School of Economics and Finance

Fiscal Adjustment Policies and Fiscal Deficit: The Case of Tanzania

Arnold Mathias Kihaule

**This dissertation is presented for the
Degree of
Doctor of Philosophy
of
Curtin University of Technology**

February, 2006

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made

Signature:

.…………………………..

Date: 13.02.2006

Abstract

In Tanzania, fiscal adjustment policies emphasized an increase in tax revenue and cuts in public spending to correct the fiscal deficit. However, adjustment policies restricted the impact of fiscal policies in correcting fiscal deficit because they led to a low GDP growth and narrowed the tax base. The government overlooked the need to have an alternative tax base that could compensate for the fall in GDP growth. In that respect, the main purpose of this study is to examine the impact of fiscal adjustment policies in correcting the fiscal deficit in Tanzania in different adjustment periods in the 1973-2000 period. The thesis adopts a country study approach to analyse the effect of changes in the tax structure on the fiscal position using the primary balance as a proxy. The study also uses time series econometric methods to examine the impact of economic policy regime changes on public spending and GDP growth and the implications for fiscal policy in Tanzania. The study finds that changes in macroeconomic conditions either temporarily expanded or narrowed the tax bases and influenced the correction of the fiscal deficit in different years. Fiscal adjustment policies were pro-cyclical, thus leading to low GDP growth. This limited the effect of changes in the tax structure in reducing the fiscal deficit. Lastly, policy regime changes led to public spending instability and a structural break in the GDP data series. This signified that economic policy reforms caused fundamental changes in the economy, with implications for macroeconomic and fiscal policies in Tanzania. In sum, the results suggest that pro-cyclical policies are harmful for countries pursuing fiscal adjustment policies to correct a fiscal deficit.

ACKNOWLEDGEMENTS

encouragement during my study period, and it is to them that I dedicate this work, with gratitude.

Table of Contents

List of Tables

List of Figures

Abbreviations and Acronyms

AERC	African Economic Research Consortium
CBS	Curtin Business School,
HDR	Higher Degrees by Research
CUSUM	Cumulative Sum of Residuals
CUSUMQ	Cumulative Sum of Squared Residuals
ESRF	Economic and Social Research Foundation
FDI	Foreign Direct Investment
IMF	International Monetary Fund
MCDWC	Ministry of Community Development, Women and Children
NBS	National Bureau of Statistics
OECD	Organisation for Economic Corporation and Development
TBC	Tanzania Business Centre
TFP	Total Factor Productivity
UCLAS	University College of Lands and Architectural Studies
UNDP	United Nations Development Programme
USA	United State of America
VAT	Value Added Tax

CHAPTER 1

INTRODUCTION

1.1 Background

Persistent and large fiscal and current account deficits, as well as a high inflation rate and low output growth, were the main features of macroeconomic imbalances in Tanzania between 1973 and 2000. The problems compelled the government to adopt various stabilisation policies during different adjustment periods. Fiscal adjustment policies were the main tools for achieving stabilisation objectives.

The main objective of this study is to analyse the impact of fiscal adjustment policies on correcting the fiscal deficit and the implications of the policies for macroeconomic stability in Tanzania. The study examines the relationship between fiscal adjustment policies and fiscal balance in Tanzania. The relationships are examined against the background of Tanzania evolving from a controlled socialist economic regime to a liberal market economy.

The structure of fiscal adjustment policies necessary for correcting the fiscal deficit has been an issue of debate and research in a number of countries (Giavazzi& Pagano 1990b; Alesina & Perotti 1995;1997; Alesina & Ardagna 1995; Purfield 2003; Corbo & Fischer 1994; Kouassy & Bohoun 1994). Empirical studies in the OECD and transition countries suggest that public spending cuts result in the successful correction of fiscal deficit and in the reduction of public debt stock (Alesina & Perotti 1995; McDermott & Wescott 1996; Purfield 2003). Tax increases are regarded as being a less useful policy tool for the lasting correction of the fiscal deficit and the reduction of debt stock (Alesina & Perotti 1995).

In developing countries, including Tanzania, the design of fiscal adjustment polices has emphasised tax revenue increases as a policy tool for correcting the fiscal deficit and sustaining the financing of public spending (Corbo 1985; IMF 1999; Burgess & Stern 1993; Agénor & Montiel 1996). Fiscal adjustment policies constituted tax adjustments and tax reforms and were intended to increase tax revenue generation and to attain macroeconomic stability. Inadequate tax revenue and fiscal deficit were

identified as the causes of the monetisation of debt and the balance of payment problems.

An increase in tax revenue generation results in the reduction of the fiscal deficit and debt stock, the reduction of governments' absorption of banking resources, and lower inflation rates in developing countries. Increased tax revenue also generates public savings, supports the correction of the current account deficit and stabilises the domestic currency. Thus, increased tax revenue generation is associated with macroeconomic stability and provides a necessary foundation for sustained output growth.

The importance of output growth in the correction of the fiscal deficit and in stabilisation is revealed by the experience of various countries that have adopted fiscal adjustment policies. The research results from the OECD and transition countries connects successful fiscal adjustments with output recovery and growth, and a fall in domestic interest rates, including the decline in net public debt (Alesina & Ardagna 1995; Alesina & Perotti 1995;1997; McDermott & Wescott 1996). Public spending cuts and tax increases resulted in an increase in private consumption, in investment spending and in export commodities, as well as overall output growth in Ireland, Denmark, Canada and Sweden (Giavazzi & Pagano 1990a;1990b; McDermott & Wescott 1996).

Mixed results have been obtained in studies of developing countries that adopted fiscal adjustment policies to correct the fiscal deficit. In Chile, in the 1976-79 period, an increase in output growth together with tax reforms led to successful correction of the fiscal deficit (Corbo 1985). However, the policies did not result in the reduction of the interest rate and unemployment. An attempt to correct the fiscal deficit and attain macroeconomic stability in the Côte d'Ivoire resulted in low output growth and in a persistent fiscal deficit between 1989 and 1993 (Kouassy & Bohoun 1994).

While the role of fiscal adjustment policy in correcting the fiscal deficit is indisputable, its effect on output growth is controversial (Giavazzi & Pagano 1990b). This has influenced the choice of stabilisation and fiscal adjustment policies, as well as the success of the adjustment programmes in different countries. In particular,

uncertainty about the effect of the policies on output growth determined the composition, nature and quality of fiscal adjustment policies in developing countries. This also influenced correction of the fiscal deficit and of macroeconomic imbalances.

Tanzania pursued fiscal adjustment polices in order to correct the fiscal deficit in different adjustment periods between 1973 and 2000. The design of fiscal adjustment policies, and particularly the adjustment of public spending and the changes in tax policy, were conditioned by the different economic policy regimes. The policies also had an impact on official GDP growth and the tax base. Therefore, this study analyses the effect of fiscal adjustment policies on correcting the fiscal deficit in the specific context of policy regime changes from a controlled socialist economy to a liberal market economy. In addition, it analyses the effect of policies in an economy characterised by modest output growth.

In contrast to previous studies, this research is a country specific study. A country study is potentially more informative, but the findings cannot be generalised to other countries (Kweka & Morrissey 2000). This study also uses flow variables, that is, fiscal deficit, tax revenue and output growth to analyse the effect of fiscal adjustment policies on correcting the fiscal deficit in Tanzania. The reason is that the fiscal deficit was perpetual, suggesting the continuous inadequacy of the fiscal adjustment policies in the 1973-2000 period.

1.2 Motivation for the Study

This study seeks to understand the impact of fiscal adjustment policies in correcting the fiscal deficit in Tanzania. Research studies in industrialised and developing countries have revealed mixed results on the effects of the fiscal adjustment policies on fiscal balance and output growth.

Firstly, in industrialised countries, fiscal adjustment policies resulted in output growth recovery and the correction of the fiscal deficit. Even in those countries whose initial adjustment programmes failed, their second attempts resulted in the successful correction of the fiscal deficit. Overall, in industrialised countries, fiscal adjustment policies resulted in wealth and credibility effects that stimulated

consumption and investment spending respectively. In addition, cuts in wages and salaries expenses, as well as transfer payments had effects on the labour market, in particular labour supply, which also positively contributed to output growth and international competitiveness.

Recent experiences in structural adjustment programmes in developing countries suggest that taxation is a viable means for financing public spending and attaining macroeconomic stability. Given that Tanzania experienced a persistent fiscal deficit and high public debt level for about three decades, the study examines the effect of stabilisation policies, particularly fiscal adjustment policies on correcting the fiscal deficit in Tanzania. An understanding of the impact of adjustments policies on fiscal position provides important lessons on appropriate stabilisation policy measures in Tanzania.

Secondly, developing countries that adopted fiscal adjustment policies based on orthodox or heterodox stabilisation theories have experienced mixed results in terms of output growth and correction of the fiscal deficit. For example, in Turkey and Chile, countries which adopted orthodox stabilisation policies, the policies resulted in output growth and fiscal balance (Corbo 1985; Koptis 1987). However, in Côte d'Ivoire, fiscal adjustment policies resulted in low output growth and a persistent deficit. The Tanzanian government also adopted various types of fiscal adjustment policies, but it experienced persistently modest official GDP growth. The government also was unsuccessful in correcting the fiscal deficit. These examples highlight that the effect of fiscal adjustment policies in correcting fiscal deficit is ambiguous in developing countries. This study also contributes to the debate on the effect of fiscal adjustment policies on correcting the fiscal deficit in a developing country.

Thirdly, poverty alleviation and provision of adequate infrastructure are government priority issues in Tanzania. The endeavours to alleviate poverty and provide public infrastructure require sufficient tax revenue. In particular, the surplus budget provides an opportunity for releasing tax revenue for poverty alleviation and infrastructure provision. Thus, the correction of the fiscal deficit and surplus budget are prerequisite for supporting the poverty reduction and provision of public

infrastructure in Tanzania. By analysing the impact of fiscal adjustment policies on fiscal balance an insight may be gained into the measures to enhance poverty alleviation efforts in Tanzania.

1.3 Research Aim and Objectives

The main research purpose is to determine the impact of fiscal adjustment policies on the correction of the fiscal deficit and implications for macroeconomic stability in different adjustment periods in Tanzania. The effect of fiscal adjustment policies is examined by analysing the relationship between fiscal adjustment and primary balance changes. The specific research objectives are as follows.

Objective 1
To determine and analyse fiscal adjustment policies and strategies used in correcting the fiscal deficit in Tanzania in different periods
Tanzania adopted different policy strategies to correct the fiscal deficit in different adjustment periods. Prior to economic reforms, fiscal adjustment policies as part of stabilisation policies focused on attaining macroeconomic stability and reduction of the fiscal deficit. The adjustment policies emphasised balancing the budget through an increase in tax revenue. The choice of the policy was guided by the need to maintain equal accessibility of Tanzanians to basic social services, self-reliance and the transformation of the economy. Stabilisation policies adopted in the 1982-85 period had elements of a liberal market economy as well as socialist doctrine.

In the 1986-2000 period, the design of adjustment policies was guided by orthodox stabilisation theories. Fiscal policies emphasised attainment of macroeconomic stability, correction of the fiscal deficit and structural changes. The policies focused not only on correcting macroeconomic imbalance but also stimulating output growth. Therefore, this study analyses the suitability of fiscal adjustment policies in correcting the fiscal deficit in Tanzania in different periods. It is expected that the findings will provide important lessons for future stabilisation policies in Tanzania.

Objective 2

To compare and analyse fiscal adjustment policies before and during economic policy reforms in Tanzania

Before the economic policy reforms, Tanzania was under a socialist controlled economic policy regime. The 1986 policy reforms were associated with the end of the socialist regime and the introduction of the market economy. In both periods fiscal adjustment policies were adopted as part of stabilisation programme. As mentioned above, fiscal policy before policy reforms emphasised attainment of macroeconomic stability and reduction of the fiscal deficit. During the policy reform period, fiscal policy was guided by the need to attain macroeconomic stability, to correct the fiscal deficit and to enhance structural changes. In this regard, the purpose of this study is to compare the content of fiscal adjustment policies in the period prior to and after policy reforms in order to have insight into the areas that need improvement in pursuing adjustment policies in the future in Tanzania.

Objective 3

To examine the impact of economic policy regime changes on public spending and GDP growth in Tanzania

As previously highlighted, the adoption of economic policy reforms resulted in changes of economic policy regime from the controlled socialist economy to a more liberal market economy. Such changes are expected to have an impact on public spending and GDP growth. Thus, this study intends to determine whether policy changes had an impact on the two variables and the arising implications for fiscal and macroeconomic policies in Tanzania.

1.4 Research Methods

This thesis adopts a country study approach and uses quantitative methods in analysing the effects of fiscal adjustment policies on correcting the fiscal deficit and implications for macroeconomic stability in Tanzania. The methods avoid imposing behavioural relationships in analysing the impact of fiscal adjustment policies on fiscal positions. Lack of adequate and reliable data, as well as complications that arise in data analysis in macroeconometric or Computable General Equilibrium (CGE) models necessitated the adoption of statistical and time series econometric methods. Specifically, CGE models do not allow the analysis of large changes such

as those in tax structure. Yet, the model requires a lot of data to undertake analysis of the impact of fiscal adjustment policies on fiscal deficit.

The statistical methods focus on discerning and analysing the impact of fiscal adjustment policies on the fiscal balance using structurally adjusted government balances. The primary balance is used as a proxy for fiscal position. It is used because it excludes interest payments, an item that is not influenced by fiscal policy in the short-term. The primary balance changes exclude economic cycle effects on public spending and tax revenue. The details of the methods are presented in Chapter 4.

Time series econometric methods are used to complement the descriptive statistics methods. Econometric methods are used to determine the impact of economic policy regime changes on public spending and output growth in Tanzania. The impact of the policy changes on public spending and GDP are revealed by a structural change in the respective series.

The first order autoregressive equation model is used in testing for structural changes in the data series. The model represents the data and parameter generation process; features necessary for a stability test (Debs 2001; Hansen 1991;2001). The underlying assumption is that the series generated by the model match the alternative explanation of "policy change effect" and "random effect" on the variables. Eclectic models explaining GDP growth and fiscal deficit in Tanzania are also introduced to confirm findings of the other methods adopted in this study. The details of the time series methods and estimation results are presented in Chapter 6.

1.5 Data Sources and Limitations

In the quantitative analysis of the impact of the fiscal adjustment policies on correcting the fiscal deficit, fiscal and macroeconomic data were required for the period of 1971-2000. This period is chosen because it captures the adoption of fiscal adjustment policies in different policy regimes in Tanzania. Specific data required were: total public spending, current public spending, public investment spending, and gross domestic product (GDP). Other data required were total tax revenue, income taxes revenue, customs duties revenue, sales tax revenue and from 1998, value added

taxes as well as non-tax revenue. In addition, the analysis required data on the domestic inflation rate, currency in circulation, demand deposits and money supply. The data required for this study also included the GDP deflator and the total population in Tanzania.

Public spending data were on a cash basis, and included current and capital spending of the union government (United Republic of Tanzania), the Zanzibar government and local governments. In addition, the public spending data included capital spending of public enterprises in Tanzania. Public enterprises in Tanzania were part of the public sector; therefore, the total spending of the public sector included capital expenses of the public enterprises.

The main data sources were the Bank of Tanzania, Economic and Operation Reports (Bank of Tanzania 1972;1974;1986;1990;1997;2002) and Economic Surveys published by the government of United Republic of Tanzania (United Republic of Tanzania 1997;1999;2000a). Other sources included the International Monetary Fund, Government Finance Statistics Yearbooks (IMF 1975; 1980; 1990) and International Finance Statistics (IMF 1991;1992;2000) and the World Tables for Economic Data 2003, published by the World Bank (World Bank 2003). Tanzanian newspapers were other sources of data and information. Unpublished sources included annual budget speech of the Minister of Finance (United Republic of Tanzania 2000b) and Study report of Bank of Tanzania on "Domestic Debt in Tanzania"(Bank of Tanzania 2005).

The data have a number of limitations. Firstly, time series data in developing countries are unreliable because of divergence of data values from different sources. It is also difficult to identify data that are unauthentic. Data deficiencies affect the reliability of results (Ariyo 1996). Additionally, unreliable data cause difficulties in policy recommendations because various data sources could result in different policy solutions. In this regard, Tanzania is not an exception.

Another data problem is with regard to time period in which various data series refers to. On one hand, data on tax revenue and public spending refers to the government financial years that starts on the 1st of July of each year and ends on 30th

of June in the following year. On the other hand, data on GDP, population, and inflation series are recorded according to calendar year. In order to reconcile time periods for different data series, all data recorded according to government financial year were lagged for six months in order to have a uniform starting and ending data recording period. The adjustment of time periods may have effect on the quality of results obtained.

1.6 Organisation of the Study

This thesis is organised into seven chapters. Chapter Two provides an overview of the Tanzanian economy and background to the macroeconomic instability. The chapter also reviews fiscal adjustment policies adopted in response to macroeconomic instability in different adjustment periods in Tanzania. Chapter Three reviews the literature. It surveys research on the relationship between public spending and output growth, including the effect of fiscal adjustment policies on correcting the fiscal deficit. Chapter Four presents the review of empirical issues and methods employed in analysing the impact of fiscal adjustment policies on correcting the fiscal deficit in Tanzania. Chapter Five presents the results of the empirical analysis of the impact of fiscal adjustment policies on the fiscal position in Tanzania, followed by discussions. Chapter Six provides time series methods and estimation result of the impact of economic policy changes on the public spending and GDP series in Tanzania. The thesis concludes with the discussion of results, policy implications arising from the findings and the suggestions of areas for further research.

CHAPTER 2

**OVERVIEW OF THE TANZANIAN ECONOMY, BACKGROUND TO
MACROECONOMIC INSTABILITY AND FISCAL ADJUSTMENT
POLICIES**

2.1 Introduction

This chapter presents a brief overview of the Tanzanian economy and political
regimes. It also provides background information to macroeconomic instability and
the government's policy response to the problem between 1973 and 2000. In
particular, it reviews fiscal adjustment policies adopted as part of stabilisation
programmes in different periods. It also examines the changes in the tax structure
and output growth in Tanzania. This background information provides a foundation
for discussion in subsequent chapters.

The chapter is organised as follows. After this introduction, Section Two presents a
brief overview of the Tanzanian economy. Section Three describes the political
regimes in Tanzania, followed by Section Four on the origins of macroeconomic
instability and the government response to the problem. Section Five describes
components of public revenue, followed by Section Six on output growth in
Tanzania. The last Section provides a conclusion.

2.2 A Brief Overview of the Tanzanian Economy

In order to familiarise the reader with the course of past policies and recent policy
changes, it is first necessary to describe the location and main features of the
Tanzanian economy. Tanzania is located in the Eastern part of Africa, and it borders
the Indian Ocean in the East and Lake Tanganyika, Rwanda, and Burundi in the
West. In the North, it borders Kenya, Lake Victoria, and Uganda, and in the South it
has common borders with Mozambique, Malawi and Zambia. It covers an area of
945,200 km^2. According to the 2002 population census, Tanzania has a population of
34,443,000 inhabitants (National Bureau of Statistics 2002).

Table 2.1 below shows the average output growth rate in Tanzania and sub-Saharan
Africa in the 1980-98 period. The Table reveals that both Tanzania and sub-Saharan
Africa region recorded modest average output growth rates between 1980 and 1998.
However, Tanzania had a higher level of average GDP growth rate compared to that

of sub-Saharan Africa. The country also had higher agricultural, manufacturing and service sector output growth rates than those of sub-Saharan Africa.

Table 2.1:Comparison of Output Growth Rate between Tanzania and Sub Saharan Africa in the 1980-98 Period
(annual average growth in percentage)

Item	Tanzania	Sub Saharan Africa
GDP growth	3.0	2.3
Agricultural output	3.6	2.4
Industrial output	1.9	1.3
Manufacturing output	1.8	1.2
Service sector output	2.4	2.5

Source: World Bank (2000, 2004)

Selected economic indicators for Tanzania and sub-Saharan Africa in 2000 are shown in Table 2.2. The Table shows that in 2000 domestic gross investment in Tanzania was lower than that of sub-Saharan Africa. In addition, in both Tanzania and the sub Saharan Africa region, the inflation rates level were below 10 percent. However, the inflation in Tanzania was slightly higher than that of sub Saharan Africa. The low inflation rate suggests price stability in sub-Saharan African economies in the year 2000.

Table 2.2 also reveals that Tanzania's external debt as a ratio of exports was almost the same to that of the sub-Saharan Africa. This suggests that Tanzania and sub-Saharan Africa region have the same level of debt burden. In addition given that they both had a low level of output growth, the debt burden was high.

Table 2.2: Selected Economic Indicators for Tanzania and sub-Saharan Africa in 2000

Item	Tanzania	Sub-Saharan Africa
Gross domestic investment as a percentage of GDP	16.0	18.0
Inflation rate	6.0	5.0
Current account deficit (US $ Million)	469.6	-
External debt to export ratio	21.0	20.0

Source: World Bank (2000, 2004)

In 2000, the fiscal indicators revealed that domestic fiscal revenue was 12 percent of GDP and government expenditure was 17 percent of GDP (at market prices). The fiscal deficit before grants was 6 percent. Other features characterising the Tanzanian economy are weak production structure, low quality of its labour force, low GDP per capita and a high dependence of the external economy on imports and finance and lastly changes in the role of the main actors in the economy between 1971 and 2000 period.

2.2.1 Agriculture and the Rural Economy

The agricultural sector, the mainstay of the Tanzanian economy, is characterised by a few modern plantations and extensive smallholder farming. The importance of the sector in the economy is indicated by its contribution to Gross Domestic Product (GDP), foreign exchange earnings and food crop production. The agricultural sector share in GDP was 46 percent in the 1985-87 period. The agricultural sector also contributed three quarters of the foreign exchange between 1986 and 1992 (Masambichaka & Naho 1995).

Smallholder farmers are the major producers of both exports and food crops. The farmers produce 85 percent of the major export crops of coffee, tea, cashew nuts, tobacco and sisal. Smallholder farmers also produce 85 percent of the maize, 50 percent of the rice and 95 percent of the legumes used as food crops (Bukuku 1992). Smallholder agricultural production is susceptible to the vagaries of the weather. However, there are a few large irrigation plantations producing tea, coffee, rice and sugar cane. Apart from large plantations, the smallholder agricultural production system is dominated by traditional farming methods and employs few modern farming practices. As a result, productivity is low in the sector.

In addition to foreign exchange generation, the main way in which the sector contributed to resource mobilisation was through export tax revenue. Despite the enormous contribution of agriculture to the economy, little investment has been made in rural infrastructure or farming methods. The attempts that have been made to modernise agriculture have had limited success.

2.2.2 Manufacturing Sector

The manufacturing sector also contributes to national output, but at a lower level than agriculture. Despite attempts by the government to establish industries under the import substitution industrialisation and basic industrialisation strategy, Tanzania has a limited manufacturing base (Skarstein & Wangwe 1986). The manufacturing sector is capital intensive, with limited linkage to the agricultural sector. In addition, the public sector has dominated the manufacturing sector, with minimal participation of the private sector in the 1967-92 period (Lipumba 1992; Katunzi 1997).

The manufacturing sector contribution to GDP has varied since 1965. In the 1965-70 period, the sector contributed 9 percent of GDP. From 1980 to 1985, the manufacturing sector contributed about 10 percent of GDP. Although the thrust of the basic industrialisation strategy, as opposed to the import industrialisation strategy, was the establishment of industries for exports, the industrialisation strategy recorded limited success because of lack of export strategy. The share of manufactured goods on total exports was 11 percent in the 1976-79 period and 11.3 percent in the 1980-85 period (Mjema & Shitundu 1995).

The contribution of the manufacturing sector to foreign exchange generation was also not impressive. The manufacturing sector contributed 8.40 percent of total export earnings in the 1970-76 period, 11 percent in the 1976-85 period and 11.30 percent in the 1980-85 period. The manufacturing sector contributed 19.5 percent of total export earnings in the 1990-93 period (Bank of Tanzania 1975;1985;1990; Mjema & Shitundu 1995). Overall, the import substitution and the basic industrialisation strategies neither significantly changed the structure of the economy, nor provided the impetus for increased human capital quality.

2.2.3 Labour Force and Employment

Features of economic production reflect the structure and quality of the labour force in Tanzania. Smallholder farmers constitute the largest part of the labour force. They constituted 90 percent of the labour force in 1970, 86 percent in the 1980-82 period and 85 percent in the 1985-87 period (World Bank & United Republic of Tanzania 2001b).

The quality of the labour force is also reflected in wage employment. Between 1970 and 1986, farmers who were employed in large scale farms made up about 2 percent of the total labour force. Some smallholder farmers were employed in large plantations and maintained their own farming activities. Employment in the civil service and public enterprises increased in the 1970-84 period.

The share of employees of the civil service departments and state owned manufacturing firms in the total wage employment increased from 58 percent in 1970, to 65 percent in 1977, to 70 percent in 1980, and reached a peak of 84 percent in 1984 (Bol 1995; Bukuku 1992). Therefore, the government was the largest employer of wage earners.

As mentioned above, the employment pattern in Tanzania reflects the quality of its labour force. Despite the official literacy level of 80 percent for men and 60 percent for women, the labour force is overall unskilled (Bol 1995). Education attainment for most people is not beyond primary education. This pattern is a result of government policies in the 1965-84 period, which emphasised primary education and the rationing of secondary education (World Bank & United Republic of Tanzania, 2001b;Bol 1995). The effect of a low quality labour force has been that workers in the agricultural and manufacturing sectors are semi skilled. This has contributed to low productivity, low income and poverty.

2.2.4 Low Income and Poverty

The prevalence of low income and poverty[1] in a large part of the populace is another feature of the Tanzanian economy. In Tanzania, the per capita income is low and below the average of sub-Saharan African countries. For example, in 1987, per capita income in Tanzania was US$180, while for the sub-Saharan region, it was US$260. In 2000, for Tanzania per capita income was US$265 and for the sub-Sahara Africa was US$330 (World Bank 2000). Furthermore, poverty is a big problem in Tanzania (Bol 1995; Bukuku 1992). In 1984, 50 percent of the poor were in rural areas. It is now estimated that 60 percent of the population in the rural areas are in poverty

---

[1]The definition of poverty is based on deprivation of consumption. Anyone living below US$1 per day is classified as poor in Tanzania (World Bank, 1996).

(World Bank & United Republic of Tanzania 2001b). In 2000, it was estimated that 36 percent of the Tanzanians were below the poverty line (United Republic of Tanzania 2005).

Notwithstanding the view that the World Bank and IMF-supported adjustment policies contributed to an increase in poverty in Tanzania, government policies was the main cause of poverty (Bukuku 1992). In rural areas, government policies since 1967, have adversely affected agricultural production and are associated with low income and poverty in rural areas in Tanzania. Bukuku (1992) highlights that adoption of socialist policies in Tanzania in 1967 turned the terms of trade against smallholder farmers, reduced marketing networks, regulated landholdings, and introduced communal production and common provision of social services. This contributed to lower productivity in the agricultural sector and low income as well.

In the urban areas, expansionary monetary policy, food and consumer goods shortages have led to a persistently high inflation rate in Tanzania for two and a half decades. This has resulted in the decline of real wages in urban areas, contributing to increased poverty since 1980 (Bukuku 1992). The poverty in urban areas has been exacerbated by the migration of the rural unemployed population to urban areas.

Economic policies adopted under the stabilisation programmes have been associated with the reduction of poverty in a small segment of the population (Lugalla 1996). As a result of the adopted adjustment programmes, the government pursued macroeconomic policies that corrected for the overvaluation of domestic currencies and reduced the domestic inflation rate. Additionally, the introduction of policy reforms in 1986, that led to the opening of marketing channels and the availability of cheaper consumer goods in the rural areas contributed to the reduction of poverty (Bol 1995). Nevertheless, the majority of people still belong to low-income groups. Low income and consumption have had an impact on fiscal revenue generation as well.

2.2.5 Economic Actors in Tanzania

The main agents involved in economic activities in Tanzania have been public enterprises, the private sector and individuals. The public enterprises had a large role in the production and distribution of private goods and services in the 1967-85 period, the epoch of the controlled socialist regime. Following market reforms in 1986, the role of public enterprises in the economy declined. Individuals increased their participation in the production of food crops, goods and service. In addition, the response of the private sector in manufacturing sector was slow and could not compensate for the reduced role of the public sector.

After independence, in the 1961-66 period, Tanzania was characterised as a free market economy. However, the private sector's involvement in the modern sector, namely manufacturing industries and the distribution of goods and services, was minimal. In addition, there were few foreign investors. Therefore, the government established public enterprises in order to spearhead economic development and to transform the economy (Kimei 1987).

The involvement of the government in economic activities through public enterprises resulted in two types of ownership of enterprises. First, there were public enterprises completely owned by the government. Under this category all equity belonged to the government (Mushi 2000). The enterprises were either originally established by the government or were acquired through nationalisation. They included commercial banks, insurance companies and utility companies dealing with the supply of water and electricity. The enterprises were of strategic importance to the nation.

The second category of public enterprises constitutes those in which the government had at least 50 percent of the shares (Mushi 2000). In this category were public enterprises involved in manufacturing private goods and services, trading firms and agricultural marketing boards. The government controlled both categories of enterprises through the ministries or subsidiary companies.

Although the functions of public enterprises varied as stipulated by the respective Acts that established them, the common statute to all public enterprises was that they had to operate commercially and generate profits. From the profit the enterprises were expected to recapitalise their investment as well as pay dividends and royalties

to the government (Katunzi 1997). Profit maximisation required public enterprises to increase profits and returns according to the size of the firms.

Apart from the profit maximisation objective, public enterprises had to maximise social surplus. Surplus maximisation required public enterprises to contribute to macroeconomic stabilisation and economic growth. They were also expected to facilitate income distribution and localisation of managerial skills (Katunzi 1997; Mushi 2000). Public enterprises had to contribute to the government budget through the payment of both direct and indirect taxes. In addition, they had to contribute to the improvement of the balance of payments and national output growth (Katunzi, 1997). Furthermore, the operations of public enterprises were to be distributed evenly throughout the country.

The objectives, the public enterprises were expected to fulfil, were in conflict with one another. For example, the role of public enterprises in income distribution was interpreted to mean offering as many work places as possible (Katunzi 1997). This contributed to over employment in public enterprises because labourers were employed regardless their marginal productivity. In addition, the condition that public enterprises were to be evenly distributed implied that economic criteria for locating firms producing private goods were often disregarded. This suggests that public enterprises operated in a non-competitive environment, with increased government intervention and bureaucracy. This had an adverse impact not only on the performance of public enterprises in terms of profit generation, but also on the economy as whole. The government had made a large investment in public enterprises, but their contribution to output growth was low. The poor performance prompted the privatisation and liquidation of public enterprises after 1992.

2.2.6 External Dependence

Another dimension of the Tanzanian economy is increased dependence on developed countries, not only for exports and imports but also for financing public spending. Since the 1970s, the country has increasingly depended on developed countries for financial aid in terms of Official Development Assistance (ODA) (Bukuku 1992). Foreign funds received from multilateral donors increased from 10 percent of GDP in 1970 to 40 percent in the mid 1970s. Foreign funds flows declined in the late 1970s and the first half of the 1980s. After the adoption of Economic Recovery

Programme (ERP) policies in 1986, foreign funds for recurrent and investment spending resumed, but the inflow of funds declined again in the early 1990s (Doriye 1995). In addition, over the period, aid constituted 80 percent of the net inflow of external capital. Thus the inflow of private capital was insignificant for a long period in Tanzania.

Dependence on external funding sources, apart from increasing the availability of scarce foreign exchange, it increased the debt burden to the country. Total debt as a percentage of GDP increased from 44 percent in 1973 to 118.6 percent in 1985. Total debt was 155 percent of GDP in 1986 and increased to 182. 57 percent of GDP in 1988; thereafter it declined and reached 121 percent of GDP in 1996 (Bank of Tanzania 2005;Mjema 2000;United Republic of Tanzania 1998). The dependence on foreign sources financing has persisted even after policy reforms in Tanzania. Foreign funds financed about 40 percent of the total annual government budget in Tanzania in the 1986-2000 period.

In sum, the structure of Tanzania economy reveals that the country is an agricultural economy with a fragile economic structure. The structure of the economy has influenced the choice of the economic policies that Tanzania has pursued since independence. It also has an impact on the outcome of the fiscal adjustment policies pursued during different adjustment periods. The political regime also has influenced fiscal adjustment policies and attempts to overcome the fiscal deficit as well as macroeconomic imbalances in Tanzania.

2.3 An Overview of Political and Economic Regimes in Tanzania

Tanganyika (the Tanzania Mainland) became independent in 1961. The country became the United Republic of Tanzania following a union with Zanzibar after a revolution that overthrew the Sultani-rule in 1964. Immediately after independence, that is, between 1961 and 1965, Tanzania (the Mainland) had a multi-party political system. In addition, the country pursued an open market economy policy with no restrictions on foreign trade and capital movement. The economic policy emphasised maximisation of growth through private enterprises.

In 1965, the government banned opposition political parties and Tanzania became a one-party state. One year after, in 1967, the country adopted socialism as a long-term development strategy entailing large expansion of the public sector and resettling the rural population in designated villages. The economic policies emphasised the government role in economic growth through modernisation of the economy and income redistribution (Kimei 1987). As previously mentioned in Section 2.2.5, this also entailed an increased role of the government in the economy through public enterprises. In addition, the government instituted foreign exchange and capital flow controls.

In the 1967-85 period, the government paid less attention to macroeconomic stability and efficiency (World Bank & United Republic of Tanzania 2001b). Public spending increased disproportionally to the growth of the economy. In addition, allocations of public investment were not guided by the efficiency and returns criteria. The socialist regime came to an end in 1985.

