to be estimated and since these estimates could not have been without errors, the study's conclusions had to be interpreted with care. Our study uses method similar to the one used by Riha which resembles the one used by Snyder, but with few modifications.

Ole (1976) estimated the income elasticity, which is also sometimes called the built-in flexibility of Kenya's tax structure between 1962/63 and 1972/73. He found out that the tax structure was inflexible and income inelastic. It could neither act effectively as an instrument of stabilization nor could it be relied upon to play a leading role in financing increasing expenditures. Consequently, the country relied heavily on non-tax sources of revenue and discretionary changes in her tax structure for increments in its revenue requirements during the period. What we should ask ourselves then is, what has been the effect of the discretionary changes in the tax structure introduced in 1973 on Kenya's economic growth? This is among the concerns of our study.

Itwerandu's (1977) study was concerned with the effects of economic development on the base of a hypothetical sales tax in Kenya. He found out that the base increases significantly overtime and that accessibility of the domestic portion of the base was increased at the manufacturing and retail levels and decreased at the wholesale level. He took the hypothetical sales tax base as a per cent of the income and expenditures and estimated it for the households with a given level of income in different income groups. Itwerandu's study provides us with a theoretical or hypothetical automatic effects on sales tax of economic growth. Unlike this study which looks at the responsiveness of a fiscal policy instrument, that is, a hypothetical sales tax to economic growth, our study looks at the other

side of the same coin, that is, the responsiveness of economic growth on fiscal policy. It uses actual taxes - both direct and indirect taxes.

King (1979) used two models to measure the effect of the stabilization policy employed in Kenya in the period 1963-73. He used the Output Determination Model (ODM) to measure stability in the level of economic activity and a Model of Financial Flows (MFF) in the case of the rate of inflation and balance of payments position. He criticised what he called the "fiscal experiment" of 1970-73. He argued that the Keynesian Model was inappropriate in Kenya's economy context on the grounds that the national income exhibited none of the instability which such a model is supposed to explain and correct, During the period covered by King's study, that is the first decade of political independence in Kenya, the country was able to maintain a remarkable steady growth rate and the economy was scarcely disturbed by financial or foreign exchange difficulties, price inflation, persistent government budget deficits or balance of payments deficits. Times have changed since 1973 and macroeconomic instabilities seem to be here to stay. So it is the aim of our study to find out the role played by the Keynesian-type expansionary policies. It covers over two decades of political independence and looks at only how fiscal policies have been trying to maintain stability.

Kwasa (1982) did a study on the pattern of changes in tax structure and revenue in Zambia. He looked at the causal relationships between tax revenues and Gross Domestic Product in order to determine the role of taxation in the development of a very open African economy. His major aim was to find out the responsiveness of the tax system to changes in the national income and the specific extent to which the tax system has succeeded

in dealing with the new problems and meeting the new national economic goals which he singled out as: full-employment, price stability, economic growth, a favourable balance of payments and equitable distribution of income. On the basis of this, he wanted to find out the role taxation and tax policies have played in promoting economic development during the period of the study, that is, 1964-80. He found out that the tax structure was income elastic. Consequently, tax revenue for financing development increased with the increase in national income. In addition, the tax structure played an important role in Zambia's economic stability, particularly through the built-in tax flexibility. This study shows the important role played by fiscal policy parameters in economic growth of Zambia, which is a developing country.

Our study will not only look at the role of taxation on economic growth but on the role of two main parameters of fiscal policy, that is taxation and government expenditure, on economic growth. Kwasa's study provides us with some evidence of the importance of fiscal policies in developing countries like Zambia and other developing economies.

The studies cited here look at how various fiscal policy parameters influence economic growth. And since economic growth also affects the effectiveness of fiscal policy, a few studies have also been cited on this aspect. The methods used in some studies like Snyder's and Riha's are similar to the one used in our study though highly modified. Consequently, these studies provide us with a theoretical foundation on which our study is based.

2.1 FOOTNOTES

1. KILLICK, T. (ed), Papers on the Kenyan economy: Performance, Problems and Policies, Heinemann Educational Books Ltd, Nairobi, 1981, P.36.

2. KING, J.R., Stabilization policy in an African setting: Kenya 1963-73, Heinemann Educational Books Ltd, London, 1979, P.61.

3. KILLICK, T., OP. Cit.

CHAPTER THREE: METHODOLOGY

There are several ways of estimating the influence of the budget on the GDP, and thereby on the whole economy as well. Three of these are:

1. The surplus - deficit methods:

   (a) A surplus is contractionary, a deficit is expansionary.

   (b) An improvement in the budget position (raising surplus or declining deficit) is contractionary; a worsening is expansionary.

2. The full-employment surplus (FES) methods, which appraise fiscal policy by what the state of the budget would be at full-employment:

   (a) A calculated surplus at full-employment is restraining, a calculated deficit is stimulative.

   (b) An improvement in the calculated budget position (raising surplus or reducing deficit); is restraining; a worsening is stimulative.

3. The reduced form[1] method which calculates the budget impact from changes in government expenditures and changes in structure of tax rates evaluated at current income levels, regardless of surplus-deficit position.

In this study, the reduced form method is used to measure the fiscal policy impact on GDP. This method goes beyond changes in the budget balance to analyse the effects of changes in various budget items on the

level of total demand. Changes in the budget balance do not accurately reflect the effects on the economy of changes in various items, particularly GDP, and they cannot be taken to be indicators of the effects of fiscal policy on the economy. The budget balance or budget measure seeks only to supply a number summarising the congeries of taxation and expenditure programs, and it is mute on the effects of the programs on Gross Domestic Product. This measure is independent of any particular model and hence its virtue. This independence of the model of the budget effect measure has its disadvantage in that it is less informative particularly on the effects of the fiscal policy on economic growth.

The reduced form method that is employed in this study can also be called "fiscal impact" measure because it shows or estimates the fiscal effects on Gross Domestic Product. This method is similar to the one developed by Bent Hansen[2] which was based on other authors'[3] contribution.

MODEL SPECIFICATION

The basic formulae used to estimate the impact of fiscal policy are derived as follows:

From economic theory,

National Income ≡ National Expenditure ≡ National Output. These are the three major approaches of measuring National income, consequently,

$$Y = C + I + G + M - X \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

where Y = Gross National Expenditure

C = Household or private consumption

I = Private Investment

G = Government expenditure

M = Imports

X = Exports

Since imports are demand by nationals for foreign goods and exports are demand by foreigners for our goods, we can then express domestic demand as:

$$Y = C + I + G \quad \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where

$$C = x(Y-Td)\ (1-m) - Ti\ (1-m)$$

$$Td = tdY$$

$$Ti = tiC$$

and I and G are exogenously determined

x = Marginal propensity to consume national income.

Td = Direct taxes[4]

Ti = Indirect taxes[5]

m = Marginal propensity to import

td = Marginal rate of direct taxation

ti = Marginal rate of indirect taxation

In an attempt to influence, control or regulate a country's economic activity, the Kenya Government through her fiscal policy measures influences the domestic demand. Consequently, this study looks at the average annual fiscal policy effect on domestic demand to characterize the overall impact of fiscal policy on Gross Domestic Product.

Therefore, Y can be rewritten as:

$$Y = x\ (Y-Td)\ (1-m) - Ti\ (1-m) + I + G \quad \ldots\ldots\ldots (3)$$

Changes in Y can be expressed by taking the derivative of (3) to get:

$$dY = x\ (dY-dTd)\ (1-m) - dTi\ (1-m) + dI + dG \quad \ldots\ldots\ldots (4)$$

Rearranging,

$$dY = \frac{dI + dG - dTd\ x(1-m) - dTi\ (1-m)}{1-x\ (1-m)} \quad \ldots\ldots\ldots(5)$$

The total effects of budget changes, E_T, are defined as the difference between the actual change in Income, Y, and the change which would have occurred if no budget changes took place at all including automatic changes. This implies that dG, dTd and dT_i are all equal to zero. Hence,

$$E_T = dY - \frac{dI}{1-x(1-m)} = \frac{dG - dTd\ x(1-m) - dTi(1-m)}{1-x(1-m)} \quad \ldots\ldots(6)$$

But dG, that is, changes in Government expenditure can be written as:

$$dG = (dg^d + dI^d + dL^d) + (gdp_g + Idp_i + Ldw)\ x(1-m) \quad \ldots\ldots(7)$$

where **d = domestic**

dg^d = the change in the volume of general government domestic purchases of consumption goods and services.

dI^d = the change in the volume of general government investment expenditures.

dL^d = the change in the volume of general government domestic purchases of labour.

$gdPg + IdP_i + Ldw$ = the change in general government domestic purchases of goods and services due to changes in prices for consumption goods, investment goods and changes in wage and salary rates. The estimates were obtained in the process of deflating[6] government purchases. We multiply $(gdp_g + IdPi + Ldw)$ by x(1-m) because this expenditure can

either be spent or saved. Expenditure can either be on domestic or foreign goods.

So, specifically,

$$* E_T = \frac{1}{1-x\ (1-m)} \Big[i_g{}^d + dI^d + dL^d + (gdP_g + IdP_i + Ldw) \quad ..(8)$$
$$(x\ (1-m)) - dTd\ (x(1-m)) - dT_i\ (1-m) \Big]$$

To get the discretionary effects of fiscal policy on Gross Domestic demand, we differentiate (2) totally,

$$dY = dc + dI + dG \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (9)$$

Where

$$dC = x(1-m)\ (dY-dT\bar{d}) - dTi\ (1-m) \quad \ldots\ldots\ldots\ldots\ldots\ldots \quad (10)$$

Where

$$dTd = td\ dY + Ydtd \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (11)$$
$$dTi = Cdti + ti\ dC \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (12)$$

dI and dG are Exogenously determined

By substituting dTd = tddY + Ydtd and dTi = Cdti + tidC in equation (10), change in household consumption can be expressed as:

$$dC = \frac{x(1-m)\ (1-td)\ dY - x\ (1-m)\ Ydtd - Cdti\ (1-m)}{1 + ti\ (1-m)} \quad \ldots\ldots\ldots \quad (13)$$

Substituting this in dY = dC + dI + dG,

$$dY = \frac{x(1-m)\ (1-td)\ dY - x(1-m)\ Ydtd - Cdti(1-m)}{1 + ti\ (1-m)} + dI + dG \quad .. \quad (14)$$

Rearranging,

$$dY = \frac{(dI + dG)\ (1+ti(1-m)) - x(1-m)\ Ydtd - Cdti\ (1-m)}{1 + (ti-x)\ (1-m)\ (1-td)} \quad \ldots\ldots \quad (15)$$

The discretionary effects of fiscal plicy changes, E_D, are defined as the difference between the actual change in income, Y, and the change which would have occured if there had been no discretionary budget changes from one year to

the next, (that is, if dG, Cdti and Ydtd are all equal to zero) but allowing for changes into private savings and automatic tax changes.

$$E_D = \frac{dY - dI\ (1+ti(1-m)}{1+(ti-x)(1-m)\ (1-td)}$$

$$= \frac{dG\ (1+ti(1-m)) - Ydtd\ (x(1-m)Y - Cdti(1-m)}{1+(ti-x)\ (1-m)\ (1-td)} \quad \ldots\ (16)$$

More specifically, $dG = dg+dI+dL$

$$E_D = \frac{1}{1+(ti-x)\ (1-m)\ (1-td)} \begin{Bmatrix} (dg+dI+dL\ (1+ti(1-m))+) \\ Ldw\ (1-m)(1-td) - Cdti \\ ((1-m) - Ydtd\ x\ (1-m) \end{Bmatrix} \quad \ldots\ (17)$$

Where, Cdti = the discretionary change in indirect taxation less subsidies.