Macroeconomic instability characterised by resource gaps and low growth weakened the economy's capacity to adjust. The government's own policy reform initiatives to close resource gaps and reverse economic decline under the National Economic Survival Programme (NESP) in the 1981-82 period and the Structural Adjustment Programme (SAP) in the 1982-85 period were unsuccessful. The World Bank and the IMF, as well as other donor countries, were unwilling to support the government's economic policy initiatives because reform programmes overlooked fundamental changes necessary to transform Tanzania into a market economy and overcome macroeconomic instability. Lack of external support for the proposed government policies and the reluctance of the government to agree with the IMF and the World Bank on policy changes intensified the economic difficulties Tanzania was experiencing.

In 1985, President Nyerere, who had ruled the country since 1962, stepped down. A new president was elected, one who was willing to adopt market reforms and agreed with the policy suggestions of the World Bank and the IMF. In this regard, policy reforms focusing on attaining macroeconomic stability and phasing out features of a state controlled economy were adopted in 1986 (World Bank 1996; World Bank &

United Republic of Tanzania 2001b). In the initial six years of policy reforms, the government liberalised the economy and developed markets for resources and products. Notwithstanding government efforts to liberalise the economy, it did not go further in establishing a base for the orderly functioning of the market system and a competitive political sphere that could enhance wide participation of individuals in economic activities and incentive to efficiently allocate resources. The economy still experienced low output growth, high inflation and a fiscal deficit.

Market reforms were followed by the adoption of a multi-party political system in 1992. In addition, the constitution was changed to limit the tenure of a president to two terms of five years. The first multi-party presidential election was held in 1995 and a new president was elected.

The newly elected president was enthusiastic about policy changes and the government continued with economic reforms. The government continued with efforts to bring macroeconomic stability, fiscal discipline and to create institutions for market reforms (World Bank & United Republic of Tanzania 2001b). The new government also emphasised greater participation of the private sector in the economy. This was through the introduction of changes in the tax system and investment incentives for both local and foreign investors. The government also started paying attention to the problem of poverty. The incumbent president was re-elected in the 2000 general election.

2.4. The Origin of the Fiscal Imbalance and Macroeconomic Instability in Tanzania

As highlighted in Section 2.3, in 1967, Tanzania initiated a move to build a socialist state. The ambition to build socialism entailed a long-term development strategy (Bagachwa 1992). The strategy aimed at spearheading economic independence, structural changes and enhancing economic growth. As part of the strategy, the government adopted policies that were intended to increase the participation of the populace in decision-making and economic activities.

In this regard, decentralisation of development planning was deemed necessary. The decentralisation of development planning led to a large expansion of public

administration and bureaucracy between 1971 and 1982 (Maliyamkono & Bagachwa 1990). In addition to the decentralisation of decision-making, the government initiated a collectivisation programme.

The collectivisation or "villagisation" programme, which was part of decentralisation, also contributed to growth of the size of government. The collectivistion programme involved a resettlement of 9 million Tanzanians in 8,000 designated villages between 1972 and 1975. The programme was followed by the appointment of village managers and agricultural extension officers who were included on the government payroll (Osoro 1997). Consequently, the contribution of the public sector to GDP reached 12 percent in the 1971-82 period, an increase of 4 percent from 8 percent in the 1965-70 period (Bagachwa 1992).

Government policy included the provision of basic services like primary education, health, water supply and agricultural extension services to citizens in rural areas. Provision of the basic services was geared towards fostering equity and the improvement of the welfare of Tanzanians. In this regard, villages were regarded as appropriate centres for the provision of basic services to the rural populace. The provision of basic services and the corresponding recurrent spending constituted a large part of government spending in the 1970s and early 1980s (Bagachwa 1992). The growth of public spending burdened the economy because it did not match that of the national income, and resulted in increased domestic and external borrowing.

Military spending was another factor that contributed to an increase in public spending and it depleted domestic savings in Tanzania in the 1970-85 period. Tanzania supported the liberation movements in southern Africa. The country's support of these movement resulted in increased military spending (Maliyamkono & Bagachwa 1990). For example, (Green, Rwegasira & Van Arkadie 1982) estimated that Tanzania spent about US$125 to 150 million per annum to support the Mozambican government against the Mozambique National Resistance (MNR) insurgence in the 1980s.

Military spending associated with the Ugandan war also increased government spending in Tanzania. Military spending increased from 15 percent of total public

spending in 1978 (before the war) to 24 percent of total public spending in 1979 (Maliyamkono & Bagachwa 1990). The increase in spending worsened the budget deficit in Tanzania in the late 1970s and early 1980s. For example, in 1977, the budget deficit was 10 percent of GDP, but it increased to 23 percent in 1979, largely due to the increase in military spending (Bagachwa 1992)

As previously mentioned in this chapter, in order to spearhead structural changes and enhance output growth, the government created public enterprises as part of development strategy. The strategy was formalised in the Five-Year Development Plans and Financial and Credit Plans. Through public enterprises, the government was involved in the organisation and production of private goods and services as well as the regulation of the economy (Katunzi 1997). In addition, the government channelled investments through public enterprises (Katunzi 1997; Moshi 1998). An increase in the role of public enterprise in the economy was associated with a rise in the number of enterprises in Tanzania, from 38 in 1967 to 430 in 1984. The World Bank (1991; in Bagachwa 1992) observed that only in countries like Brazil, with a population six times and GDP 50 times that of Tanzania, does one find such a large number of public enterprises. This implied that inefficient public enterprises were a fiscal burden to a small economy like Tanzania.

Public enterprises were protected from market competition through tariffs and subsidies. Apart from facilitating public investments, public enterprises were used to channel food subsidies to urban consumers and agricultural input subsidies to farmers. They also provided secure employment to a large number of workers, regardless of their contribution to productivity. Thus, public enterprises were associated with low output and the fiscal deficit in Tanzania in the 1971-92 period.

Furthermore, as a result of a mixture of economic and social objectives pursued by public enterprises many of them were making losses (Mushi 2000). For example, as shown in Table 2.3 below, in 1989, a total of 189 public enterprises incurred losses amounting to TShs33billion. Poor performance of public enterprises contributed to an increase in the fiscal deficit and the money supply because public enterprises had easy access to government finance and domestic bank borrowing in Tanzania.

As part of the Tanzania's government efforts to control the economy, it pursued a fixed exchange rate regime, and administered the allocation of foreign exchange and credit. As previously highlighted, the Financial and Credit Plan facilitated the control of foreign currency allocation. In addition, the government adopted quantitative import restrictions to control imports of goods and save on foreign exchange. The outcome of the increased government role in the economy was inward looking non-market policies and a state-controlled economy as well as enlargement of the informal economy. The controlled economic regime came to an end in 1985.

Table 2.3: Financial Performance of Public Enterprises in Tanzania in 1989

Sector	Number Enterprises Making:		Value of:	
	Profits	Losses	Profits (million TShs)	Losses (million TShs)
Finance	14	3	7,420.90	800.10
Industry	49	61	2,999.00	13,007.00
Transport	15	9	2,152.40	7,460.00
Energy and Minerals	3	5	1,380.40	700.00
Agriculture	32	41	1,059.30	7,089.00
Marketing	8	24	389.90	3,300.00
Other	62	46	813.00	580.00
Total	183	189	16, 214.90	32.966.10

Source: World Bank (1991, Table 7 p. 31, in Bagachwa 1992) (TShs: Tanzanian Shillings)

Apart from misguided macroeconomic policies, exogenous events propagated the economic problems Tanzania experienced. As previously highlighted in Section 2.2.1, Tanzania is an agrarian economy and agriculture is influenced by volatility of demand and supply. Between 1971 and 1973 and in the early 1980s, drought inflicted Tanzania. It affected the production of food and export crops, causing food and foreign exchange shortages. The shortages aggravated the economic difficulties Tanzania were experiencing.

Since the early 1970s, Tanzania, like other developing countries exporting agricultural commodities, experienced a fall in prices of its products in the world market. Apart from an increase in the price of coffee in the world market in the 1976-78 period, Tanzania experienced low foreign exchange earnings in the 1970s and in the first part of 1980s.

The Tanzanian economy was also affected by the rise of world oil prices in the 1972-74 period and between 1979 and 1981. The rise in oil prices required an increased foreign exchange allocation for the importation of oil. The oil import bill as a proportion of export earnings increased from 26 percent in 1978 to 56 percent in 1982 (Maliyamkono & Bagachwa 1990). An increase in the import bill was a burden to an economy that was experiencing low growth and foreign exchange earnings shortage.

The rise in the prices of imports and a fall in export prices resulted in a deterioration of the terms of trade. Maliyamkono & Bagachwa (1990) pointed out that in 1985, the purchasing power of Tanzanian exports was just one-third of the purchasing power of these exports in 1977. Maliyamkono & Bagachwa (1990) also observed that loss of income due to the decline in the terms of trade amounted to 12 percent of GDP in the 1978-82 period.

The fall in foreign exchange earnings together with an increase in the price of imports had an impact on domestic production capacity. The foreign exchange shortage affected the supply of inputs to the manufacturing sector and as a result most industries produced below the installed capacity. The industrial capacity utilisation averaged 35 percent in the 1977-85 period (Mjema & Shitundu 1995). The low capacity utilisation also contributed to low manufacturing output growth. The manufacturing sector output growth was 0.6 percent and negative 4.3 percent per annum respectively, in the periods from 1976 to 1979 and 1980 to 1985 (see Table 2.4)

Table 2.4: Average Annual Real Rate of Growth of GDP and Inflation in Tanzania in the 1970-85 Period (GDP in percentage)

Years	Overall GDP	Agriculture GDP	Manufacturing GDP	Public Admin. GDP	Inflation % change
1970-75	5.10	4.50	6.70	13.20	11.10
1976-79	1.80	1.00	0.60	11.70	14.90
1980-85	1.20	3.00	-4.30	12.80	30.60

Source: United Republic of Tanzania, (1997), Bank of Tanzania (1974, 1982, 1990)

A rise in the interest rate in international financial markets in the 1980s had a negative impact on the Tanzanian economy. Deflationary policies adopted in the

developed countries resulted in a fall in inflation rates and as a result nominal interest rates increased (Engberg-Pedersen et al. 1996). The increase in the nominal interest rates and reduction in the inflation rate led to a rise in real interest rates with a similar effect on indebtness in Tanzania.

The debt problem impacted on public spending in Tanzania. The government deferred external debt repayments. The government paid debt and interest rates whenever the foreign exchange situation improved (Ndulu 1987; Bank of Tanzania 1986). However, the strategy of deferring debt payments led to increased payment arrears and debt burden in subsequent years. This partly explains the rapid increase in debt burden in Tanzania in the 1970-90 period.

In sum, the structural weakness of the Tanzanian economy and misguided macroeconomic policies led to a large public sector that was inefficient. In addition, inappropriate policies led to an inward looking economy that was not buoyant. In the event of exogenous shocks, large macroeconomic imbalances emerged and generated a series of economic difficulties. Economic variables reveal the extent of macroeconomic imbalances that occurred in Tanzania during the crisis period. Real GDP growth declined from 3 percent in 1977 to 1 percent in 1980 and reached negative 0.4 percent in 1983. The fiscal deficit increased from 3.5 of GDP in 1973 to 6.6 percent of GDP in 1977 and reached 18 percent of GDP in 1980. The current account deteriorated from 2 percent of GDP in 1977 to 16 percent in 1980. In 1985, the current account deficit was 8 of GDP. As a result, the Tanzanian government was unable to adequately fund public spending and the importation of goods and services.

2.4.1 Government Response to Economic Crises

The Tanzanian economy experienced macroeconomic imbalances of different proportions in the 1970-85 period. Initially, Tanzania had experienced a large fiscal and balance of payment deficits as well as high inflation and low GDP growth in the 1970-71 and in the 1972-73 periods. Tanzania also experienced another episode of macroeconomic instability in the 1980-82 period, which was followed by policy measures in the 1982-85 period. Inadequate stabilisation policies in the 1982-85 period led to the adoption of further adjustment policies in the 1986-95 and the 1996-2000 periods. This study focuses on analysing fiscal adjustment policies adopted as a

response to the macroeconomic imbalances of the 1973-74 and 1982-85 periods as well as the 1986-95 and the 1996-2000 periods.

2.4.2 Government Policy Response to External Imbalances in the 1973-77 Period

In the 1973-74 macroeconomic instability was mainly caused by balance of payment problems (Green, Rwegasira & Van Arkadie 1982). Drought for two consecutive years, that is, 1971-72, resulted in an increasing demand for food imports, generating pressure on the balance of payments. As previously mentioned, the world oil price rise of the 1972-74 period also worsened the balance of payment problem in Tanzania.

In response to the macroeconomic instability, the Tanzanian government formulated fiscal adjustment policies as part of stabilisation programme. With regard to public spending, in the 1973-77 period, fiscal adjustment policies emphasised moderate adjustment of recurrent and development spending. The government intended to sustain real recurrent spending in order to maintain output growth and domestic aggregate demand. Both are important factors for economic recovery. Also, the government wanted to protect the consumption level of low income earners in Tanzania (Green, Rwegasira & Van Arkadie 1982; Ndulu 1987). In order to boost agricultural production, the government increased the allocation of public spending to the agricultural extension service[2] and supply of inputs. Regarding public investment spending, the government moderately reduced public spending investment in infrastructure and manufacturing industries, but gave priority to projects that could generate additional foreign exchange. This was a strategy to minimize input shortages in the medium-term (Green, Rwegasira & Van Arkadie 1982).

Parallel with adjustments in public spending, the government intended to increase fiscal revenue, from tax and non-tax sources. The government increased income and sales tax rates in an effort to generate adequate revenue for funding recurrent spending and surplus generation. The National Price Commission increased prices of goods and services produced by public manufacturing firms in order to allow

---

[2] Agriculture extension service refers to the provision of advice and training to smallholder farmers on techniques of modern farming, the use of pesticides and fertilizers and crop husbandry.

enterprises to generate surpluses that would augment government recurrent revenue and recapitalise their investments (Green, Rwegasira & Van Arkadie 1982). The Financial and Credit Plan was also a policy tool for mobilising fiscal revenue.

The government increased prices of private goods produced by public enterprises in order to enable them to cover production costs and reduce demand for government subsidies (Green, Rwegasira & Van Arkadie 1982). Although the policy measures did not reflect deep fiscal adjustments, public enterprises were expected to facilitate correction of macroeconomic imbalances by improving their profit performance. Improved profit performance implied lower dependence on the government budget.

Public enterprises' contribution to fiscal revenue was not impressive. Public enterprises recorded a low surplus from 1973 to 1975. In the same period, public enterprises experienced a decline in the rate of return on their investment assets (World Bank 1996). Only in 1976 and 1977, were public enterprises able to generate surpluses.

Furthermore, as part of the fiscal adjustment policy the Tanzanian government sought to mobilise interim foreign funds. It sought financial assistance from the World Bank and the IMF as well as from commercial sources to augment domestic resources in the adjustment process. It was deemed that through external finance the government could not only address the fiscal deficit but import food and thus reduce the food shortage in the country.

Another policy measure as part of fiscal adjustment efforts was import restrictions. The government allowed the importation of food, intermediate inputs, spare parts and capital goods. The Financial and Credit Plan supported the import policy through the allocation of foreign exchange to priority import categories only (Kimei 1987). Quantitative import restrictions had a negative effect on fiscal adjustment as the government could not generate increased fiscal revenue through international trade taxes. The government was using administrative tools such as foreign exchange allocation and import licences to control imports instead of taxes. International trade taxes contribute about one-third of total tax revenue in Tanzania.

Fiscal adjustment policies resulted in changes in the allocation of public spending and an increase in fiscal revenue, specifically in the 1976-77 period. Changes in public spending focused on reducing non-wage expenses, leaving wages and salaries unaffected. The imbalance between wages and non-wage expenses resulted in a poor balance between personnel and inputs (Engberg-Pedersen et al. 1996; Green, Rwegasira & Van Arkadie 1982). A cut in the spending allocation to non-wage expenses affected the delivery of public services such as the agricultural extension service and roads maintenance.

As part of the efforts to reduce public investment spending, between 1973 and 1977, the government deferred some investment projects with a long gestation period. The government's shift of public spending priorities resulted in a dislocation of investments and created production bottlenecks. In particular, postponement of large water projects and power supply in Dar Es Salaam, the capital city, affected the production of manufacturing firms (Green, Rwegasira & Van Arkadie 1982). Furthermore, projects were initiated in rural areas that could not increase output production.

The Tanzanian government negotiated with the IMF for gold and First Credit Tranches and an Oil Drawing Facility, in order to facilitate the correction of macroeconomic imbalances in Tanzania (Green, Rwegasira & Van Arkadie 1982). The government received soft loans from the Arab-African Bank and the IMF Trust Fund in the 1974-75 period. Additionally, during the 1972-74 crisis, Tanzania's external debt position was low because exports largely financed imports. The ratio of external debt to export earning was below 10 percent of the visible export earnings.

The flow of interim external funds was not forthcoming as expected because of delays in disbursement of funds, and on occasions the funds were inadequate, specifically in the 1973-75 period. Additionally, the funds were project or country-import tied. This limited the flexibility of using funds for improving capacity utilisation in domestic industries (Bigsten et al. 1999; Ndulu 1987). The World Bank and the IMF became sceptical of government policies and restrained the disbursement of its funds in the later stage of the adjustment process.

Although in the 1973-75 period, tax revenue declined, the rise of price of coffee in the world market between 1976 and 1978 resulted in an increase in tax revenue generation and eased the adjustment process. The improvement was not a result of fiscal changes and as such could not contribute to the long-lasting correction of the fiscal deficit. Macroeconomic conditions deteriorated when world market prices of exportable agricultural commodities fell because the economy relied on the transitory factors to correct fiscal imbalances. This conforms with the observation of Ter-Minassian & Schwartz (1997) that it is difficult to determine the duration and strength of temporary factors that resulted in an improvement in the fiscal position. The reversal of a temporary situation exposed the weakness of fiscal adjustment policies in Tanzania.

In the 1973-77 period, fiscal adjustment policies did not foster structural changes necessary for output growth, and an expansion of the tax base (Green, Rwegasira & Van Arkadie 1982). The adjustment measures that aimed to increase the price of private goods produced by public enterprises were not fundamental changes that could result in a reduced fiscal burden. The Tanzanian government aimed to reduce the fiscal burden of subsidising public enterprises, instead of reforming or downsizing inefficient public enterprises. The government needed to undertake large adjustments and reforms. Ter-Minassian & Schwartz (1997) and Tanzi & Zee (1997) noted that the lack of comprehensive fiscal adjustments resulted in the failure of stabilisation policies in developing countries.

The opportunities to raise external funds and enhance the adjustment process were restricted because of a lack of credible economic policies. The policies did not reflect a shift from non-market inward oriented policies. The government did not change the course of its policy because of the need to avoid the reduction of domestic aggregate demand and to continue with structural transformation in the country. This also suggests that the government avoided undertaking deep and extensive fiscal adjustments.

Demand restraint through import restrictions had an impact on output growth. As a result of import restrictions and administrative allocation of foreign exchange, importation of consumer goods, spare parts and intermediate inputs declined.

Reduced supply of these goods negatively affected capacity utilisation in the manufacturing industries. In addition, deferring infrastructure projects affected the distribution networks and agricultural output in Tanzania in the 1973-77 period.

2.4.3 Structural Adjustment Programme in the 1982-85 Period

From 1982 to 1985, Tanzania experienced another epoch of macroeconomic instability. The fiscal deficit was not self-correcting because output was not growing. Furthermore, the non-correcting deficit compelled the government to borrow from domestic banks to fill the fiscal gaps. The borrowing caused an increase in the domestic inflation level. Moreover, a low volume of agricultural export crops caused a reduction in foreign exchange generation. The world oil crisis of the 1979-82 period also exacerbated macroeconomic instability in Tanzania.

In response to the problem of macroeconomic instability, the government initiated a fiscal adjustment programme spanning 1982 to 1985. The programme was part of the Structural Adjustment Programme (SAP), a medium-term stabilisation plan that aimed at overcoming the macroeconomic imbalances in Tanzania. The programme was part of the government's own initiatives to address macroeconomic instability through policy reforms. The World Bank and the IMF were neither involved in the formulation nor implementation of the policy reforms.

The programme constituted demand management policies that emphasised a reduction in domestic absorption capacity. Also included in the programme were policy measures aimed at structural changes in the export sector and the promotion of the export of non-traditional crops, for example oil seeds (Ndulu 1987; United Republic of Tanzania 1982).

Fiscal adjustment policy under SAP also was designed to avoid recessionary adjustment as the programme emphasised external revenue inflows and an improvement in the export sector performance (Ndulu 1987; United Republic of Tanzania 1982). The government anticipated financial support from the World Bank, the IMF and commercial sources, but it received no support (Engberg-Pedersen et al. 1996).

The SAP policy objectives were as follows:(i) to increase output growth through shifting resources from capital formation to recurrent spending;(ii) to reduce excess demand, through an increase in tax rates and a reduction in recurrent spending;(iii) to reduce the fiscal deficit and limit bank borrowing to 32 percent per annum during the adjustment period;(iv) to restore internal and external imbalances through the supply of intermediate inputs and the use of price incentives in stimulating agricultural production.

The adoption of SAP policy measures had several economic effects. Real output growth increased from about zero percent to about 3 percent in 1984, but declined to 2.3 percent in 1985. The real per capita GDP growth was negative because the population grew by 3.3 percent per annum. Low output growth affected the fiscal adjustment process because it resulted in low tax revenue and foreign exchange generation. As a result fiscal imbalances persisted. Furthermore, the policies did not result in an improvement in export earnings. Consequently, the balance of payment worsened by 80 percent in 1985 (Ndulu 1987).

The government continuously depended on domestic borrowing to fill fiscal gaps. Bank borrowing to finance the fiscal deficit exceeded the target of 32 percent over the Financial and Credit Plan target in the 1982-85 period (Kimei 1987). However, the proportion of government borrowing declined from 60 percent in 1983 to 37 percent in 1985. As a strategy to reduce the fiscal deficit and foreign exchange constraints, the government deferred payments of imports and debt (Ndulu 1987; Bank of Tanzania 1986).

Government borrowing beyond the set limit and inadequate interim financial inflows, as in the previous fiscal adjustment episode, revealed the lack of credibility of the fiscal adjustment policies. The government economic policies did not show signs of changes in the economic regime, although there was a shift in the government's attitude towards the use of economic incentives in boosting agricultural production. The policy changes also did not result in fiscal adjustment but spending cuts. In addition, delays in undertaking serious economic reforms resulted in persistent low output growth and this also limited the government's effort to correct the fiscal imbalances.

2.4.4 Economic Recovery Programme and Fiscal Adjustment Policies in the 1986-95 Period

Failure to realise the SAP objectives in regard to output growth and internal and external imbalances compelled the Tanzanian government to modify and adopt additional fiscal policy measures in the 1986-95 period. The new programme initiated by the Tanzanian government and supported by the World Bank and IMF was known as the Economic Recovery Programme (ERP) (Mtatifikolo 1998). The programme had sub-periods of 3 years each.

The ERP had four objectives, namely:(i) to increase the output of food and agricultural exportable commodities through appropriate incentives for production and marketing, and an increase in resources available to the agricultural sector; (ii) to rehabilitate the physical infrastructure that supports agricultural activities; (iii) to increase capacity utilisation of industries to 60 percent of installed capacity, through increased allocation of scarce resources to priority firms and sectors; and (iv) to restore internal and external imbalances by pursuing prudent monetary and fiscal policies (United Republic of Tanzania 1986).

In order to correct internal and external imbalances, fiscal adjustment policy measures focused on streamlining public spending and increasing tax revenue during this period. Changes in public spending included a retrenchment and freezing of recruitment in the public sector to cut spending on wages and salaries. The adjustments in public spending also included the reduction of the size of public administration and defence spending. Furthermore, the Tanzanian government emphasised not only spending cuts but also the allocation of recurrent spending to activities promoting both output of food and exportable agricultural crops.

With regard to public investment spending, the government changed its priority in choosing and funding public investment. The Tanzanian government restricted development spending to completion of on-going projects (Bagachwa 1992; Maliyamkono & Bagachwa 1990). Priority was given to projects that facilitated quick recovery of agricultural and industrial production as well as the rehabilitation of transport infrastructure. Overall, the government aimed to limit public spending growth to 15 percent per annum (United Republic of Tanzania 1986).

In order to further limit public spending growth, the Tanzanian government focused on reducing the size of the public sector through cutting the number of public enterprises and improving their efficiency. The government attempts to reform public enterprises were motivated by the need to reduce debt monetisation, bank borrowing and the fiscal deficit. Particular attention was directed to public enterprises dealing with the purchase of agricultural produce because they were causing a large fiscal burden to the government. The functions of agricultural produce enterprises were shifted to privately owned cooperative unions.

In order to harness the opportunity of an expected increase in output growth, the Tanzanian government's efforts were directed at raising tax revenue and at improving tax administration. The government aimed to increase tax revenue to 15 percent of GDP in each year during the adjustment period (Unite Republic of Tanzania 1986, 1997).

The government also corrected for the overvaluation of the nominal exchange rate, in order to increase tax revenue generation from import duties. The adjustment of nominal exchange rate during stabilisation not only increased tax revenue from international trade but also returns on the foreign exchange of the central bank (Bank of Tanzania 1989). This increase in the return on foreign exchange reserves generated profits that were transferred to the government budget.

An additional tax policy measure adopted was to review income and sales taxes levels periodically as output recovery proceeded (Maliyamkono & Bagachwa 1990; United Republic of Tanzania 1986). The purpose of sales tax reviews was to eliminate tax distortions between sectors, promote economic growth and maintain high level of revenue generation to the government.

The implementation of fiscal adjustment policies had a limited effect on correcting the fiscal deficit during this period. A wide discrepancy between revenue and public spending persisted. The persistent fiscal deficit led the Tanzanian government to continuously rely on debt monetisation and domestic bank borrowing. However, the government's domestic borrowing varied throughout 1986 to 1995. Domestic borrowing declined from 40 percent of GDP in 1986 to 13 percent of GDP in 1989

(Bank of Tanzania 2005). Domestic borrowing increased to 16 percent of GDP in 1990 and further declined to 6 percent in 1992. However, it increased to 42 percent of GDP in 1992 and declined to 23 percent of GDP in 1995. Domestic bank borrowing resulted in variation of the inflation rate. The inflation rate declined from 33 percent in 1986 to 31 percent in 1989. It further declined to 28.7 percent in 1991, and increased to 27 percent in 1995. Furthermore, there was no improvement in the current account of the balance of payment. The current account as a percentage of GDP deteriorated to a negative 13 percent in the 1986-95 period.

With regard to output growth, the fiscal adjustment policies contributed to a modest improvement of agricultural sector growth because of the minor increase in extension service spending. The contribution of this sector to real total GDP declined from 29 percent in 1986 to 26 percent in 1989. The share of the agricultural sector to GDP increased modestly to 27 percent in 1991 and reached 28 percent in 1995. On the other hand, the share of the manufacturing sector in total GDP decreased to 9 percent in 1989 (World Bank 1996). The contribution of the manufacturing sector to GDP declined to 8.7 percent in 1991 and reached 7.9 percent in 1995. Overall, the share of the productive sectors on total GDP shows stagnation or declining trends in the 1986-95 period.

Recurrent spending and the rehabilitation of infrastructure was selectively increased in Tanzania. A large part of public investment spending supported public enterprises instead of decentralised producers, especially in the 1986-92 period. Limited public investment was directed toward rural transport infrastructure to support smallholder farmers (World Bank 1996). This restricted the positive effect of domestic price liberalisation and the abolition of restrictions on the marketing of agricultural crops on increasing output growth in Tanzania.

A number of fiscal adjustment measures to increase tax revenue were temporary and did not reflect deep fiscal changes. The government attempted to increase tax revenue generation through the adjustment of taxes and exchange rates. Thus, dependence on the exchange rate for raising taxes implied that the government relied on endogenous temporary factors for correcting the fiscal deficit. Once the exchange

rate was overvalued, the fall in tax revenue was forthcoming because international trade taxes accounted for about one-third of fiscal revenue in Tanzania.

As part of the fiscal changes, the Tanzanian government progressively reviewed income and sales taxes as output recovered. Thus, the review of sales taxes was motivated by the need to increase tax revenue through increasing taxes, instead of stimulating output growth that could lead to an increased tax revenue generation. Given that the tax system was already distortionary, it was rational to adjust taxes from the outset of fiscal reforms to improve tax revenue generation. Delays in the tax changes restricted a raise in tax revenue because tax changes are associated with an increase in revenues if tax revenue is elastic in the short-term (Stepanyan 2003).

Inappropriate tax policies were also identified as one of the factors that contributed to low tax revenue in Tanzania. Osoro (1994) observed that inappropriate tax policies were detrimental to tax revenue productivity in Tanzania. Therefore, there was a need for the Tanzanian government to embark on serious tax changes in order to enhance the opportunity for increasing tax revenue.

Apart from weaknesses in some areas of fiscal adjustment, the adjustment policy measures adopted between 1986 and 1995 period were the most serious government attempts to restructure the tax system and initiate changes in the economic policy regime in Tanzania. It took a decade of macroeconomic instability before the government realised the importance of deep and comprehensive reforms in order to correct the fiscal deficit. The delays in undertaking reforms had an effect on the implementation and success of fiscal policies because the economy was experiencing a low level of official GDP.

2.4.5 Institutional Reforms and Fiscal Adjustment Policies in the 1996-2000 Period

With the support of the World Bank and the IMF, the Tanzanian government initiated a number of institutional reforms in order to enhance economic growth and overcome the fiscal deficit in the 1996-2000 period. The institutional reforms emphasised the establishment of a market-oriented economy and liberalising markets for resources as well as products. The reforms also focused on reducing poverty.

Although, in this period the policies largerly focused on institutional reforms, the particular objectives included: (i) to raise GDP growth (ii) to reduce the inflation rate (iii) to improve reserves to ten weeks worth of imports (iv) to reduce the budget deficit (United Republic of Tanzania 1986; Mtatifikolo 1998).

In order to reduce the role of the public sector in the economy, the government introduced changes in the social services sector under civil service reform. The reforms emphasised streamlining public spending and improving social service delivery. The main objective of civil service reforms was to concentrate public resources on core government activities, such as law and order, security and the provision of public goods. The civil service reforms were also geared towards striking a balance between personnel and other inputs and decentralising the provision of public services (Mtatifikolo 1998). Such fiscal changes were perceived as necessary not only for improving efficiency in the public sector, but also for achieving budgetary saving. The changes were consistent with market reforms that emphasised the government's role in the delivery of health services, education and core functions in social services, and in liberalising the provision of private goods and services.

The Tanzanian government also introduced public expenditure management reforms in the 1996-2000 period. The reforms involved control of public recurrent and investment spending through cash budget management. The budget system required that public spending match government revenue. Under the cash budget system, the government disbursed funds on a monthly basis. The cash budget system that was complemented by public spending and debt management policies were designed to limit public spending growth in Tanzania.

Overall, fiscal adjustment policies had an impact on public spending and tax revenue. Fiscal adjustment policies resulted in low public recurrent spending as a result of institutional and social sector reforms. Public spending on a cash basis declined continually during the 1996-2000 period. It declined from 18 percent in 1996 to 15 percent in 2000 (World Bank & United Republic of Tanzania 2001a;2001b). During this period, output growth revealed a modest recovery and improvement. Real GDP growth was 4 percent in 1996 and declined to 3.3 percent in 1997. Real national

output grew by 3.9 percent in 1998 and declined to 3.5 percent in 2000 (Bank of Tanzania 2002).

The development of public spending and tax revenue were closely associated with trends in output growth between 1996 and 2000. Low tax revenue generation was experienced in this period (World Bank & United Republic of Tanzania 2001a; 200b). Tax revenue as a ratio of GDP was about 10 percent as opposed to the target 15 of percent of GDP per annum for this period. Low output growth, low imports and tax payment arrears contributed to low tax revenue generation.

Notwithstanding the relationship between public spending and output growth, the government accumulated large domestic payment arrears for the purchase of goods and services as well as contributions to pension and social security funds. The payment arrears stood at TShs51 billion in the year 2000 (United Republic of Tanzania 2000b). This suggests that despite efforts to control the public spending, the discrepancy between government revenue and public spending persisted.

2.5 Tax Structure

In Tanzania, recurrent financing of government spending includes tax revenue and non-tax revenue. The importance of tax revenue as the main source of fiscal revenue has increased over time. The increase signifies a declining role of public enterprises as a source of fiscal revenue to government. Understanding the impact of tax adjustment and reforms in revenue generation requires examining the changes in the tax structure in Tanzania.

Tax structure refers to the mix of direct and indirect taxes. The tax structure is related to the level of development of a particular economy. Direct taxes are imposed on factors generating income, that is, labour and business or corporate entities. These taxes include corporate and personal income taxes and withholding taxes. Other taxes are rental income and presumptive income taxes. Indirect taxes are paid by households or firms that consume goods and services that are taxable. Indirect taxes also include taxes on domestic goods and services, excise duty on merit goods, and taxes on international trade transactions. In Tanzania, the taxes in international trade include import duty, VAT and excise duties.

In Tanzania, indirect taxes have the largest share in total tax revenue (see Table 2.3). However, the share of indirect taxes in total tax revenue has varied throughout 1971 to 2000. In addition, direct taxes contributed between a quarter and one third of total tax revenue in Tanzania in different periods. The variation of total tax revenue in different periods reflects changes in government economic policies as well as production, output growth and consumption. Examination of particular tax categories provides an insight into the tax structure and its contribution to government revenue in Tanzania.

2.5.1 Direct Taxes

The main components of direct taxes in Tanzania include personal income tax and corporate taxes. Other taxes are taxes on bank interest income and presumptive income taxes. The coverage of rental taxes and withholding taxes is small, and these are included in the "other taxes" category.

As shown in Table 2.5, the proportion of income taxes in the total tax revenue declined from 40 percent in 1971 to 17 percent in 1976. Thereafter, the share of income tax in total tax revenue increased to 33 percent in 1979. In the 1980-85 period, the contribution of income tax to total tax revenue declined from 30 percent in 1980 to 26 percent in 1983; it rose again to 28 percent in 1985.