Ydtd = the discretionary change in direct taxation less transfer payments.

All changes in volume of general government expenditure are considered as discretionary changes. In eqn(17), effects resulting from the changes in wage and salary rates were considered discretionary since the government of Kenya, as one of the largest employers could exert at least in the short-run, a strong influence on the labour market, paticularly for civil servants.

An explicit expression for the automatic effects of budget changes can be derived. But since the total effects of fiscal policy are the sum of both discretionary and automatic effects, we simply define them as the difference between the total and discretionary effects.

$$E_A = E_T - E_D \quad \ldots\ (18)$$

The automatic effects of the budget, E_A, are defined as the dampening exerted by the automatic budget responses on GDP fluctuations generated by the non-budgetary forces.

The study uses a year to year analysis over the period in consideration since all effects are estimated on annual bases. To estimate the multiplier effects of the changes in fiscal policy, numerical values of co-efficients used in the multiplier formulars are estimated. These values are in all cases based on simple time series estimates over the period under consideration. GDP deflator (1976 = 100) is used to eliminate the effects of inflation.

3.2 DATA TREATMENT AND INTERPRETATION

To get the impact of fiscal policy in Kenya on economic growth during this period, the effect of fiscal policy cannot directly be compared with the actual GDP. This is so because this value of a change in GDP is itself influenced by fiscal policies. Therefore, a hypothetical series of GDP is constructed by subtracting from the actual change in GDP the estimated effects of the fiscal policy for each year.

We call this hypothetical series "pure series". It will estimate what GDP would have been if fiscal policy had shown no change from year to year. Equations (8), (17) and (18) represent changes in GDP; as a result of fiscal policy effects.

$$\text{Pure series of GDP} = GDP^*_T = GDP_{Actual} - E_T \quad \ldots\ldots\ldots\ldots (19)$$

$$\text{Discretionary pure series of GDP} = GDP^*_D = GDP_{Actual} - E_D \quad \ldots\ldots (20)$$

$$\text{Automatic pure series of GDP} = GDP^*_A = GDP_{Actual} - E_A \quad \ldots\ldots\ldots (21)$$

Using the same concept, various pure rates of Growth of GDP, defined as the difference between actual rate of growth of GDP and the budget effects.

$e = E/GDP_{t-1}$ is constructed where t-1 is previous year.

$$g_T^* = g_{actual} - e_T \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (22)$$

$$g_D^* = g_{actual} - e_D \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (23)$$

Where,

g_T^* shows what the rate of growth would have been if the budget had shown no changes from year to year.

g_D^* indicates what the rate of growth would have been in the absence of discretionary measures but with the automatic budget responses working.

The difference between the rates of growth adjusted for total effects and rates of growth adjusted for discretionary effects shows the extent to which automatic budget responses themselves modified the developments. This is given as:

$$g_A^* = g_T^* - g_D^* \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (24)$$

g_T^* and g_D^* are as defined above.

g_A^* shows what the rate of growth would have been without the automatic budget effect changes from year to year, but with the discretionary budget effects working.

3.3 LIMITATIONS OF THE METHODOLOGY AND DATA

The Limitations of the Methodology lies in the assumptions of the model utilized. No model can attempt to explain everything, and the one used here is no exception. Perhaps the most conspicuous omissions are that, first, the private investment is treated as an exogenous variable. This can be explained by the inadequate knowledge about investment functions in the country. The fact that most of the important private investment are foreign-owned, explains this also because decisions to invest may even be carried outside the country depending on the investors interests.

Secondly, the monetary activities are entirely excluded. This is considered feasible by omitting all government and private lending and borrowing activities.

Thirdly, any lags involved are considered as unimportant. This is not a critical assumption since fiscal policy in Kenya is reviewed annually.

Fourthly, the analysis is carried out on the assumption of unchanged coefficients throughout the whole period. These values of the coefficients were estimated with the use of ordinary least squares method.; These estimators of the parameters will on average - from econometric Literature - be equal to the true parameters. Consequently, they are taken to be the Best Linear unbiased Estimators of the true values for the period under consideration.

Finally, there is data limitation of the study. Discretionary tax revenue data was not

readily available. Consequently, the study made use of the discretionary tax revenue data estimated in Kenya Government Financial statements. Therefore the results using this data should be interpreted with care. Since most data was given in calendar years, to get data for fiscal years, the sum of data for two consecutive years was divided by 2.

3.4 FOOTNOTES

1. In the Literature on Econometric Models, the term "reduced form" refers to an "exogenous" or "outside" change on a variable being explained in the model. In this context, the researcher is interested in the impact of a change in the government's fiscal policies (the outside change) on the GDP, and have therefore adopted this convenient terminology

2. Hansen, B., Fiscal Policy in Seven Countries 1955-65, OE CD, Paris, 1969.

3. Other Authors are:

   Brown, C.E. "Fiscal policies in the Thirties: A reappraisal", American Economic Review, Vol. 46 (December 1956), PP 857-879.

   Lindbeck Assat, "Statsbudgetens Verkningar Pa. Konjunturuveckliagen" Staters Offentliga Utredningar, 48, 1956.

   Musgrave, R.S., "On measuring Fiscal Performance", Review of Economics and Statistics, Vol. 66 (May 1964), PP. 213-220.

4. Direct taxes refer to direct taxes on persons and corporations. These include: Income tax on individuals, Income tax on business, estate duty, inheritance tax, and other direct taxes. As used in the study, direct taxes are net of transfer payments.

5. Indirect taxes refer to import duties, excise taxes, sales tax, stamp duties, petrol and diesel tax, licences and fees under the Traffic Act, land premia and taxes, and royalties. These are net of subsidies.

6. GDP deflator was used to eliminate the effects of inflation. Unlike the other measures of inflation, the GDP deflator has the broadest coverage and therefore most closely approximates the concept of general price level of all goods and services. See Shapiro, E., Macroeconomic Analysis, Harcourt Brace Jovanorich, Inc., New York, 1982, P. 474.

CHAPTER FOUR: DATA ANALYSIS

4.1 THE SIZE AND STRUCTURE OF THE PUBLIC SECTOR

The importance of Government fiscal actions depends partly on its own economic power. This is usually measured as the size of general government expenditures as expressed as a ratio in relation to GDP. This expenditure ratio may be useful as a measure of size but is not the best indicator of the potential importance of the fiscal policy in an economy.

Table 4.0 gives us the size and the structure of the general government sector in Kenya. In the whole period, general government expenditure as a per cent of GDP was on average about 25 in current prices, annually. This share of Government expenditure rose steadily from 21 per cent in 1964/65 to 23 per cent in 1967/68. Then, it dropped suddenly to 21 per cent in 1968/69 and rose again to reach 26 per cent in 1971/72. After 1971/72, Government expenditure fell slightly and remained at this level until 1977/78. In 1978/79, expenditure rose by 3 per cent of GDP to 29 per cent, in 1980/81. From 1981/82, Government expenditure started to fall again until 1983/84 when it fell to 25 which is slightly lower than 1977/78 level.

TABLE 4.0

The SIZE AND STRUCTURE OF THE PUBLIC SECTOR (AS A PERCENTATE OF GDP AT CURRENT MARKET PRICES)

ITEM / YEAR	(1) WAGES AND SALARIES	(2) OTHER GOODS AND SERVICES	(3) SUBSIDIES AND OTHER TRANSFERS	(4) GROSS CAPITAL FORMATION	(5) INCOME FROM PROPERTY	(6) DIRECT TAXES	(7) INDIRECT TAXES LESS SUBSIDIES	(8) TOTAL TAXES
1964/65	9.38	4.74	5.12	1.63	0.63	5.96	7.31	13.27
1965/66	9.14	5.06	4.94	2.28	0.61	6.34	7.09	13.43
1966/67	9.54	4.42	4.28	3.25	0.63	6.52	7.94	14.46
1967/68	9.80	4.54	4.51	4.10	0.66	6.96	7.40	14.35
1968/69	8.10	3.99	4.42	4.06	0.64	5.81	8.18	13.98
1969/70	8.98	4.19	3.46	4.62	0.63	6.37	8.54	14.91
1970/71	10.10	4.45	2.98	6.95	0.66	7.56	9.33	16.89
1971/72	11.51	5.11	2.49	6.5	0.63	7.57	9.46	17.03
1972/73	10.56	5.52	2.47	5.99	0.65	7.41	8.73	16.14
1973/74	10.10	5.59	2.66	5.64	0.61	6.28	11.50	17.78
1974/75	7.02	6.75	5.96	5.35	0.31	6.98	11.66	18.64
1975/76	7.26	6.08	5.92	5.07	1.00	6.77	11.24	18.01
1976/77	5.95	6.65	4.97	5.31	1.02	6.97	10.21	17.18
1977/78	6.68	8.15	4.99	6.07	1.42	7.72	13.78	21.50
1978/79	6.76	9.70	5.43	6.59	1.48	7.41	12.50	19.91
1979/80	6.58	9.88	5.02	7.02	1.15	7.40	14.12	21.28
1980/81	7.29	9.14	6.15	6.31	1.35	7.58	14.65	22.23
1981/82	8.08	10.29	5.63	4.87	1.08	6.92	14.92	21.85
1982/83	7.47	8.48	5.68	4.47	1.57	7.02	13.59	20.61
1983/84	7.43	8.86	5.21	3.51	1.47	6.90	14.34	21.25
1984/85	7.40	7.83	6.58	5.19	1.35	7.36	13.12	20.48
Average	8.34	6.37	4.7	4.9	0.93	6.95	11.56	17.88

Source: Calculated from statistical Abstracts and Economic Surveys, 1965 - 1986.