The fluctuations in income tax revenue reflect the performance of public enterprises in terms of profit generation. Public enterprises constituted a large part of the corporate entities in Tanzania in the 1970-85 period. During this period at least one-third of public enterprises were making losses (Mushi 2000). This had an impact not only on output growth, but also on tax revenue generation.

In the 1986-95 period, the contribution of income tax to total tax revenue shows a mixed pattern. In the 1986-91 period, the contribution stabilised at about 26 percent. The share of income tax to total tax revenue increased from 26 percent in 1991 to 31 percent in 1992 and declined to 27 percent in 1995. The share declined from 27 percent in 1995 to 26 percent in 1997, and increased to 31 percent in 1999. It declined to 23 percent in 2000.

In the 1971-79 period, wide variations in the contribution of income tax to total government revenue occurred. In addition, the government introduced a 35 percent corporate income tax for resident companies and 40 percent for non-resident companies. The economic crisis of 1973-77 period that beset the economy also affected the production of public and private manufacturing firms and tax revenue in Tanzania.

Table 2.5: The Contribution of Specific Taxes to Total Tax Revenue
        (in percentage)

YEAR	IT/TOTTAX	CET/TOTAX	ST/VAT	OTTX/TAX	Tax as a Ratio of Total Government Revenue
1971	40.29	42.99	16.72	NA	NA
1972	34.92	38.50	26.58	NA	NA
1973	18.60	54.49	13.36	13.56	86.45
1974	13.77	53.69	19.36	13.18	86.82
1975	17.29	51.00	20.00	11.71	88.29
1976	17.25	51.15	16.11	15.49	84.52
1977	25.10	27.51	27.84	19.54	80.46
1978	28.63	15.40	37.97	18.00	82.00
1979	33.37	11.24	40.62	14.76	85.23
1980	29.56	9.30	44.06	17.08	82.92
1981	27.74	6.83	55.62	9.81	90.19
1982	24.12	6.70	48.95	20.23	79.77
1983	26.17	6.88	60.19	6.76	93.24
1984	25.32	10.93	55.78	9.97	90.03
1985	28.35	15.74	48.82	16.09	83.91
1986	25.61	16.67	58.72	1.00	99.00
1987	25.61	13.13	53.45	7.82	92.18
1988	26.33	13.44	52.69	7.54	92.46
1989	24.79	31.90	35.07	8.25	91.76
1990	27.41	47.62	17.06	7.91	92.09
1991	26.18	25.18	37.74	10.90	89.10
1992	31.04	21.61	31.50	15.85	84.15
1993	26.55	26.03	28.71	18.71	81.29
1994	28.89	30.43	24.22	16.46	83.54
1995	27.07	31.59	24.68	16.66	83.34
1996	24.88	33.35	24.44	17.33	82.67
1997	26.46	32.33	24.41	16.81	83.20
1998	26.43	27.91	33.76	11.90	88.10
1999	30.61	25.98	32.45	10.95	89.04
2000	23.44	30.25	36.48	9.83	90.17

Source: Bank of Tanzania, (1974; 1975; 1982 1990; 2002)
Note: CET-Customs and Excise Duties, IT - Income Taxes, ST-Sales Taxes, VAT-Value Added Taxes,
IND- Indirect Taxes, OTT- Other Taxes, NA - Figures are not available

In the 1986-95 period, the government introduced a number of income tax changes. These tax changes aimed at rationalising the tax system and broadening the tax base. Another purpose of the tax changes was to establish a tax system that required less effort in collecting tax revenue. Specific income tax changes included limiting the marginal tax rate to between 5 percent and 30 percent, and introducing six income brackets for personal income tax purpose (World Bank 1996; Bank of Tanzania 1997).

However, income from bank interest as well as a housing and transport allowance for civil servants was excluded from the tax base due to the difficulties in determining the taxable income and cost involved in collecting tax revenue. With regard to corporate income tax, resident and non-resident income tax rates were unified (World Bank 1996).

A comparison of the contribution of income tax to total tax revenue between the 1980-85 and 1986-95 periods reveals no major changes in tax revenue generation in the two periods. Income tax contributed approximately one-quarter of total tax revenue. Although lowering the tax rates was aimed at expanding the tax base, income growth was more important for raising tax revenue. However, as highlighted before, income recovery and growth was modest.

The changes in income taxes, which augmented previous reforms, continued throughout 1996 to 2000. In this adjustment period, the government introduced further changes in income taxes, customs duties and production and consumption taxes. Wages and salaries, as well as all allowances were included as taxable income (World Bank 1996).The government abolished differentiation in levying corporate income from similar sources and waived tax incentives for the public enterprises and new investors.

Efforts to raise income tax revenue in Tanzania have included either increases in tax rates or lowering tax rates in different periods. The aim has been to expand the tax base and increase revenue generation. However, the success of government efforts in increasing fiscal revenue depended on the level of GDP growth as well.

2.5.2 Indirect Taxes

Indirect taxes comprise of the customs and excise duties including, sales taxes. In 1998, value added taxes replaced sales taxes in Tanzania. The contribution of the different components of indirect taxes on total tax revenue varied in different periods. This is explained below.

2.5.2.1 Customs and Excise Duties

The contribution of customs and excise duties to total revenue shows variation in the 1971-2000 period (see Table 2.5). The share of customs and excise duties in total tax revenue increased from 43 percent in 1971 to 54 percent in 1974 and declined modestly to 51 percent in 1976; it further declined to 11 percent in 1979. Customs duties declined sharply between 1980 and 1985. The share of customs duties in total tax revenue declined from 11 percent in 1989 to 7 percent in 1983. It rose to 9 percent in 1984.

Furthermore, the contribution of customs duties in total tax revenue increased from 15 percent in 1986 to 47 percent in 1990. Customs duties as a proportion of total tax revenue declined to 25 percent in 1991 and rose to 32 percent in 1995. In the 1996-2000 period, customs duties constituted approximately one-third of total tax revenue, except for the year 1998 and 1999.

The variation of customs duties contribution to total tax revenue demonstrates the changes in the government policies and performance of the economy, in particular the agricultural sector and the flow of imports. Throughout the 1973 to 1977 period, changes in the customs duties included an increase in duties for consumer, intermediate and capital goods. Export taxes for exportable agricultural commodities whose world market prices increased were also increased (Bank of Tanzania 1975). Specifically, export taxes for coffee, cotton, tea and cashew nuts were increased. In the 1980-85 period, first the government amended the customs duties Act. Second, import duties were selectively increased by 15 percent. The selective tax changes were intended to stimulate output growth in manufacturing sector.

In the 1986-95 period, the number of customs duties rates was reduced from 20 to four. The new rates were 10, 15, 25 and 50 percent. The maximum rate was reduced from 100 percent to 50 percent. The Tanzanian government also abolished the taxation of exportable agricultural commodities in 1991 to boost agricultural production, but the taxes were reintroduced in 1997 (Fjeldstad, Hussein & Shallanda 2000; Fjeldstad & Semboja 2001). In addition, customs duties payment arrears negatively affected tax revenue generation because of high inflation levels that prevailed in Tanzania. Customs duties have a collection lag of about 48 months (Mpango 1995). Given the level of inflation and customs duties contribution to total tax revenue, real tax revenue declined due to delays in the collection of tax.

Further changes in customs duties and indirect taxes included the abolition of exemptions on capital goods imports duties in Tanzania in the 1996-2000 adjustment period. The government also introduced a 5 percent duty rate for all capital goods. In 2000, the government again abolished the taxation of agricultural commodities (Fjeldstad & Semboja 2001; Fjelstad, Hussein & Shallanda 2002). In addition, efforts were made to curb tax evasion by closing bonded warehouses and monitoring the transit goods, the main sources of tax evasion (World Bank 1996; 2001a). The changes in customs and excise duties were intended to increase the effective tax rate and revenue generation from imports.

The changes in customs duties rates and laws had an impact on output growth and tax revenue generation. Although the imposition of export duties on agricultural commodities was an efficient way to raise tax revenue, it affected the production exportable agricultural commodities. Additionally, the low volume of exportable agricultural commodities resulted in low foreign exchange earnings, a fall in import capacity and decrease in the level of manufacturing sector production. As a result of the disincentive of export taxes, farmers resorted to producing food crops that could be sold domestically or smuggled exportable agricultural crops such as coffee to neighbouring countries, where they could fetch higher prices (Maliyamkono & Bagachwa 1990). The series of introductions and the abolition of agricultural export taxes signified that Tanzania had a narrow tax base. This also suggests that whenever the government faced fiscal pressure it resorted to taxing commodities that had the lowest administrative costs regardless of the long-term consequences on the

sustainable tax base. Furthermore, high customs duties resulted in tax payment arrears, because imported goods were released without paying full taxes. High customs duties were associated with tax evasion. It was also related to the enlargement of the informal economy.

2.5.2.2 Sales Taxes and Value Added Taxes

The importance of taxes on goods and services as a source of tax revenue varied in different adjustment periods. Sales tax as a proportion of GDP increased from 17 percent in 1971 to 20 percent of GDP in 1975 and reached 41 percent in 1979. The share of sales tax in total tax revenue increased from 44 percent in 1980 to 60 percent in 1983, and declined to 48 percent in 1985. Sales tax as a proportion of total tax revenue declined from 59 percent of GDP in 1999 to 35 percent in 1989. Sales tax declined consistently to 24 percent in 1997 and increased to 36.5 percent in 2000.

The government instituted different policies in various periods in order to increase the proportion of sales tax revenue in total tax revenue. In the 1973-77 period, the Tanzania government increased sales tax on clothes, spirits and soft drinks. The government also abolished cumbersome sales taxes in order to improve the efficiency and productivity of sales taxes (Bank of Tanzania 1973;1974). In the 1980-83 period, the government amended the *Sales Tax Act* and selectively increased sales taxes by 15 percent. The selective tax changes were intended to stimulate output growth and consequently to expand the tax base. However, in 1982, bad weather caused a low level of production of exportable agricultural commodities and resulted in low foreign exchange generation. This also negatively affected domestic output growth.

In the 1986–95 period, sales tax changes involved a reduction of the differential maximum rates for goods and services. The new sales tax rates introduced were 5, 10 and 15 percent (World Bank 1996; Bank of Tanzania 1997). In addition, the government unified tax rates for similar domestic and imported goods. The applicable rates introduced were 25 and 30 percent.

Despite the efforts to increase tax rates and expand the sales tax base, the tax base remained narrow because sales taxes covered output from the manufacturing sector

only. In addition, as highlighted above, the contribution of the manufacturing sector to total GDP was low. The narrow tax base reduced the effective tax rate and revenue flows in Tanzania.

In the 1996-2000 adjustment period, the government introduced further changes in production and consumption taxes. The changes augmented previous tax reform efforts initiated in the 1986-95 adjustment period (World Bank 1996). The Tanzanian government introduced Value Added Taxes (VAT) in 1998 to replace sales taxes (Fjeldstad & Semboja 2001). The introduction of VAT was designed to expand the consumption tax base, increase government revenue and replace inefficient protection structures. Moreover, the adoption of VAT was expected to result in an efficient, flexible and buoyant tax system and to improve the effective tax rate in Tanzania. Despite efforts to expand the tax base and reduce tax rates, VAT revenue was modest.

The contribution of sales taxes to total tax revenue ranged between 30 and 60 percent. This signifies the importance of domestic output and consumption for tax revenue generation. Although after 1989 the share of sales tax on total revenue declined, they contributed about one-third of tax revenue in Tanzania. The potential to raise more tax revenue was restricted because the coverage of sales taxes was limited to imported and locally manufactured consumer goods only.

In order to increase tax revenue generation, tax policy required a tax system that was cost effective and reduced the burden on the economy. In addition, the tax system was complex and created disincentives for production and consumption.

2.5.3 Fiscal Revenue

Table 2.5 shows that tax revenue as a proportion of government revenue increased from 86 percent in 1973 to 93 percent in 1986. It reached 99 percent in 1985. The proportion declined from 93 percent in 1986 to 86 percent in 1990, and remained constant at about 98 percent in the 1991-95 period. The share of tax revenue to government revenue increased from 97 percent in 1996 to 100 percent in 2000. The increase in tax revenue as a proportion of government revenue reflects the reduction

of public enterprise dividends to government. This was particularly true in the 1980-85 and the 1991-2000 periods.

2.5.3.1 Taxation Level

Tax efforts as indicated by the tax to GDP ratio, revealed a mixed pattern throughout 1971 to 2000 period (see Figure 2.1). The figure indicates that the tax revenue to GDP ratio increased steadily between 1971 and 1974. In addition, wide fluctuation in tax revenue to GDP ratio occurred in the 1975-88 period. In the 1989-2000 period, the tax revenue to GDP ratio was lower than the level attained in the 1971-85 period in Tanzania.

**Figure 2.1: Taxation as Shown by the Tax-Revenue to GDP Ratio
(in percentage)**
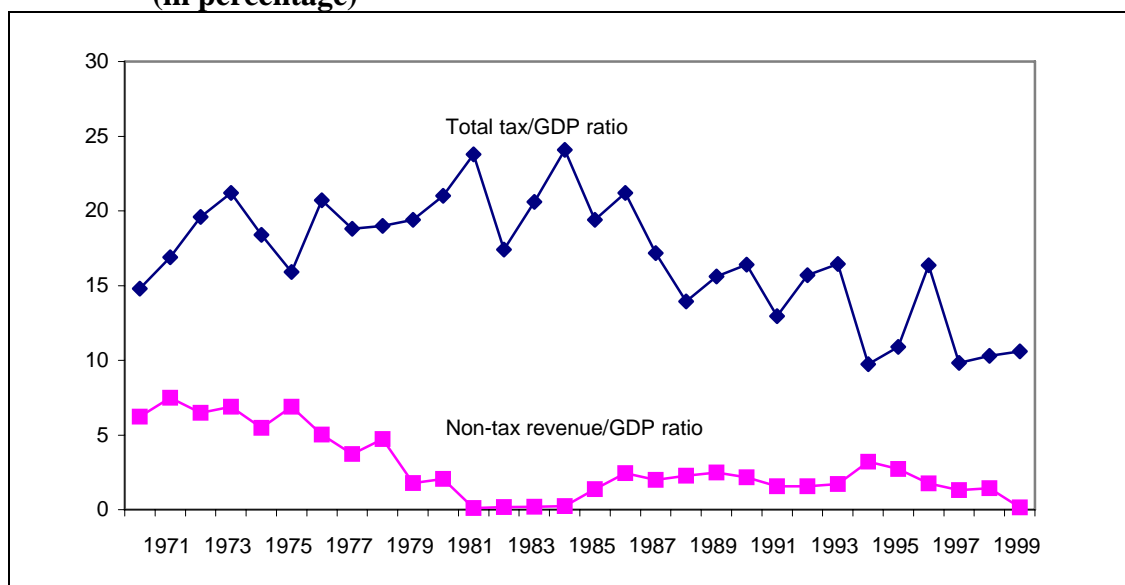
Source: Bank of Tanzania (1973; 1975; 1986; 1990; 2002)
Note: Non-Tax Revenue comprises royalties and dividends to government

The variation in the tax revenue-GDP ratio indicated the effect of the changes of economic policies pursued in the 1971-2000 period. For the 1971-79 period, the changes in tax revenue were associated with a rise in tax rates. In the 1980-85 period, the government also increased the rates of various taxes and introduced new taxes. During the period GDP grew at an average of 1.20 percent per annum. In the 1986-90 period, tax rates were lowered in order to improve tax compliance and government revenue. However, output growth was still low and thus changes in tax rates could not result in additional tax revenue generation to offset the effect of lower tax rates. The World Bank (1996), World Bank & United Republic of Tanzania

(2001b) and United Republic of Tanzania (1997) acknowledge that the lower tariffs on external trade resulted in low tax revenue in the 1986-92 period in Tanzania.

As shown in Figure 2.1, low tax revenue was also observed in a number of years between 1991 and 2000. Specifically, the government could not reach its revenue collection target of 15 percent of annual total GDP in 1991, 1993, 1994 and 1997. Again, low output growth partly contributed to low tax revenue. Low imports and inflows of foreign funds were associated with low tax revenue in the 1991-97 period. Low inflows of foreign funds caused a shortage of intermediate inputs and low production in the manufacturing sectors. United Republic of Tanzania (1997) observed that low inflows of foreign funds resulted in low tax revenue generation in Tanzania.

A lack of fundamental changes in the tax system also contributed to low tax revenue generation in Tanzania. Fundamental changes in the tax system took place in the 1990s, 30 years after independence. Between 1961 and 1992, the government undertook ad hoc tax changes so as to meet an increasing need to finance government spending. Fjetdstad & Rakner (2003) also found that it took about two decades before the Uganda government decided to changes the tax structure as an attempt to correct fiscal deficit.

The ad hoc tax changes had two main effects on production and output growth in Tanzania. On the one hand, the high tax rate resulted in the enlargement of the informal economy, as producers wanted to avoid payment of taxes and raise profits (ESRF & TBC 1997). Payment of high taxes prompted producers to charge high prices on their products. The high tax rates not only affected the return on economic activities but also made prices of manufactured goods unaffordable to the majority of consumers. Such a situation compelled manufacturers to sell their produce in the informal markets at the prices that were affordable to consumers (ESRF & TBC 1997). Thus the presence of the informal economy also exacerbated tax evasion in Tanzania. The growth of the informal economy is further highlighted in section 2.6.

On the other hand, increased tax rates retarded growth because the tax mix had an effect on output growth through its impact on the growth of investment and savings.

Peter & Kerr (2001) observed that in developing countries the tax structure had an impact on growth. In this regard, a tax structure that is not conducive to growth cannot lead to increased tax revenue. By and large, low tax revenue generation was related to low output growth as well as an inappropriate tax structure that deterred output growth.

Even after tax reforms, in the 1996-2000 period, tax revenue generation remained below the government set target of 15 percent of annual GDP. Tax revenue generation remained below the target because the newly established tax institutions focused on increasing tax revenue from existing sources (World Bank 1996). Fjetdstad & Rakner (2003) also found that governments relied on few taxes even after adoption of tax reforms in sub-Saharan Africa. The reasons for relying on existing tax sources were that the expansion of the tax base was complicated and taxation of the informal economy was difficult. A presumptive tax that could have facilitated taxation of informal economy activities was cumbersome and associated with administrative difficulties. Lowering of tax rates needed to be accompanied by an increase in output growth in the official economy in order to realise increased tax revenue.

2.5.3.2 Non-Tax Revenue

Non-tax revenue is another main component of total current revenue. It includes dividends and royalties paid by public enterprises to the government, the owner of equity shares of public enterprises. In the 1986-96 period, it included counterpart funds that were collected by the government from manufacturing enterprises, which bought foreign currency for the importation of intermediate inputs and spare parts under the commodity import support fund. The funds were disbursed through commodity import support and open general licence. Local producers could access funds after the payment of an equivalent amount of foreign currency demanded. The funds enabled both private and public local firms to import raw materials and spare parts. The programme was initiated by donor countries to support economic policy reforms in Tanzania. Non-tax revenue generation shows wide variation in Tanzania.

As for tax revenue, non-tax revenue generation pattern also showed wide variations in Tanzania in the 1971-2000 period (see Figure 2.1). The Figure reveals that non-tax

revenue declined continuously in the 1970-1980 period and reached the lowest level of less than one percent of GDP in 1982. It increased modestly in the 1986-95. According to Figure 2.1, in the 1995-2000 period, non-tax revenue exhibited a declining pattern. The pattern of non-tax revenue growth reflects the changing performance and role of public enterprises in Tanzania.

The variation in the contribution of public enterprises to non-tax revenue reflects their performance in regard to profitability. While the performance of public enterprises in terms of profitability was impressive in the 1976-78 period, their performance declined between 1980 and 1985 period (Katunzi 1997; Mushi 2000). As mentioned earlier in this chapter, industrial capacity utilisation for most public manufacturing firms was below 40 percent in the 1980-85 period. This resulted in public enterprises producing less output and incurring losses.

Policy reforms that led to external and internal trade liberalisation reduced the monopoly enjoyed by public enterprises in Tanzania. The reforms also imposed budgetary restrictions on the flow of subsidies, equity injections and other transfers to public enterprises. Such changes had an impact on the performance of public enterprises as well as on their profits (Mushi 2000). They also contributed to low dividends from public enterprises.

The privatisation and commercialisation of public enterprises also resulted in the decline of the share of non-tax revenue in fiscal revenue. This occurred specifically after 1992, when public enterprise restructuring started. Policy changes and the restructuring resulted in a reduced burden on the government budget as well as a decline in non-tax revenue in terms of dividends.

Therefore, the poor performance of public enterprises and policy changes led the government to rely more on tax revenue. Policy reforms also had an impact on the budget and fiscal performance because the policy changes were not associated with robust output recovery that could offset the effect of the declining contribution of the public enterprises to total tax revenue.

2.6 Output Growth in Tanzania

The economic performance of the Tanzanian economy is revealed by its output growth. The output level and its growth determine tax revenue generation as well as macroeconomic stability. The growth of the monetary GDP[3] is important for increasing domestic tax revenue. Equally important is the narrowing of subsistence GDP and informal economy in Tanzania.

The national income in Tanzania is characterised by the co-existence of an monetary and subsistence GDP. This subsistence GDP declined in Tanzania from 34 percent of official GDP in 1962 to 30 percent in 1985. It declined further to 29 percent of the official GDP in 1998 and was 25 percent of official GDP in 2000 (World Bank 1996; World Bank & United Republic of Tanzania 2001a;2001b).

The decline of the subsistence GDP indicates that the size of the subsistence sector is declining in Tanzania. However, the large size of the informal economy[4] demonstrates that there is a part of the economy in Tanzania that is not influenced by government policies such as taxation. The World Bank (1999) estimated that the informal sector had employed 1 million people at end of the 1980s. The survey of the National Bureau of Statistics and Ministry of Community Development Women and Children revealed the informal economy employed 2.4 million people in the 1991-95 period (NBS & MCDWC 1995).

The size of the informal economy as a percentage of GDP has increased in the 1973-2000 period[5]. The informal economy as a percentage of GDP increased from about 7

---

[3]The part of output produced and exchanged for money is termed as monetary GDP. Subsistence GDP refers to the part of output, which is directly produced and used by producers without being exchanged for money. The subsistence GDP is imputed and included in the official GDP figures in Tanzania (Kimei 1987).

[4] In this study, informal economy refers to economic activities that are not recorded or under enumerated in official GDP statistics. The activities also do not conform to government tax and regulation. Specifically, informal economy refers to commercial (non subsistence) urban and rural agriculture activities including fishing and private enterprises with five or less employee excluding professional enterprises.

[5] The size of informal economy was estimated using Guttmann method. The method uses the ratio of currency to demand deposit to estimate the informal economy (Chipeta 2002). The underlying assumption is that informal economy activities and transactions result in a large use of certain currency denomination. In particular, tracing the movements in the ratio of currency in circulation to

percent in 1974 to 9 percent in 1980 and was 32 percent of GDP in 1985. The size of the informal economy declined after the adoption of economic policy reforms and reached 24 percent of GDP in 1991, but increased thereafter to reach 53 percent of GDP in 1995. The size of the informal economy reached a peak of 68 percent of GDP in 1999. The result confirms the findings of Maliyamkono & Bagachwa (1990) that the informal income constituted a large part of the economy in Tanzania. Large informal economies were also observed in Uganda in 1981 and Ghana in 1982 (Chipeta 2002;Green 1981). In these two countries, the informal economy constituted about 60 percent and 32 percent of GDP respectively. In Malawi the size of informal economy relative to GDP ranged between 7 and 31 percent in the 1965-95 period (Chipeta 2002).

Regarding official GDP, in the 1971-2000 period, Tanzania experienced periods of economic decline followed by episodes of recovery. Output growth was influenced by economic policies as well as economic shocks. In the 1971-75 period, the annual average output growth rate was about 4 percent (see Table 2.6). Output growth declined between 1976 and 1980, when Tanzania recorded an annual output growth rate of 2 percent.

Table 2.6: GDP Growth and Inflation Rates in Tanzania in the 1971-2000 Period

Year	GDP Growth	Standard Deviation (annual output growth)	Inflation Rate
1971-1975	4.50	3.30	14.40
1976-1980	2.10	0.90	27.30
1981-1985	1.00	2.00	30.00
1986-1990	3.70	1.60	32.00
1991-1995	4.00	1.30	28.33
1996-2000	3.70	1.10	14.00

Source:Shitundu & Luvanda (2000); Bank of Tanzania (2005); World Bank & United Republic of Tanzania (2001b) United Republic of Tanzania (1997)

A further decline in output growth occurred between 1981 and 1985. During this period output grew at an annual average rate of about 1 percent. In the 1986-90 period output grew at annual average rate of 3.7 percent. Economic policy changes,

---

demand deposits can provide an estimate of the overall size of the informal economy. However, the method ignores transactions undertaken in foreign currency and this may result in understating the size of the economy in Tanzania.

price and trade liberalisation together with good weather contributed to favourable output growth. In the 1991-95 period, output growth deteriorated. Output growth grew at annual average of 2 percent. GDP grew at an annual average of 3.7 percent in the 1996-2000 period.

Apart from different output growth patterns, total output revealed low variability between 1970 and 2000 in Tanzania. Using the standard deviation of annual GDP growth rate as an indicator of stability, output growth showed low variability in Tanzania. The World Bank & United Republic of Tanzania (2001b) also observed that output growth in Tanzania indicated lowest variability compared to other African countries. Low variability was associated with diversification of the agricultural sector that occurred since independence. The agricultural sector, which contributed about half of total GDP in 1998, exhibited lowest variability in output growth compared to other sectors of the economy. The financial sector also exhibited low variability in its contribution to total GDP in the 1971-2000 period (World Bank & United Republic of Tanzania 2001b).

While the agricultural and finance sectors showed low variability in output growth, other sectors of the economy such as mining, construction and manufacturing sectors showed high variability. Changes in government policies in regard to industrialisation resulted in high variability in output growth in Tanzania. Wide variation in output growth occurred between 1970 and 1980. In the 1990s the manufacturing sector exhibited a declining output growth.

The public sector also showed wide variation in output throughout 1971 to 2000. Public spending policies pursued from 1967 to 1985, during the socialist regime era influenced variability in public spending. Additionally, fiscal adjustment policies pursued during different periods also affected the growth of the public sector contribution to total GDP.

2.6.1 Factors Influencing Output Growth in Tanzania

Public spending has influenced long-term output growth in Tanzania through its impact on labour productivity. Specifically, domestic factors such as stock of human and physical capital and productivity growth influenced output growth in Tanzania in

the 1973-2000 period. The World Bank (2001a) used the growth accounting method to analyse the relative contribution of investment in human and physical capital on output growth in the 1960-98 period in Tanzania. Furthermore, economic policies and institutions were also examined because they determine the incentive regime and influence output growth. Therefore, in the examination of GDP growth in Tanzania, an investigation of total factor productivity is necessary.

Total factor productivity shows a variable pattern in Tanzania in the 1970-2000 period. In the 1970s, total factor productivity averaged 0.3 percent. It declined to negative 0.4 percent per annum in the 1980s (see Table 2.7). A number of factors contributed to the decline in total factor productivity in Tanzania (World Bank 2001a) They included poor economic incentives for productivity and inappropriate economic policies. Inappropriate economic policies that resulted in a foreign exchange shortage and scarcity of intermediate inputs also contributed to low productivity. Furthermore, inappropriate investment decisions led to the creation of excess capacity that exceeded domestic absorption capacity (World Bank 1996; World Bank & United Republic of Tanzania 2001b).

Table 2.7: Decomposition of Tanzania's Growth in various Sub-periods

Year	Contribution of			
	Output per worker	Physical capital	Education	Total factor productivity
1970-1979	1.30	1.00	0.10	0.30
1980-1989	- 0.30	0.20	- 0.10	-0.40
1990-1998	- 0.20	- 0.20	0.00	0.00

Source: World Bank & United Republic of Tanzania (2001a)

Economic reforms reversed the decline in total productivity by increasing the availability of foreign exchange and the supply of inputs. However, total productivity was continuously low until 1998. There is little evidence to suggest productivity increased by 2000. Potential for increased productivity still exists through increased capacity utilisation and appropriate investments.

The stock and growth of physical capital also influenced output growth in Tanzania. Variation in the stock and the composition of physical capital resulted in changes in the contribution of physical capital to total output in the 1971-2000 period (see Table

2.7). The contribution of physical capital was highest in the 1970s, and declined, when the government increased investment in manufacturing industries in the 1976-79 and 1980-83 periods. Additionally, low productivity limited the contribution of the physical capital in output growth in Tanzania between 1980 and 1990. Between 1990 and 1998, the contribution of the manufacturing sector to output growth declined because of the fall in investments and low productivity. The government was less involved in investing in the manufacturing sector after policy reforms.

Human capital has a part in explaining the long-term output growth in Tanzania. The contribution of human capital to growth was 0.1 percent in the 1970s (World Bank & United Republic of Tanzania 2001b). The contribution was lower compared to government efforts to increase access to education. In part, the low contribution of human capital to output signifies the high priority the government has accorded to primary education and less to secondary and tertiary education.

Low productivity also affected long-term growth in Tanzania (World Bank,1996; 2001a). In the 1976-79 and 1980-83 period, Tanzania experienced a rapid decline in output growth, despite the 23 percent growth in investment in the two periods. This signifies low productivity in the economy. In particular, productivity growth declined from about 7 percent in 1976 to about 2 percent in 1983. Import restrictions and poor infrastructure are linked to the decline in productivity growth in Tanzania (World Bank 2001; Ndulu 1987, Mjema & Shitundu 1995)

Investment spending declined nationwide from 23 percent in 1974 to 3 percent in 1990 (World Bank 1996; Mjema & Shitundu 1995). It increased modestly to 4 percent in 1991-98 period. Additionally, during the 1990s, the share of capital in GDP formation declined from a peak of 30 percent in 1991 to 18 percent in 1997. The privatisation of public enterprises implied that the government refrained from investing in firms or projects producing private goods. In addition, overall the government reduced public capital spending.

The findings by the World Bank (2001a) after analysing output growth, between 1961 and 1998 in Tanzania, suggested that modest GDP growth was attributed to low priority being given to public spending in areas such as higher education and

research and development. Another factor that affected output growth was the limited development of transport and communication infrastructure, as well as misallocation of public investment (World Bank 2001, Bukuku 1992). Limited public spending caused low investment productivity resulting in low GDP growth. However, low public spending in priority areas was attributed to limited fiscal revenue at the government's disposal.

2.7 Conclusion

Inappropriate economic policies together with exogenous events resulted in macroeconomic imbalances as indicated by the fiscal and current account deficit in Tanzania between 1973 and 1984. In an attempt to correct the imbalances the government adopted various fiscal adjustment policies in different adjustment periods.

The initial fiscal adjustment policies, that is, those adopted in the 1973-77 period paid less attention to adjusting both recurrent and investment spending. In the 1982-85 and the 1986-95 periods, fiscal adjustment involved cuts in salaries and wages and public administration spending. However, the fiscal changes were inadequate and they did not reflect deep fiscal changes.

The reduction of recurrent spending not only reduced domestic aggregate demand, but also spending in agricultural extension services. It also affected the maintenance of infrastructure, such as road networks. By and large, the reduction of public spending was associated with the stagnation or fall in output growth in the agricultural and manufacturing sectors in different adjustment periods.

Turning to fiscal revenue generation, improvements in revenue relied on short-term macroeconomic factors and GDP growth. The improvement of the fiscal deficit due to changes in macroeconomic conditions did not reflect lasting fundamental fiscal changes. For example, an increase in the price of coffee, tea, cotton and cashew nut and changes in tax rates resulted in the correction of the fiscal deficit in the 1976-77 period, but after the fall in the prices of commodities in the world market fiscal deficit was experienced again.

The composition of the fiscal adjustment policies partly accounted for a persistent fiscal deficit, despite several adjustments attempts. Fiscal adjustment policies did not lead to fundamental fiscal changes that had a sustainable effect on the expansion of the tax base and the correction of the fiscal deficit.

The government continued to increase investment in production and distribution of private goods and services in different adjustment periods. This was done despite low capacity utilisation and returns of on investments on public enterprise investments. The government aspiration to implement structural transformation led to increased public investment spending despite its low productivity and returns. Low productivity resulted in low growth of official GDP. This in turn limited the effect of fiscal adjustment policies in correcting the fiscal deficit and macroeconomic imbalances in Tanzania.

CHAPTER 3
LITERATURE REVIEW
OUTPUT GROWTH, PUBLIC SPENDING AND FISCAL DEFICIT

3.1 Introduction

Economic policy reforms adopted under the structural adjustment programme in Tanzania were intended to address the fiscal deficit, stimulate economic growth and attain macroeconomic stability. This chapter examines the theoretical and empirical literature on the relationship between public spending and output growth. It also reviews the evidence on the impact of fiscal adjustment policies on the correction of the fiscal deficit and output growth. The purpose of the review is to highlight issues that require attention in the analysis of the impact of fiscal adjustments policies on correcting the fiscal deficit, and implications for macroeconomic stability in Tanzania. In addition, the review aims to identify areas widely covered in the literature and topics for further research.

The chapter is organised as follows. After this introduction, Section Two dwells on the relationship between public spending and output growth. Section Three examines the relationship between output growth and tax revenue, followed by Section Four on output growth stability and public spending. Section Five reviews the literature on the impact of the international economy on output growth. Section Six dwells on fiscal adjustment policies and their impact on output growth and public spending. Section Seven reviews previous studies on fiscal adjustment policies in Tanzania. The last section is a conclusion.