In 1984 / 85 the expenditure rose again by about 2 per cent to 27 per cent.

This considerable rise in expenditure as a proportion of GDP is explained by factors such as the oil price rise and the consequent rise in the inflation rate; the coffee boom which generated unwarranted optimism about development prospects; the break-up of the East Africa Community and Government take over of Community assets and expenditures; the second sharp oil price rise in 1979; the fall in domestic agricultural output in 1979 and 1980 requiring special food imports and distribution to the hunger striken Kenyans; and a rise in defence expenditure.

Wages and salaries take the largest share averaging 8 per cent during the period. The Kenya government being a large employer in the country spends a high proportion of funds on paying labour. This rose from 9 per cent of GDP in 1964/65 to 10 per cent in 1967/68. This share dropped to 8 per cent in 1968/69 and rose to reach maximum in 1971/72 when it was 12 per cent. It then dropped to a lowest level in the whole period of 6 per cent of GDP in 1976/77. From this level, this share rose to 8 per cent in 1981/82 and dropped to a stagnant level of 7 per cent of GDP.

Government expenditure on other goods and services takes a big share. In the whole period, this share averaged 6 per cent of GDP annually. These include expenditure on ensuring internal security, external defence and carrying out general administration, and providing basic social services such as sanitation, medical care and education.

Another important category of Government expenditure is on the Gross Capital Formation (GCF). This took about 5 per cent of GDP on average annually in the period under consideration. Expenditure in this category entails providing productive infrastructure such as communications, water and power as a service to Industry, agriculture and other productive sectors. This share rose at a fluctuating rate from 1.6 per cent in 1964/65 to reach maximum in 1979/80 of 7 per cent. This expenditure also includes Government investment in state-owned and partially-owned corporations. This share fell again to 3.5 per cent of GDP in 1983/84 but rose to 5 per cent in 1984/85.

Finally, subsidies and other transfers to households and corporations took on average 4.7 per cent of GDP annually.

The structure of Government expenditures is observed on time series data like the one given by table 4.0. In addition to the factors singled out above as contributing to growth in government expenditure in Kenya, other factors also work in this direction.

As the country's per capita income rises, the output of social goods do not remain constant. The demand for such goods can hardly be expected to have an income elasticity of zero. In addition, there is no particular reason to expect that this elasticity should be just unity, thereby, leaving the public purchase share unchanged as per capita income rises. One thinks of government services as related to basic needs, such as safety, elementary education, and basic sanitation which seem more like necessities than luxuries. Other public services such as parks, marinas, are of luxury type and are complementary to luxury-type private goods.

Consequently, the Government share in consumption rise and fall over successive phases of income growth.

In the early stages of economic development (like the one Kenya is in), a particular need exists for the creation of overhead capital such as roads, harbours, and power installations. Many of these items are such that the benefits are external, or they require large amounts of capital the returns of which are spread over a long time and thus do not lend themselves readily to private provision. As these basic facilities are built up and capital markets are developed, the path is cleared for capital formation of the manufacturing type to go into place and for industrial development in the private sector to occur.

Finally, technical change and population growth have also led to a high growth rate of government expenditure. As technology changes, so do the processes of production and the product-mix, which it is efficient to produce. These changes increase or decrease the relative importance of goods whose benefits are largely external and which must therefore be provided by Government. In addition, as obsolescence is sped up by technological change, the cost of replacement increases. When a country's population like Kenya grows at a high rate, the Government is also compelled to spend more. High rates of population growth have generated changes in age distribution, and this trend is reflected in expenditures for education, health facilities, housing, sanitation, et cetera, thus placing a major burden on the government. A combination of all these factors are responsible for high proportion of GDP of Government expenditure.

/Government expenditure is one category of instruments by which fiscal policies influence economic activity.

The other category is Government revenue, mainly taxes. In this study, we have limited ourselves to taxes as the source of Government revenue. Taxes are a major source of Government revenue. The share of tax revenue to GDP was on average 18 per cent in the period under consideration. The T/GDP ratio is known as the tax effort. The tax effort shows that Kenya is not fully taxed. Consequently, the tax potential is not effectively utilized. According to Professor Lewis, an underdeveloped country should raise at least 20 per cent of its national income through taxation.[1] Kenya falls short of this level. Indirect taxes is the major source of Government revenue averaging 11 per cent of GDP per annum. On average, indirect tax revenue takes 60 per cent of total tax revenue. Direct taxes as a per cent of GDP was 7 for the whole period, and 40 per cent of total tax revenue.

Apart from taxes, Kenya Government gets income from property. The share of income from property to GDP is 1 per cent. Government property include land, buildings, and financial assets.

4.2 THE IMPACT OF FISCAL POLICY ON ECONOMIC GROWTH

The main concern of this analysis is to find out to what extent the government fiscal policies influenced the course of economic events during the period 1964-85, in Kenya.

The fiscal parameters of action of the Kenya Government were taken to be Government domestic purchases of consumption and investment goods and of labour, wages and salary rates and the marginal tax rates of both direct and indirect taxes. When Government expenditures and taxes change, the effect occurs in a several stage process. There is, first, the direct impact of the increased (or decreased) spending occasioned by the initial budget change. The initial change later includes a series of indirect (multiplier) effects. The combination of all the direct and indirect effects are the total effects of budget

changes. These total effects of budget changes can be classified into discretionary and automatic built-in stabilizers. "When changes in budget expenditures or revenues are clearly due to deliberate and explicit measures that are unrelated to previous legislation or budget authorizations, then it is certainly appropriate to classify them as discretionary. ....It is conventional to define as built-in stabilizers the automatic changes under existing laws of tax receipts and expenditures"[2].

The estimates of the effects of annual fiscal policy changes are given in table 4.1, and the break-down of the effects for general Government into discretionary and automatic are given in tables 4.2 and 4.3 respectively. Annual fiscal policy changes effects expressed as a percentage of the previous year's GDP, that is, total, discretionary and automatic effects are given in tables 4.4, 4.5 and 4.6 respectively.

The leakage coefficients of the models used estimated by simple regression are as follows:

(1) Marginal Propensity to consume, x = 0.82

(2) Marginal propensity to import, $\bar{m}$ = 0.29

(3) Marginal rate of direct taxation, td = 0.004

(4) Marginal rate of indirect taxation, ti = 0.044

Effects of the fiscal policy cannot be directly compared with actual GDP because this value itself was influenced by fiscal policies. Therefore, hypothetical series of GDP are constructed simply by subtracting from actual GDP the estimated effects of fiscal policy for each year. They are called pure series because the effects of fiscal policy are eliminated. In the same way, pure rates of growth of GDP, defined as the difference between

TABLE 4.1

TOTAL BOMESTIC EFFECTS OF GENERAL GOVERNMENT EXPENDITURE AND TAXATION (E_T)

KEM

ITEM / YEAR	1 GOVT EXPENDITURE VOLUME COMPONENT	2 GOVT EXPENDITURE PRICE COMPONENT	3 GOVT EXPENDITURE VOLUME AND PRICE	4 DIRECT TAXES LESS TRANSFER PAYMENTS	5 INDIRECT TAKES LESS SUBSIDIES	6 E_T
1964/65	-	-	-	-	-	--
1965/66	19.33	- 5.69	13.64	-4.02	-2.14	7.48
1966/67	32.57	-13.36	19.21	-5.57	-11.12	2.52
1967/68	34.07	-11.81	22.26	-4.79	- 0.02	17.46
1968/69	-16.26	11.40	-4.86	5.47	-11.69	-11.08
1969/70	48.38	-16.60	31.78	-10.55	-10.12	11.12
1970/71	92.47	-28.40	64.07	-16.36	-17.14	30.57
1971/72	46.5	- 1.79	44.71	- 8.71	-12.86	23.14
1972/73	5.71	15.19	20.9	- 6.60	- 5.93	8.38
1973/74	-33.24	62.60	29.36	5.48	-65.24	-30.4
1974/75	-11.76	28.02	16.26	33.26	-37.31	12.21
1975/76	- 6.12	52.69	46.57	- 0.10	-35.33	11.14
1976/77	11.93	62.83	74.76	-30.40	-34.48	9.88
1977/78	146.19	33.69	179.88	-27.05	-168.86	-16.03
1978/79	85.12	55.21	140.33	13.29	- 1.62	152
1979/80	35.90	70.57	106.47	-23.14	-127.07	-43.74
1980/81	8.21	66.90	75.11	26.71	-116.38	14.56
1981/82	31.81	119.29	151.1	- 2.57	-112.07	36.46
1982/83	-79.33	50.52	- 28.81	- 7.62	- 17.40	-53.83
1983/84	- 0.52	-56.21	55.69	-27.02	-123.21	-94.54
1984/85	26.21	143.5	169.71	26.26	- 22.26	-173.71
Average						11.58

Source : **Computed From Appendix $\bar{x}$**

actual rate of growth of GDP and, pure rates of growth adjusted for total effects, discretionary effects and automatic effects were constructed. These are given in table 4.8. Figure 1 shows the impact of fiscal policy on economic growth. The total domestic effects of general Government fiscal policy are given in table 4.1 as noted above. These effects were on average K£ 11.58 million per annum for the period 1964/65 to 1984/85. This table shows that the total domestic effects were negative in 7 out of 20 years. In the first 10 years period, that is, 1964/65 to 1974/75, total domestic effects of fiscal policy were negative in two years only. In the second 10 years period, that is, 1975/76 to 1984/85, the total domestic effects of fiscal policy were negative in half of the period - 5 out of 10 years.

This shows that the fiscal policy employed by the Kenya Government was more destabilising in the second period than in the first period. These policies reduced the domestic demand to negative values and hence the economic activity in the country.

Turning to general government spending alone (both volume and price component), domestic effects were positive in all except two years, that is 1968/69 and 1982/83. In contrast, the domestic effects of total taxes were negative in the whole period except in 1978/79 and 1984/85.

The discretionary fiscal policy domestic effects as given in table 4.2 were positive for the period in consideration. The average annual effect for the period was K£ 136.8 million. These effects ranged from K£ 14.9 million in 1968/69 to K£ 415 million in 1984/85. The largest discretionary domestic effects came from direct taxes. These were positive in the whole period. Most

TABLE 4.2

DISCRETIONARY DOMESTIC EFFECTS OF GENERAL GOVERNMENT EXPENDITURE AND TAXATION (E_D) (K£m)

ITEM / YEAR	GOVT EXPENDITURE VOLUME COMPONENT	GOVT EXPENDITURE PRICE COMPONENT	GOVT EXPENDITURE VOLUME & PRICE COMPONENTS	DIRECT TAXES LESS TRANSFER PAYMENTS	INDIRECT TAXES LESS SUBSIDIES	TOTAL DISCRETIONARY EFFECTS (E_D)
1964/65	-	-	-	-	-	-
1965/66	26.2	0.51	26.71	23.2	-4.42	45.49
1966/67	44.11	-8.71	35.4	28.87	-2.47	55.8
1967/68	46.13	-4.89	41.24	22.2	0.51	62.93
1968/69	-22.02	8.73	-13.29	24.84	3.33	14.88
1969/70	65.51	-9.87	55.64	21.4	17.13	94.18
1970/71	125.22	-10.33	114.89	20.76	-1.22	134.43
1971/72	62.97	- 5.8	57.17	20.89	-5.76	72.3
1972/73	7.76	11.8	19.56	22.44	-5.47	36.53
1973/74	-45.02	34.69	-10.33	30.84	6.84	27.35
1974/75	-15.93	21.58	5.65	66.64	-10.57	61.72
1975/76	- 8.29	22.11	13.82	96.64	-24.44	86.02
1976/77	16.16	23.84	40.03	105.6	-17.29	128.34
1977/78	197.93	11.4	209.33	131.38	-45.4	295.31
1978/79	115.27	15.6	130.87	150.11	-20.22	260.76
1979/80	48.64	22	70.64	157.24	-54.69	173.19
1980/81	11.16	42.58	53.74	219.87	124.53	149.08
1981/82	210.6	57.2	97.8	248.58	-49.6	296.78
1982/83	-107.44	30.18	-77.26	329.96	-48.56	204.14
1983/84	- 0.73	29.31	28.58	262.09	-32.67	258
1984/85	35.51	51.4	86.91	324.87	4.07	415.84
Average						136.81

Source : **Own Computations From Appendix XI**

dampening effects were from indirect taxes which were negative in all except 4 years. Discretionary Government expenditure (price and volume components) were positive in all except 3 years. Discretionary Government expenditure, volume component, exerted a dampening effect in 6 out of 20 years. These discretionary government expenditure effects reached the highest point in 1977/78, that is, K£ 197.9 million. Government expenditure, price component, included only changes in wage and salary rates only. All the other price changes were considered automatic because government purchases of consumption and investment goods and services are not big enough to influence their price. The effects of this category of expenditure exerted depressing effects in 5 out of 20 years. So, generally, discretionery domestic effects of fiscal policy pushed the economy upwards.

The automatic fiscal policy effects were negative in the period under consideration. Therefore, they exerted a dampening effect to the economy. On average, the annual automatic domestic effects of fiscal policy were K£ 125.8 million. They ranged from K£ - 25.96 million to K£- 352.54 million. In the first 10-year period, the annual average domestic effects were K£ - 53.42 million. In the second 10 - year period, they were K£ 210.7 million. The largest dampening effects came from direct taxes as shown in table 4.3. Comparing the two periods, its clear that the fiscal policies were 4 times as depressing in the second period as they were in the first period.

Table 4.4. gives us the total domestic effects of fiscal policy as the percentage changes of the previous year's GDP. On average, the annual total fiscal policy domestic effects were 0.8 per cent. This means that

TABLE 4.3

AUTOMATIC DOMESTIC EFFECTS OF GENERAL GOVERNMENT EXPENDITURE AND TAXATION (E_T)

KEM

ITEM / YEAR	GOVT EXPENDITURE VOLUME COMPONENT	GOVT EXPENDITURE PRICE COMPONENT	GOVT EXPENDITURE VOLUME & PRICE	DIRECT TAXES LESS TRANSFER PAYMENTS	INDIRECT TAXES SUBSIDIES	TOTAL AUTOMATIC EFFECTS E_A
1964/65	-	-	-	-	-	-
1965/66	-6.87	-6.2	-13.07	-27.22	2.28	-38.01
1966/67	-11.54	-4.65	-16.19	-28.44	-8.65	-53.28
1967/68	-12.06	-6.92	-18.93	-26.99	0.49	-45.48
1968/69	5.76	2.67	8.43	-19.37	-15.02	-25.96
1969/70	-17.13	-6.73	-23.86	-31.95	-27.25	-83.06
1970/71	-32.75	-18.07	-50.82	-37.12	-15.92	103.86
1971/72	-16.47	4.01	-12.46	-29.6	- 7.1	-49.16
1972/73	- 2.05	3.39	1.34	-29.04	- 0.46	-28.16
1973/74	11.78	27.91	39.69	-25.36	-72.08	-57.75
1974/75	4.17	6.44	10.61	-33.38	-26.74	-49.51
1975/76	2.17	30.44	32.75	-96.74	-10.89	-74.38
1976/77	-4.23	38.96	34.73	-136	-77.19	-118.46
1977/78	-51.74	22.29	-29.45	-158.43	-123.46	-311.34
1978/79	-30.15	39.61	9.46	-136.82	18.6	-108.76
1979/80	-12.74	48.57	35.83	-180.38	-72.38	-216.93
1980/81	- 2.95	24.32	21.37	-193.16	8.15	-163.64
1981/82	- 8.79	62.09	53.3	-251.15	-62.47	-260.32
1982/83	-28.11	20.34	48.45	-337.58	31.16	-257.97
1983/84	1.25	26.90	27.11	-289.11	90.54	-352.54;
1984/85	- 9.3	92.10	82.8	-298.61	-26.33	-351.54
Average						-125.77

Source : Own Computations From Appendices IX, X and XI

TABLE 4.4

TOTAL DOMESTIC EFFECTS OF GENERAL GOVERNMENT EXPENDITURE AND TAXATION
(AS A PERCENTAGE OF THE PREVIOUS YEAR'S GDP)

ITEM / YEAR	GOVT EXPENDITURE VOLUME COMPONENT	GOVT EXPENDITURE PRICE COMPONENT	GOVT EXPENDITURE VOLUME AND PRICE	DIRECT TAXES LESS TRANSFER PAYMENTS	INDIRECT TAXES LESS SUBSIDEIS	TOTAL EFFECTS e_T
1964/65	-	-	-	-	-	-
1965/66	2.5	-0.7	1.8	-0.5	-0.3	1.0
1966/67	4.1	-1.7	2.4	-0.7	-1.4	0.3
1967/68	3.9	-1.3	2.5	-0.5	0.0	2.0
1968/69	-1.7	1.2	-0.5	0.6	-1.3	-1.2
1969/70	4.8	-1.7	3.2	-1.1	-1.0	1.1
1970/71	8.6	-2.7	6.0	-1.5	-1.6	2.9
1971/72	4.1	-0.2	3.9	-0.8	-1.1	2.0
1972/73	0.5	1.3	1.8	-0.6	-0.5	0.7
1973/74	-2.7	5.0	2.3	0.4	-5.2	-2.4
1974/75	-1.0	2.3	1.4	2.8	-3.1	1.0
1975/76	-0.5	4.0	3.6	0.0	-2.7	0.9
1976/77	0.9	4.7	5.6	-2.3	-2.6	0.7
1977/78	10.4	2.4	12.7	-1.9	-12.0	-1.1
1978/79	5.2	3.4	8.6	0.8	-0.1	9.4
1979/80	2.1	4.2	6.3	-1.4	-7.5	-2.6
1980/81	0.5	3.8	4.3	1.5	-6.7	-0.8
1981/82	1.7	6.5	8.2	-0.1	-6.1	2.0
1982/83	-4.2	2.7	-1.5	-0.4	0.9	-2.9
1983/84	0.0	2.9	2.9	-1.4	-6.5	-5.0
1984/85	1.3	7.3	8.7	1.3	-1.1	8.9
Average	1.9	2.1	4.0	-0.3	-2.9	0.8

Source: Own Computations From Appendices II and X

on average fiscal policy pushed the economy upwards by about 0.8 per cent.

In the first 10 - year period, the fiscal policy effects pulled the economy downwards in two years, that is, 1968/69 and 1973/74. In the second 10-year period, the downward pull of the domestic economic activity took place in 5 years. Overall, the downward pull took place in seven out of twenty years. The largest expansionary fiscal policy domestic effects came from Government expenditure (both price and volume components), that is, 4 per cent. The largest contractionary effects were exerted by indirect taxes, that is, -2.9 per cent.

Discretionary fiscal policy domestic effects were on average 9.2 per cent annually, for the whole period. The largest contractionary discretionary domestic fiscal policy effects were from indirect taxes. The largest expansionary effects were from direct taxes. These were -1.2 per cent and 6.9 per cent respectively, as shown in table 4.5 Its clear then that the Government's discretionary fiscal policies pushed the economy upwards in the whole period.

Table 4.6 shows the automatic domestic effects of the fiscal policy. These effects pulled the economic activity downward in the whole period. On average, the annual dampening effects were 8.5 per cent for the period in consideration. The largest contractionary effects were from direct taxes. Comparing automatic fiscal effects with discretionary fiscal effects, you note that the largest expansionary effects were from discretionary effects, and the largest contractionary effects were from the automatic effects.

Consequently, the discretionary fiscal policy effects pushed the economic activity upward. The automatic fiscal policy effects pulled it downward in the whole

TABLE 4.5

DISCRETIONARY DOMESTIC EFFECTS OF GENERAL GOVERNMENT EXPENDITURE AND TAXATION (AS A PERCENTAGE OF THE PREVIOUS YEAR'S GDP)

ITEM / YEAR	GOVT EXPENDITURE VOLUME COMPONENT	GOVT EXPENDITURE PRICE COMPONENT	GOVT EXPENDITURE VOLUME AND PEICE	DIRECT TAXES LESS TRANSFER PAYMENTS	INDIRECT TAXES LESS SUBSIDIES	TOTAL DISCRE-TIONARY EFFECTS e_D
1964/65	-	-	-	-	-	-
1965/66	3.4	0.1	3.5	3.0	-0.6	5.9
1966/67	5.5	-1.1	4.4	2.9	-0.3	7.0
1967/68	5.2	-0.6	4.7	2.5	-0.1	7.2
1968/69	-2.4	0.9	-1.5	2.7	0.4	1.6
1969/70	6.6	-1.0	5.6	2.1	1.7	9.4
1970/71	11.7	-1.0	10.7	1.9	-0.1	12.5
1971/72	5.5	-0.5	5.0	1.8	-0.5	6.3
1972/73	0.7	1.0	1.7	1.9	-0.5	3.1
1973/74	-3.6	2.8	-0.8	2.5	0.5	2.2
1974/75	-1.3	1.8	0.5	5.5	-0.9	5.1
1975/76	-0.6	1.7	1.1	7.4	-1.9	6.6
1976/77	1.2	1.8	3.0	7.9	-1.3	9.6
1977/78	14.0	0.8	14.8	9.3	-3.2	20.9
1978/79	7.1	1.0	8.1	9.2	-0.7	16.1
1979/80	2.9	1.3	4.2	9.3	-3.2	10.2
1980/81	0.6	2.4	3.1	12.6	-7.1	8.5
1981/82	2.2	3.1	5.3	13.58	-2.7	16.2
1982/83	-5.7	1.6	-4.1	17.6	-2.6	10.9
1983/84	0.0	1.5	1.5	13.8	-1.7	13.6
1984/85	1.8	2.6	4.4	16.6	0.2	21.3
Average	2.6	1.0	3.6	6.9	-1.2	9.2