3.2. Relationship between Public Spending and Output Growth

The relationship between public spending and output growth has been a topic for research in public finance and macroeconomic modelling (Biswal, Dhawan & Lee 1999; Easterly & Rebelo 1993; Kolluri, Panik & Wahab 2000; Temple 1999; Ansari 1993; Aschauer 1989b). While in public finance the research studies have focused on understanding the causes of growth of the public sector, the emphasis of macroeconomic modelling has been on analysing the short- and long-term impact of public spending policies on output growth. Understanding the effect of public

spending on output growth provides an insight into the possible effect of fiscal adjustment policies on correcting the fiscal deficit.

3.2.1 Public Spending and Output Growth in the Short-term

Keynesian and neoclassical models explain the relationship between public spending and output growth in the short-term. These theoretical models are reviewed in order to have an insight into their relevance in explaining the impact of fiscal adjustment policies on output growth in Tanzania.

3.2.1.1 Keynesian Model of Output Fluctuation

The Keynesian model explains the relationship between public spending and output growth in the short- and medium-term. According to the Keynesian model, public spending is autonomous and exogenous (Branson 1979; Levacic & Rebmann 1991). Thus, public spending is identified as a policy tool to influence output growth and short-term output fluctuations.

According to the Keynesian model, public spending cuts or the reduction of a fiscal deficit result in a decline in aggregate demand and income directly. They further affect aggregate demand through the negative multiplier effect. The consequences are a decline in output growth and an increase in unemployment.

The negative multiplier effect generated by public spending cuts or reduction in the fiscal deficit is partly offset during the adjustment process (Branson 1979). Specifically, public spending cuts have a crowding in effect resulting from the decline in the interest rate and currency depreciation. Therefore, although public spending cuts lead to low output growth, the decline in output will not be proportional to a decrease in aggregate demand. Furthermore, proactive fiscal policy can also be used to promote economic activities and employment. Through multiplier effects, expansionary fiscal policy is expected to positively influence output growth.

Notwithstanding the Keynesian model's proposition that public spending affects output growth, empirical studies suggest that the composition of public spending determines its impact on output growth (Biswal, Dhawan & Lee 1999; Kolluri, Panik & Wahab 2000). Ansari (1993) in his study of the applicability of Keynesian theory

in Canada, found that an increase in public spending on health was positively associated with GDP growth. Ansari (1993) also observed that payments for public debt were positively related to GDP growth. In another study, Biswal, Dhawan & Lee (1999) also observed that public debt repayments were associated with an increase in GDP growth.

Despite the evidence highlighted above on the effect of public spending on output growth, public spending may have no effect on output growth. Ansari (1993) and Ahsan, Kwan & Sahni (1992) argue that public spending does not always constitute output enhancing policy. In their study to validate the Keynesian hypothesis in Kenya, Ghana and South Africa, Ansari, Gordon & Akuamoh (1997) observed that an increase in public spending was not associated with output growth in those countries. Al-Faris (2002) also presented similar findings in his study of the relationship between public spending and output growth using a Keynesian model in the Gulf countries.

A negative relationship between public spending and output growth in African economies may be attributed to a number of factors. Public spending on defence, subsidies and wages has a negligible impact on productivity and on output growth. Therefore, an increase in public spending on unproductive categories is not expected to result in the rise of output growth. In addition, public spending in education and health takes a long time before the effects on productivity and output growth are realised (Al- Faris 2002).

An increase in public spending has an effect on output growth if the budget constraint is binding (Kweka & Morrissey 2000) An increase in public spending when a government faces a soft budget constraint accelerates inflation and negatively affects output growth. Thus, for an increase in public spending to have a positive impact on output growth, the fiscal deficit needs to be contained and budget constraint be binding.

Tanzania experienced high inflation and a persistent fiscal deficit over three decades. One of the reasons was that the government could borrow funds from commercial banks. In addition, the government was able to monetise the public debt. Public

enterprises that also were part of the public sector could also get bank credit. This suggests that the public sector constituting government and public enterprises had a soft budget constraint. This soft budget constraint was associated with macroeconomic instability in Tanzania. Under such conditions, an increase in public spending could not result in a rise in output growth.

3.2.1.2 Neoclassical Theory on the Relationship between Public Spending and Output Growth

According to neoclassical theory, fiscal consolidation has an impact on output growth through its effect on aggregate demand and the labour supply (Levacic & Rebmann 1991). In particular, fiscal consolidation has an effect on disposable income, the inflation rate and interest rates, all of which affect private consumption and investment spending decisions. However, the effect of fiscal consolidation on output growth depends on the fiscal adjustment policies adopted and their credibility.

In high debt countries, credible discretionary fiscal adjustment policies, involving public spending cuts, have a positive effect on private consumption and investment spending because they influence the expectations of individuals and investors. Public spending cuts are associated with a reduction in the inflation risk and the default risk premiums. The fall in risk premiums lowers the interest rates leading to an increase in public net worth. The increase in net worth raises private wealth and consumption. Similar effects are expected when the public debt consists of long-term bonds. In this regard, fiscal adjustment policies may also have a positive impact on private demand and output growth, particularly if the demand is sensitive to the interest rate. An increase in aggregate demand assures investors' profits and acts as an incentive for increasing investment spending. In this regard, discretionary fiscal policy may have positive effects on output growth in a country characterised by high public debt.

Fiscal consolidation is also associated with a fall in expected inflation rates and may have a positive impact on aggregate demand. In particular, if public debt consists of fixed rate nominal bonds, the fall in the expected inflation rate raises the market value of bonds. An increase in the market value of the debt generates capital gains, which may have a positive effect on private consumption spending.

Thus, according to neoclassical theory, public spending cuts have a positive effect on output growth. However, similar policy may have a negative effect on output growth. In this regard, the effect of the policies on output growth becomes an empirical issue.

Research studies suggest that fiscal adjustment policies consisting of large public spending cuts are associated with an increase in private consumption spending and a rise in aggregate demand (Giavazzi & Pagano 1990b; McDermott & Wescott 1996). In high debt countries, large public spending cuts generate anticipations that a government is serious about policy changes. It also generates an expectation that the policies will not be reversed. Therefore, individuals expect to pay low taxes in the future. Reductions in public spending are also associated with low risk premiums and low interest rates because of credibility effects generated by fiscal consolidation measures.

Examples of the positive impact of the credibility of fiscal consolidation policies on output growth include Canada, Sweden, Ireland and Denmark (Giavazzi & Pagano 1990b; McDermott & Wescott 1996). In the mentioned countries, fiscal consolidation involved public spending cuts, particularly of transfer payments and the wages in the public sector. These were the fastest growing public spending components. Public spending cuts generated the credibility of adjustment policies and were associated with the lowering of risk premiums and interest rates. Low interest rates increased private consumption spending of interest sensitive goods, particularly, in Canada, Ireland and Sweden (Alesina & Perotti 1997; Giavazzi & Pagano 1990b). An increase in private consumption spending was associated with output recovery and growth during the stabilisation epoch in those countries.

The positive effect of fiscal consolidation on aggregate demand and output growth depends on the level of development of the financial and property markets in a country. Developed and competitive financial markets enable governments to finance the budget deficit through borrowing from the public. In addition, the financial market may respond to changes in government policies such as public spending cuts by reducing interest rates (Alesina & Perotti 1997; Giavazzi & Pagano 1990b).

Tanzania had less developed financial markets. The government used to borrow from the domestic bank and monetised public debt in financing the total fiscal deficit (Kimei 1987; Ndulu 1987; United Republic of Tanzania 1997). Before the banking and financial institutions reforms, the government controlled the determination of interest rates and credit allocation. In particular, financial markets were characterised by financial repression (Kilindo & Nyagetera 1995; Nyagetera 1992). In addition, the inflation rate was persistently high and real interest rates were negative.

Financial repression enabled the government to get credit from banks at lower interest rates and limited the accessibility of the private sector and individuals to bank credits (Nyagetera & Kilindo 1995). In such a situation, fiscal adjustment policies could not have the positive impact of reducing interest rates and increasing interest sensitive private consumption. From the above discussion it is possible that the changes in fiscal adjustment policies could not result in an increase in aggregate demand and output growth in the short-term in Tanzania.

3.2.2 Output Growth in the Long-term

Macroeconomic models also explain output growth in the long-term. The sources of output growth differentiate new growth models from neoclassical models. According to the new growth models, per capita output growth is endogenous, an issue that is not addressed by neoclassical models. The two types of the models are discussed in this section.

3.2.2.1 Neoclassical Long-term Growth Model

Neoclassical growth models explain complex output growth process in a simplified unified framework. The growth models are built on an aggregate and constant return to scale production function. The function explains the production process as a combination of capital and labour inputs. From the combination of capital and labour inputs and a given technology, a composite good is produced (Blanchard & Sheen 2004; Branson 1979). Neoclassical growth models adopt a Cobb-Douglas production function to analyse output growth. In this regard output per worker is explained as a function of technological progress and the capital to labour ratio.

Apart from the production function, the neoclassical models constitute functions explaining the supply of inputs. The first function includes the saving and investments as a fixed proportions of output. The second function stipulates that the labour force growth rate is exogenously given.

When examining growth in the context of neoclassical growth models, the focus is on determining whether the production function yields a dynamic system that tend towards equilibrium values of capital per worker, output per worker, and capital per output (Blanchard & Sheen 2004; Branson 1979). Specifically, in an economy characterised by full employment of capital and labour, with savings and investment as a proportion of output, and population growing exogenously, per capita output growth will tend towards an equilibrium path. In equilibrium, the capital labour ratio and output per worker grow at a constant rate. Once the equilibrium capital labour ratio is attained, capital will grow as fast as labour to maintain an equilibrium capital labour ratio. In addition, in the context of the neoclassical model if the population growth and technological progress are constant, output per labourer and the capital-labour ratio grow at a constant rate.

According to neoclassical growth models, government policies cannot influence the output growth rate. However, policies that aim to stimulate saving or investment have an impact on the level of per capita income in the transition path to steady state growth. An increase in saving and investment result in a proportional increase in the level of capital output ratio and do not affect the output growth rate.

The features of the neoclassical growth models have implications for explaining the growth process in Tanzania. The growth model suggests that advancement of production technology, an increase in saving rates and population growth are essential for raising steady state per capita output growth. This also implies that countries with low per capita income and a low standard of living are able to grow fast during the transition period and attain the same level of income, similar to that of the high-income countries.

Low-income countries can grow fast because they have low capital stock and abundance of labour. An increase in the capital stock leads to an increasing marginal

product of capital and output growth in the early stages of development in low-income countries. However, in the long-term, output growth will decline because of the law of diminishing returns (Blanchard & Sheen 2004; Crompton et al. 2002; Branson 1979). The contention of convergence of growth across the countries needs to be examined in relation to the description of the model.

Population growth also varies across countries. In addition, it is not obvious that high population growth correlates with high per capita output growth. While high-income countries experienced low population growth, developing countries had experienced rapid population growth in the past three decades (Birdsall 2003). However, rapid population growth was not associated with an increase in the per capita output growth rate in most of the developing countries. In this regard, though population growth is important for economic growth, it may not necessarily result in a high per capita income growth in developing countries.

The neoclassical growth models also highlight that output per capita and labour per capita grow proportionally at a constant rate at equilibrium. However, such a condition may not always hold because capital and labour may have different growth rates. In any country, there may be a mismatch between the growth of the labour force and capital and the consequence is a fall in output. For example, the expansion of education in South Korea before 1960 caused increased unemployment because the economy was growing slowly and the capital was inadequate. In addition, employment opportunities were restricted to the public sector only (Temple 1999).

Neoclassical models also highlight that domestic saving has an impact on the output growth rate (Blanchard & Sheen 2004). Higher saving rates enable a country to achieve the higher level of the growth rate of output per capita in the long-term. In this regard, countries with higher saving rates will achieve higher output per capita compared with those with low saving rates. Notwithstanding the importance of savings in output growth rate, the model does not explain how to increase domestic saving in the countries characterised by low income and consumption level such as Tanzania.

In the context of the neoclassical growth models, technical progress is regarded as exogenous. Technological progress is associated with an increase in the population of researchers and the invention of new ideas (Jones 2002). In addition, technological progress is motivated by the need to invest in new products or methods of production in order to maximise profits. Neoclassical growth models ignore the factors that motivate individuals to invent new technology or ideas and their consequence on productivity. The models overlook the association between human capital and the stock of knowledge with technological progress. Technical progress is associated with variation in productivity and output growth.

Overall, the neoclassical growth models highlight the importance of the growth of capital, labour and exogenous technical progress in realising an increase in output growth. However, the models overlook factors that motivate technical progress and productivity. Human capital and stock of knowledge are important factors that account for increased productivity and output growth in the long-term. They also explain the variation in per capita output level and growth in different countries.

This suggests that government policies should focus on supporting activities that enhances factor productivity such as human capital accumulation. However, for Tanzania both factor accumulation and productivity growth are important for attaining high output growth in the long-term because the economy is characterised by both low capita stock and productivity growth.

3.2.3 New Growth Models

Apart from the neoclassical growth models, new growth models also explain economic growth in the long-term (Jimenez 1995; Jones 2002; Lucas 1988). The models describe the ways in which the steady state growth process is endogenised. These models highlight the importance of human capital, the stock of knowledge and public investments in generating output growth.

Two main approaches are used to explain the generation of endogenous growth process in the long-term. The first approach explains endogenous output growth as a function of aggregate reproducible capital using the AK model. The second approach describes endogenous output growth through models that incorporate externalities in

the production process (Jimenez 1995; Jones 2002; Lucas 1988). The endogenous growth models highlight the role of technological progress and the forces underlying technical progress in explaining output growth.

3.2.3.1 AK Model

The "AK" model explains endogenous output growth as a function of reproducible capital (Jones 2002). The model is built on two functions. The first specifies output growth as a function of a positive constant, representing technology progress and a composite capital. Composite capital constitutes physical capital and human capital. The second function specifies capital accumulation as a function of saving net of depreciation.

The key feature of the model is that output is linear function of capital and that the marginal product of capital is always positive. In the long-term, output growth is equal to growth rate of capital. In this regard, an economy continues to grow provided total investment is higher than the amount of capital that is depreciated. Therefore, according to the AK model, output growth is an increasing function of the investment rate. Thus, governments need to introduce policies that emphasise an increase in investment in order to realise high output growth.

The fact that the AK model emphasises the role of investment in realising high output growth provides an important lesson to developing countries like Tanzania that are characterised by low investment and capital stock. However, the model does not explain the conditions under which a country can realise high investment and spearhead output growth. The Tanzanian government attempted to mobilise domestic resources by taxing the agricultural sector and investing in manufacturing industries as part of the efforts to spearhead economic growth. However, the country realised low output growth in three decades.

Foreign Direct Investment is one of the factors that have contributed to rapid growth in the East Asia economies. However, the inflow of FDI tends to favour some regions of the world. The inflow of FDI to Africa is minimal because it is regarded as

a risk region (World Bank & United Republic of Tanzania 2001b) [6]. In this regard, Tanzania and other regions have limited opportunity to acquire investment from external sources. Notwithstanding the limitations affecting high investment and output growth, sound macroeconomic policies provide an opportunity for a country to mobilise investment that can spearhead rapid economic growth.

3.2.3.2 Lucas Model

The Lucas model is an endogenous growth model that introduces human capital into the production function (Jones 2002). The model highlights the importance of human capital accumulation in explaining output growth processes in the long-term. According to Lucas (1988) human capital accumulation accounts for the variation in per capita output levels and growth rates in different countries.

The Lucas model is an extension of the neoclassical model. In this regard, the main feature of the model regarding the aggregate production function and involvement of the factor inputs are similar to model explained in section 3.2.2.1 and 3.2.3.1. However, the assumptions underlying technological progress differentiate the Lucas model from the neoclassical models discussed earlier. The main assumption underlying the model is that human capital is a key to technological progress and is endogenously determined.

According to the Lucas Model, human capital is defined as the general skill of an individual worker (Jimenez 1995; Jones 2002; Lucas 1988). Additions to human capital make a worker more productive. In addition, the accumulation of human capital is determined by an amount of time an individual allocates to production processes and the accumulation of knowledge. However, the allocation of time to accumulating knowledge involves sacrifice in terms of the foregone leisure. Furthermore, the accumulation of human capital also underlies technological progress and the level of per capita output.

In the context of the Lucas Model, human capital has internal and external productivity effects. Internal productivity refers to the human capital effect on the

---

[6] In the 1990s Tanzania experienced a rapid increase in FDI. However, a large part of the FDI was directed towards the mining sectors, particularly gold and gemstone.

productivity of an individual worker. External productivity refers to an increase in productivity of all workers as a result of an externality effect generated by workers with human capital. The externality effect accrues to all workers regardless of individual workers' decision to accumulate human capital. In this regard, output per worker is determined by human capital per worker and rate of human capital accumulation.

Although it is true that both human capital accumulation and technology result in increased output through their externality effect, the condition through which they are generated may not guarantee a positive impact on output growth. Under a purely competitive equilibrium, individuals or firms involved in human capital accumulation or technological development may not be able to reap the benefit of their investment (Jimenez 1995; Lucas 1988). In such a situation, human capital may be underinvested, leading to an equilibrium growth rate that is lower than the optimal growth rate.

This suggests that government intervention through public spending is necessary in order to correct for underinvestment in human capital. Also, it implies that for a country to attain increased output growth, more investment in human capital is a prerequisite. Notwithstanding the importance of increased government investment in human capital, the priority of government spending in different levels of education is also important. In Tanzania, while the government paid much attention to the provision of primary education, less attention was paid to secondary and tertiary education leading to an inadequate skilled workforce (World Bank & United Republic of Tanzania 2001b;Bol 1995). As a result productivity in agricultural and manufacturing sectors was low.

3.2.3.3 Public Investment Spending and Output Growth

In the context of endogenous growth models, different research studies have introduced public spending as an additional factor explaining output growth in the long-term (Aschauer 1989b; Khan 1990; Kweka & Morrissey 2000). The studies adopted a neoclassical growth model framework to analyse the effect of the different components of public spending on productivity and output growth (Aschauer 1989b; Khan 1990; Kweka & Morrissey 2000). The models have features similar to those of

neoclassical models with regard to aggregate production functions and the growth of factor inputs explained in Section 3.2.2.1 and 3.2.3.1. Specifically, the aggregate production function specifies output growth as a function of technological progress, capital, labour and public spending. The underlying assumption is that public spending results in a flow of public service to the factors and thereby it increases productivity of the factors used in the production process.

In the context of a neoclassical framework, Aschauer (1989b) examined the relationship between total public investment spending and output growth in USA. The results suggested that public spending was associated with productivity and output growth in different periods. In particular, he observed that the decline in productivity and output growth were preceded by a decline in public spending. The findings that public spending is associated with output growth were confirmed by Ram (1986) who observed that public spending has positive externalities and therefore contributes to output growth. The public spending contribution also arises from the effect of the flow of public services and impact of public investments on private decisions.

In order to have a further insight into the impact of public spending on output growth, Aschauer (1989a) introduced different components of public spending in the model. He introduced public structures and equipment as proxies for public capital. The results revealed that while public spending on structures had an impact on output growth, spending on equipment was not associated with output growth.

Aschauer (1989a) also examined the impact of public infrastructure spending on productivity and output growth in the USA. Components of infrastructure spending were streets, highways, airports, electricity and gas facilities and water systems. The results revealed that infrastructure spending has an impact on output growth and productivity. This suggests that it is not total public spending that has positive effects on output growth, but specific public spending components. Specifically, public spending had an impact on productivity of capital and total factor productivity growth.

Kweka & Morrissey (2000) also examined the impact of public spending and output growth in Tanzania. They used a growth accounting method to analyse the effect of the different components of public spending on output growth in the 1965-96 period. They also analysed the impact of different public spending components on private investment. Public spending was decomposed into public physical infrastructure, consumption spending and human capital outlays.

The results revealed that various components of public spending had a different impact on output growth. The results showed that while public physical infrastructure spending was associated with low output growth, consumption spending was related to positive output growth. Public spending on human capital was observed to have no impact on output growth in Tanzania.

The finding that public physical spending has no impact on output growth confirms the finding of Devarajan, Swaroop & Zou (1996), who observed that public investment spending was characterised by inefficiency in Tanzania. In addition, macroeconomic instability may have restricted the impact of public spending on output growth because of the limited response of the private sector to undertake economic activities. The findings of Kweka & Morrissey (2000) imply that in Tanzania, public spending may result in output growth, if it is characterised by an increase in efficiency. Therefore, although an increase in public spending is required in order to attain high output growth, the efficiency of public spending is equally important.

The finding that human capital had no impact on output growth conforms with the finding of Aschauer (1989a;1989b) who found that education spending had no impact on output growth in USA. This may be attributed to the fact that public spending in education takes a long time to have an impact in the economy.

The study results of Kweka & Morrissey (2000) also highlight the importance of differentiating components of public spending to understand their effect on output growth. The differentiation of public spending components is important because various components of public spending have different impacts on productivity and on private investment spending, private income and private consumption. In this regard,

different components of public spending had a varied impact on output growth in the long-term.

However, while some years ago a clear distinction between public and private investment spending was possible, the increasing withdrawal of government involvement in the economy through privatisation and contracting of public infrastructure makes the distinction between public and private investment spending less clear. For example, in Tanzania, private firms contracted to supply water were also required to invest more on water supply facilities (Guardian 2005). Thus, private investment spending augments public investment spending. The role of public investment in output growth may be minimal as that of private sector grows over time and that of the government declines.

The discussion has so far highlighted the relationships between national income and public spending. Government spending causes rises in output. But, government spending policies can also contribute to a fall in income. The decline in output will affect fiscal revenue generation (Blanchard & Giavazzi 2003)

A balanced budget rule requires that government spending match revenue. Such a budget approach affects spending and national output, since reduced government spending may restrict output growth in the short-term. In this regard, a balanced budget may cause a decline in output and reduce the government tax revenue base. The reason is that public spending and national income are related by causal feedback mechanisms (Singh & Sahni 1984).

Tanzania pursued fiscal policies that restricted public spending from 1980 to 1985. In addition, between 1996 and 2000, the government adopted a balanced cash budget system. Although the budget system was useful for correcting the fiscal deficit and reducing the inflation rate, the policies had a negative impact on output growth. The World Bank & United Republic of Tanzania (2001b) acknowledge that the balanced cash budget system resulted in low output growth in Tanzania between 1996 and 2000.

In sum, public spending has a significant role in facilitating output growth in the short- and long-term. Increased output growth not only results in an increase in goods and services to citizens but also provides an opportunity to increase tax revenue. However, in Tanzania, public spending in productive activities had fluctuated widely or was very low partly because of inappropriate economic policies or low tax revenue. Unproductive public spending has a negative impact on output growth and on the creation of the tax base.

3.3 National Income and Tax Revenue

The emphasis in the public finance literature is on the national income contribution to government tax revenue and fiscal performance (Diamond 1977; Easterly & Rebelo 1993; Kerr 1993). Growth of real income results in higher tax revenue. Higher government revenue leads to increased public spending, even if used to repay debts. Increased revenue eases the fiscal revenue constraint. Kolluri, Panik & Wahab (2000) argue that a growing economy generates additional tax revenue and creates opportunities for the government to increase the public spending level.

Furthermore, Easterly & Rebelo (1993) and Ariyo (1997) point out that there exists a relationship between the fiscal structure and the level of a country's development. Easterly & Rebelo (1993) and Ariyo (1997) highlight that government revenue, as a proportion of GDP, is associated with the growth of per capita GDP. This relationship also determines the fiscal structure of a particular country. They argue that as national income rises the government depends more on income and consumption taxes and less on international trade taxes. This is a situation particular to industrialised countries.

Most developing countries largely depend on international trade as a source of government revenue because trade taxes can be easily administered and efficiently collected. Trade taxes contribute about 30 percent of total tax revenue in Tanzania. In order to increase tax revenue, one of the strategies is to increase per capita income. This could be achieved through public spending that stimulates private investment.

The World Bank and IMF insist that developing countries, particularly those pursuing the stabilization programme, rely on income and consumption tax and less

on international trade taxes (World Bank & United Republic of Tanzania 1999;2001a; World Bank 1996). In this respect, tax reform programmes have been introduced in a number of developing countries, including Tanzania, in order to change the tax structure and increase tax revenue generation (World Bank & United Republic of Tanzania 2001b; Osoro 1994). This implies that developing countries have to raise their GDP growth in order to generate more tax revenue and ease the revenue constraint. This requires appropriate polices that contribute to national income growth, tax base expansion and minimize tax evasion.

In developing countries, one of the factors that determines tax evasion, revenue generation and the success of the stabilization policies is real income level (Fishlow & Friedman 1994). A shock on current income and an increase in the ratio of expected current to future income leads to low tax compliance (Chipeta 2002; Fishlow & Friedman 1994). The shock in current income results in low tax revenue because individuals adjust their behaviour through low tax compliance to compensate for the loss of their income. Therefore, countries that experience low GDP growth are expected to experience a decline in tax revenue because of low tax compliance.

Crane & Nourzad (1986) observed that economic expansion had a positive effect on correcting the budget deficit. But tax evasion as revealed by the underreporting of income may neutralize the effect of GDP growth on correcting the fiscal deficit. However, the part of the income that is not reported, decreases as GDP rises depending on the risk function. Under the Arrow Hypothesis of increasing relative and absolute risk aversion, an increase in real income results in a reduction in the proportion of income that is underreported (Fishlow & Friedman 1994).

Many studies have focused on examining the evasion of income taxes (Alm, Bahl & Murray 1990; Crane & Nourzad 1986; Yaniv 1990). In developing countries, both direct and indirect taxes are affected by tax evasion, although the magnitude of the evasion for respective taxes may differ. Fishlow & Friedman (1994) observed that in Chile, revenue from VAT declined during the recession of 1982. Chipeta (2002) also identified that large tax evasion in business income tax, import duties, export taxes and excise duties occurred in Malawi in the 1970-90 period. Pay as you earn taxes,

stamp duties and licence taxes were characterised by increased compliance. However, taxes characterised by low compliances are the major sources of tax revenue generation. In Tanzania, the fall in real income was associated with the growth of informal economy and tax evasion.

Different factors that had led to the development of the informal economy had influenced tax revenue generation and efforts to correct the fiscal deficit in Tanzania. An economic policy regime that was characterised by excessive control in foreign exchange markets and on prices of goods and services was associated with the growth of the informal economy (Maliyamkono & Bagachwa 1990). In addition, low output growth and a high inflation rate are identified to contribute to enlargement of the informal economy (Tundui 2002; ESRF & TBC 1997).

Low income and returns compel individuals to undertake economic activities in the informal economy in order to raise their income. The development of the informal economy is associated with reduced tax revenue because it involves activities and transactions that are not recorded in the official national accounts and fall outside the tax system (Chipeta 2002; ESRF & TBC 1997). The growth of the informal economy relative to the official economy also affects tax elasticity and buoyancy in respect to total tax revenue (Chipeta 2002).

Tax evasions have negative effects in countries pursuing stabilization policies. Low tax compliance affects tax revenue generation and efforts to correct the fiscal deficit. The impact may be large if the government has no alternative sources to finance the deficit or resort to inflation tax (Fishlow & Friedman 1994). Inflation tax has a negative effect on output growth and may jeopardize government efforts to stabilize the economy.

Inflation also has an effect on reported income and tax revenue. Inflation reduces nominal disposable income and induces individuals to evade taxes. However, the effect of the inflation on tax evasion depends on the attitude towards risk. If risk aversion increases with real disposable income, a positive relationship between the inflation rate and evasion may be expected. Crane & Nourzad (1986) found that an increase in inflation rate was associated with unreported income.

Fishlow & Friedman (1994) emphasise the distinction between the inflation tax and inflation rate in analysing tax compliance. They argue that the inflation tax leads to low tax compliance because it reduces private income. In addition to the inflation tax, the inflation rate also affects tax compliance in an economy characterised by low nominal GDP growth. A high inflation rate and low nominal income lead to low real income, that is associated with tax evasion. In this respect, compliance determines the size of the fiscal deficit and the inflation tax requirement.

The tax system also determines government revenue and public spending growth. Kerr (1993) points out that an unindexed progressive tax structure provides an income elastic revenue base in industrialised countries. A high inflation rate results in higher money income. With progressive income tax, revenue increases as well as public spending.

However, the progressive tax system that supported increased government revenue in the 1970s and 1980s in industrialised countries is not applicable in most economies today. The adoption of policy reforms in the 1980s aimed to keep inflation at a low level. Monetary policy that targets low inflation restricts tax revenue generation through an unindexed progressive tax structure. Therefore, governments can no longer generate revenue via a high inflation rate. But, the implication is that governments will have to expand their tax base in order to raise more tax revenue. A number of countries that adopted the stabilization programme have attained increased output growth and low inflation. However, Tanzania had recorded low output growth even after adopting stabilisation policies.

3.4 Output Stability and Public Spending

Normally, the output level and growth stability provide governments with an opportunity to determine public spending levels consistent with macroeconomic conditions of a particular country. Stable national income growth enhances prudent fiscal policy actions. In addition, determination of the changes on the pattern of public spending growth is important for policy analysis.

3.4.1 Output Stability

Low output growth is associated with a persistent fiscal deficit in both industrialised and developing countries. Giavazzi & Pagano (1996) and IMF (2001) argue that a slowdown in economic activities in European Union countries caused a widening budget deficit in Germany, Italy and Spain between 1993 and 1997. Moreover, Gavin & Perotti (1997) point out that low output growth resulted in pro-cyclical fiscal policy and a fiscal deficit in Latin American countries in the 1980-88 period.

Broendal (1986) and Saunders & Klau (1985) also argue that a persistent deficit experienced by some OECD countries in the early 1980s is related to a low output level. A low national output level also affects the public spending level in Tanzania because it is associated with low and fluctuating government revenue as well as a fiscal deficit (Osoro 1997). Output volatility also affects fiscal performance and policy formulations.

The experience of Latin American countries and OECD countries including Tanzania highlight difficulties in overcoming the fiscal deficit because of low output growth or GDP fluctuations (Treasury 2002; Gavin & Perotti 1997; Osoro 1997). Income instability results in unrealistic fiscal policy targets and public spending levels because the governments cannot foresee the implications of output volatility on revenue. Treasury (2002) points out that the UK experienced output volatility for a number of years. Instability in public spending and a fiscal imbalance persisted along with output fluctuation. The negative effect of output fluctuations suggests that macroeconomic stabilization is important for improving fiscal performance.

In Latin America, low output growth was a result of the pro-cyclical policies the governments had pursued. Governments pursued such policies because they faced liquidity constraints (Gavin & Perotti 1997). Unreliable economic policies pursued by governments limited their accessibility to financial markets and this aggravated financial constraints and macroeconomic instability.

Stable output growth facilitates the determination of medium term public spending and its financing. In this regard, macroeconomic stabilization provides an

opportunity for countries like Tanzania to improve their fiscal performance. However, improvement in fiscal performance depends on the propagation mechanism that leads to output stability (Kose & Riezman 1999). Smoothing out of output growth depends on government policies that insulate the economy from demand shocks and contributes to productivity growth. Different research studies have identified varying reasons for output stability.

Kim & Nelson (1999) investigated output stability in the post war period for the US economy using a Bayesian approach. The authors identified two causes for a decline of output fluctuations in USA: firstly, stabilization of output is attributed to a decline in volatility of real GDP growth and secondly, structural breaks in real GDP, that is narrowing of mean growth rate gap, during recessions and expansions. The authors found that structural breaks contribute to the stabilization of GDP. However, they do not give reasons for the narrowing of the mean GDP growth rate in the period under study.

Debs (2001), McConnel & Quiros (2000) and Simon (2001) investigated output stability in different countries. Their studies sought to identify structural breaks in output and reduction in output volatility. The studies also examined the causes for stabilization of GDP. The studies confirmed a decline in GDP fluctuations due to a narrowing of the mean growth rate. Moreover, they attributed the stability of output to a decline of its fluctuation as a result of shocks.

Research studies point out a number of reasons that explain output stability experienced in different countries. They include economic structural changes and smaller effects of exogenous shocks in different economic sectors. Output is also stable because of domestic economic policy changes that protect the economy against external productivity shocks. The significance of the factors varies in different countries (Kose & Riezman 1999; Simon 2001).

In Germany, domestic policy such as the floating of the Deutschmark and accommodating monetary policy resulted in a narrowing of mean output growth rate between the recession and growth phase in the 1960-97 period (IMF 2001). In

France, a shift in macroeconomic policies and rigidities in the domestic labour market contributed to output stabilization. The stabilization of output through the narrowing gap between expansion and recession means that smoothness of output is achieved at the expense of a decline in output. Therefore, although output stabilization is the intended target, it may be achieved by sustaining a low output growth rate (Blanchard & Giavazzi 2003).

In another study, Simon (2001) investigates the causes of smoothness in output fluctuations in Australia in the 1990s. He identifies a decline in volatility of income during episodes of permanent shock as the main cause of output stabilization. The author argues that the economy was insulated from economic shocks due to policy changes and economic reforms. He further points out that changes in monetary policy that targeted the inflation rate and microeconomic reforms insulate the economy from temporary shocks.

Simon (2001) further analyses the effect of demand and supply shocks on output stabilization in Australia. Regarding demand shocks, he investigates a link between inflation and output volatility. Targeting the inflation rate resulted in the control of the price level. Domestic prices have become more stable and led to output smoothing. The significance of monetary targeting is also observed in Canada (Debs 2001). Price stability led to a stable aggregate demand that contributes to economic growth.

Inflation targeting is also an economic policy objective for Tanzania under policy reforms (Wangwe, Semboja & Tibandibage 1998). However, inflation volatility continued for some years after policy reforms. In the 1996-2000 period, inflation declined and stabilized at a low level. Wangwe, Semboja & Tibandibage (1998) found that policy changes provided conditions for hedging the economy against demand shocks. They have also modestly improved output stability in Tanzania.

Apart from the impact of macroeconomic policy in stabilizing output, microeconomic policies also contribute to output stabilisation. Simon (2001) argues that long-term supply factors are important in stabilizing output. Microeconomic reforms have improved productivity in manufacturing firms in Australia. The

improvement in firms' performance has also stabilized output. However, the author cannot assign a particular factor for productivity changes. He identifies change in the structure of the economy from manufacturing to services, an increase in skilled manpower, and employment opportunities. The shift of the economy from manufacturing to the service sector has also contributed to output stability in Canada and USA (Debs 2001).