Source: Own Computations From Appendices II and XI

TABLE 4.6

AUTOMATIC DOMESTIC EFFECTS OF GENERAL GOVERNMENT EXPENDITURE AND TAXATION
(AS A PERCENTAGE OF THE PREVIOUS YEAR'S GDP)

ITEM / YEAR	GOVT EXPENDITURE VOLUME COMPONENT	GOVT EXPENDITURE PRICE COMPONENT	GOVT EXPENDITURE VOLUME AND PRICE	DIRECT TAXES LESS TRANSFER PAYMENTS	INDIRECT TAXES LESS SUBSIDIES	TOTAL AUTOMATIC EFFECTS e_A
1964/65	-	-	-	-	-	-
1963/66	- 0.9	-0.8	-0.8	-1.7	-0.3	-5.0
1966/67	- 1.4	-0.6	-2.0	-3.5	-1.1	-6.6
1967/68	- 1.4	-0.8	-2.2	-3.1	0.1	-5.2
1968/69	0.6	0.3	0.9	-2.1	-1.6	-2.8
1969/70	- 1.7	-0.7	-2.4	-3.2	-2.7	-8.3
1970/71	-3.1	-1.7	-4.7	-3.5	-1.5	-9.7
1971/72	-1.5	0.4	-1.2	-2.9	-0.7	-4.6
1972/73	-0.2	0.3	0.1	-2.5	0.0	-2.4
1973/74	1.0	2.4	3.4	-2.2	-6.3	-4.9
1974/75	0.3	0.5	0.9	-2.8	-2.2	-4.1
1975/76	0.2	2.3	2.5	-7.4	-0.8	-5.7
1976/77	-0.3	2.9	2.6	-10.2	-1.3	-8.9
1977/78	-3.7	1.6	-2.1	-11.2	-8.7	-22.1
1978/79	-1.98	2.4	0.6	-8.4	1.1	-6.8
1979/80	-0.8	2.9	2.1	-10.7	-4.3	-12.8
1980/81	-0.2	1.4	1.2	-11.0	-0.5	- 9.4
1981/82	-0.5	3.4	2.9	-13.7	-3.4	-14.2
1982/83	1.5	1.1	2.6	-18.0	1.7	-13.8
1983/84	0.1	1.4	1.5	-15.2	-4.8	-18.6
1984/85	-0.5	4.7	4.2	15.3	-1.3	-12.4
Average	-0.7	1.1	0.4	-7.2	-1.8	-8.5

Source: Own Computations From Appendix II, X and XI

Period. The total effects of these two forces was on average expansionary.

The pure series of GDP adjusted for total, discretionary and automatic effects are shown in table 4.7. It's clear that except for the years when total domestic fiscal policy effects were negative, GDP less total fiscal policy effect was lower in the whole period, than actual GDP. This shows that the total fiscal policy effect played a positive role in the economy. GDP adjusted for automatic fiscal domestic effects was high in the period under consideration. This implies that the automatic fiscal effects pulled the economic activity downwards.

Figure I is drawn from table 4.8 it shows both actual and pure GDP growth rates for the period under consideration, The horizontal line, 4.2 per cent, shows the average actual growth rate for the period. It's referred to as the long run GDP growth rate. Its clearly shown in figure I that while the discretionary fiscal effects pushed the economic activity upwards, the automatic fiscal effects pulled it downwards. While the latter depressed the economy, the former led to economic growth.

TABLE 4.7

ACTUAL AND PURE GDP (AT CONSTANT 1976 PRICES)

ITEM / YEAR	(1) ACTUAL GDD (AT 1976 CONSTANT MARKET PRICE)	PURE SERIES OF: (KEM) (2) GDP ADJUSTED FOR E_T (GDP^*_T)	(3) GDP ADJUSTED FOR E_D (GDP^*_D)	(4) GDP ADJUSTED FOR E_A (GDP^*_A)
1964/65	765.56	-	-	-
1965/66	801.41	793.93	755.92	839.42
1966/67	879.12	876.60	823.32	932.40
1967/68	930.32	912.86	867.39	975.80
1968/69	998.90	1010.02	984.02	1024.86
1969/70	1071.25	1060.13	977.07	1154.31
1970/71	1136.69	1106.12	1002.26	1240.55
1971/72	1179.07	1155.93	1106.77	1228.23
1972/73	1250.32	1241.94	1213.79	1278.48
1973/74	1201.55	1231.95	1174.05	1259.15
1974/75	1304.29	1292.08	1242.57	1353.8
1975/76	1331.98	1320.84	1245.96	1406.86
1976/77	1411.68	1401.8	1540.02	1530.14
1977/78	1624.42	1640.45	1116.37	1723.02
1978/79	1692.20	1540.2	1431.44	1800.96
1979/80	1749.54	1793.28	1576.35	1966.47
1980/81	1828.34	1842.9	1679.26	1991.98
1981/82	1870.46	1834.0	1573.68	3130.78
1982/83	1898.22	1952.05	1694.08	2155.19
1983/84	1956.10	2050.64	1698.1	2308.64
1984/85	1974.31	1800.6	1558.47	2216.45

Source: (a) Column (1) - Calculated from Statistical Abstracts and Economic Surveys 1965 - 1986.

(b) Columns (2), (3) and (4) - Own Computations From Appendix II, Tables 4.1, 4.2 and 4.3.

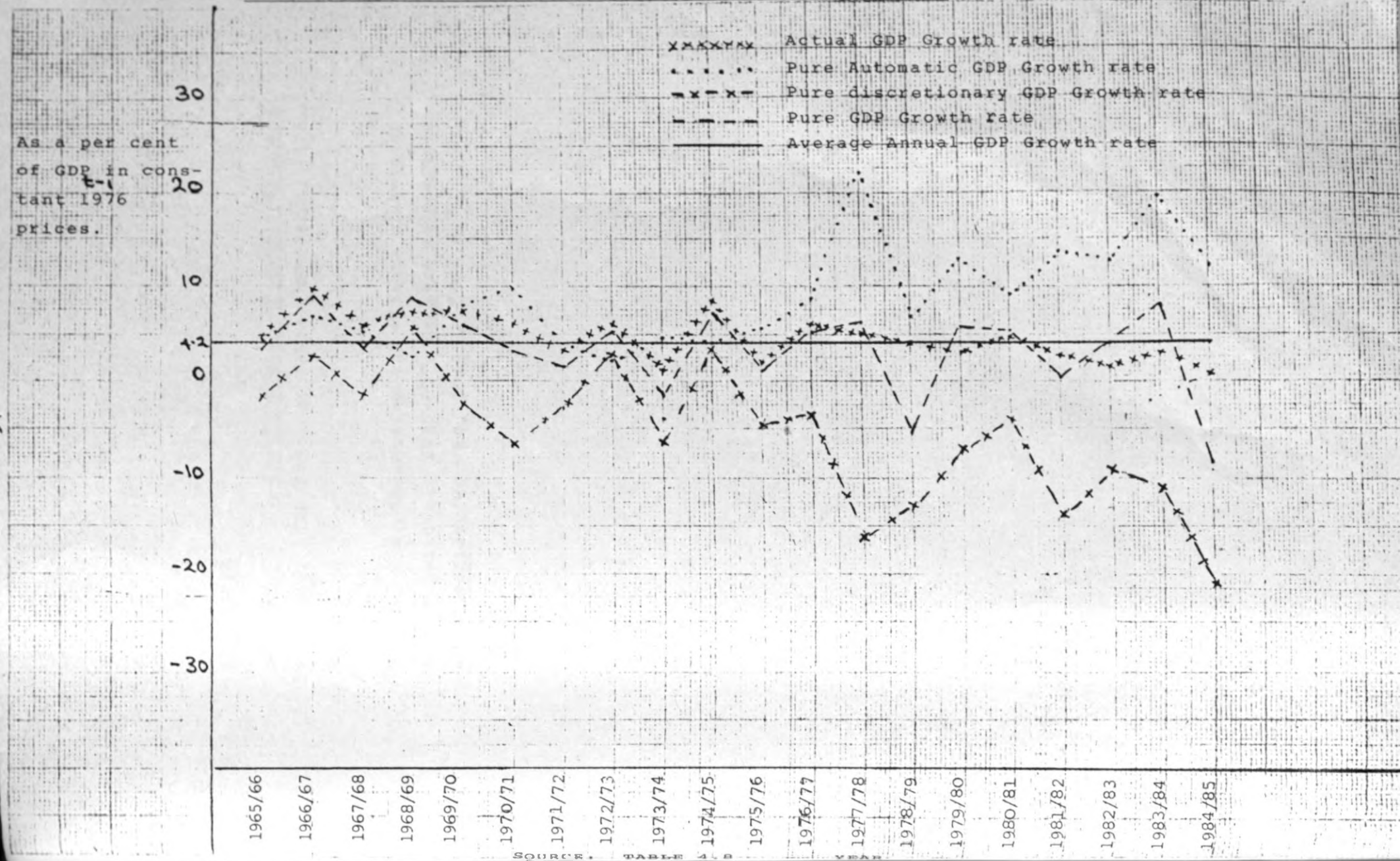
TABLE 4.8

ACTUAL AND PURE GDP GROWTH RATES

	ACTUAL GDP GROWTH RATE	PURE TOTAL GDP GROWTH RATE ADJUSTED FOR E_T, g_T^*	PURE DISCRETIONARY GDP GROWTH GDP GROWTH RATE ADJUSTED FOR E_D, g_D^*	PURE AUTOMATIC GDP GROWTH RATE ADJUSTED FOR E_A, g_A^*
	(as per cent of the previous year's GDP; constant 1976 prices)			
1964/65	-	-	-	-
1965/66	4.7	3.7	1.2	4.9
1966/67	9.7	9.4	2.7	6.7
1967/68	5.8	3.8	-1.4	5.2
1968/69	7.4	8.6	5.8	2.8
1969/70	7.2	6.1	-2.2	8.3
1970/71	6.1	3.2	-6.4	9.6
1971/72	3.7	1.7	-2.6	4.3
1972/73	6.0	5.3	2.9	2.4
1973/74	-3.9	-1.5	-1.6	4.6
1974/75	8.6	7.6	3.5	4.1
1975/76	2.1	1.2	-4.5	5.7
1976/77	6.0	5.3	-3.6	8.9
1977/78	5.1	6.2	15.8	22.0
1978/79	4.2	-5.2	-11.9	6.7
1979/80	3.4	6.0	-6.8	12.8
1980/81	4.5	5.3	-4	9.8
1981/82	2.3	0.3	-13.9	14.2
1982/83	1.5	4.4	- 9-4	13.8
1983/84	3.0	8.0	-10.6	18.6
1984/85	0.9	-8	-20.4	12.4
Average	4.2	3.4	-5.0	8.4

Source: Own Computations From Table 4.7

FIGURE 1: THE IMPACT OF FISCAL POLICY ON ECONOMIC GROWTH



SOURCE: TABLE 4.8 YEAR

4.3 FOOTNOTES

1. JHINGAN, M. L., The Economics of Development and Planning, 14th Edition, Vikas, New Delhi, 1975, P. 260.

2. Snyder, W.W., "Measuring the effects of Belgian Budget policies: 1955-65", Cahiers Economiques de Bruxelles, No. 44, 1969, P.529-530

CHAPTER FIVE: SUMMARIES AND CONCLUSIONS.

Our analysis shows that the Government plays a big role in the Kenyan economy. The proportion of public sector expenditure to Gross Domestic Product is on average 25 percent per annum. This large size of Government Sector is explained by several main factors. These include the oil price hikes of 1973 and 1979 and the consequent rise in the rate of inflation; the coffee boom which generated unwarranted optimism about development prospects; the break-up of the East African Community and the Kenya Government take-over of community assets and expenditures; the fall in domestic agricultural output in 1979 and 1980 requiring special food imports and distribution to the hunger - striken Kenyans; a rise in defense expenditures; and a rise in education expenditures.

Other factors contributing to high Government expenditure in Kenya has been a raise in per Capita Income, the need to expand the socio-economic infrastructure in order to pave way for economic activities, technical change which have led to obsolescence of some processes of production and product mix, and high population growth rate.

Government expenditure on wages and salaries take an average of 8 percent of GDP per annum. This portrays the importance of the Government as an employer of labour. Other goods and services take 6 percent per annum of the GDP. Gross Capital formation, and subsidies and other transfers average 5 percent and 4.7 percent annually respectively.

Taxes are a major source of government revenue in Kenya. The share of tax revenue to GDP was on average 18 percent in the period under consideration. This ratio shows that the tax potential is not fully utilized. The marginal rates of direct and indirect taxation are very low, that is 0.004 and 0.044. This shows that since transfer payments are treated as negative indirect taxes, overall, the economy is not effectively taxed.

Indirect taxation was the major source of Government revenue averaging 11 percent of GDP per annum. Direct taxes as a proportion of GDP for the period under consideration accounts for 7 percent. Income from Government property was lowest, that is, 1 percent of GDP.

The study clearly shows that in the early 1980's economic growth rate has been below average annual growth rate and shows a declining trend. In addition to other factors like hostile external economic relations particulary international trade, with terms of trade turning against developing countries like Kenya, this could also be reflecting the fiscal restraint by the Kenya Government. Something should be done to push this rate of growth upwards. Given that Kenyan's entrepreneurial class is partially developed, such a force can only come from Government expenditures.

The fiscal parameters of action of the Kenya Government were taken to be Government domestic purchases of consumption and investment goods and of labour, wages and salary rates of both direct and indirect taxes. The estimation of the impact of these fiscal parameters shows clearly that fiscal policy played an important role in the country's short-run stabilization and long run economic growth in Kenya .

The total domestic effects of general Government fiscal policy were on average K£ 11.58 million per annum for the period 1964/65 to 1984/85. The discretionary fiscal policy domestic effects were on average K£ 136.8 million. The automatic fiscal policy effects exerted a dampening effect to the economy on average, the annual automatic domestic effects of fiscal policy were K£-125.8 million.

Without the discretionary fiscal policy measures, economic growth in constant 1976 prices averaged -5 percent per annum. On the other hand, without the built-in stabilizing

effects or the automatic fiscal policy stabilising effects, the rate of growth was on average 8.4 percent per annum. When these two fiscal policy effects were eliminated, the GDP growth rate was 3.4 percent per annum. The fiscal policy effects pushed the economy upwards by 0.8 percent every year. These effects are very small especially when we consider the size of the public sector in the economy. This could be accounted for by the combined effects of the leakage coefficients which has greatly reduced the multiplier effects of Government expenditure in taking place effectively.

The pure GDP growth rates show high fluctuations particularly from mid-1970's around the average annual growth rate of 4.2 percent. The actual growth rate shows small fluctuations. The difference between the actual and pure growth rates shows the fiscal policy stabilising effects.

This study shows clearly the effects of fiscal policy on economic growth as manifested in the pattern of growth. The Kenya Government should review her tax policies to make sure that the country's tax potential is fully utilized. Fiscal policy as employed in Kenya in the last two decades of political independence created a condition conducive to economic growth, although the effects were too small, relative to the size of government expenditures.

APPENDIX I

GDP AND OTHER SELECTED ITEMS (IN CURRENT PRICES)

	(1) GDP (MARKET) PRICES	(2) GOVERNMENT CONSUMP-TION	(3) PRIVATE CONSUM-PTION	(4) TOTAL CONSUM-PTION	(5) TOTAL NATIONAL SAVING	(6) GROSS FIXED CAPITAL FORMATION	(7) TOTAL IMPORTS	(8) GOVERN-MENT IMPORTS
/65	376.75	51.1	246.35	297.45	79.3	45.8	88.67	8.54
/66	385.48	54.25	263.65	317.9	67.58	53.85	112.13	14.25
/67	427.25	58.93	284.6	343.53	83.72	71.7	121.79	19.10
/68	458.65	67.88	303.93	371.8	86.85	85.85	123.58	17.6
/69	499.45	79.53	323.5	403.03	96.42	91.63	127.94	16.65
9/70	548.48	89.9	347.13	437.03	111.45	103.23	143.39	15.9
0/71	610.46	104.25	386.13	490.38	120.08	128.45	179.04	18.4
1/72	682.68	121.45	428.9	550.35	132.33	154.65	195.58	19.3
2/73	780.20	134.23	496.28	630.5	149.7	173.68	204.59	17.85
3/74	927.60	158.15	585.05	743.2	184.4	193	360.99	18.75
4/75	1104.73	197.9	719.85	917.75	186.98	222.8	273.24	25.85
5/76	1331.98	236.53	853.7	1090.23	241.75	266.13	284.80	31.15
6/77	1665.78	287.9	964.7	1252.6	413.18	340.2	469.23	32.8
7/78	1959.05	360.31	1142.43	1501.75	457.3	452	596.29	32.95
8/79	2167.40	422.95	1346.33	1769.28	398.12	527	640.65	33.75
9/80	2451.10	490.53	1526.35	2016.88	434.22	581.5	789.60	53.68
0/81	2832.10	555.08	1734.53	2289.6	542.5	673.98	945.72	76.42
/82	3224.68	609.61	1993.93	2603.55	621.13	646.88	916.36	69.97
2/83	3618	691.15	2245.6	2936.75	681.25	694.63	902.97	55.03
3/84	3935.68	774.25	2501.18	3275.43	660.25	778.5	1001.42	50.05
4/85	4404.68	836.39	2874.29	3710.67	694.01	842.28	1149.17	44.51

Source: Statistical Abstract, Economic Survey, 1965 - 1986

APPENDIX II

GDP AND OTHER SELECTED ITEMS (IN CONSTANT 1976 PRICES)

(KEM)

ITEM / YEAR	(1) GDP AT MARKET PRICES	(2) GOVT CONSUM-PTION	(3) PRIVATE CONSUM-PTION	(4) TOTAL CONSUM-PTION	(5) TOTAL NATIONAL SAVING	(6) GROSS FIXED CAPITAL FORMA-TION	(7) TOTAL IMPORTS	(8) GOVT IMPORTS
1964/65	765.56	109.66	528.65	638.30	127.26	98.28	190.28	18.33
1965/66	801.41	112.79	548.13	660.91	140.50	111.95	233.12	29.63
1966/67	879.12	121.26	385.60	706.85	174.05	147.53	250.60	39.30
1967/68	930.32	137.69	616.49	754.16	176.17	174.14	250.67	35.70
1968/69	998.90	159.06	647.0	806.06	192.84	183.26	255.88	33.30
1969/70	1071.25	175.59	677.99	853.57	217.68	201.62	280.06	31.05
1970/71	1136.69	194.13	719.05	913.18	223.51	239.20	333.41	34.26
1971/72	1179.07	209.76	740.76	950.52	228.55	267.10	337.79	33.33
1972/73	1250.32	215.11	795.32	1010.42	239.90	278.33	327.87	28.61
1973/74	1201.55	204.86	757.84	962.69	238.86	250.0	389.88	24.29
1974/75	1304.29	233.65	849.88	1083.53	220.76	263.05	440.66	30.52
1975/76	1331.98	236.53	853.7	1090.23	241.75	266.13	384.80	31.15
1976/77	1411.68	243.98	817.54	1061.53	350.15	288.0	397.65	27.80
1977/78	1624.42	298.76	947.29	1245.23	279.19	274.79	494.44	25.70
1978/79	1692.20	329.91	1050.18	1380.09	312.11	411.08	499.73	26.33
1979/80	1749.54	350.13	1089.47	1439.60	309.94	415.06	563.60	38.32
1980/81	1828.34	358.35	1119.77	1478.11	350.23	435.11	610.54	49.34
1981/82	1870.46	353.60	1156.57	1510.18	360.28	375.22	581.53	40.59
1982/83	1898.22	362.62	1178.17	1540.19	358.03	403.06	473.75	28.87
1983/84	1956.10	384.82	1243.13	1627.95	328.15	386.93	497.72	24.88
1984/85	1974.31	374.89	1288.34	1663	311.31	377.53	515.09	19.95

Source: Calculated from Statistical Abstracts, Economic Surveys, 1965-1986.