In Tanzania, like most developing countries, neither the manufacturing nor services sector constitutes a large part of national output. Employment opportunities in the manufacturing sector are limited and the informal economy provides large employment opportunities. The largest part of the labour force is unskilled and engages in agricultural activities. In this regard, the economy is poorly insulated from long-term supply shocks. But, as highlighted above attainment of a low inflation rate in recent years provides an opportunity for stabilizing output and limiting the negative effect of demand shocks.

3.4.2 Structural Breaks and Break Dates in National Output Growth

Apart from the insight into the effect of policy changes on output stability, determination of a break date for structural changes is an important aspect of policy analysis. Scholars have not reached consensus on methods to determine structural breaks (Hansen 2001). As a result some studies have focused either on structural change in a specific period after an economic event such as post stabilization period or post business cycle in order to avoid controversy on the determination of the break date in the analysis (Debs 2001; Simon 2001).

The determination of stability and break dates in output trends also varied in different studies. Simon (2001) uses business cycle periods to study stability of output in Australia. Debs (2001) and Watson (1994) use quarter-to-quarter fluctuation in GDP to analyse stability in the US and Canada respectively. McConnel & Quiros (2000) analyse fluctuations in output on a year-to-year basis. Although determination of the period is dictated by data and the specific aim of the study, year-to-year fluctuations are relevant for ascertaining the impact of policy changes in a particular country.

McConnel & Quiros (2000) argue in favour of year-to-year fluctuations. The reason is that the process governing output fluctuation is an important element in macroeconomic research as well as policy. For analysis of stability of output in Tanzania, year to year fluctuations are significant. The reason is that policy makers such as the IMF and the World Bank assess the economic performance of the reforming countries on yearly basis.

Structural break and break dates have implications for public spending as well as the fiscal position. Firstly, the insight of a structural break and break-date provide the opportunity to control public spending as well as to project medium term spending. Secondly, structural breaks highlight the process governing output stabilization and they affect the fiscal position. Stabilization that is achieved by reducing the mean growth rate of an output gap during an expansion will affect the output level and the tax base.

The determination of the structural break in the output trend in Tanzania provides an opportunity to analyse the effect of fiscal policy on public spending and fiscal performance. The analysis also provides insights into the prospects of understanding the output growth pattern. In this regard, fiscal imbalance is better analysed through understanding the process involved in year to year fluctuations of output and the determination of the break date in the stabilization of output growth.

Overall, in Tanzania, policy reform introduced major fiscal policy changes in the mid 1980s. Specifically, fiscal adjustment policies aimed at correcting the fiscal deficit and stimulating output recovery and growth. The policy changes affected different sectors of the economy and public spending.

3.5 International Trade, Financial Market and Income Stability

Trade and financial market integration influence macroeconomic stability. They affect consumption, output and investment activities in different countries. In this regard, examination of the literature on the relationship between the global economy and macroeconomic fluctuations is worth pursuing in order to understand their effect on output growth and on fiscal performance. The motivation for studying macroeconomic fluctuations arises from first, understanding the link between poor

economic growth and macroeconomic volatility, and secondly, understanding the effect of macroeconomic instability on fiscal performance including public spending. Trade integration and financial market integration have different impacts on macroeconomic volatility in industrial and developing countries. Kose, Prasad & Terrones (2003) investigated the impact of both trade and financial integration on output and consumption in industrialized and developing countries. Developed countries were categorised into two groups of less and more financially integrated economies. The study found that output and consumption volatility was low in industrialised countries. In developing countries, volatility of output was higher in more financially integrated countries than in less financially integrated economies. Income volatility occurred because changes in the terms of trade results in high output volatility.

Moreover, in developing countries, increased financial integration is associated with consumption volatility but only to certain levels. Financial integration has a minor effect on consumption volatility in most low-income countries. The argument that financial market integration improves risk sharing and reduces consumption volatility is also not valid for most African countries. Although consumption and income volatility are associated with financial market openness, in most African countries the inflow and outflow of capital is minimal. Therefore, capital flows have a minimal effect on consumption and income.

Furthermore, the deterioration of the terms of trade is regarded as an important factor for influencing consumption and income volatility in African countries. Although, changes in the terms of trade affect both consumption and output volatility, the net effect is to reduce consumption volatility (Kose, Prasad & Terrones (2003). This is because the effect of changes in the terms of trade on volatility of consumption and income is non-linear. The changes in the terms of trade affect the relationship between consumption and output up to a certain threshold level, beyond which a negative relationship emerges.

Results from different studies reveal that changes in global trade affect consumption and output stability in industrialized and developing countries. In addition, volatility of output over time shows a different pattern. Output volatility was high in the 1970s.

However, in the 1990s output volatility declined in industrial countries and low-income countries (Kose, Otrok & Whiteman 1999; Kose, Prasad & Terrones 2003). In the more financially integrated economies, output volatility increased in the 1980s and remained unchanged in the 1990s. A similar pattern is observed for income volatility.

Developing countries are more susceptible to macroeconomic fluctuations because of the nature of their economies. The economies have a weak manufacturing base. Their foreign trade is composed of a few primary commodities. Additionally, the economies are vulnerable to terms of trade or price shocks originating from other countries. Kose, Prasad & Terrones (2003) argue that structural characteristics of the developing countries account for the relationship between financial openness and macroeconomic volatility.

The findings of Kose & Riezman (1999) reveal that trade and financial shocks affect output and investment in Africa. They point out that trade shocks account for 45 percent of output fluctuations and 80 percent of investment fluctuations. World interest rate shocks have no significant effect on output in Africa. Specifically, the study reveals that manufacturing output is more volatile than total output. However, in Tanzania, agricultural production constitutes the largest part of GDP. Output fluctuations are caused by vagaries of weather rather than trade and financial shocks (Lipumba & Ndulu 1989). The variation in the production of exportable agricultural commodities leads to the fluctuations in the supply of inputs and contribute to manufacturing output volatility (Kouassy & Bohoun 1994; Ndulu 1987).

Kose, Otrok & Whiteman (1999) highlight three aspects that affect output in developing countries. They identify first, that foreign trade is susceptible to foreign demand shocks. The countries experience output fluctuations because of limited diversification of exports. Secondly, sudden inflow or outflow of capital results in a boom-bust cycle corresponding to capital flows. Finally, world interest rate shocks also cause business cycles in highly indebted countries.

In their analysis of the impact of global trade and finance markets on macroeconomic fluctuations, Kose & Riezman (1999) identify the relative price of capital goods to

primary goods as contributing to output fluctuations. The relative price of capital goods is more relevant than the price of intermediate inputs. In Tanzania, fluctuations of prices and flows of intermediate inputs have affected production. Inadequate inputs result in capacity underutilization. Imports of capital goods have been arranged through bilateral arrangements or donor contributions. Volatility in global consumption and world interest rates does not significantly contribute to economic instability in developing countries like Tanzania. But, external price shocks affect private investment, national income and macroeconomic stability.

In Tanzania, fiscal adjustment policies together with policy reforms provide a scenario for the analysis of the relationship between output growth and tax revenue. Therefore, it is necessary to review evidence on fiscal adjustment policies and their consequence on public spending, output growth and tax revenue.

3.6 Fiscal Adjustments Policies and their Impact on Output, Public Spending and Revenue

The Tanzanian government adopted stabilization policies[7] so as to overcome macroeconomic imbalance and reverse output growth decline. The policies were designed to correct the fiscal and current account deficits, which were main macroeconomic imbalances in the economy. Fiscal adjustment policies were the key in correcting the fiscal deficit and attaining macroeconomic balances.

An analysis of the impact of fiscal policy on correcting the fiscal deficit and macroeconomic imbalance requires an insight into the adjustment process. The basic conceptual framework for analysing adjustment process is that of the free market economy (Mjema & Shitundu 1995). In a free market economy aggregate demand must equal supply for equilibrium to be attained. Disequilibrium leads to distortions in prices and allocation of resources in the economy. In Tanzania, the disequilibrium was indicated by a large and persistent fiscal deficit and a deterioration of current

---

[7] Stabilisation policies were implemented together with the structural adjustment programme. While stabilisation policies addressed internal and external imbalances, structural adjustment policies focused on reducing the government size and its involvement in economic activities, price and trade liberalisation, banking and financial institutions reforms, and market reforms. The IMF is responsible for stabilisation policies and the World Bank for structural adjustment policies. However, since the two institutions work together and stabilisation and adjustment policies were adopted concurrently, distinction of their roles is problematic. In this study stabilisation policy is also used to include structural adjustment policies.

account balance. Different theories attribute macroeconomic imbalances to various factors.

On one hand, the heterodox stabilization theory attributes macroeconomic imbalance to a balance of payment problem (Ter-Minassian & Schwartz 1997). In particular, excessive aggregate demand is identified as a cause of balance of payment problem. The problem leads to a high inflation rate and generates domestic currency overvaluation causing distortions in the allocation of resources in the economy (Montiel 1989). Reducing the fiscal deficit is viewed as a necessary policy measure to reduce excessive aggregate demand and high inflation as well as correcting the current account deficit.

On the other hand, orthodox stabilisation theory postulates that large and persistent fiscal deficit leads to imbalance between aggregate demand and supply. Therefore, the correction of disequilibrium requires policies that emphasize demand management and augment the supply side of the economy (Corbo & Fischer 1998). The Tanzanian government pursued orthodox stabilisation policies in different adjustment periods. However, prior to 1986, stabilisation policies were not comprehensive and were not fully supported by the IMF and the World Bank. Comprehensive policies were adopted following an agreement with the IMF and the World Bank on the stabilisation programme for Tanzania in 1986.

Both orthodox and heterodox theories emphasise the use of demand management policies to correct the fiscal deficit and adjust domestic prices. The Tanzanian government pursued public spending cuts or tax increases or both in order to correct the fiscal deficit and macroeconomic imbalances in different adjustment periods. In addition, the government pursued tight monetary policy and adjusted exchange rates in order to stimulate output recovery.

3.6.1 Effect of Fiscal Adjustment Policies on Output Growth

Fiscal adjustment policies such as spending cuts and tax increases affect output growth and employment in countries pursuing policy reforms because the disinflation of the economy occurs with the output decline. Additionally, the

macroeconomic policies adopted and the reallocation of public enterprise investment affects output growth and employment level.

Pirtillä (2001) and Subramanian (1997) highlight that stabilization and policy reform resulted in output decline and unemployment in countries pursuing policy reforms because of the closure of public enterprises and reallocation of investments. Tanzania has also experienced the closure of loss making public enterprises and privatisation. The closure of public enterprises negatively affected the output level. However, the slow privatisation process of public enterprises did not contribute to increased employment and output level.

Rapid reforms are expected to cause output decline and to be followed by a rise in income, as they create credibility as well as certainty of government policies, and avert the need for continuous tight fiscal policy. In their study of the effect of policy reforms in transition economies and Egypt respectively, Fischer & Sahay (2000) and Subramanian (1997) observed that as result of policy changes output declined and after two years of recovery, continuous output growth occurred. In Tanzania, fiscal adjustment policies were not able to create credibility and confidence among local and foreign investors in the initial years of the fiscal adjustment.

The specific fiscal adjustment policies pursued also influenced output growth. A reduction in government consumption spending implies less government borrowing and low domestic inflation. This provides favourable conditions for growth, because it enhances the efficiency of the price mechanisms in the economy and the allocation of resources.

Additionally, cuts in public investment spending affect the supply side of the economy because they increase domestic prices and the inflation rate. Subsequently, interest rates rise. In Tanzania, inadequate infrastructure has affected the output performance of the agricultural sector and expansion of the manufacturing sector and output growth as well (Bagachwa 1992; World Bank & United Republic of Tanzania 2001b). Therefore, a decline in output growth partly contributed to rising inflation in Tanzania.

The adoption of a fixed fiscal policy rule leads to lower real national income as well. A fixed rule policy leads to lower government spending and through a Keynesian multiplier effect, it reduces the national output. However, empirical evidence indicates that the Keynesian multiplier effect though positive is small (Purfield 2003).

3.6.2 Effect of Fiscal Adjustment Policies on Fiscal Revenue

Structural reforms also have an effect on fiscal performance. During the fiscal reforms, government size is reduced rapidly*,* resulting in a fall in tax revenue faster than expenditure (Pirtillä 2001). In addition, as previously mentioned in this chapter, the closure of public enterprise and the relocation of public investment negatively affects government revenue and is associated with the fiscal deficit. In Tanzania, closure and privatisation of loss-making public enterprises should have led to an improvement in the fiscal position instead of an increase in the fiscal deficit. Privatisation was meant to reduce pressure on government budget.

Búlir & Moon (2003) also argue that in countries pursuing policy reforms, a large decline in government revenue and grants are observed. The authors identify the reason as a decline in aid receipts. However, countries that were in the initial stage of a structural adjustment programme received large amounts of foreign funds. The flow of funds declined as the countries progressed to higher stages of implementation of the policies and were doing well (Fedelino & Kudina 2003).

Tanzania's government also experienced a revenue shortfall because of a decline in external budget support after 1992 (Doriye 1995). However, in the initial reform period (1986-92), the inflow of foreign funds increased. Notwithstanding the validity of Doriye's (1995) arguments, low real income is a main factor associated with tax revenue decline.

Persistent policy reforms are expected to have positive impact on government revenue (Pirtillä 2001). It is expected that through policy reforms, changes in tax and benefits including output growth will occur and improve government revenue. In

Tanzania, the government adopted tax changes and the economy indicated a modest improvement in output growth but fiscal revenue is still low.

Apart from tax, the government used the agricultural marketing boards, which were also public enterprises, to generate fiscal revenue (Kouassy & Bohoun 1994; Lipumba 1992). The government acquired revenue arising from exporting agricultural crops through the marketing boards. The marketing boards procured exportable agricultural commodities from farmers and exported them. They also appropriated the benefits arising from the correction of overvaluation of domestic currencies or increases in prices of commodities in the world market. However, policy reforms resulted in a shift of the role of marketing boards to cooperative unions and private enterprises. This may have had an impact on government revenue generation in Tanzania.

3.6.3 Effect of Fiscal Adjustment Policies on Public Spending

Policy reforms also have had an impact on public spending. Búlir & Moon (2003) found that countries under IMF support decreased further their already low public spending. The decline was motivated by the need to offset a revenue shortfall.

Apart from the need to offset a revenue shortfall, a decline in public spending is attributed to the inability of the government to raise revenue (Gupta et al. 2002). Countries such as those in Latin America, which pursued a fiscal adjustment programme were unable to mobilise adequate revenue to cover public spending (Gavin and Perotti 1997). The countries also have had limited access to credit because of macroeconomic instability. Consequently, governments have continuously pursued pro-cyclical policies. The Tanzanian government has also been unable to increase tax revenue generation because of low GDP growth as well as the inadequacy of the tax structure.

3.6.4 Factors Contributing to the Success or Failure of Fiscal Adjustment Policies

Research studies on fiscal adjustment attribute failure of fiscal adjustment policies to non-policy and policy factors. IMF (1999); Giavazzi & Pagano (1990a); Kouassy & Bohoun (1994) and Purfield (2003) attributed failure of fiscal adjustment policies to

economic shock or political economy factors. Purfield (2003) observed that the financial crisis in Russia and the fall in the prices of primary commodities in international markets resulted in the failure of adjustment policies in Belarus, Azerbaijan, and Estonia.

Kouassy & Bohoun (1994) also observed that the fall in world market prices of cocoa and coffee, the main export crops, negatively affected the adoption of fiscal adjustment policies in the Ivory Coast. However, in Tanzania, Lipumba (1988;1992) and Ndulu (1987) argue that the fall in volume of export crops and not the world market prices, contributed to difficulties in fiscal adjustments. In this regard, Lipumba (1988;1992); Ndulu (1987) attribute the fall of agricultural output to economic policies.

In addition, Alesina & Perotti (1995); Giavazzi & Pagano (1990a); McDermott & Wescott (1996) identified the success of fiscal adjustment policies as depending on whether a coalition or single-party government is ruling. Single-party governments stand a greater chance of adopting successful fiscal adjustment policies than a coalition government because consensus with regard to fiscal adjustment is easily reached among the policy makers. For the IMF-supported adjustment programmes, failure of fiscal adjustment programmes is attributed to a lack of ownership or derailment of reform programmes (Aiko 2003; World Bank & United Republic of Tanzania 2001b). When policy reforms are perceived to be imposed by foreign institutions, apathy among the local policy makers may develop.

Notwithstanding the effect of economic shocks and political economy factors on the success of fiscal adjustment, the nature and composition of fiscal adjustment policies are equally important. Agénor & Montiel (1996) and Ter-Minassian & Schwartz (1997) pointed out that inappropriate orthodox policy mixes, that is, fiscal and monetary policies, or excessive reliance on heterodox policies (wages and price freeze) without complementary fiscal policy measures resulted in failure of fiscal adjustments programmes in a number of developing countries. Ter-Minassian & Schwartz (1997) also found that a lack of fundamental and complementary reforms contributed to the governments' failure to correct the fiscal deficit in developing countries.

Furthermore, Purfield (2003), McDermott & Wescott (1996), Alesina & Perotti (1995) and Kouassy & Bohoun (1994) emphasised that the composition of fiscal adjustment policies determines their success in correcting the fiscal deficit. Alesina & Perotti (1995) and Purfield (2003) observed that large and long lasting expenditure-based fiscal adjustment policy results in successful fiscal adjustments. Tax-based adjustment policies are associated with unsuccessful fiscal adjustment and correction of the fiscal deficit.

However, Kouassy & Bohoun (1994) observed that the reduction of tariffs and external taxes as well as an increase in investment spending was an appropriate policy strategy for successful adjustment in the Ivory Coast. The reason for different policy suggestion is that in industrialised countries public spending cuts resulted in an increase in output because of the expectations-effects and inflow of foreign direct investments. However, in developing countries an increase in productive public spending is an important aspect for realising increased output growth.

Output growth is identified as an important condition for successful fiscal adjustment as it is expected to expand the tax base and increase fiscal revenue as well as maintain development momentum. Alesina & Perotti (1995) argue that not only the composition of adjustment policies but also output growth determines the success of fiscal adjustment policies. However, Alesina & Perotti (1995) were not explicit as to whether output growth in the short or long term was important for successful fiscal adjustments.

McDermott & Wescott (1996) and Kouassy & Bohoun (1994) also support the view that output growth is important for correcting fiscal imbalances in OECD countries. In their study on the effect of business cycles in correcting the fiscal deficit, McDermott & Wescott (1996) observed that short term output growth influenced the success of fiscal adjustment policies. Kouassy & Bohoun (1994) also found that output growth was important for successful adjustment in the Ivory Coast. Thus, fiscal adjustment policies that promote output growth provide an opportunity to correct the fiscal deficit and attainment of macroeconomic stability.

While short-term output growth is a concern for industrialised countries, in developing countries, both short and long-term growth are important for realising macroeconomic stability (Shitundu & Luvanda 2000). Output growth is important because of its implication for financing public spending through tax revenue. However, few research studies on fiscal adjustment policies have addressed the issue of financing public spending in the short- and long-term through taxation.

The design of tax policy also determines the success of fiscal adjustment policies in correcting the fiscal deficit in developing countries. Macroeconomic policies or changes in macroeconomic conditions may enhance or neutralise the effect of tax changes to increase tax revenue in the short-term. Ayoki, Obwona & Ogwapus (2005), Osoro (1994), Tanzi (1989) identify that macroeconomic condition determined the effect of tax policy changes on generating tax revenue and on fiscal balance.

Tanzi (1989) pointed out that a number of developing countries experienced a sudden increase or fall in the taxation level in a short period. He attributed such variation of tax revenue to changes in exchange rate and interest policies, as well as high inflation rate. These factors were inadequately considered in formulating adjustment policies and adversely affected efforts to increase tax revenue and correct the fiscal deficit in Tanzania.

Osoro (1994) also points out that tax policies that are poorly designed are associated with the inadequate tax revenue generation. Poorly-designed policies result in misallocation of the resources and compel individuals to exit the tax system, thus narrowing the tax base. In Tanzania, low tax revenue generation is also associated with the poor design of the tax policy during different adjustment periods.

Economic theories suggest that fiscal aggregates are related to output growth. In particular, fiscal adjustment policies affect output growth in the short, medium and long-term through the Keynesian and neoclassical expectation effects as well as positive externalities. Fiscal adjustment policies may have a contractionary or expansionary output effect. On one hand, according to Keynesian theory, fiscal adjustment policies, that is, public spending cuts or tax rate increases reduce

aggregate demand and income and through negative multiplier effects output growth decreases. However, the negative effect on output may be reduced through a crowding-in effect that results from lower interest rates and currency devaluation. Lower interest rate and currency devaluation mitigates the contractionary effect of the fiscal adjustment policies.

On the other hand according to neoclassical theory, fiscal adjustment policies influence output growth through expectations effects. In economies with large public debt and fiscal deficits, large public spending cuts result in output growth (Alesina & Perotti 1997; Giavazzi & Pagano 1990a). A reduced budget deficit, through spending cuts or tax revenue increases, lowers the default risk premium on the interest rate. Consequently, the value of wealth held by household increases as does aggregate demand.

In addition, a reduction of a fiscal deficit signals a reduced future tax burden. For households, the reduced tax burden implies an increase in their income leading to increased consumption. For private businesses, the expectations of a reduced tax burden signify a rise in after tax profits, leading to increased investment spending. An increase in household consumption and business investment contributes to output growth (Giavazzi & Pagano 1990b). However, limited development of the financial and property market renders the neoclassical theory irrelevant in explaining the relationship between public spending and output growth in the context of Tanzania.

The relationship between fiscal variables and output growth can be explained under static conditions. The financing of public spending through bank borrowing crowds out private investments and affects output growth. However, public spending may increase productivity and output growth through positive externalities or the public good effect (Tanzi & Zee 1997). The net effect of the crowding-out of public spending depends on the marginal productivity of the public and private sectors, particularly, on the effect of public spending on positive externalities.

Public spending that has no positive externalities makes a minimal contribution to the productivity of the private sector and output growth. Thus, an increase in public spending will not lead to output growth. In this regard, a decrease in public spending

is useful for output growth. This highlights the importance of the distinction between productive and unproductive public spending in the analysis of the impact of public spending on output growth.

3.7 The Review of the Some Previous Studies on Fiscal Adjustment Policies in Tanzania

Most of the studies on fiscal adjustment policies in Tanzania are part of the analysis of structural adjustment programme in the country. The studies on fiscal adjustment policies reviewed adjustment policies adopted either in the 1973-77 or the 1983-1985 or the 1986-2000 periods (Aiko 2003; Gibbon & Raikes 1996; Green, Rwegasira & Van Arkadie 1982; Ndulu 1987; Singh 1986). The studies analysed the impact of stabilisation policies and the outcomes on fiscal balances in Tanzania.

Green, Rwegasira & Van Arkadie (1982) analysed the adjustment policies, the Tanzanian government adopted to overcome macroeconomic imbalances in the 1973-1977 period. The authors pointed out that balance of payment constraints and structural fragility of the Tanzanian economy influenced the design of the fiscal adjustment policies the government had adopted and the respective outcomes. The Tanzanian government adopted adjustment programme that avoided demand deflation and diversification of exports.

Fiscal deficit declined for a short period between 1975 and 1977 as a result of the fiscal adjustment policies. Inappropriate policies in public spending were particularly associated with an increase in the fiscal deficit after 1977. Low priority in public spending in key areas such as infrastructure and the expansion of exports restricted the impact of adjustment policies in enhancing output growth and an increase in tax revenue. The Tanzanian government gave low priority in funding activities facilitating processing of agricultural products and growth of manufacturing output. Low output narrowed the size of tax base in Tanzania. The outcome was increased bank borrowing and monetisation of the public debt, as well as the failure to sustain fiscal stability.

Gibbon & Raikes (1996); Ndulu (1987) analysed fiscal adjustment policy measures to correct the fiscal deficit and their outcomes in Tanzania in the 1982-1985 period.

The authors pointed out that the design of stabilisation policies emphasised the dependence on foreign funds for correcting macroeconomic imbalances, including the fiscal deficit in Tanzania. The need to increase output growth and protect employment in the manufacturing sector influenced the composition of stabilisation policies and fiscal adjustment as well. Fiscal adjustment policies constituted increases in taxes, introduction of new taxes and reduction of public spending.

The outcome of the adjustment policies adopted in the 1982-85 was a modest decline of the fiscal deficit. Since the inflow of foreign funds was not forthcoming as anticipated, the inadequate importation of essential agricultural and industrial inputs resulted in low output growth in Tanzania. In addition, meagre inflow of foreign funds and low tax revenue resulted in monetisation of public debt.

In the 1982-85 period, the fiscal deficit is associated with structural weakness and economic policy regime in Tanzania. Ndulu (1987) argued that given the structural weakness of the economy, Tanzania needed policies that focused on medium or long-term issues that enhance output growth and macroeconomic stability. It was necessary that the adjustment policies focus on restructuring the economy so as to restore the external balance and enhance the high level of output growth.

The inadequate policy measures that overlooked the benefit of an efficient market and price mechanism leading to restricted output growth are also related to unsuccessful fiscal adjustment policies in Tanzania. Ndulu (1987) argued that institutional rigidities and excess centralised control of the resources adversely affected output growth in Tanzania. The institutional rigidities and state control of the resources adversely affected decision-making of economic agents and negatively impacted on stabilisation policy measures and output growth. They also adversely affected tax revenue generation and the correction of the fiscal deficit. In general, the economic policy regime and the design of the stabilisation policies were not appropriate for correcting macroeconomic imbalances in Tanzania in the 1973-77 and the 1982-85 adjustment periods.

A number of studies have also examined the implementation of fiscal adjustment policies in the 1986-2000 period in Tanzania. Aiko (2003); World Bank (1996;

2001b) Gibbons & Raikes (1996) and Wangwe (1991) analysed the effect of adjustment policies on correcting the fiscal deficit in the 1986-1989 and 1986-1994 periods respectively. The authors observed that fiscal adjustment policies did not result in the correction of the fiscal deficit in Tanzania because of the low output growth and tax revenue generation.

Aiko (2003) analysed fiscal adjustment policies implemented under the support of the IMF and the World Bank in Tanzania to ascertain whether it led to fiscal stability and the reduction of the size of public sector between 1986 and 2000. The study also examined whether constraints on the implementation of the adjustment programme and the exploration of the alternative was taken into account before implementing adjustment programme in the country.

In that regard, Aiko (2003) examined expenditure and tax reforms. Public expenditure reforms were implemented through Enhanced Fiscal Facility, Economic and Structural Adjustment Facility, as well as Poverty Reduction and Growth Facility loans. The World Bank provided Structural Adjustment and Sectoral Adjustment Loans to facilitate streamlining the government size.

However, public expenditure reform gave low priority in financing expenditure in infrastructure, higher education, health service delivery and poverty alleviation. Only after 1995, the government increased allocation of funds for infrastructure and poverty alleviation. This was followed with measures to improve efficiency in public spending. In this regard, the initial adjustment policies overlooked the long- term impact of public spending on output growth.

As previously discussed in Chapter Two section 2.5, fiscal adjustment policies also included tax reforms. The reforms were designed to increase tax revenue and tax compliance. However, tax reforms did not result in a large increase in tax revenue and correction of fiscal deficit in Tanzania.

Aiko (2003) concurred with Ndulu (1987); Wangwe (1991) and Gibbons & Raikes (1996) that macroeconomic imbalances, including the fiscal deficit were associated with structural weakness of the economy in Tanzania and the design of adjustment

policies. Aiko further argues that it takes 5 to 8 years for a country pursuing adjustment policies to overcome structural weaknesses. She also pointed out that the correction of the fiscal deficit is related to the improvement of the current account of the balance of payment because it positively contributes to output growth.

Inadequate data and wide considerations of the outcome of structural adjustment policies on various macroeconomic variables also contributed to the persistent fiscal deficit in Tanzania. Rhodes & Gibbons (1990, in Aiko 2003) pointed out that structural adjustment policies acted as exogenous shocks and complicated fiscal management in adjusting countries. The authors also identify that poor quality of data contributed to inadequate consideration of fiscal account and budgetary implication of the changes in fiscal and macroeconomic policies. They further argued that adjustment policies overlooked the relationship between fiscal deficit and other macroeconomic variables and structural measures underway or planned. This further confirms the observation by Green, Rwegasira, & Van Arkadie (1982) and Ndulu (1987) that failure of adjustment policies was associated with inadequate design of adjustment policies.

Other studies have focused on the effect of the performance of public enterprises on fiscal revenue and justification of reforms in Tanzania (Katunzi 1997; Mushi 2000). Moshi (1998) also examined the impact of the performance of public enterprises on fiscal and monetary policy in Tanzania. In general, a number of recent studies on macroeconomic studies of fiscal policy in Tanzania focused on the effect of the adjustment policies on the monetary outcome and inflation rate during the policy reforms (Aiko 2003; Laryea & Sumaila 2001; Mushi 2000).

Overall, the above studies suggest that failure of adjustment policies to correct the fiscal deficit was a result of inadequate policies. They identify that adjustment policies were not comprehensive and overlooked addressing the fundamental problem of the Tanzanian economy. The studies did not focus on analysing the effect of composition of fiscal adjustment policies on fiscal deficit in Tanzania. In addition, in the above studies, fiscal imbalances were defined as deficit after grants. However, the fiscal deficit broadly defined could provide better understanding of the impact of fiscal adjustment policies in correcting the fiscal deficit. Furthermore, the studies

analysed specific fiscal adjustment programmes, that is in either 1973-77 or 1982-85 or 1986-2000 only. The focus of studies was on the monetary consequence of the adjustment policies.

3.8 Conclusion

The emphasis of most studies on fiscal adjustment has been on the impact of expenditure based adjustment policies on correcting the fiscal deficit, reducing the public debt and attaining macroeconomic stability. Tax based adjustment policies are regarded as a less useful policy tool for overcoming the fiscal deficit. However, in developing countries, tax revenue can be a viable means to correct the deficit, finance public spending and attain macroeconomic stability. This study focuses on examining the impact of both tax and expenditure based adjustment policies in correcting fiscal deficit in Tanzania.

Little attention was given in analysing the effect of fiscal adjustment policies on the fiscal deficit in both, prior and during policy reform epochs in Tanzania. In contrast to the previous studies on fiscal adjustment in Tanzania, this study seeks to examine whether the conduct of fiscal adjustment policies is linked to the fiscal deficit in Tanzania in both periods. This is the gap this study intends to fill.

CHAPTER 4

RESEARCH METHODS

4.1 Introduction

This chapter describes the methods that will be used to answer the research questions. It describes quantitative methods used to analyse the impact of fiscal adjustment policies on fiscal balance in Tanzania in different adjustment periods. In particular, this thesis adopts a country study approach and uses statistical and econometric methods in the analysis. A country study is potentially more informative, though the findings cannot be generalised.

The chapter is divided into eight sections. Section Two reviews the methods used in the previous studies to analyse the impact of fiscal adjustment policies in correcting fiscal deficit. Section Three discusses the approaches used to evaluate adjustment programmes in previous studies. The section also highlights the methods adopted in this study. Section Four deals with empirical issues in the analysis of the impact of fiscal adjustment policies on fiscal deficit. Section Five describes the measurement and the adjustment of the components of primary balance. Section Six deals with the determination of the impact of fiscal adjustment policies on correcting the fiscal deficit. Section Seven explains the determination of the impact of fiscal adjustment policies on output growth. The last section is a conclusion.

4.2 Methods for Analysing Impact of Fiscal Adjustments on Correcting the Fiscal Deficit

Studies that examined the impact of fiscal adjustment policies on correcting the fiscal deficit have used different methods of empirical analysis. Cross country studies, case studies, statistical techniques and econometric methods have been used in various studies (Giavazzi & Pagano (1990b); Dornbusch (1989); Purfield (2003); Alesina & Perotti (1995;1997); Kouassy & Bohoun (1994)).

Giavazzi & Pagano (1990b) and Dornbusch (1989) used a case study method to examine the impact of the detailed composition of public budget on correcting the fiscal deficit and output growth in Ireland and Denmark. In contrast, Purfield (2003) and Alesina & Perotti (1995;1997) adopted a cross country analysis and used

statistical methods to analyse the effect of the composition of the fiscal adjustment policies on correcting the fiscal deficit and reducing public debt in the OECD countries and transition economies respectively.

Other researchers have used descriptive statistics and econometric methods to analyse the impact of adjustment policies on correcting fiscal imbalances. Purfield (2003), Pirtillä (2001) and McDermott & Wescott (1996) used descriptive statistical and econometric methods to analyse the impact of fiscal adjustment policies on correcting the fiscal deficit. While Purfield (2003), Pirtillä (2001) and McDermott & Wescott (1996) analysed fiscal adjustment policies in OECD countries in the 1970-95 period, Purfield (2003) studied the impact of policies in 25 transition economies of Central and Eastern Europe and the Baltic region in the 1992-2000 period. The studies were cross sectional and involved the estimation of a logistic probability model. Pirtillä (2001) analysed the relationship between structural adjustment policies and the fiscal deficit in transition economies. The study covered 25 transition economies in the 1990-99 period. A single equation model was used to analyse the impact of fiscal adjustment policies on the fiscal deficit and output growth in the transition economies.

Kouassy & Bohoun (1994) used a growth model to analyse the impact of fiscal adjustment policies on growth and fiscal deficit in the Ivory Coast. The researchers used econometric methods to estimate the growth model for the Ivory Coast. The analysis involved simulation of different policy scenarios with regard to public spending and output growth and implications for correcting the fiscal deficit for the Ivory Coast.

The research studies used different variables in analysing the impact of fiscal adjustment policies on correcting the fiscal deficit. Alesina & Perotti (1995) used public investment spending, non-wage government consumption, transfers, government wages and subsidies expressed as a ratio of GDP. For revenue, the studies used direct taxes on business and households, indirect taxes and the social security contribution. Purfield (2003) and McDermott & Wescott (1996) estimated a probability model using fiscal consolidation as the dependent variable. The independent variables included size of consolidation, fiscal efforts, composition of

fiscal policy, and a dummy variable to capture the duration of adjustment and initial conditions. A maximum likelihood method was used to estimate the equation.

Pirtillä (2001) investigated the effect of internal and external trade, trade liberalisation, privatisation and restructuring of public enterprises and change on unemployment on the fiscal balance. The model was estimated using an ordinary least square method. Kouassy & Bohoun (1994) estimated single equations using export taxes, domestic activity taxes, non-tax revenue and the exchange rate. Other variables used were government consumption and investment spending. The variables were used to estimate potential revenue, and the fiscal deficit respectively. The impact of fiscal adjustment on the fiscal balance was determined using simulation methods.

The specific questions different studies attempted to answer determined the methods and approaches in analysing the effect of adjustment policies on correcting the fiscal deficit in particular countries. The availability of data also influenced the choice of approaches used in studies on adjustment programmes.

4.3 Review of Different Approaches used to Evaluate Adjustment Programmes

Cross country and case studies approaches have mostly been used to evaluate the effects of Structural Adjustment Programmes in various countries (Búlir & Moon 2003; Goldsbrough et al. 1996; Goldstein & Montiel 1986; Gomulka 1995; Ul Haque & Khan 1998). The evaluations of adjustment programmes have focused on determining the effects of the policies adopted on macroeconomic variables such as the balance of payment, current account balance, output growth, inflation rate and fiscal deficit.

In particular, the assessments of the effect of the adjustment programmes have dwelt on three main issues. The first is the appropriateness of the design of programmes as to whether they are the best alternatives for correcting macroeconomic imbalances in particular countries. The second issue is whether the adjustment programme is effectively implemented. The third is whether the programmes supported by the IMF and the World Bank result in outcomes that are different in the absence of the

support of the two institutions (Búlir & Moon 2003; Dicks-Mireaux, Mecagni & Schadler 2000; Ivanova et al. 2003; Ul Haque & Khan 1998).

The focus on the above mentioned issues in evaluating adjustment policies has led to conceptual and methodological challenges in assessing the adjustment programmes in various developing countries. The difficulties arise because the adjustment programmes involve complex policy measures such as fiscal and monetary policies, investment policies, trade liberalisation, wage reforms and financial sector reforms (Ul Haque & Khan 1998) . Exogenous shocks such as changes in the terms of trade, increase in the cost of debt servicing because of the rise of interest rates and changes in the demand for primary commodities in the industrialised countries may influence the outcome of the policies. Another factor that influences the outcome of the policies is changes in weather conditions. In such a situation, it is difficult to identify whether the policy changes are associated with the desired outcomes.

The evaluation of adjustment programmes becomes more difficult because the theory underlying dynamic links between the adjustment policy package and macroeconomic targets is not well established. (Búlir & Moon 2003; Dicks-Mireaux, Mecagni & Schadler 2000; Ul Haque & Khan 1998). This suggests that difficulties may arise in explaining the relationship between the implementation of adjustment policies and the correction of internal and external imbalances in a particular country.

Given that adjustment policies as well as exogenous factors can influence macroeconomic outcomes and that the theory inadequately explains the relationships between adjustment policies and macroeconomic targets, the design of an alternative appropriate approach for evaluating structural adjustment policies is necessary. The appropriate methods need to discern the effect of adjustment policies on macroeconomic variables. The construction of a counterfactual is one of the alternatives approaches that may be used to assess the impact of structural adjustment policies on macroeconomic variables (Búlir & Moon 2003; Ul Haque & Khan 1998)**.**

The construction of a counterfactual involves a comparison of two situations. Specifically, it involves a comparison of macroeconomic outcomes for a given

country facing the same economic conditions and exogenous factors but subjected to different policy scenarios (Conway 1994). In one situation the country is not involved in the adjustment programme and in the other it participates in the programme. The estimated counterfactual enables the determination of the impact of adjustment policies on macroeconomic variables such as output or fiscal balance.

In order to adequately evaluate the adjustment programmes the estimation of a counterfactual needs to incorporate certain necessary features. Dicks-Mireaux, Mecagni & Schadler (2000) and Ul Haque & Khan (1998) highlight that the construction of a counterfactual requires macroeconomic models whose parameters are invariant to the policy settings. It requires two different models, one explaining the relationship among the variables when the programme is absent and other when the programme is implemented. The construction of counterfactual also entails information on the values of structural parameters and policy reaction function variables. The required information for the construction of the counterfactual is not easily available for most of the developing countries pursuing an adjustment programme. In that regard, an approximation of a counterfactual is used to evaluate the impact of adjustment programme policies.

The literature on evaluation of IMF programmes or government policies provides alternative approaches for the construction of a counterfactual (Búlir & Moon 2003; Ul Haque & Khan 1998; Goldstein & Montiel 1986, Rueg 2006). One of them is a "before and after approach". The approach compares the macroeconomic performance before and after the implementation of a programme. The merits of the method are that it is easy to calculate and compares macroeconomic outcomes in the pre- and post-adjustment periods.

The shortcoming of the "before and after approach" is that it ignores the effect of the policy events or shocks that are not associated with the adjustment programme. As a result the outcome of the estimations of the policy effects may not reflect an independent effect of the adjustment programme policies. The "before and after approach" is also a poor estimation of the counterfactual because economic conditions that exist prior to the adjustment programme are not an appropriate estimator of what might happen in the absence of the programme policies (Ul Haque

& Khan 1998). In this regard, the "before and after" approach results in a biased measurement of the programme effect.

The "with or without" approach is another method used to evaluate the effect of an IMF supported adjustment programme. The approach compares macroeconomic performance in countries with the programme and that in non-programme countries used as a control group. The performance in non-programme countries is used as an estimate of what the performance in programme countries would have been in absence of the IMF and World Bank support programme (Ul Haque & Khan 1998). The "with or without" method attempts to overcome the weakness of the "before and after approach" in identifying the programme and non-programme macroeconomic outcomes of adjustment policies.

One of the demerits of the "with or without approach" is that the macroeconomic outcomes derived from using the approach may not reflect a correct assessment of the implemented adjustment policies. In particular, programme and non-programme countries have different economic positions prior to and after the evaluation of the programme. This suggests that different policy scenarios that may be unrelated are compared to discern the impact of adjustment policies. Another demerit of the programme is that sample estimates are biased because the programme countries are not selected randomly. Consequently, if prior reform macroeconomic imbalances were less severe the approach will overstate the positive effects of the programme. In addition, if before the adoption of adjustment policies macroeconomic imbalances were severe, then the effect of the IMF and World Bank supported programme will be understated (Ul Haque and Khan 1998).

A "generalised evaluation estimator" is also used to estimate a counterfactual to assess structural adjustment programmes policies implemented under the IMF and World Bank support. The approach compares the macroeconomic performance of the countries pursuing an adjustment programme with those that have not adopted an adjustment programme. It also involves adjusting for the differences in the initial conditions among the countries involved in a particular study. The approach also controls for exogenous events (Búlir & Moon 2003; Ul Haque & Khan 1998). The construction of a counterfactual using the "generalised evaluation estimator model"

involves estimating an equation that captures the interaction between macroeconomic policies and their outcomes in a large number of countries. It also involves the estimation of a policy reaction function for a period, when the IMF supported adjustment programmes are implemented in respective countries. In addition, the method addresses sample bias.

The features of the "generalised evaluation estimator" indicate that the approach takes into account the evolution of the adjustment policies in the assessment of the macroeconomic outcome of the structural adjustment programme policies supported by the IMF. It also allows an informed comparison between programme and non-programme countries. Thus, the approach defines a more precise and accurate counterfactual.

Like the previous methods of estimating a counterfactual, the "generalised evaluation estimator approach" has weaknesses as well. The main weaknesses are related to appropriateness of the restrictions in estimating a counterfactual and the reliability of results (Dicks-Mireaux, Mecagni & Schadler 2000). The model requires the description of macroeconomic policy choices in a simple reaction function based on quantifiable data. In addition, the reaction function estimated for countries that do not receive IMF support describes a counterfactual for a country that receives support. Thus two different economies are compared. However, the one that is not pursuing the adjustment programme may not be the perfect model of the economy undertaking adjustment policies.

Another weakness of the "generalised evaluation estimator method" is that the approach involves the use of panel data covering countries facing diverse circumstances. In such a situation, it is difficult to get a reliable estimate of the independent effect of the IMF supported adjustment programme on macroeconomic variables. In order to overcome the weaknesses of the generalised estimator methods, the use of the "comparison simulation approach" is suggested.

The "comparison simulation approach" compares simulated performance under IMF supported adjustment programme with a simulated performance under the different set of policies (Ul Haque & Khan 1998). The approach adopts econometric models to

infer the hypothetical performance of adjustment policies adopted under the IMF and World Bank support and compares the outcomes with those of the alternative policy package.

The "comparison simulation approach" provides the best estimation of a counterfactual of all the measures. The approach estimates a hypothetical situation and compares it with the alternative adjustment policy package which a country could adopt. The status of implementation in a particular country pursuing an IMF supported adjustment programme does not influence the outcomes of assessing the impact of alternative policy outcomes.

Despite its advantages, the simulation approach also has weakness. The approach requires an econometric model that explains the relationship between various policies and macroeconomic variables. However, it is hard to find a model that covers a whole range of policy measures as those adopted under the IMF adjustment programmes.

In general, comparison of programme and non-programme outcomes is an appropriate way to judge the effect of an adjustment programme. However, the review of the different approaches for constructing a counterfactual and evaluating the effect of IMF supported adjustment programmes in cross-country studies suggests that the econometric models used in the evaluation of the programmes are inadequate. The models are not able to capture the complex ways in which policy variables relate to the ultimate objectives of the programme. Furthermore, parameters of econometric models are not invariant to changes in the features of the policy regime. The models also do not capture the credibility effect arising from adoption of the adjustment policies that may also influence the macroeconomic outcome of the policies. Moreover, construction of a counterfactual involves subjectivity in various methods used in estimating it.

In this regard, great caution is needed in interpreting and using the results from different methods used to estimate a counterfactual. Specifically, the "before and after" and "with and without" approaches are inadequate methods in assessing the macroeconomic outcome of the adjustment policies in developing countries. The

approaches result in biased evaluation because countries under adjustment programmes are not randomly selected. The 'generalised evaluation estimator" and "comparison simulation approach" address the weakness of the "before and after" and "with and without" approaches. They may provide better results and give a clear indication of the achievement of the policy objectives. However, as highlighted above the two approaches have weaknesses that affect the robustness of results.

An alternative approach recommended for evaluating IMF supported adjustment programme is a case study approach (Ul Haque & Khan 1998). The case study approach involves an in-depth examination of many features of a few cases over a long period (Neuman 2003). In the case studies, the evaluations of adjustment programmes have involved the assessment and comparison of the macroeconomic outcome of adjustment policies in two or more countries (Ul Haque & Khan 1998; Goldsbrough et al 1996; Gomulka 1994).

In addition to specific research objectives that guided the choice and adoption of the case study methods in different studies, a need to overcome the weaknesses of cross-country approaches in evaluating an adjustment programme also has necessitated the use of the approach. The case study approach has been used to analyse the underlying theories, policy objectives, explicit and implicit assumptions as well as actual outcomes of adjustment policies (Goldsbrough et al 1996; Gomulka 1994). The approach has been used to analyse major errors of policies and their implications as well.

The advantage of the case study approach is that through in-depth analysis of the adjustment programme, it is possible to link micro level actions with macro level policies. Moreover, the case study combines the "storytelling" richness of the study with vigour of economic analysis. Another advantage of the case study approach is that the richness of the details inherent in the approach may be useful for formulating theories and hypotheses for understanding how and why questions (Rueg 2006)

The case study approach also has disadvantages (Rueg 2006; Neuman 2003). The description of the case study approach provides a sketchy substantiation of the policy outcomes and thus it may lack vigour in revealing the impact of the adjustment

programme on macroeconomic variables. The approach is also unable to capture the benefit of adjustment in monetary terms.

Thus, although the case study provides an alternative approach for assessing the macroeconomic effect of the adjustment policies in a particular country, it also has some shortcomings. In this regard, it may not be a superior method to those involving counterfactual estimation.

In contrast to most previous studies on fiscal adjustment policies, this thesis adopts a country study approach and uses quantitative methods to analyse the impact of fiscal adjustment policies on correcting the fiscal deficit in Tanzania prior to and during the policy reforms era. As previously highlighted in this chapter, a country study is potentially more informative, though the findings cannot be so easily generalised. The country study approach can also be used to study in details the design and implementation of the adjustment policies in a particular country.

In particular, this study is concerned with examining the impact of the fiscal adjustment policies on the fiscal balance. The focus of the study is on the effects of fiscal adjustment policies on the primary balances in different adjustment periods prior to and during the policy reform epoch in Tanzania. The study excludes transfer payments as a spending component and social security contribution on the revenue side because they are not relevant in Tanzania. The methods and variables used capture the effect of fiscal adjustment measures on the fiscal position in different adjustment periods in Tanzania.

The study also includes statistical and econometric methods in the analysis of the impact of fiscal adjustment policies on the fiscal position in Tanzania. Through the use of statistical methods, the study seeks to examine the effect of fiscal adjustment policies on the fiscal position in different adjustment periods. In addition, the study uses flow variables in order to determine the impact of adjustment policies on correcting the fiscal deficit.

This thesis also examines the impact of economic policy reform changes from a controlled socialist economic regime to a free market economy on public spending

and GDP growth. This is done by analysing the data generation process for the respective variables. The purpose is to discern the impact of economic regime changes on public spending and GDP data series and implications of the results for fiscal and macroeconomic policies in Tanzania. The models and estimation results are presented in Chapter 6.

The quantitative methods avoid imposing behavioural relationships on economic variables in analysing the impact of fiscal adjustment policies on correcting the fiscal deficit and output growth in Tanzania. This has been prompted by the lack of adequate and reliable data for a number of economic variables that could have enabled the use of macroeconometric or Computable General Equilibrium models. However, in order to confirm the statistical as well as time series findings and derive justifiable policy recommendations, single equation models are used to analyse the impact of adjustment policies on output growth and fiscal deficit as well as their policy implications. The models, details on results and discussions are presented in Chapter 6.

4.4 Empirical Issues in the Analysis of the Impact of Fiscal Adjustment Policies on the Fiscal Deficit

Analysis of the impact of fiscal adjustment policies on correcting the fiscal deficit leads to a number of empirical issues (Alesina & Perotti 1995; Purfield 2003; Ter-Minassian & Schwartz 1997). These include the proper definitions of the concepts, and measurements used in the analysis. Another issue is the causal relationships between fiscal adjustment and economic variables such as primary balance and output growth. This section highlights the concepts and measurements used in this study.

4.4.1 Definition of Fiscal Deficit

The determination of the effect of the fiscal adjustment policies on the fiscal balance requires appropriate definition of the fiscal deficit. There are two definitions of a fiscal deficit; a narrow and a broad definition (Agénor & Montiel 1996; Sowa 1994). The narrow definition of a deficit includes external grants but the broad definition excludes it. As per the narrow definition, the fiscal deficit (after grants) refers to the shortfall in the fiscal revenue in financing public consumption and investment

spending using domestic tax, non-tax revenue and foreign grants. Foreign grants refer to loans and aid to a government.

According to the broad definition, fiscal deficit (before grants) refers to a shortfall in fiscal revenue in financing public consumption and investment spending using domestic tax and non-tax revenue. In this study, the fiscal deficit refers to the deficit excluding grants because the study focuses on examining the impact of fiscal adjustment policies on correcting the fiscal deficit as a result of tax and public spending adjustment in Tanzania.

4.4.2 Measurement of Fiscal Deficit

In developing countries like Tanzania, accurate measurement of the fiscal deficit is a problem. The measurement problem arises because total government spending inadequately covers public spending at different levels. Public spending covers the outlays of the governments of the United Republic of Tanzania, mainland government, the Zanzibar government and local governments. The inaccurate aggregate data that arise because of poor recording or double counting leads to understatement or overstatement of public spending and the fiscal deficit (Semboja 1995). Fiscal deficit becomes inflated when the arrears in payment for already committed or actual spending are included in the aggregate public spending data.

Furthermore, Central Bank transactions which constitute quasi fiscal expenses (taxes and subsidies) done on behalf of the government are inappropriately covered or missed out in government transactions. In such a situation, the fiscal deficit inadequately represents the fiscal activities and financing of government spending. In order to avoid complications in the analysis, this study uses data on reported general government spending on a cash basis and does not cover the payment of arrears and off-budget transactions. This approach has been used in other studies by Purfield (2003) and Alesina & Perotti (1995;1997) in studying the adjustment policies in OECD and transition economies respectively.

4.4.3 Causality between Fiscal Adjustment Policies and Output Growth

Fiscal adjustment policies have an impact on a number of economic variables such as the inflation rate and output growth. However, in empirical analyses, establishing the

relationship between a particular fiscal instrument and output growth is a complicated issue because it is difficult to associate public spending cuts, tax increases or improvements in fiscal balance with changes in output growth (Purfield 2003, Alesina & Perotti 1995). In addition, the direction of causality between fiscal adjustment and output growth is indeterminate, although there are two possible relationships. First, fiscal adjustment may have an impact on output growth. Second, output growth may result in an improvement of fiscal position (Alesina & Perotti 1995; Tanzi 1989). Lastly, output growth may change exogenously during the adjustment episodes. In this respect, fiscal adjustment has no effect on output growth.

In countries pursuing stabilisation policies, discerning the impact of the fiscal adjustment policies on output growth also becomes difficult because adjustment policies are implemented together with tight monetary policy and changes in exchange rate policy. Tight monetary policies impact on domestic prices, real interest rates, savings and investment and consequently output growth. Apart from the effects of the policies, different economies are susceptible to global economic shocks that also affect domestic output growth and the fiscal deficit (Ziky & Mansouri 2003).

One of the alternative solutions to determine the link between fiscal adjustment policies and output is to use potential output data (Purfield 2003, Alesina & Perotti 1995). However, a lack of data on potential output hinders the determination of the effect of fiscal adjustment policies on output recovery and growth in Tanzania. In order to deal with the measurement problems, a number of studies have used statistical or econometric methods, or simulation models to determine the impact of fiscal adjustment policies on output growth (Purfield 2003, Alesina & Perotti 1995;1997; Dicks-Mireaux, Mecagni & Schadler 2000).

Statistical methods used include the determination of the correlations between output and fiscal adjustment episodes. A positive correlation signifies fiscal adjustment policies are associated with output growth and a negative correlation suggests an inverse relationship. Another statistical method used involves calculating and comparing the GDP growth rate before and after adjustment episodes (Purfield 2003). Higher output after adjustment will suggest an association between fiscal adjustment policies and output growth. Low output growth or lack of change in

output will suggest that fiscal adjustment policies do not lead to output growth in a particular economy.

Macroeconometric or econometric models have also been used to examine the impact of fiscal adjustment policies on output growth in different studies (McDermott & Wescott 1996; Kouassy & Bohoun 1994). These involved estimating the relationship between the dependent variable of output growth and the independent policy variables. The significance of policy variables determines whether fiscal adjustment policies have an effect on output growth in a particular country.

This study uses time series econometric techniques to analyse the impact of policy changes on GDP growth in Tanzania. The first order autoregressive equation is used to analyse the impact of economic policy changes on the data series generation process. The method and estimation results are presented in Chapter Six.

4.5 Measurement and the Adjustment of Components of Primary Balance

This thesis adopts the statistical methods used by Purfield (2003) and Alesina & Perotti (1995;1997) to analyse the impact of fiscal adjustment policies on correcting the fiscal deficit in Tanzania. In examining the relationship between the fiscal adjustment policies and fiscal position, the primary balance is used to discern the changes in the fiscal balance as a result of the adjustment of tax structure and public spending in different adjustment periods. The primary balance of the consolidated government sector refers to government revenue (excluding bonds) which covers public spending (excluding interest rate payments and debt redemption) in a given year. In this regard, general expenditure and revenue for the same year are matched.

The statistical methods set pre-defined rules, in regard to primary balance behaviour, that enables determination of the discretionary impact of the fiscal policy on the fiscal deficit in different periods. In various studies the primary balance or primary structural balance has been used to capture the changes in the fiscal position (Purfield 2003, Alesina & Ardagna 1998; and Alesina & Perotti 1995). Two main issues arise in using primary balance as a measure of change in the fiscal position as a result of changes in fiscal policy measures. The first is the effect of the economic cycles on

public spending and tax revenue, the components of the budget, that also determine the primary balance position.

Since automatic stabilizers affect both public spending and tax revenue, differentiating fiscal changes that arise from the economic cycle and policy change is important. In order to differentiate the effect of economic cycle from that of policy changes on public spending and fiscal revenue, the determination of potential output is necessary. The determination of potential output allows one to obtain public spending and tax revenue figures that are a result of the adopted fiscal adjustment policies and that exclude economic cycles.

Although economic stabilisers pose a problem in differentiating the effect of economic cycles from that of fiscal policy on public spending and tax revenue, it is not a problem in developing countries. In the developing economies, automatic stabilizers are less developed (Hopkins 2004; Purfield 2003). Thus, the influence of automatic stabilizers on public spending and tax revenue is ignored in the study of Tanzania. In this regard, the primary balance can be used as a measure of the changes in the fiscal position arising from the change in the fiscal policy in Tanzania. Interest rate payments are the only item that is affected by economic cycles, and this expenditure item is excluded in determining the primary balance position in this study.

The second issue that needs to be resolved in order to use the primary balance as an indicator of change in the fiscal position is determination of the benchmark period, to which changes in primary balance will be referred. In dealing with the benchmark problems, annual changes in the primary balance are used. The use of the previous year as a benchmark period is motivated by the need to determine the lasting effect of the fiscal adjustment policies on correcting the fiscal deficit. A negative change in primary balance will suggest that fiscal adjustment resulted in a reduction in the fiscal deficit and a positive change or lack of changes will signify deterioration of fiscal balance.

4.6 Determination of the Impact of Fiscal Adjustment Policies on Correcting the Fiscal Deficit

Fiscal adjustment policies have an impact on public spending and fiscal revenue. Changes in either expenditure or revenue components of the budget or both are reflected in the changes on the primary balance. In order to have a systematic analysis, statistical criteria are set in terms of the pre-defined rules to discern the impact of fiscal adjustment policies on the primary balances. The rules also enable determination of successful and unsuccessful adjustment episodes.

Purfield (2003) identifies the rules that are used to characterise the effect of fiscal adjustment policies on correcting the fiscal deficit as indicated by changes in the primary balance. According to Purfield (2003), fiscal adjustment is successful if the average general primary balance in two years after fiscal contraction is at least two percentage points of GDP lower than in the two years prior to adjustment. This measurement emphasises that fiscal adjustment policies need to result in a declining path of the fiscal deficit, for the successful adjustment episodes to be identified. According to the rule, fiscal adjustment policies are considered to result in a reduction in fiscal deficit if the positive changes in primary balance persist beyond the adjustment episodes. Small or no changes in primary balance will signify absence of fiscal adjustment and no reduction of the fiscal deficit. This study adopts similar methods.

The determination of successful and unsuccessful adjustment episodes using primary balance as percentage point of GDP needs qualification. The criteria for cut-off points is that changes in primary balance to a magnitude of 2 percent of GDP is large enough to be able to identify the effects of the adjustment policies given that the primary balance is cyclical adjusted. In addition, it is easier to satisfy the criteria and the differences between successful and unsuccessful fiscal adjustment episode is clearly identified. The criteria has been used in other studies on fiscal adjustment policies in different countries (Alesina & Perotti 1995;1997; Purfield 2003).

In the study of the impact of fiscal adjustment in Tanzania, apart from the changes in primary balances, achievement of the stabilization policy objectives is an additional criteria for determining the success of adjustment policies. Stabilization policies were

intended to reduce the fiscal deficit and inflation rate, including the stimulation of output growth and recovery (United Republic of Tanzania 1982; 1986; 1990). Therefore, the levels of the fiscal deficit, inflation rates and GDP growth rates, are also the macroeconomic variables used to assess the success of fiscal adjustment policies in Tanzania.

4.7 Determination of the Impact of Fiscal Adjustment Policies on Output Growth

Fiscal adjustment policies are also associated with changes in output growth because the policies have an effect on consumption spending, saving, and investment spending as well as on the current account balance. Changes in consumption and investment spending affect aggregate demand and output growth. The current account balance also has an effect on the value of domestic currency, competitiveness of Tanzanian products on world markets as well as on the adjustment of aggregate demand.

As highlighted above, the set GDP growth rate targets and actual growth rates will be compared in different adjustment periods to determine the impact of fiscal adjustment policies on output growth in Tanzania. In addition, econometric methods are used to discern the impact of economic policies on GDP growth. The methods and results are presented in Chapter 6.

4.8 Conclusion

This chapter reviews methods used in literature for examining the impact of fiscal adjustment policies on correcting the fiscal deficit and output growth. It also reviews approaches used to assess macroeconomic outcome of IMF supported adjustment polices. Measurement and data problems are identified and alternative approaches to deal with them suggested. The chapter also presents the methods for analysing the effect of fiscal adjustment policies on the fiscal deficit in Tanzania during different adjustment periods. Furthermore, in order to test for the impact of policy changes on public spending and GDP data series, econometric methods are adopted. The methods and results are provided in Chapter 6.

CHAPTER 5
EMPIRICAL ANALYSIS OF THE IMPACT OF FISCAL ADJUSTMENT POLICIES ON CORRECTING THE FISCAL DEFICIT

5.1 Introduction

Fiscal adjustment policies in Tanzania were designed to correct the fiscal deficit by cutting public spending and increasing tax revenue. As part of tax based fiscal adjustment policies, changes in tax structure were adopted to increase tax revenue and stimulate output growth. Tax revenue is a viable and sustainable means of financing public spending and sustaining macroeconomic stability in developing countries, including Tanzania. A government may avoid inflationary deficit financing or external borrowing, if it collects sufficient tax revenue. Inflationary financing and external borrowing may impede economic growth and lead to macroeconomic instability.

This chapter analyses the effect of fiscal adjustment policies on correcting the fiscal deficit in Tanzania. The primary balance is used to discern the effect of changes in the tax structure on the fiscal position in different adjustment periods. The primary balance of the consolidated government sector refers to the balance after matching public spending (excluding interest rate payments and debt redemption) and tax revenue (excluding bonds) in a given year.

In particular, the objectives of this chapter are, first to analyse the impact of fiscal adjustment policies on the fiscal position in Tanzania in the different adjustment periods; second to examine fiscal adjustment policies adopted prior to and during the policy reforms period and their outcomes in correcting the fiscal deficit in Tanzania.

Fiscal adjustment policies included changes in fiscal procedures that were intended to increase tax revenue and to reduce public spending. The levels and changes of the primary balance indicate the effect of fiscal policies on the fiscal position in different adjustment periods. The changes in the primary balance may be linked to economic policies that influenced the taxation level and public spending in Tanzania. This may provide an understanding of the causes of persistent deficit and the policies for correcting the deficit in Tanzania.

In Tanzania, during the policy reforms, the focus of fiscal adjustment policies was on correcting the fiscal deficit, attaining macroeconomic stability and structural changes. Structural changes had an impact on changing the allocation of resources and GDP growth. The changes in the allocation of resources and output growth affected the tax revenue generation. Thus, this study is important because it is expected to provide an insight into the impact of the structural measures on the tax base and possible ways to enhance its growth. The growth of tax base contributes to a sustainable fiscal balance and macroeconomic stability in a country.

In addition, poverty alleviation and provision of adequate infrastructure are government priority issues. The endeavours to alleviate poverty and provide public infrastructure require sufficient tax revenue. The growth of the tax base may lead to an increase in tax revenue and a surplus budget. The surplus budget provides an opportunity for releasing tax revenue for poverty alleviation and infrastructure provision. Thus, the correction of the fiscal deficit and surplus budget are prerequisites for supporting poverty reduction and provision of public infrastructure provision in Tanzania.

The chapter is organised as follows. Section Two examines the effect of fiscal adjustment policies on primary balances prior to policy reforms followed by section Three on the analysis of the effect of fiscal adjustment policies after economic policy reforms. Section Four examines the effect of adjustment policies on macroeconomic variables. Section Five presents a discussion of results. The last section is a conclusion.

5.2 Analysis of the Impact of Fiscal Adjustment Policies on Correcting the Fiscal Deficit: The Period before Policy Reforms

Fiscal adjustment policies were initially implemented in the 1973-77, 1980, the 1981-82 and the 1982-85 periods. The policies were intended to correct the fiscal deficit by reducing public spending or increasing tax revenue or both. As previously highlighted, this study analyses the relationship between fiscal adjustment policies and primary balances in order to discern the impact of adjustment policies on correcting the fiscal deficit in Tanzania.

5.2.1 Primary Balances and Episodes of Fiscal Adjustment in the 1972-79 Period

In the 1972-74 period, Tanzania experienced a persistent fiscal and current account deficit, high inflation rates and low GDP growth. In this regard, the adoption of stabilization policies was necessary. As part of the stabilisation programme, fiscal adjustment policies emphasised increasing tax revenue. The Tanzania government did not reduce public spending to correct the fiscal deficit. Sustaining transformation of the economy and provision of basic social services to Tanzanians motivated the government to not reduce public spending. Public spending was also necessary to facilitate the realisation of the socialist objectives of self-reliance and equity.

The government increased tax rates to increase tax revenue. It also increased taxes on exportable agricultural commodities whose world market prices increased. In addition, the government amended the income tax and sales tax Acts to improve efficiency in tax administration. Furthermore, the government sought foreign funds to facilitate the correction of the fiscal deficit and macroeconomic imbalances.

The government borrowed funds from external sources to support the correction of the fiscal deficit because of the weakness of productive sectors and poor export performance. Given the weak structure of the Tanzanian economy, output recovery would be slow leading to low tax revenue from domestic sources in the short-term. Furthermore, since macroeconomic imbalances were partly associated with exogenous economic shocks, the problem was regarded as temporary. Thus, external funding was an appropriate approach for addressing the imbalances.

Table 5.1 shows the effect of fiscal adjustment policies on the primary balance in Tanzania. It indicates that the primary balance was negative in the 1973-77 adjustment period, suggesting imbalance between public spending and tax revenue or vice versa. However, fiscal adjustment policies resulted in a decline in the fiscal deficit in 1974, 1976 and 1977, when the deficit declined by 22.6 percent, 22.7 percents and 42.4 percent respectively. A further insight into the impact of fiscal adjustment policies on correcting the fiscal deficit necessitated examining the taxation level in the 1973-77 adjustment episode.

Table 5.1: Primary Balance Positions and Episodes of Fiscal Adjustments in the 1972–79 Period

Year	Primary balance (as percentage of GDP)	Changes in primary balance (in percent)	Episode of adjustment	Specific adjustment measures adopted
1972	-11.20	-	-	
1973	-15.91	42.03	-	
1974	-12.32	-22.55	XX	(i)Securing Interim adjustment funds from external sources (World Bank, IMF, Arab-African Fund) (ii)introduction of differential corporate taxes for public and private firms
1975	-18.50	50.17	-	
1976	-14.31	-22.66	XX	(i)increases in taxes on exportable agricultural commodities (ii)increases in prices of private goods and services produced by public enterprises
1977	-8.24	-42.40	XX	Same measures as for the 1976 adjustment episode
1978	-10.60	28.66	-	
1979	-15.62	47.27	-	

Note: "XX" a year in which fiscal adjustment occurred
Source: Bank of Tanzania (1972; 1975; 1982;1990) IMF, (1991)

As mentioned above, in the 1973-77 period, the government did not reduce public spending so it tried to balance the budget by increasing taxes. Thus, variations in fiscal positions as indicated by the primary balance were associated with changes in the tax structure and taxation level. As shown in Section 2.5.3 and Figure 2.1 of Chapter Two, the tax-GDP ratio increased from 20 percent in 1973 to 21 percent in 1974 and declined to 16 percent in 1975. The ratio increased to 19 percent in 1976 and to 21 percent in 1977. The decline of the fiscal deficit in 1976-77 is linked to an increase in tax revenue in respective years.

The changes in the taxation level also necessitated examining factors that influenced tax revenue in the 1973-77 period. The taxation level exhibited sudden and large changes in the 1973-75 period, due to the oil price shock that hit Tanzania. The oil price shock caused the reduction in imports and low output growth (Maliyamkono & Bagachwa 1990). Thus, the economic shock narrowed the tax bases.

In contrast, the sudden increase in tax revenue in the 1975-77 period, is linked to a rise in the prices of exportable agricultural crops in the world markets that led to increased foreign exchange earnings. An increase in foreign exchange boosted the import of consumer goods and intermediate inputs that speeded up output recovery in

manufacturing firms and GDP growth. Consequently, tax revenue from different sources increased.

A further analysis of the taxation level revealed that fluctuations in manufacturing output affected tax revenue in Tanzania. In particular, the fluctuation in the tax revenue reflected the performance of public enterprises that contributed about 60 percent of corporate tax revenue in Tanzania (Wangwe 1992). This also showed the magnitude of the role of public enterprises in the economy during the socialist regime era (Katunzi 1997).

The design of taxes also contributed to the variation in tax revenue in the 1973-77 period. For example, the sales tax structure was designed to protect the domestic industries from competing with external industries as well as generating tax revenue. This resulted in a multiplicity of taxes that were difficult to administer. In addition, the rise in inflation rates in the 1973-77 period had an adverse effect on the sales tax base on imported goods because taxes were specific. Thus, an increase in the inflation rate adversely affected tax revenue because the taxes were not adjusted for changes in prices frequently.