APPENDIX III

GENERAL GOVERNMENT EXPENDITURE AND REVENUES (IN CURRENT PRICES)

ITEM / YEAR	(1) Wages and Salaries	(2) Other Goods and Services	(3) Subsidies and other transfers	(4) Gross Capital formation	(5) Income from property	(6) Direct taxes	(7) Indirect taxes less subsidies	(8) Total taxes
1964/65	33.47	16.92	18.28	5.8	2.26	21.27	26.07	47.34
1965/66	35.24	19.49	19.04	8.78	2.38	24.44	27.34	51.78
1966/67	40.76	18.89	18.28	13.88	2.71	27.87	33.92	61.79
1967/68	44.23	20.8	20.69	18.8	3.01	31.9	33.93	65.83
1968/69	40.67	19.95	22.09	20.3	3.19	29.00	40.84	69.84
1969/70	49.23	22.96	18.98	25.33	3.43	34.96	46.83	81.79
1970/71	62.02	27.19	18.18	42.45	4.04	46.14	56.97	103.11
1971/72	78.59	34.36	17.03	44.43	4.31	51.71	64.58	116.29
1972/73	82.41	43.09	19.26	46.77	5.04	57.80	68.09	125.89
1973/74	93.71	51.88	24.70	52.35	5.65	58.25	106.69	164.95
1974/75	77.56	74.57	65.80	59.15	3.52	77.15	128.77	205.92
1975/76	96.67	81.64	78.90	67.51	13.31	90.24	149.68	239.92
1976/77	99.12	110.75	82.72	88.52	16.94	116.15	170.08	286.23
1977/78	130.82	159.63	97.80	118.83	27.84	151.20	269.97	421.17
1978/79	146.55	210.21	117.76	142.87	32.17	160.61	270.94	431.55
1979/80	161.36	242.26	122.98	172.16	28.16	182.9	346.11	529.01
1980/81	206.48	258.96	174.22	178.7	38.26	214.54	414.96	629.5
1981/82	260.58	231.87	181.42	156.9	34.83	223.27	481.26	704.53
1992/83	270.43	306.94	205.36	161.63	56.64	254.12	491.64	745.76
1983/84	292.53	348.71	205.08	138.21	57.96	271.72	564.54	836.26
1984/85	325.72	344.67	289.96	228.49	59.42	324.53	577.72	902.25

Source: Economic Survey, Statistical Abstract, 1965 - 1986.

APPENDIX IV

GENERAL GOVERNMENT EXPENDITURE AND REVENUES (IN CONSTANT 1976 PRICES) (KEM)

ITEM / YEAR	(1) WAGES AND SALARIES	(2) OTHER GOODS AND SERVICES	(3) SUBSIDIES AND OTHER TRANSFERS	(4) GROSS CAPITAL FORMATION	(5) INCOME FROM PROPERTY	(6) DIRECT TAXES	(7) INDIRECT TAXES LESS SUBSIDIES	(8) TOTAL TAXES
1964/65	71.82	36.31	39.23	12.45	4.85	45.64	55.94	101.59
1965/66	73.26	40.52	39.58	18.25	4.95	50.81	56.84	107.65
1966/67	83.87	38.87	37.61	28.56	5.58	57.94	69.79	127.14
1967/68	91.14	42.19	41.97	38.13	6.11	64.71	68.82	133.53
1968/69	81.34	39.90	44.18	40.60	6.38	58.0	81.68	139.68
1969/70	96.15	44.84	37.07	49.47	6.70	68.28	91.46	159.75
1970/71	115.49	50.63	33.85	79.05	7.52	85.92	106.09	192.01
1971/72	135.73	60.21	29.41	76.74	7.44	89.31	111.54	200.85
1972/73	132,07	69.05	30.87	74.95	8.08	92.63	109.12	201.75
1973/74	121.39	67.20	31.99	67.81	7.32	75.45	138.20	213.67
1974/75	91.57	88.04	77.69	69.83	4.16	91.09	152.03	243.12
1975/76	96.67	81.64	78.90	67.51	13.31	90.24	149.68	239.92
1976/77	84.0	93.86	70.10	55.02	14.36	98.53	144.14	242.57
1977/78	108.47	132.36	81.09	98.53	23.08	125.37	223.86	349.23
1978/79	114.31	163.97	91.86	111.44	25.09	125.28	211.34	336.62
1979/80	115.17	172.92	87.78	122.88	20.10	130.55	247.04	377.59
1980/81	133.30	167.18	112.47	115.36	24.70	138.50	267.84	406.39
1981/82	151.15	192.50	105.23	91.01	20.20	129.51	279.15	408.66
1982/83	141.88	161.04	107.74	84.80	29.82	133.33	257	391.27
1983/84	145.39	173.32	101.93	68.69	28.81	135.05	280.59	415.64
1984/85	146.0	154.49	129.97	102.42	26.63	145.46	258.95	404.42

Source: Calculated from **Statistical Abstracts, Economic Surveys,** 1965 - 1986.

Appendix V

OTHER INDICATORS

	(1) Interest payment as a per cent of GDP	(2) Direct taxes as a per cent of total taxes	(3) Indirect taxes as a per cent of total tax revenue	(4) Gross Govt. K-Formation % total Gross k-Formation	(5) Govt imports as a % of Total imports	(6) Total General Government Expenditure % GOD
1964/65	1.14	44.9	55.1	12.66	9.6	20.87
1965/66	1.11	47.2	52.8	16.30	12.7	21.42
1966/67	1.23	45.1	54.9	19.36	15.7	21.49
1967/68	1.18	48.5	51.5	21.90	14.2	22.95
1968/69	1.20	41.5	58.5	22.15	13.0	20.63
1969/70	1.21	42.7	57.3	43.91	11.1	21.25
1970/71	1.22	44.7	55.3	33.05	10.3	24.54
1971/72	1.28	44.5	55.5	28.73	9.9	25.61
1972/73	1.36	45.9	54.1	26.93	8.7	24.54
1973/74	1.29	35.3	64.7	27.12	6.2	23.99
1974/75	1.32	37.5	62.5	26.54	6.9	25.08
1975/76	1.47	37.6	62.4	25.36	8.1	24.33
1976/77	1.44	40.6	59.4	26.02	7.0	22.88
1977/78	1.67	35.9	64.1	26.29	5.5	25.89
1978/79	1.96	37.2	62.8	52.48	5.3	28.48
1979/80	1.96	34.6	65.4	29.61	6.8	28.5
1980/81	2.43	34.1	65.9	26.51	8.1	28.89
1981/82	3.68	31.7	68.3	24.25	7.6	28.87
1982/83	4.03	34.1	65.9	23.27	6.1	26.10
1983/84	4.41	34.5	65.5	17.75	5.0	25.01
1984/85	4.45	36	64	27.13	3.9	27.0
Average		39.7	60.3	26.5		24.68

Source: Calculated from **Statistical Abstracts, Economic Surveys,** 1965 - 1986.

APPENDIX VI

CHANGES IN GENERAL GOVERNMENT EXPENDITURE AND REVENUES (IN CURRENT PRICES)
(K£M)

ITEM / YEAR	(1) WAGES AND SALARIES	(2) OTHER GOODS AND SERVICES	(3) SUBSIDIES AND OTHER TRANSFERS	(4) GROSS CAPITAL FORMATION	(5) INCOME FROM PROPERTY	(6) DIRECT TAXES	(7) INDIRECT TAXES LESS SUBSIDIES	(8) TOTAL TAXES
1964/65	-	-	-	-	-	-	-	-
1965/66	1.77	2.57	0.76	2.98	0.12	3.17	1.27	4.44
1966/67	5.52	-0.60	-0.76	5.10	0.33	3.43	6.58	10.01
1967/68	4.17	2.52	2.41	4.92	0.30	4.03	0.01	4.04
1968/69	-4.26	1.40	1.40	1.50	0.18	-2.90	6.91	4.01
1969/70	8.56	3.01	-3.11	5.03	0.24	5.99	5.99	11.95
1970/71	12.79	4.23	-0.80	17.12	0.61	11.18	10.14	21.32
1971/72	16.57	7.67	-1.15	1.98	0.27	5.57	7.61	13.18
1972/73	3.82	8.23	2.23	2.34	0.73	6.09	3.51	9.60
1973/74	11.30	8.79	5.44	5.58	0.61	0.45	38.66	39.06
1974/75	- 16.15	22.69	41.10	6.80	-2.13	18.90	22.08	40.97
1975/76	19.11	7.07	13.10	8.36	9.79	13.09	20.91	34.00
1976/77	2.45	29.11	3.82	21.01	3.63	25.91	20.40	46.31
1977/78	31.70	48.88	15.08	30.31	10.90	35.20	99.89	134.94
1978/79	15.73	50.58	19.96	24.04	4.33	9.41	0.97	10.38
1979/80	14.81	32.05	5.22	29.29	-4.01	22.29	75.17	97.46
1980/81	45.12	16.70	51.24	6.54	10.10	31.64	68.85	100.49
1981/82	54.10	72.91	7.20	-21.80	-3.43	8.73	66.30	75.03
1982/83	9.85	-24.93	23.94	4.73	21.81	30.85	10.38	41.23
1983/84	22.10	41.71	-0.28	-23.42	1.32	17.60	72.90	90.50
1984/85	33.19	-4.04	84.88	90.28	1.46	52.81	13.18	65.99

Source: Calculated from **Statistical Abstracts, Economic Surveys,** 1965 - 1986.

APPENDIX VII

CHANGES IN GENERAL EXPENDITURE AND REVENUES (IN CONSTANT 1976 PRICES), VOLUME

ITEM / YEAR	(1) WAGES AND SALARIES	(2) OTHER GOODS AND SERVICES	(3) SUBSIDIES AND OTHER TRANSFERS	(4) GROSS CAPITAL FORMATION	(5) INCOME FROM PROPERTY	(6) DIRECT TAXES	(7) INDIRECT TAXES LESS SUBSIDIES	(8) TOTAL TAXES
1964/65	-	-	-	-	-	-	-	-
1965/66	1.44	4.21	0.35	5.80	0.10	5.17	0.9	6.06
1966/67	10.61	-1.65	-1.97	10.31	0.63	7.13	12.95	19.49
1967/68	7.27	3.32	4.36	9.57	0.53	6.77	-0.97	6.39
1968/69	-9.80	-2.29	2.21	2.47	0.27	-6.71	12.86	6.35
1969/70	14.81	4.94	-7.11	8.87	0.32	10.28	9.78	20.07
1970/71	19.34	5.79	-3.22	29.58	0.82	17.64	14.63	32.26
1971/72	20.24	9.58	-4.44	-2.31	-0.08	3.39	5.45	8.84
1972/73	-3.66	8.84	-1.46	-1.79	-0.64	3.32	-2.42	0.90
1973/74	-10.68	-1.85	1.12	-7.14	-0.76	-17.18	29.08	11.92
1974/75	-29.82	20.84	45.70	2.02	-3.16	15.64	13.83	29.45
1975/76	5.1	-6.40	1.21	-2.32	9.15	-0.85	-2.35	-3.20
1976/77	-12.67	12.22	-8.80	7.51	1.05	8.19	-5.54	2.65
1977/78	24.47	38.50	10.99	23.51	8.72	26.94	79.72	106.66
1978/79	5.84	31.61	10.77	12.91	2.01	-0.09	-12.52	-12.61
1979/80	0.86	8.95	-4.08	11.44	-4.99	-5.27	35.70	40.97
1980/81	18.31	-5.74	24.69	-7.52	4.60	7.95	20.85	28.80
1981/82	17.85	25.32	-7.24	-24.35	-4.50	-8.99	11.26	2.27
1982/83	-9.27	-31.46	2.51	-6.21	9.62	3.82	-22.15	-17.39
1983/84	3.51	12.28	-5.81	-16.11	-1.01	1.72	23.59	24.37
1984/85	0.61	-18.83	28.04	33.73	-2.18	10.41	-21.64	-11.22

Source: Calculated from Statistical Abstracts, Economic Surveys, 1965 - 1986.