Overall, in the 1973-77 adjustment period, the changes in tax structure were intended to increase tax revenue and correct the fiscal deficit. An increase in tax revenue resulted in a decline in the fiscal deficit in 1976-77 period. Variations in the tax base due to exogenous economic events, changes in macroeconomic conditions, capacity utilisation in public manufacturing firms and the design of the tax system are associated with changes in the taxation level and the fiscal position in Tanzania.

5.2.2 Fiscal Adjustment Policies in the 1980-85 Period

The reduction in the fiscal deficit realised in the 1976-77 period, did not last. In the 1978-80 period, Tanzania again experienced a persistent, non-self correcting fiscal and current account deficit because of expansionary fiscal policy and import liberalisation. The imbalances prompted the Tanzanian government to adopt fiscal adjustment policies as part of stabilisation policies in the 1980 and in the 1981-82 and the 1982-85 periods.

In the 1982-85 period, fiscal adjustment policies, were intended to correct the fiscal deficit through public spending cuts and increases in tax revenue. Tax based fiscal adjustment policies constituted an increase in tax rates of both direct and indirect taxes as well as the introduction of new taxes. In addition, the government amended the *Customs Duties Act and the Sales Tax Act* to improve efficiency in tax administration.

The outcome of the fiscal adjustment policies on correcting the fiscal position is shown by the primary balance changes in Table 5.2. The fiscal deficit, as indicated by primary balance changes, declined by 21 percent in 1981, by 42 percent in 1983 and by 11 percent in 1985. The fiscal deficit worsened in 1980 and 1984, when the primary balances increased by 4 and 35 percent respectively**.**

Table 5.2:Primary Balance and Episodes of Fiscal Adjustments in the 1980-85 Period

Year	Primary balance (as percentage of GDP	Changes in primary balance (in percent)	Episode of Adjustment	Specific adjustment measures adopted
1980	-16.19	3.65	-	
1981	-12.86	-20.53	XX	(i)mobilising interim adjustment funds from external sources (ii)increases in direct and indirect taxes
1982	-12.99	0.98	-	
1983	-7.44	-42.71	XX	(i) introduction of new taxes (ii)increases in direct and indirect taxes (iii)cuts in public recurrent and investment spending
1984	-10.08	35.43		-
1985	-8.93	-11.41	XX	(i)frequent correction for the overvaluation of domestic currency (ii) increases in direct and indirect taxes (iii)cuts in public recurrent and investment spending

Note: "XX" a year in which fiscal adjustment occurred
Source: Bank of Tanzania, (1982; 1985;1986;1990) IMF, (1990); World Bank (2003)

An insight into the changes in the primary balance necessitated an analysis of both public spending and the taxation level in Tanzania in the 1982-85 period. Regarding public spending, the government reduced both recurrent and investment spending in the 1982-85 period. It reduced wage bills by retrenching civil servants, abolished subsidies on foodstuffs and cut the number of ministries from 27 to 15. It also reduced investment spending on public enterprises and infrastructure. As a result, public spending growth averaged 20 percent in the1982-85 period (Ndulu 1987). The

public spending growth rate was below the average inflation rate of 30 percent per annum. This suggests that public spending exerted little pressure on the economy in the 1982-85 period and that increases in tax revenue were necessary to overcome the fiscal deficit.

Given that public spending exerted little pressure on the economy, an examination of the taxation level was necessary to understand the changes in the fiscal position in the 1982-85 period. Tax revenue-GDP ratio increased from 17 percent in 1982 to 19 percent in 1983 and to 24 percent of GDP in 1985. The increase in tax revenue-GDP ratio coincided with the 1983 and 1985 adjustment episode. In this respect the changes in the fiscal position is linked to changes in taxation level.

The effect of tax based fiscal adjustment policies on correcting the fiscal deficit can also be further understood by examining the factors associated with variation in tax bases and tax revenue in different years in Tanzania. Between 1982 and 1984, the performance of public enterprises as indicated by capacity utilisation and output growth was poor due to import restrictions, leading to scarcity of intermediate inputs and spares. Industrial capacity utilisation for most industries ranged between 20 and 30 percent of their installed capacity (Mjema & Shitundu 1995). As a result a number of public enterprises incurred losses in the 1982-85 period. The loss-making public firms could not pay dividends to the government as well as taxes (Katunzi 1997). The government introduced presumptive taxes to compensate for the fall in the income tax base in 1983 (Maliyamkono and Bagachwa 1990). In general, private firms and wage earners carried the burden of paying taxes and compensated for the loss of tax revenue due to inefficient public firms in Tanzania.

The performance of the Tanzanian economy as indicated by GDP growth was also poor in the 1982-85 period (see Section 2.6 of Chapter Two). During this period, the real annual GDP growth rate averaged 1.8 percent while the annual average inflation rate was 30 percent. The real average per capita GDP growth rate was negative 2.7 per annum. This signified that the tax base was narrow in Tanzania.

The informal economy also affected the tax base in Tanzania because it hampered the effectiveness of the changes in the tax structure to increase tax revenue. The size

of the informal economy [8] declined from 17 percent of GDP in 1982 to 10 percent in 1983, but it increased to 34 in 1984 and declined modestly to 33 percent in 1985. The enlargement of the informal economy narrowed the tax base and lowered effective tax rates.

The changes in the tax structure in order to protect public enterprises from external competition and foster reinvestment resulted in a multiplicity of taxes, a complicated tax system and a narrow tax base. The government introduced different corporate income and sales taxes for public and private manufacturing firms in the 1982-85 period. It also raised the tax rates. The consequences were a highly differentiated tax structure that was difficult to administer and that fostered tax exemptions and evasion.

In the 1982-85 period, the government raised tariffs for imports except for intermediate and capital goods for public manufacturing firms. However, the current account deficit compelled the Tanzanian government to impose the restriction on importation of goods and services in the 1982-84 period (Ndulu 1987). Imports were further restricted because of the fall of foreign exchange earnings and an inadequate inflow of foreign funds (Engberg-Pedersen et al. 1996; Lipumba & Ndulu 1989). Thus, although imports and high custom duties rates provided an opportunity to increase tax revenue, the contribution of custom duty revenue to total tax revenue depended on the performance of the export sector, which was not doing well. This also explains the fall in proportion of the customs duties in total revenue in the 1982-84 period. (see Section 2.5.3 and Table 2.5 of Chapter Two).

The overvaluation of the domestic currency in the period prior to 1984 also contributed to the fall of tax revenue because it led to a narrow import tax base. In 1984, the government recognised that changing the tax structure while the domestic currency was overvalued narrowed the tax base. Thus, from mid 1984, the government raised customs duties rates and it periodically corrected for the overvaluation of the domestic currency (Maliyamkono & Bagachwa 1990; Ndulu

---

[8] The figures of the size of the informal economy in Tanzania were obtained by estimating it using the Guttmann approach. Maliyamkono & Bagachwa (1990) also used a similar method to estimate the size of the informal economy in Tanzania in the 1978-88 period. They also observed that the size of informal economy as a proportion of GDP increased in the 1978-1985 period.

1987). The correction of the overvaluation of domestic currency increased the value of imports in Tanzanian Shillings and tax revenue from customs duties and sales taxes on imported goods, leading to increased tax revenue in the 1984-85 period, following the adoption of external trade liberalisation.

Adjusting the nominal exchange rate while the volume of output declined and production capacity was low, exacerbated the inflation rate and minimised the positive effect of adjustment of nominal exchange rate and external trade liberalisation on tax revenue in Tanzania. The high inflation rate was also linked to the decline in real revenue from customs duties and sales taxes from imported goods because of delays in payment of the outstanding taxes. The delays resulted in increased collection lags [9] of up to four years (Mpango 1995). The delay in payment of due duties was a result of customs legislation that allowed payment of duties in instalments, non-deterrent penalties, feeble tax administration and corruption.

The above discussion suggests that the government reduced public spending to correct the fiscal deficit. It also introduced new taxes and raised tax rates to increase tax revenue and correct the fiscal deficit in Tanzania. However, the positive effect of changes in the tax structure on tax revenue was partly offset by macroeconomic policies pursued, low GDP growth, informal economy and multiplicity of taxes that narrowed the tax base. Furthermore, In the 1973-77 and 1982-85 periods, fiscal adjustment policies were not only used to correct the fiscal deficit but also to achieve long-term economic and political objectives in a period when correction of the fiscal deficit was to be a priority. Fiscal adjustment policies were motivated by the need to foster economic independence and to protect domestic industries. Correction of the fiscal deficit required fiscal adjustment policies that focused on an improvement of the supply side of the economy, the expansion of the tax base and increasing tax revenue generation.

---

[9] Taxes are collected with lags. The average collection lag measures the duration between the moment taxes due are calculated and when they are actually paid to fiscal authority. The lag varies depending on the type of taxes (Agénor, & Montiel 1996).

5.2.3 Examination of the Outcomes of Fiscal Adjustment Policies in Correcting the Fiscal deficit prior to Policy Reform

Notwithstanding the evidence of a reduction in fiscal deficit in section 5.2.1 and 5.2.2, it was worth ascertaining whether fiscal adjustments resulted in a lasting fiscal balance in Tanzania. According to Purfield (2003), fiscal adjustment results in successful adjustment episodes if the average general primary balance as a ratio of GDP in the two years after the fiscal contraction is at least two percentage points lower than in the two years prior to adjustment. This measurement emphasises continuous decline of the fiscal deficit and the durability of the fiscal balance. In this study the percentage change in the primary balance as a ratio of GDP was used to discern episodes of adjustments in Tanzania. The percentage change is used because it also indicates an increase or a fall in the fiscal deficit over a time.

Table 5.3 compares the primary balance before and after adjustment epochs in the 1982-85 period. After the 1974 adjustment episode, the fiscal deficit as shown by primary balance increased by 50.2 percent in 1975, but declined by 22.7 percent in 1976. After the 1977 adjustment episode, the fiscal deficit increased by 28.7 percent and 47.3 percent in 1978 and 1979 respectively.

Table 5.3: Primary Balance Changes and Fiscal Adjustment Episodes in Tanzania prior to Policy Reforms

	Adjustment Episodes		
Item	1974	1977	1985
Primary balance in percentage change two years before adjustment episode	32.5 (1972)[**]	50.2 (1975)[**]	-42.7 (1983)[**]
Primary balance in percentage change one year before adjustment episode	42.0 (1973)[**]	-22.7 (1976)[**]	35.4 (1984)[**]
Primary Balance in the Adjustment Episode	-22.5 (1974)[**]	-42.4 (1977)[**]	-11.4 (1985)[**]
Primary balances in percentage change one year after adjustment episode	50.2 (1975)[**]	28.7 (1978)[**]	-30.9 (1986)[**]
Primary balances in percentage changes two year after adjustment episode	-22.7 (1976)[**]	47.3 (1979)[**]	6.0 (1987)[**]
Unsuccessful adjustment episode	X	X	X

[**] Shows years
X: indicates that particular episode was unsuccessful
Source: Bank of Tanzania, (1982;1985;1986; 1990) IMF, (1990)

In addition, after the 1985 adjustment episode, the fiscal deficit declined by 31 percent in 1986 and increased by 6 percent in 1987. The percent changes indicated

that either the fiscal deficit increased after the adjustment episodes or declined in one year and increased in the other year after the adjustment episode or vice versa.

The results suggested that fiscal adjustment policies did not result in the lasting reduction in the fiscal deficit in the 1973-77 and the 1982-85 periods in Tanzania. This signified that fiscal adjustments were not large enough to result in a durable reduction in fiscal deficit. It is also possible that the government did not reduce public spending continuously in order to avoid exacerbating the decline of output growth, when it was already low.

The fiscal deficit also persisted because fiscal adjustment policies were associated with slow output recovery and growth in Tanzania, particularly, in the 1982-85 period (see Section 5.4 and Table 5.7). Delays in output recovery and growth could be linked to the design of fiscal adjustment policies. The adjustment policies excluded measures to improve efficient use of public funds through shifting resources from public firms producing private goods and services to provision of public goods and services that enhanced economic growth. Fiscal adjustment policies excluded the commercialisation and privatisation of public enterprises, aspects that could contribute to improvement in production efficiency and GDP growth.

Fiscal adjustment policies resulted in successful reduction in the fiscal deficit in Ireland, Denmark and Chile because of the increase in output growth and tax revenue. Those countries experienced quick output recovery after adopting fiscal adjustment policies. Consequently, the changes in tax structure were associated with increased tax revenue and correction of the fiscal deficit (Corbo 1985; Giavazzi & Pagano 1990b; Alesina & Perotti 1997). In Tanzania, output growth and recovery was slow, and this partly explains the persistent deficit in the country in the 1982-85 periods.

5.3 Fiscal Adjustment Policies during Policy Reform Period 1986-2000

The persistent fiscal deficit, high inflation rate and current account deficit compelled the Tanzanian government to adopt economic policy reforms in 1986-2000 period. The reforms led to the change of the economic policy regime from a controlled socialist economy to a market economy regime. In a new economic policy regime,

fiscal adjustment policies also emphasised the reduction of the fiscal deficit, correction of macroeconomic imbalances and structural changes.

5.3.1 Fiscal Adjustment and Economic Recovery Programme 1986-95

In the 1986-95 period, fiscal adjustment policies were designed to correct the fiscal deficit through public spending cuts and increases in tax revenue. The government rationalised its functions and retreated from indulging in the production and distribution of private goods and services in order to reduce public spending. Measures to increase tax revenue generation included the expansion of the tax base, and enhancement of tax compliance by lowering tax rates and simplifying tax procedures. Changes in the tax structure were also designed to support liberalisation of the economy and promotion of exports to increase output growth through attraction of domestic and foreign investors.

Table 5.4 shows the effect of a reduction in public spending and changes in the tax structure in correcting the fiscal deficit as indicated by the primary balance. It shows a negative primary balance in all the years suggesting discrepancy between public spending and tax revenue. However, the changes in the primary balance suggest that fiscal adjustment policies resulted in a reduction of the fiscal deficit in 1986, 1989 and 1995.

The table also suggest that a large discrepancy between public spending and tax revenue occurred in 1988, 1991 and 1993. The fiscal imbalance preceded the year of adjustment episode**.** In this respect, further insight into the changes of the primary balance required an examination of the content and components of fiscal adjustment policies adopted in Tanzania between 1986 and 1995.

As highlighted before in this chapter, fiscal adjustment policies constituted public spending cuts. Fiscal adjustment policies excluded the restructuring of public enterprises, which were one of the main causes of the fiscal deficit in Tanzania (Lipumba 1992). For example, public enterprises in the industrial sector made a loss worth TShs13 billion in 1988 and TShs9 billion in 1989 (Wangwe 1992). The inefficiency of public enterprises led to an increase in public spending and debt burden to the government because the latter had to subsidise poor performing public

enterprises. This confirms the observations by Ter-Minassian & Schwartz (1997) that lack of fundamental reforms resulted in the failure of fiscal adjustment policies in developing countries.

Table 5.4: Primary Balance and Fiscal Adjustments in the 1986-95 Period

Year	Primary balance (in percentage of GDP)	Changes in primary balance (in percent)	Episode of adjustment	Specific adjustment measures Adopted
1986	-6.16	-39.98	XX	(i)changes in the structure of income and sales taxes (ii)frequent adjustment of the value of domestic currency (iii)cuts in public recurrent and investment spending
1987	-6.53	6.00	-	
1988	-14.39	120.25	-	
1989	-6.28	-56.36	XX	(i)rationalising taxes through unification of taxes for the same locally and imported goods (iii)reintroduction of the taxes on exportable crops (iv)cuts in public recurrent and investment spending
1990	-7.62	21.33	-	
1991	-10.86	42.59	-	
1992	-10.17	-6.37	XX	(i) lowering tax rates and broadening tax base (ii)closing bonded warehouse to curb tax evasion (iii)abolition of taxes on exportable agricultural commodities
1993	-11.77	15.72	-	
1994	-9.62	-18.30	XX	(i)introduction of market determined exchange rate (ii)further rationalisation of indirect and direct taxes
1995	-5.66	-41.13	XX	Same policies as in 1994 adjustment episode

Note: "XX" a year in which fiscal adjustment occurred
Source: Bank of Tanzania (1990;1996; 2002) IMF, (1990; 1996; 2000), World Bank (2003)

In the 1986-95 period, failure to attain a lasting reduction in the fiscal deficit is also linked to an increase in demand for public goods and services. As in the previous adjustment episode, the Tanzanian government reduced public spending in all spending categories in the 1986-89 periods (Engberg-Pedersen et al. 1996). Consequently, public physical facilities and delivery of social services deteriorated. Thus, government actions were required to reverse the decline in the provision of public goods and infrastructure, leading to an increase in public spending.

The requirement for increased public spending after fiscal adjustment periods confirms the findings by Roche & Pichetti (2003) and Ismihan, Meti-Ozcan & Tansel (2003) that cuts in spending for the provision of public goods and maintenance of infrastructure cannot be sustained over a long time. In the future, a need for an

increase in public spending arises. Alesina & Perotti (1997) also observed that the composition of fiscal adjustment policies determine their success in correcting the fiscal deficit. This also suggests that the composition of public spending cuts also determined the success of fiscal adjustment policies in Tanzania. While the cut in transfer payments and subsidies may contribute to lasting fiscal balances, cuts in public spending in the provision of infrastructure and social services generated a need for increased public spending in the future.

The increase in spending for the delivery of social services and infrastructure was also necessary in order to provide social services and reduce poverty in Tanzania. This further suggests that there was pressure to increase public spending in the 1986-95 period. In that respect, an increase in tax revenue was indispensable for reducing the fiscal deficit and meeting public spending needs. This prompted an analysis of the taxation level in the 1986-95 period to gain insight on the effect of the tax based fiscal adjustment policies in generating additional tax revenue and correcting the fiscal deficit in Tanzania.

As shown in section 2.5.4 of Chapter Two, the tax revenue-GDP ratio fluctuated considerably in the 1986-95 period. The ratio declined from 19 percent in 1986 to 12 percent in 1989 and increased to 13 percent in 1991. The tax revenue-GDP ratio increased to 16.45 percent in 1992 and was 14.4 percent in 1994 and increased to 15 percent in 1995. The variations of tax revenue were associated with temporary and permanent changes in the tax base in different periods.

As in the previous adjustment period, macroeconomic policies, GDP growth and the size of the informal economy determined the size of tax base and tax revenue generation. In addition, the inflow of foreign funds was also associated with the substitution between the foreign funds and domestic revenue collection. For example, in 1992, the government granted tax exemption on 37 percent of the total value of imports (World Bank 1996). This also partly explained not only the variation in the taxation level but also large dependence of the annual government budget on foreign funds. Foreign funds persistently contributed about 40-45 percent of the total government budget in Tanzania in the 1986-95 period (United Republic of Tanzania 1997). In addition, Semboja (1995) observed that 85 percent of the

recurrent and investment spending in social services was funded by donors. However, Semboja (1995) argued that the growth in importance of the external financing of recurrent spending, in 1986-94, was a filling gap measures rather than permanent element of financing recurrent spending.

As highlighted earlier in the chapter, the fiscal adjustments policies necessitated changes in the tax structure. The government rationalised and lowered tax rates in anticipation that increased output growth would compensate for the fall in revenue due to the lowering of rates. The output growth would arise from policies that enhanced the liberalisation of the economy and improvement of the allocation of resources in the domestic economy. As shown in Table 2.6 of Chapter Two, Tanzania registered modest output growth in the 1986-92 period. In this respect, GDP growth could not compensate for the fall in tax revenue as a result of the lowering of the tax rates.

In addition, the inefficiency in public enterprises persisted in the 1986-93 period. For example, in 1990 only 175 public enterprises made a pre-tax profit of TShs16 billion but 189 enterprises made a loss worth TShs33 billion (Wangwe 1992). Most manufacturing firms operated between 30 and 40 percent of their installed industrial capacity in the 1986-94 period (Mjema & Shitundu 1995). Although, capacity utilisation was still low, it signified modest improvement in the performance of public enterprises compared to the 1980-85 adjustment period. It also indicated slow output recovery after economic policy reforms. Given the low manufacturing GDP recovery, it is obvious that the tax base was not growing and that the changes in tax structure could not result in a large increase in income tax revenue.

The Tanzanian government fully liberalised domestic and external trade and lowered the tariff rates in 1986. In addition, the government continued with periodic adjustment of the value of domestic currency in the 1986-94 period. The correction for the overvaluation of the nominal exchange rate resulted in an expansion of the tax base on imports and sales taxes on imported goods. However, tax compliance and tax exemptions granted determined the level of tax revenue collection (Mpango 1995; Osoro 1994). Many tax exemptions and tax evasion minimised a positive impact of the expansion of tax base on increasing tax revenue.

The high inflation rates also led to a narrowing of the tax base as individuals tried to adjust their portfolios in favour of assets that escape the domestic tax net. Tanzania experienced a high inflation rate that averaged about 30 percent per annum in the 1986-95 period. The high inflation rate was associated with the enlargement of the informal economy including the accumulation of properties and assets that were not taxed (Mushi 2003). The informal economy as a percentage of GDP increased from 27 percent in 1988 and reached 53 percent of GDP in 1995. This also confirms the observation by Monsingh (1999) who found that individuals in India invested in properties in the informal economy in order to avoid paying taxes.

Apart from the inflation rate, the inflow of the foreign funds is another factor that influenced the taxation level in Tanzania. Fjetdstad & Rakner (2003) identified that there was a close association between the taxation level and the inflow of foreign funds in sub-Saharan African countries. The inflow of foreign funds influenced tax revenue by temporarily increasing the tax base because the level of economic activities responded to the inflow (Seade 1990). The tax base narrowed, after the decline of the inflow of foreign funds. In Tanzania after policy reforms, that is, in the 1986-92 period, the inflow of foreign funds increased but declined in the 1993-95 period (Doriye 1995). Inflows of foreign funds were used to import spares and intermediate inputs that enhanced capacity utilization in manufacturing industries in the 1986-92 period. In this regard, the foreign funds increased the level of economic activities and output growth in the 1986-92, but declined in 1993-95 period and this negatively affected the tax base.

In 1988, the government abolished export duties on agricultural commodities and reintroduced these again in 1991. Since agricultural produce constituted a large part of exports and generated about 75 percent of the foreign exchange earnings, the reintroduction of the taxes had an adverse impact on the volume of exports and tax revenue. In contrast, the termination of export taxes should have resulted in an increase in output growth and expansion of the tax base in Tanzania. However, Lipumba & Ndulu (1989) suggested that since the termination and reintroduction of export taxes resulted in uncertainties in the prices the farmers received, such changes adversely affected the production of exportable agricultural commodities and tax revenue.

In sum, the reduction in the fiscal deficit in a few adjustment episodes was associated with an increase in tax revenue generation in Tanzania. Changes in macroeconomic policies were associated with expansion or narrowing of the tax base leading to an increase or decline in tax revenue generation temporarily. Moreover, modest real GDP and per capita GDP growth, in the 1986-95 period, suggests that the expansion of tax base in Tanzania was not sustainable.

5.3.2 Fiscal Adjustment Policies in the 1996-2000 Period

Between 1996 and 2000 fiscal adjustment policies emphasised controlling public spending, and matching it with the available tax revenue as well as reducing domestic payment arrears. The government also initiated tax reforms in order to increase tax revenue generation and attain macroeconomic stability (IMF 1999). The purpose of tax reforms included the enhancement of tax revenue adequacy, improvement in economic efficiency and simplicity of the tax system. Tax reforms involved the lowering of tax rates and expansion of the tax base by increasing items and activities, which were taxed. The reforms also covered changes in tax administration and included both direct and indirect taxes.

The impact of fiscal policy measures on correcting the fiscal deficit was indicated by the primary balance changes in the 1996-2000 period (see Table 5.5). Between 1996 and 2000, the ratios of the primary balance to GDP were lower than those of the 1986-95 period. The ratio also showed considerably lower yearly variation.

Table 5.5 also shows that the primary balance deteriorated from 3.6 percent in 1996 to 5.2 percent in 1997, it improved to 3.7 percent in 1998 and deteriorated to 6.2 percent in 2000 period. The percent changes in the primary balance indicated that the fiscal deficit declined in 1996 and 1998, by 35.6 and 28.6 percent respectively.

The decline in the fiscal deficit as indicated by the both primary balance as ratio of GDP and percentage changes may be largely attributed to new budget approach that emphasised matching fiscal revenue and public spending. In addition, institutional reforms led to the streamlining of government activities and changing of spending priorities. The focus of government spending was on traditional core activities, that is, maintaining law and order, security and fostering a competitive environment for

the operation of private economic agents. Such measures were associated with the decline in recurrent spending in Tanzania in the 1996-2000 period.

Table 5.5: Primary Balance and Episodes of Fiscal Adjustments in the 1996-2000 Period

Year	Primary balance (in percentage of GDP)	Changes in primary balance (in percent)	Episode of adjustment	Specific adjustment measures adopted
1996	-3.64	-35.62	XX	(i)matching fiscal revenue with public spending (ii)including allowances and interest income in the taxable income category (iii)rationalising corporate income taxes for both local and foreign firms (iv) institutional and civil service reforms (iv) cuts in public recurrent and investment spending
1997	-5.24	43.79	-	
1998	-3.74	-28.59	XX	(i) introduction of Value Added Taxes (iii)reintroduction of taxes on exportable agricultural crops [10]
1999	-3.96	5.83	-	
2000	-6.23	57.22	-	

Note: "XX" a year in which fiscal adjustment occurred
Source: Bank of Tanzania, (1997; 2000 2002); IMF, (1997, 2000); World Bank (2003)

Institutional reforms also led to the commercialisation and privatisation of public enterprises. Thus, the government was able to relieve itself from investing in public enterprises producing private goods and services and providing subsidies to inefficient public enterprises. However, payments for both domestic and external debts increased public spending in Tanzania in the 1996-2000 period (Mbele 2001). Debt payment increased because of the government's unwavering commitment to external debt payments that aimed to improve the prospects of external funding.

Between 1996 and 2000, tax policy reform was also one of the measures to increase tax revenue and correct the fiscal deficit in Tanzania. The impact of the tax reforms on tax revenue was indicated by tax revenue-GDP ratio between 1996 and 2000. During this period, the tax revenue-GDP ratio was lower than in the previous adjustment periods. With the exception of 1997, tax revenue was about 10 percent of GDP in the 1996-2000 period. Given that GDP growth was modest, the low tax revenue-GDP ratio suggests that tax revenue was low.

---

[10] Taxes on exportable agricultural commodities were abolished in 1984 and reintroduced again in 1988. They were also abolished in 1991 and reintroduced in 1997. The government abolished the taxes again in 2000.

The low level of taxation was attributed to economic policy measures adopted in the 1996-2000 period. Tax reforms were introduced, when restructuring and privatisation of public enterprises were taking place and the industrial capacity utilisation was still modest. Privatisation and commercialisation of public enterprises led to the reorganisation of production and distribution and affected output growth. Few manufacturing industries performed well after reorganisation and increased capacity utilisation above 50 percent of their installed capacity. However, a number of privatised firms did not start production because of obsolete technology or lack of capital (Guardian 2004). This contributed to the narrowing of the tax base for income and sales taxes as well as a loss of tax revenue.

In the 1996-2000 period, the shrinking of the tax base was also due the growth in the size of the informal economy as a ratio of GDP in Tanzania. The size of the informal economy increased from 55 percent of GDP in 1996 to 58 percent of GDP in 1997. It declined to 51 percent of GDP in 1998 and increased to 68 percent of GDP in 1999 and declined to 51 percent of GDP in 2000. Compared to the previous adjustment period, the size of the informal economy as percentage of GDP was larger in the 1996-2000 period. The growth of the informal economy is associated with tax evasion for income taxes, custom duties and VAT (Chipeta 2002). Its large size also meant the loss of tax revenue in Tanzania.

Tax based fiscal adjustment policies also focused on rationalising the tax system and lowering tax rates in order to increase tax revenue. However, such measures were not a panacea for increasing tax revenue in Tanzania. For example, despite the rationalisation of custom duties and tariffs, the collection of tax revenue was low because of the accumulation of payment arrears of customs duties and tax evasion. Delays in the payment of taxes were prompted by the high inflation rate and the *Customs Tariff Act of 1976* that allowed payment of customs duties in instalments (Ghura 1998; Mpango 1995). According to the Act, the Minister also had discretionary powers to exempt tax or allow a taxpayer to pay tax on instalment. Such powers has occasionally been misused by the Minister (World Bank 1996)

As one of the measures to expand the tax base and rely on commodities and the consumption tax base, the government introduced the VAT in 1998. The VAT has

not only a wide tax base but also is a reliable base. The proportion of sales taxes to total tax revenue increased from 24 percent in 1997 to 33 percent in 1998 and to 36 percent in 2000 (see Table 2.5 and Section 2.5.3 in Chapter Two).

However, inappropriate fiscal procedures deterred the effect of the changes in the tax structure to increase tax revenue in Tanzania. The scope of the VAT exemption expanded after its introduction in 1998. The number of exempted items increased from 19 to 39 (Fjelstad, Hussein, & Shallanda, 2002; Fjeldstad & Semboja 2001). The consequence of such amendments was to narrow the tax base and to reduce the productivity of the tax system. The exemptions also increased distortions in the economy and inequities. In addition, exemptions provided opportunities for their abuse and facilitated the growth of informal economy activities.

The government also re-introduced export taxes on exportable agricultural export crops, that is, cotton, coffee, cashew nuts, tea, tobacco and sisal in 1997, but it had abolished taxes on them in 1991. The taxes were again abolished in 2000. As mentioned before in this chapter, the termination and reintroduction of export taxes in different periods created uncertainties in the prices of agricultural produce, which farmers received. This resulted in restricting the production of exportable agricultural commodities. In particular, the taxes prompted farmers either to produce maize or rice or vegetables or smuggle their produce, particularly coffee, to neighbouring countries where prices were high (ESRF & TBC 1997; Mshomba 1993; Maliyamkono & Bagachwa 1990). Taxes are not charged on maize or rice in Tanzania.

In the 1996-2000 period, fiscal adjustment policies resulted in lowering the level of fiscal deficit compared to the previous adjustment periods. The lower fiscal deficit was a result of fiscal adjustment policies that emphasised matching revenue and public spending. In addition, in order to increase tax revenue tax reforms involved the lowering of tax rates, rationalisation of the taxes and expansion of the tax base. However, despite such changes the level of taxation was low. In particular, increased revenue as a result of tax changes depended on the consistency between macroeconomic and fiscal adjustment policies including GDP growth and improvement in tax administration.

5.3.3 Examination of the Outcomes of Fiscal Adjustment Policies in Correcting the Fiscal deficit During the Policy Reform Epoch

Percentage changes in the primary balance before and after adjustment episodes were compared to identify whether fiscal adjustment policies resulted in a lasting decline in the fiscal deficit in Tanzania. As previously highlighted in this chapter, according to Purfield (2003), fiscal adjustment results in successful adjustment if the average general primary balance as a ratio of GDP in two years after the fiscal contraction is at least two percentage points lower than in the two years prior to adjustment. In this study the percentage changes in the primary balance as a ratio of GDP were used to discern episodes of successful adjustments.

Table 5.6 indicates that four successful adjustment episodes occurred between 1986 and 2000 in Tanzania. They occurred in 1989, 1992, 1995 and 1998. The examination of percentage changes in primary balance after the adjustment episodes suggested that although adjustment policies resulted in a decline in the fiscal deficit, the reduction in deficit was not lasting. After the 1989 adjustment episode, the primary balance increased by 21 percent in 1990 and declined by 42 percent in 1999.

Table 5.6:Primary Balance Changes and Fiscal Adjustment Episodes in Tanzania During the Policy Reform Period

	Adjustment Episodes			
Item	1989	1992	1995	1998
Primary balance in percentage change two years before adjustment episode	6.0 (1987)**	-6.4 (1990)**	15.7 (1993)**	-35.6 (1996)**
Primary balance in percentage change one year before adjustment episode	120.3 (1988)**	-15.7 (1991)**	-18.3 (1994)**	43.8 (1997)**
Primary balance Percentage change in adjustment episodes	-56.4 (1989)**	-22.0 (1992)**	-41.8 (1995)**	-28.0 (1998)**
Primary balances in percentage change one year after adjustment episode	21.33 (1990)**	15.72 (1993)**	-35.9 (1996)**	5.83 (1999)**
Primary balances in percentage changes two year after adjustment episode	-42.6 (1991)**	-18.3 (1994)**	43.8 (1997)**	57.22 (2000)**
Unsuccessful adjustment episode	X	X	X	X

** :Shows years
X: indicates a particular episode was unsuccessful
Source: Bank of Tanzania, (1990; 1996; 2002); IMF, (1990; 1992; 1997;2000); World Bank (2003)

Two years after the 1992 adjustment episode, that is, in 1993 and 1994 the primary balance increased by 16 percent and thereafter declined by 18 percent respectively. The fiscal deficit declined by 36 percent in 1996 and by 44 percent in 1997, after the 1995 adjustment episode. The fiscal deficit increased in the two consecutive years after the 1998 adjustment episode. The primary balance as a ratio of GDP increased by 5.8 percent and 57.22 percent in 1999 and 2000 respectively.

The failure of fiscal adjustment policies to result in sustainable decline in fiscal deficit may be linked to design of the fiscal adjustment policies pursued. For example, the government did not foresee the implications of reducing the fiscal deficit by cutting public recurrent and investment spending, which required an increase in spending in subsequent years. The need for increased spending required a corresponding increase in tax revenue, but revenue was inadequate.

In the 1986-95 adjustment periods, public spending cuts were one of the policy measures adopted to correct the fiscal deficit in Tanzania. The government reduced public spending while output growth was low. In such a situation public spending aggravates output decline and the fiscal deficit (Wahab 1995). This partly explains the persistent fiscal deficit in Tanzania. Since the Tanzanian economy was growing modestly, the adoption of tax based adjustment policies required the corresponding alternative reliable tax base that could ensure an increase in tax revenue in Tanzania.