APPENDIX VIII

GENERAL GOVERNMENT EXPENDITURE

PRICE CHANGES (K£M) Base year = 1976

ITEM / YEAR	WAGES AND SALARIES	OTHER GOODS AND SERVICES	GROSS CAPITAL FORMATION
1964/65	-	-	-
1965/66	0.33	-1.64	-2.82
1966/67	-5.52	1.05	-5.21
1967/68	-3.1	-0.8	-4.65
1968/69	5.54	3.69	-0.97
1969/70	-6.25	-1.93	-3.84
1970/71	-6.55	-1.56	-12.46
1971/72	-3.67	-1.91	4.29
1972/73	7.48	-0.61	4.13
1973/74	21.98	10.64	12.72
1974/75	13.67	1.85	4.78
1975/76	14.01	13.47	10.68
1976/77	15.12	16.89	13.5
1977/78	7.23	10.38	6.8
1978/79	9.89	18.97	11.13
1979/80	13.95	23.1	14.06
1980/81	26.99	22.44	-0.98
1981/82	36.25	47.59	2.55
1982/83	19.21	6.53	10.94
1983/84	18.59	29.43	-7.31
1984/85	32.58	14.79	56.55

Source: Statistical Abstracts, Economic Surveys, 1965 - 1986

	(1)		(2)		(3)		(4) KEM	
	TOTAL TAXES		TOTAL CHANGES (ANNUAL)		DISCRETIONARY CHANGES (ANNUAL)		AUTOMATIC CHANGES (ANNUAL)	
ITEM / YEAR	DIRECT TAXES LESS TRANSFER PAYMENTS	INDIRECT TAXES LESS SUBSIDIES	DIRECT TAXES LESS TRANSFER PAYMENTS	INDIRECT TAXES LESS SUBSIDIES	DIRECT TAXES LESS TRANSFER	INDIRECT TAXES LESS SUBSIDIES	DIRECT TAXES LESS TRANSFER PAYMENTS	INDIRECT TAXES LESS SUBSIDIES
1964/65	5.27	26.07	-	-	-18.0	1.32	-	-
1965/66	6.18	27.34	2.91	1.27	-18.26	2.80	21.17	1.53
1966/67	10.21	33.92	4.03	6.58	-17.74	1.57	21.77	5.01
1967/68	13.68	33.93	3.47	0.01	-17.22	0.33	20.69	0.32
1968/69	9.72	40.84	-3.96	6.91	-19.28	-2.11	15.32	9.02
1969/70	17.36	46.83	7.64	5.99	-16.6	-1.23	24.24	7.22
1970/71	29.20	56.97	11.84	10.14	-16.10	-0.77	27.94	10.91
1971/72	35.51	64.58	6.31	7.61	-16.2	3.65	22.51	3.96
1972/73	40.30	68.09	4.79	3.51	-17.42	3.47	22.21	0.04
1973/74	36.32	106.69	-3.98	38.60	-23.93	-4.34	19.95	42.94
1974/75	12.23	128.77	-24.09	22.08	-61.42	6.70	37.33	15.38
1975/76	12.15	149.68	- 0.08	20.91	-74.99	15.49	74.91	5.42
1976/77	34.17	170.08	22.02	20.40	-81.93	10.96	103.95	9.44
1977/78	53.77	269.97	19.60	99.89	-101.93	28.78	121.53	71.11
1978/79	44.14	270.94	-9.63	0.97	-116.47	12.81	106.84	-11.84
1979/80	60.90	346.11	16.76	75.17	-122	34.66	138.76	40.51
1980/81	41.54	414.96	-19.36	68.85	-170.59	78.93	151.23	-10.07
1981/82	43.41	481.26	1.87	66.30	-192.86	31.44	194.73	34.86
1982/83	48.80	491.64	5.39	10.38	-209.12	30.78	214.51	-20.40
1983/84	68.38	564.54	19.58	72.90	-203.34	20.71	222.92	52.19
1984/85	49.35	577.72.	-19.03	13.18	-275.18	-2.58	256.15	15.76

Source: Republic of Kenya annual financial statements for column (3), column (2) From colum (1), column (2) minus column (3) equals column (4)

APPENDIX X

GENERAL GOVERNMENT EXPENDITURE AND TAX CHANGES

KEM

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL	VOUME	CHANGE	TOTAL	PRICE	CHANGE	TOTAL	TAX CHANGE
ITEM / YEAR	WAGES AND SALARIES	OTHER GOODS AND SERVICES	GROSS CAPITAL FORMATION	WAGES AND SALARIES	OTHER GOODS AND SERVICES	GROSS CAPITAL FORMATION	DIRECT TAXES LESS TRANS-	INDIRECT TAXES LESS SUBSIDIES
1964/65	-	-	-	-	-	-	-	-
1965/66	1.44	4.21	5.80	0.33	-1.64	-2.82	2.91	1.27
1966/67	10.61	-1.65	10.31	-5.52	1.05	-5.21	4.03	6.58
1967/68	7.27	3.32	9.57	-3.1	-0.8	-4.65	3.47	0.01
1968/69	-9.80	-2.29	2.47	5.54	3.69	-0.97	3.96	6.91
1969/70	14.81	4.94	8.87	-6.25	-1.93	-3.84	7.64	5.99
1970/71	19.34	5.79	29.58	-6.55	-1.56	-12.46	11.84	10.14
1971/72	20.24	9.58	-2.31	-3.67	-1.91	4.29	6.31	7.61
1972/73	-3.66	8.84	-1.79	7.48	0.61	4.13	4.79	3.51
1973/74	-10.68	- 1.85	-7.14	21.28	10.64	12.72	-3.98	38.60
1974/75	-29.82	20.84	2.02	13.67	1.85	4.78	-24.09	22.08
1975/76	5.1	-6.40	-2.82	14.01	13.47	10.68	-0.08	20.91
1976/77	-12.67	12.22	7.51	15.12	16.89	13.5	22.02	20.40
1977/78	24.47	38.50	23.51	7.23	10.38	6.8	19.60	99.89
1978/79	5.84	31.61	12.91	9.89	18.97	11.13	-9.63	0.97
1979/80	0.86	8.95	11.44	13.95	23.1	14.06	16.76	75.17
1980/81	18.13	-5.74	-7.52	26.99	22.44	-0.98	-19.36	68.85
1981/82	17.85	25.32	-24.35	36.25	47.59	2.55	1.87	66.30
1982/83	-9.27	-31.46	-6.21	19.12	6.53	10.94	5.39	10.30
1983/84	3.51	12.28.	-16.11	18.59	29.43	-7.31	19.58	72.90
1984/85	0.61	-18.83	33.58	32.58	14.79	56.55	-19.03	13.18

Source: Statistical Abstracts, Economic Surveys, 1965 - 1986. how?

APPENDIX XI

GENERAL GOVERNMENT EXPENDITURE AND TAX CHANGES K£M

ITEM / YEAR	DISCRETIONARY VOLUME CHANGE (1) Wages and salaries	(2) Other Goods and Services	(3) Gross Capital Formation	WAGE AND SALARY RATE CHANGE (4) Wages and Salaries	DISCRETIONARY TAX CHANGE (5) Direct taxes less Transfer payments	(6) Indirect Taxes less subsidies
1964/65	-	-	-	-	- 18.0	1.32
1965/66	1.44	4.21	5.80	0.33	- 18.26	2.80
1966/67	10.61	-1.65	10.31	-5.52	- 17.74	1.57
1967/68	7.27	3.32	9.57	-3.1	- 17.22	0.33
1968/69	-9.80	-3.39	2.47	5.54	- 19.28	-2.11
1969/70	14.81	4.94	8.87	-6.25	- 16.6	-1.23
1970/71	19.34	5.79	29.58	-6.55	- 16.10	-0.77
1971/72	20.24	9.58	-2.31	-3.67	- 16.2	3.65
1972/73	-3.66	8.84	-1.79	7.48	- 17.42	3.47
1973/74	-10.68	-1.85	-7.14	21.98	- 23.93	-4.34
1974/75	-29.82	20.84	2.02	13.67	- 61.42	6.70
1975/76	5.1	-6.40	-2.32	14.01	- 74.99	15.49
1976/77	-12.67	12.22	7.51	15.12	- 81.93	10.96
1977/78	24.47	38.50	23.51	7.23	-101.93	28.78
1978/79	5.84	81.61	12.91	9.89	-116.47	12.81
1979/80	0.86	8.95	11.44	13.95	-122	34.66
1980/81	18.13	-5.74	-7.52	26.99	-170.59	78.93
1981/82	17.85	25.32	-12.35	36.25	-192.86	31.44
1982/85	-9.27	-31.46	-6.21	19.12	-209.12	30.78
1983/84	3.51	-16.11	18.59	18.59	-203.34	20.71
1984/85	0.61	-18.83	33.73	32.58	-275.18	-2.58

Source: (a) Republic of Kenya, Annual Financial Statements.
(b) Statistical Abstracts, Economic Surveys, 1965-1986.

APPENDIX XII

PRICE INDEX NUMBERS, 1976 = 100

YEAR	GDP DEFLATOR	CONSUMER PRICE INDEX
1964	46.8	47.7
1965	46.6	49.2
1966	48.1	50.9
1967	48.6	51.3
1968	49.3	52.6
1969	50.0	52.7
1970	57.2	54.4
1971	53.7	57.8
1972	57.9	59.3
1973	62.4	64.0
1974	77.2	75.7
1975	84.7	89.0
1976	100.0	100.0
1977	118.0	112.5
1978	120.6	126.6
1979	128.2	137.3
1980	140.1	154.9
1981	154.9	174.4
1982	172.4	na
1983	190.6	na
1984	201.6	na
1985	223.1	na

Source: Central Bureau of Statistics, 1986.

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