Fiscal adjustment policies in the 1996-2000 period, emphasised matching public spending and tax revenue. Given that, the government could not generate sufficient tax revenue, it reduced public spending, leading to low output growth. This suggests that the fiscal adjustment policies were pro-cyclical in Tanzania. The results are also consistent with the observation by Búlir & Moon (2003) and Gavin & Perotti (1997) who found that governments which were unable to raise sufficient revenue reduced public spending to balance their budgets. However, attempts to balance the budget when the output was low, was pro-cyclical and could be associated with a persistent fiscal deficit.

The adoption of pro-cyclical policies in developing countries is also associated with limited development of automatic stabilisers. As observed by Hopkins (2004) most developing countries have less developed automatic stabilizers. As a result, during economic expansion or contraction, the fiscal stance will be pro-cyclical. The reason is that changes in public spending and taxes follow GDP trends. As a result, during an expansion no surplus is generated and during a contraction, the fiscal deficit increases.

The Tanzanian government adopted tax adjustments, while it was pursuing policy measures that focused on restructuring and reorganizing production. In particular, fiscal adjustment policies were adopted when capacity utilization was low, privatisation and commercialisation of public enterprises was implemented, and privatised enterprises were reorganizing production, leading to slow output recovery and growth. Thus, in such situation, changes in the tax structure could not result in an increase in tax revenue.

5.4 Fiscal Adjustment Policies and the set Macroeconomic Variable Targets

The success of fiscal adjustment policies in correcting the fiscal deficit was also indicated by the level of the inflation rate and real GDP growth in Tanzania. The Tanzanian government set targets in regard to inflation and GDP growth rates to be attained. The set targets were also benchmarks for assessing the achievement of fiscal adjustment policies.

A comparison of the set inflation targets and actual inflation rates indicated a large discrepancy between the two in the different adjustment periods (see Table 5.7). The actual inflation rate was above the set targets in all adjustment periods. This suggested that monetisation of public debt and bank borrowing continued after the adoption of fiscal adjustment policies. In Tanzania, the high inflation rates were associated with the fiscal deficit due to monetisation of public debt and increased borrowing from commercial banks (Collier & Gunning 1991;Kilindo 1992).

The prevalence of the high inflation rate also suggested that fiscal adjustment policies were inadequate in promoting macroeconomic stability, a necessary condition for stimulating output recovery and growth. Macroeconomic stability was

also essential for enhancing the participation of the private sector in the market economy.

Table 5.7 also indicates variation between the targeted and actual real GDP growth in different adjustment periods in Tanzania. In all the adjustment periods, real output growth was below the set targets (United Republic of Tanzania 1982, 1986, 1997, 1998). Low output was partly associated with low productivity growth in Tanzania (World Bank 1996; 1999). Sustained output growth arises from an improvement in productivity growth. Increased public spending on human capital and an increase in domestic saving have a positive effect on productivity growth and capital formation respectively. The level of tax revenue is one of the factors that determine public spending and domestic savings. A well-designed tax policy can result in increased tax revenue for public spending and savings.

Table 5.7:Targeted Inflation and GDP growth in Tanzania in the 1973-2000 Period (Figures in percent)

Item	Adjustment Periods			
	1973-1977	1982-1985	1986-1995	1996-2000
Targeted inflation Rates	5.00	20.00	10.00	5.00
Actual inflation	13.00	30.00	31.00	14.00
Gross Public Debt [11]	68.70	73.10	166.10	106.30
Real GDP growth target	5.00	5.00	4.50	6.00
Actual real GDP growth	5.00	1.80	3.80	4.10
Real per capita GDP	2.50	-2.30	0.24	1.50

Source: United Republic of Tanzania, (1982; 1986; 1998; 1997; 1998; 2002); Bank of Tanzania, (2005); Mjema (2000); IMF (1999);

As highlighted in Section 2.6 in Chapter Two, productivity growth in Tanzania was low. The World Bank & United Republic of Tanzania (2001b) also acknowledged that productivity was low over the past two decades and this restricted output growth in Tanzania. As a result of a low real GDP and per capita GDP growth, the growth of tax base was restricted.

5.5 Discussion of Results

The results of examining the effect of fiscal adjustment policies on the primary balances suggested that fiscal policy changes were associated with the reduction of

---

[11] Gross public debt is in Tanzania currency (Shillings). The figures is as a percentage of GDP and annual average for the respective period

the fiscal deficit in some years in Tanzania. Although the fiscal deficit declined, it was not durable. The level and changes in the primary balances also suggested that the imbalance between fiscal revenue and public spending persisted over the years in Tanzania. The correction of fiscal deficit as well as attainment and sustainability of macroeconomic stability in Tanzania required a consistency between tax revenue and public spending growth.

The fiscal deficit may not necessarily indicate the inadequacy of the fiscal policies. The deficit may be a result of exogenous events such as the deterioration of the terms of trade or changes in external demand or global economic shock. The World Bank & United Republic of Tanzania (1999) pointed out that although an exogenous economic shock may cause a fiscal deficit, the deficit last for a short period in countries pursuing appropriate macroeconomic policies. In addition, temporary fiscal imbalance requires short-term policy measures such as using a government's reserves to correct the fiscal deficit. However, the persistent fiscal deficit in Tanzania, signified inadequacy fiscal policies and low tax revenue.

In Tanzania, policies to correct the fiscal deficit included an increase in tax revenue or adjustment in public spending or both. The choice of specific adjustment policies was determined by the growth of the economy, social and distributional objectives and the expected outcomes of the policies on the fiscal deficit reduction. The feasibility of policies and the primacy of stabilisation objectives also determined the choice of fiscal adjustment policies in Tanzania.

5.5.1 Fiscal Adjustment Policies prior to Policy Reform 1973-85

Fiscal adjustment policies, in the 1973-85 period, were intended to overcome the fiscal deficit and macroeconomic instability in Tanzania. As part of tax based adjustment policies, the government raised tax rates, introduced new taxes and improved tax administration to raise tax revenue. The reliability and the size of the tax base determined the effect of tax changes on generating additional tax revenue in different adjustment periods. Government economic policies on industrialisation and the exchange rate including the design of taxes and the size of the informal economy influenced the reliability and size of the tax base and tax revenue generation in Tanzania.

The performance of the Tanzanian economy was characterised by low output growth in the 1979-84 period. Low GDP growth was largely a result of inappropriate economic policies the government pursued that were biased against the agricultural sector and led to the excessive expansion of industrial capacity utilisation (Bagachwa 1992; Maliyamkono & Bagachwa 1990). The expansion of industrial capacity was without due regard to productivity growth.

Low capacity utilisation and output in public manufacturing firms affected the performance and profits of the public enterprises. Low manufacturing output growth also reduced the consumption tax base. Given that public firms constituted a large part of the modern sector in the economy and contributed 64 percent of corporate taxes, the foregone tax revenue due to the big number of firms that operated at a loss, was large. In this respect, the tax base for corporate income tax and sales taxes narrowed and hampered the effect of the changes in the tax structure in generating additional tax revenue. Chipeta (2002) also identified that the limited growth of the tax base was associated with low tax revenue generation in Malawi.

The exchange rate policy also determined the size of the tax base and the effect of adjustment policies on correcting the fiscal deficit in Tanzania in the 1973-85 period. The overvaluation of the domestic currency narrowed the tax base, but correction of the overvaluation expanded it. As highlighted in Section 5.2.2, the government became aware that overvaluation of the domestic currency narrowed the tax base and affected output growth, thus from mid 1984 it frequently adjusted it (Kaufmann 1999; Maliyamkono & Bagachwa 1990). The change in exchange rate policies was associated with an increase in tax revenue and reduction of the fiscal deficit in 1985. Such a policy measure was not a reliable means to finance government spending.

In Tanzania, the high inflation rate was also associated with a decline of real tax revenue because of the delays in the payment of taxes and its effect on the tax base. This was common particularly for customs duties and sales taxes on imports because customs regulation provided an option to pay taxes in instalment. Therefore, the high inflation and the legal provision to pay taxes by instalment resulted in a narrow tax base. Ayoki, Obwona & Ogwapus (2005) also observed that high inflation rates

prompted taxpayers to delay payment of due taxes in Uganda in the 1988-1994 period.

In addition, the high inflation rate prompted individuals to accumulate their assets in the informal economy to avoid paying taxes, thus narrowing the tax base (Maliyamkono & Bagachwa 1990). This also restricted the impact of changes in tax structure in generating additional tax revenue in Tanzania. In 2002, De-Soto observed an increase in assets and properties in the informal economy that were not taxed in Tanzania (Mushi 2003; Financial Times 2004). In addition, the size of the informal economy grew from 7 percent of GDP in 1974 to 32 percent in 1985 in Tanzania. Chipeta (1998) also found an association between the informal economy and tax evasion in Malawi in the 1967-90 period. In this respect, the enlargement of the informal economy signified the loss of tax revenue in Tanzania.

In the 1973-85 period, taxes were also used to achieve long-term development objectives such as industrialisation, to protect domestic industries and to deter consumption of luxury commodities in Tanzania. In that respect, multiple and differentiated taxes were introduced for public enterprises and private firms, with the purpose of fostering public firms' growth and the control of the economy. Such practices resulted in a tax structure that was complicated and inefficient because it was difficult to administer and enforce tax compliance in Tanzania. Multiple tax rates and a complicated tax structure also created opportunities for corruption among dishonest workers. For example, Mpango (1995) observed that exemptions on import duties and sales taxes accounted for 22 percent of actual tax collections in the 1982-83 period in the Tanzania.

Apart from introducing many taxes, the government also increased tax rates to generate tax revenue. As a result, Tanzania had not only multiple taxes but also high and differentiated tax rates that were a disincentive to production and tax compliance (ESRF & TBC 1997). This also suggests that the tax base in Tanzania was narrow and weak because the government relied on few items or taxpayers to generate tax revenue. For example sales taxes were charged on manufactured goods only (World Bank 1996).

Fiscal adjustment policies were not adequately designed to foster output growth in Tanzania in the 1973-85 period. The emphasis of fiscal adjustment policies was on the correction of macroeconomic imbalances and the fiscal deficit. The government chose to ignored that properly designed fiscal adjustment could result in an increase in output growth, tax revenue and overcome both macroeconomic imbalance and the fiscal deficit. Specifically, the adjustment policies did not foster efficiency in the allocation of public funds and fast output recovery. Output recovery and growth was necessary for overcoming the fiscal deficit. Turkey and Egypt were able to overcome their fiscal deficits through an increase in tax revenue because the economy was growing (Koptis 1987; Subramanian 1997).

In sum, in the 1973-85 period, macroeconomic policies, output growth, the informal economy and tax administration affected tax revenue in Tanzania. Macroeconomic conditions resulted in temporary changes in the tax base, affected the taxation level and correction of fiscal deficit. Low output growth and feeble tax administration also had an adverse impact on tax revenue generation. In addition, the design of fiscal adjustment policies discouraged the fostering of output growth in Tanzania. This partly explains the inadequacy of fiscal adjustment policies and the changes in tax structure to result in a durable fiscal balance in Tanzania.

5.5.2 Fiscal Adjustment after Policy Reform 1986-2000

After policy reform in 1986, the focus of fiscal policy was on correcting the fiscal deficit, attaining macroeconomic stability and stimulating output growth in Tanzania. In particular, policy reforms emphasized an increase in tax revenue through the expansion of the tax base. Tax changes led to the abolition of complicated taxes, unification of the tax structure and lowering of tax rates. The government rationalised the tax system and simplified tax administration to enhance efficiency in tax collection. The changes in the tax system were also designed to enhance efficiency and incentives in production and improve the allocation of domestic resources.

The effect of tax adjustments on generating additional tax revenue was determined by the impact of the policy measures that aimed to increase efficiency in the allocation of resources and output growth in Tanzania. Those measures affected the

tax base. The government adopted several policy measures to enhance structural changes and efficiency in allocation of resources. The measures included external trade liberalisation and the adjustment of the nominal exchange rate. These measures led to an increase in tax revenue from both exports and imports and were associated with an increase in tax revenue and a reduction of the fiscal deficit in 1986 and 1989. However, imports were not reliable sources of tax revenue because they depended on the availability of foreign exchange earnings and the performance of the export sector, that was not always doing well.

From 1992, as part of structural change measures, the government restructured, commercialised and privatised public enterprises. Those measures were necessary to ensure the reduction of the fiscal deficit because inefficient public enterprises were a financial burden to the government. The measures were also essential to ensure production and distribution of private goods was undertaken by the private firms, which are guided by efficiency and profit maximisation principles and can pay taxes. In this regard, an increase in tax revenue depended on the performance of the privatised firms. However, commercialisation and privatisation of public enterprises were associated with low output growth in the 1992-95 period. Low output was a result of reorganisation of production and distribution process that was necessary after privatisation. In addition, the government privatised enterprises with obsolete technology and thus some firms did not start production even 8 years after privatisation because of the lack of capital and modern technology (Guardian 2004). Thus, despite privatisation measures the output growth remained low and tax base narrow in the 1992-95 period.

The decline in output growth continued in the 1996-2000 period. Low output growth was exacerbated by the tight fiscal and monetary policy pursued to reduce the fiscal deficit and the high inflation rates. In the 1996-2000 period, the impact of those policy measures was revealed by a low taxation level. The taxation level was lower than in any other previous adjustment period (see Section 2.5.3 and Figure 2.1 in Chapter Two).

The finding that trade liberalisation and output growth were associated with changes in revenue in Tanzania, confirms the findings by Ghura (1998) and Tanzi (1989) that

macroeconomic policies and GDP growth, influence the taxation level in developing countries. They also influence the success of fiscal adjustment policies in correcting the fiscal deficit and macroeconomic imbalances.

Further evidence of the effect of macroeconomic policies on tax revenue was indicated by the impact of the adoption of a market determined exchange rate on the tax base in 1994. The adoption of the new exchange rate policy resulted in adjustment of the rate in line with changes in prices. This led to an increase in the value of imports and tax base. Correction of the overvaluation of the domestic currency resulted in an increase in tax revenue from import duties, export and excise taxes. The change in exchange rate policy was associated with an increase in tax revenue and reduction of the fiscal deficit between 1994 and 1995.

Ayoki, Obwona & Ogwapus (2005) also observed that exchange rate and imports influenced the taxation level in Uganda in the 1988-2004 period. Tax revenue from imports and exchange rate adjustment was not reliable and could not sustain a reduction in the fiscal deficit because Tanzania experienced a persistently high inflation rate that also adversely affected the value of the domestic currency. In addition, for a number of years, the inflation rates in Tanzania were higher than of its trading partners (World Bank and United Republic of Tanzania 2001a). This also suggests that the domestic currency was overvalued and may have adversely affected the allocation of resources and output growth in Tanzania.

As indicated in Section 5.4, the high inflation rate in Tanzania was associated with government deficit financing. It was also shown that Tanzania experienced a persistently high inflation in the 1986-1995 period. The high inflation rates also affected tax revenue from specific taxes because taxpayers delayed paying due taxes. Ayoki, Obwona & Ogwapus (2005) also observed that the high inflation rate affected the collection of import taxes in Uganda.

Tight fiscal and monetary policies resulted in a lower inflation rate in the 1996-2000 period. Tanzi (1989) also observed that lower inflation led to an increase in tax revenue, if the size of the average collection lag decreased. However, in Tanzania, despite the decline in the inflation rate, the collection lags were still high. One of the

reasons for a long collection lag was the Custom Duties Act that provided the opportunity for payment of due duties by instalment and the Minister of Finance had discretionary power to allow the payment of taxes by instalments.

The informal economy also restricted the effectiveness of fiscal adjustment policies in reducing the fiscal deficit in Tanzania. The large increase in the size of the informal economy occurred in the 1988-89 and 1996-2000 periods. The large size signified a loss of tax revenue because a large part of income and transactions fell outside the tax system. For example, in Tanzania, Bagachwa, Luvanga & Mjema (1989) found that house owners who rented to expatriates earned US$43Million without paying taxes in 1988. Chipeta (1998; 2002) also observed that non-expansion of the tax base and a limited increase in tax revenue was associated with the informal economy and tax evasion in Malawi.

Tax reforms were also motivated by the need to restructure the tariff structure, strengthen the administration of customs duties and enhance tax compliance as a measure to increase tax revenue in Tanzania. Limited improvement in tax administration was realised because tax evasion and abuse of exemptions persisted after policy reforms. Mpango (1995) found that tax exemptions amounted to 88 percent of the actual import duties and sales taxes on imported goods after the adoption of economic policy reforms, that is, in the 1986-1992 period. This suggests weak tax administration and abuses of tax exemptions.

As mentioned in section 5.3.2, exemption on sales taxes of imported goods was a common practice in the 1986-2000 period. Fjeldstad & Semboja (2001) observed that after the introduction of the VAT in 1998, the number of zero-rated and tax exempted items increased from 19 to 39. In addition, the items included in special tax reductions increased from 5 to 17. Given such a large number of exempted items, it is obvious that the consumption tax base was reduced. Therefore, though the government adopted tax reforms, their impact on increasing tax revenue were limited because of the practices that narrowed the tax base and restricted opportunities to increase tax revenue.

Although the government attempted to balance the budget through matching public spending and tax revenue, such an approach was pro-cyclical. The measures resulted in low output growth and exacerbated the fiscal deficit in Tanzania. Attempts to reduce the fiscal deficit by cutting public spending exacerbated the output decline because the reduction of public outlays occurred when output growth was low. This suggests that pro-cyclical policies were a result of the government response to fiscal and macroeconomic imbalances. This confirms the findings by Gavin & Perotti (1997) who found that Latin American countries pursued pro-cyclical policies as a response to economic and fiscal problems caused by recession. Kolodko (1992) also observed that although the problem of low output and fiscal deficit are common in countries pursuing stabilisation policies, the problem was exacerbated by policy mistakes. In Tanzania, the pro-cyclical policies may be associated with inadequate fiscal adjustment policies.

In sum, during the reform period, tax revenue generation was affected by macroeconomic conditions and pro-cyclical policy. These factors also affected the efforts to correct the fiscal deficit. Furthermore, rationalisation and unification of taxes was intended to improve tax administration and efficiency in tax revenue generation. However, tax exemptions affected the tax base of different taxes because they created opportunities for their abuse and tax evasion. Fiscal adjustment policies also resulted in output decline and a narrow tax base thus restricting the impact of changes in the tax structure in generating additional tax revenue.

5.6 Conclusion

The purpose of this chapter was to analyse the impact of fiscal adjustment policies on the primary balance in Tanzania in different adjustments periods. Descriptive statistics were used to analyse the impact of policy changes on primary balances in Tanzania. The changes in the primary balance reflected the impact of fiscal policies on correcting the fiscal deficit. The results from the study indicated that the improvement in the primary balance depended on additional tax revenue generation. However, in Tanzania, fiscal adjustment policies could not result in a lasting increase in tax revenue generation because the tax base was narrow and unreliable.

The findings also implied that changes in macroeconomic policies or macroeconomic conditions affected tax revenue generation in different adjustment periods in Tanzania prior to and during the policy reform era. The change in macroeconomic policies or conditions resulted either in expansion or narrowing of the tax base and this influenced the outcome of fiscal adjustment policies on correcting the fiscal deficit. However, the tax structure in Tanzania did not provide viable alternatives for sustaining tax revenue generation once macroeconomic conditions changed, both prior to and during the policy reform epoch.

The effect of fiscal adjustment policies in correcting the fiscal deficit depended on output growth. However, fiscal adjustment policies were pro-cyclical, thus leading to low GDP growth. This limited the effect of changes in the tax structure on generating tax revenue and correcting the fiscal deficit in Tanzania in all adjustment periods prior to and during the policy reforms. This suggests that inadequate fiscal adjustment policies or economic policies aggravated the fiscal deficit and fall of output in Tanzania.

CHAPTER 6

ECONOMETRIC ANALYSIS OF THE IMPACT OF ECONOMIC POLICY CHANGES ON PUBLIC SPENDING AND GDP TIME SERIES

6.1 Introduction

This chapter presents econometric methods for testing the impact of the changes in the economic policy regime on public spending and GDP series in Tanzania. It also provides results of diagnostic unit root tests and structural breaks in the series of the two variables. The test for a structural break in the data series is motivated by the need to understand whether economic policy reforms had an impact on public spending and GDP growth in the 1971-2000 period in Tanzania. The findings have important implications for fiscal and macroeconomic policies in Tanzania.

Regarding the data used in this study, it is worth mentioning at the outset that they were obtained from different sources. Overall, data from developing countries, Tanzania inclusive, are characterised by their paucity. In addition, the sample is not large enough to allow for an extensive testing. These features may have an impact on the quality of the results of this study.

After this introduction the rest of the chapter is organised as follows. Section Two presents the rationale for testing structural breaks in public spending and GDP time series. Section Three describes the unit root tests followed by Section Four describing the method for testing parameter stability. Section Five provides unit root diagnostic test results. Section Six presents the results of testing parameter stability. The last section is a conclusion.

6.2 Rationale for Testing Structural Breaks in Time Series Variables

This section provides some justification for the need to test for structural breaks in the public spending and GDP time series variables. Tanzania experienced incidences of exogenous events and policy changes in the 1970-2000 period. In the 1971-72 period, it experienced drought followed by the first oil price shock of the 1973-74 period. Between 1976 and 1978 the world market prices of coffee, cotton, tea, cashew nut and sisal increased temporarily, resulting in a sudden increase in foreign

exchange earnings for Tanzania. The country went to war with Uganda in the 1978-79 period. In the 1979-82 period, the country was hit by the second oil crisis followed by a drought in the 1983-84 period.

These exogenous events had an impact on tax revenue generation and public spending in Tanzania. While the oil shock and drought could be associated with low tax revenue generation, a sudden rise in foreign exchange earnings could lead to an increase in tax revenue. An increase in foreign exchange earnings provided an opportunity for increased imports and thus increased tax revenue from import duties. It may also have resulted in an increase in manufacturing output because a large number of industries depended on imported inputs and the scarcity of foreign exchange earnings resulted in low capacity utilization.

Drought and war were associated with an increase in public spending in Tanzania. Drought necessitated the government to import food and distribute it in different areas hit by famine in the 1973-74 period and the 1983-84 periods. In addition, participation in the Ugandan war meant that the Tanzanian government spent large sums of money on purchasing war hardware and keeping the army in Uganda in the 1978-80 period.

Apart from exogenous events, policy changes also had an impact on public spending and output growth in Tanzania. Tanzania adopted stabilization policies in the 1973-77 period and the 1980-85 period. Major policy reforms that also signified change in the policy regime were introduced in 1986 followed by the adoption of multiparty democracy in 1992.

Policy reforms aimed to remove distortions in the allocation of resources and inefficiencies in the economy. They were designed to enhance output growth through the market mechanism and increased private sector involvement in undertaking economic activities. Furthermore, as part of policy reforms, fiscal adjustment policies were designed to increase tax revenue generation by cutting public spending and adopting tax policy reforms.

The government also introduced further policy changes in order to enhance efficiency in the allocation of resources. This involved the introduction of banking and financial institution reforms in 1992. Other policy changes included the introduction of market determined exchange rates in 1994. Reforms since 1992 also focused on reducing the government size by retrenching redundant staff including commercialising and privatising public enterprises.

The impact of policy changes or exogenous shocks on public spending and GDP growth may be revealed by a structural change in the data series. Structural changes in the process generating the data series are indicated by parameter instability. In this regard, the determination of parameter stability requires the specification of the data generation process of a particular variable (Hansen 1991; 2001). The data generation process is specified using a model that is also used to test parameter stability. One type of model used to specify the data generation process and testing structural changes in a data series is a first order autoregressive AR(1) model (Debs 2001; Hansen 1991;2001). The model represents the data and parameter generation process; features necessary for a stability test.

The first order autoregressive models have been used to specify the process of the GDP growth and to test for parameter stability in the US and Canada (Debs 2001; McConnell & Quiros 1997; 2000). The findings revealed that the AR(1) model represented the growth of GDP and was optimal. This study also uses the first autoregressive model equations in specifying the generation process of public spending and GDP time series data in Tanzania. The assumption is that the data series generated by the model match the alternative explanation of "policy reform effect" and "random effect" on the variables.

6.3 Unit Root Test

Economic time series variables are random and thus may not be perfectly predicted. Most variables are generated by a stochastic or random process. The time series may also be stationary or non-stationary. There are four identified forms of non-stationarity. They are firstly, a stochastic and random walk without a drift and trend; secondly, a random walk without a drift but with a trend; third, a random walk with a drift but without a trend; and lastly, a random walk with a drift. The economic

variables that are non-stationary are characterised by a changes in the variance that becomes infinite over a time. In addition, the series wander without reverting to the fixed mean. These characteristics result in spurious relations between variables in econometric analysis involving time series variables (Charemza & Deadman 1997). In addition, testing of parameters using standard tables may lead to wrongly rejecting the null hypothesis.

The use of time series variables in estimating econometric models requires that a stochastic process generating the data series be stationary. The stochastic process is stationary if all the variables generated have a constant mean and constant variance over time. In addition, the covariance between two values in the series depends on the time distance separating them and not the time at which they are observed.

A unit root test is one of the methods used to test the stationarity of time series variables. In order to perform the unit root test, a random process generating a particular time series is specified as a first order autoregressive model (AR (1)) as follows:

$$y_t = \beta_1 y_{t-1} + e_t \qquad\qquad (6.1)$$

where; y_t is a particular time series variable, β_1 is a parameter that measures the stochastic process and e_t is a random disturbance term with zero mean and constant variance.

If $\beta_1 = 1$, the model equation (6.1) is non-stationary then it becomes:

$$y_t = y_{t-1} + e_t \qquad\qquad (6.2)$$

In this respect, the series y_t is a random walk. In addition, the series have a unit root because $\beta_1 = 1$. However, if $\beta_1 < 1$, the series y_t are stationary. Thus, one of the approaches to test for unit root is to test the null hypothesis, H0: $\beta_1 = 1$ and alternative hypothesis H1: $\beta_1 < 1$. If the null hypothesis is rejected, the alternative hypothesis of the stationarity of the time series variables is accepted.

In order to perform the unit root test, first the equation (6.1) is transformed by subtracting y_{t-1} from both sides, leading to:

$$y_t - y_{t-1} = \beta_1 y_{t-1} - y_{t-1} + e_t \qquad (6.3)$$

Rearranging equation (6.3) results in the following equation:

$$y_t - y_{t-1} = (\beta_1 - 1) \, y_{t-1} + e_t \qquad (6.4)$$

The equation (6.4) can be specified as:

$$\Delta y_t = \alpha_1 y_{t-1} + e_t \qquad (6.5)$$

where $\Delta y_t = y_t - y_{t-1}$ and $\alpha_1 = (\beta_1 - 1)$

In this respect, the unit root test will involve testing:

The null hypothesis $\qquad$ H0: $\alpha_1 = 0$

and the alternative hypothesis $\qquad$ H1: $\alpha_1 < 0$

These hypotheses correspond to
the null hypothesis $\qquad$ H0: $\beta_1 = 1$

and the alternative hypothesis $\qquad$ H1: $\beta_1 < 1$; from equation (6.1) above

6.3.1 Testing of Null and Alternative Hypotheses

In order to test the null hypothesis H0: $\alpha_1 = 0$ and the alternative hypothesis H1: $\alpha_1 < 0$, first, the equation (6.4) is estimated. This is followed by examining the "t" statistic for stochastic parameter α_1. However, when $\alpha_1 = 0$, the "t" statistic is not characterised by a standard "t" distribution and a particular series (y_t) exhibits a random walk. In addition, the "t" statistic is also not asymptotic N(0,1). In this regard, the "t" statistic must be referred to specifically constructed critical values generated by Dickey and Fuller for the random walk variables. This involves performing a Dickey-Fuller test that determines the distribution of the critical values of a "t" statistic for testing the null hypothesis (Hill, Griffiths & Judge 2001; Johnston & Dinaro 1997). The Dickey-Fuller test leads to rejection or acceptance of the null hypothesis.

Whilst equation (6.5) represents a basic form of the unit root test, there are a number of issues associated with the correct formulation. Two key issues are:

    (i)   inclusion of the so called "nuisance" parameters such as constant and trend terms

    (ii)   use of the lagged dependent variables to ensure white noise residuals

We choose to do a test in most general terms and include both constant and trend terms.

In this regard, the unit root test will also be performed for time series variables characterised by a random walk with a drift. The model for random walk with a drift is specified as:

$$\Delta y_{t} = \alpha_0 + \alpha_1 y_{t\text{-}1} + e_t \tag{6.5}$$

The null hypothesis will involve examining the "t" statistic for parameter α_1. The Dickey Fuller test also has special constructed values for the data generation process characterised by a random walk with a drift, which can be used to test the unit root hypothesis. In addition, the unit root test for time series variables characterised by a non-stochastic time trend is specified by equation (6.6) below:

$$\Delta y_{t} = \alpha_0 + \gamma T + \alpha_1 y_{t\text{-}1} + e_t \tag{6.6}$$

The test will also involve, first estimating equation (6.6) and then testing the null hypothesis H0: $\alpha_1 = 0$.

As highlighted before, one of the assumptions of the unit root test is the absence of serial correlation of the error terms. In case the error terms are correlated, the Dickey Fuller test becomes an inappropriate method for the testing of the unit root. In order to overcome the problem of autocorrelation in error terms, lagged variables are introduced. The introduced variables result in white noise residuals. Thus, the stochastic process generating the data series is specified as:

$$\Delta y_{t} = \alpha_0 + \alpha_1 y_{t-1} + \sum_{j=1}^{n} a_i \, \Delta y_{t-i} + e_t \qquad\qquad (6.7)$$

where

$\Delta y_{t-1} = (y_{t-1} - y_{t-2})$ and $\Delta y_{t-2} = (y_{t-2} - y_{t-3})$

The coefficient for y_{t-1} remains relevant for the unit root test. However, the testing of the null hypothesis will require performing the ADF test.

The use of the ADF test has several limitations. The first is that over differencing of variables results in a high positive test statistic. Secondly, a few explanatory augmented variables affect the test results if autocorrelation in the error process is present. Consequently, the least square estimates of the model for testing a unit root becomes inefficient. In order to control for the possibility of autocorrelation in the error process, it is suggested that lagged dependent variables be introduced as an additional explanatory variables. However, such an approach may results in a large number of augmentations in an equation for testing the unit root. The correct way to overcome the problem is to start with a large number of augmented variables and reduce them as unit root test is performed. For example starting with 4 lagged depended variables and then testing whether it is possible to delete some of them and still maintain non-autocorrelated errors. This is an appropriate approach.

Further developments in the unit root tests were introduced by MacKinnon (Johnston & Dinaro 1997). MacKinnon generated critical values for various sample sizes. The generated samples permit the calculation of critical values for the Dickey Fuller test for any sample size and specification. In particular, to test for the unit root hypothesis, the procedure involved estimating equations specifying a particular stochastic process and referring "t" for null hypothesis H0: $\alpha_1 = 0$ to relevant MacKinnon critical values. The tables are also used to the test the null hypothesis of a unit root for this study.

6.4 Methods for Testing Structural Breaks in the Parameters of AR (1) Models

In econometric analysis the stability of the parameters of estimated models is important. Parameter stability allows forecasting and analysing the impact of policy changes in an economy as well as the matching of data to economic theories.

Parameter instability arises from a break in the deterministic trend in the data series and is tested by using different econometric methods.

The literature on econometrics does not provide a definition of structural stability. However, in most studies structural stability refers to changes in regression parameters (Maddala & Kim 1998). In this study the structural break also refers to the changes in the regression coefficients.

One of the problems in testing for structural change is the determination of the structural break periods. While in some cases break-points can be determined a priori, in other cases such identification is not possible. This has led to a discussion on whether structural breaks in deterministic trends, which are associated with parameter instability, are endogenously or exogenously determined. As part of the attempt to deal with problem of determining the period of structural changes in the time series variables, methods that do not require prior knowledge of the break-point periods are used. Among the methods used are those that are based on the recursive residuals. These include CUSUM, CUSUMQ test and recursive Chow tests methods.

Hansen (2001) points out that the best method for testing parameter stability is the one that focuses on a cumulative series of a full sample parameter and is constructed using a full sample estimate. He further highlights that optimal methods do not require a sample split. The methods mentioned above do not require the splitting of the sample and they are used in this study. The specific methods used to test stability of parameters are based on recursive residuals. The methods determine a structural break endogenously. Two categories of the test methods are used in this study.

6.4.1 Recursive Residual Test Methods

Two recursive residual methods are described below. They are CUSUM and CUSUMQ tests. The methods can be used to determine a structural break in coefficients of time series variables characterised by systematic or haphazard movement of parameters.

6.4.1.1 CUSUM

The CUSUM test is based on recursive residuals. The test is applicable to a number of alternatives including a single break-point. The CUSUM recursive residuals are defined as:

$$W_t = 1/\tilde{\delta} \sum_{j=k+1}^{j} Vj \qquad t_{=k+1} \text{ to T}$$

Where $\tilde{\delta}^2 = \sum (v_t - \bar{v})^2 /(T-K-1)$

W_t is quantity of residuals and V_j is an arithmetic mean of residuals. If there are structural breaks in the series the residuals with the same sign increase disproportionately (Harvey 1981). This results in the residual quantity (W_t) moving away from the horizontal axis. Specifically, the presence of structural breaks results in a secular decline or an increase in W_t.

For the CUSUM test, the boundaries are also constructed such that the probability of crossing them is equal to a given significance level (Harvey 1981; Maddala & Kim 1998). The equation representing the boundary line is presented as: $W = \pm \{a\sqrt{T}-k+2a(t-k)/(T-k)^{1/2}\}$. The CUSUM method is appropriate for testing for a structural break for the systematic movement of coefficients. The limitation of the test is that it has low power.

6.4.1.2 CUSUMQ

The CUSUMQ test uses the sum of square recursive residuals. The test is based on the quantities;

$$WW_t = \sum_{t=k+1}^{t} v^2{}_t / \sum_{t=k+1}^{T} v^2{}_t$$

Where WW_t is the quantity of residuals and v_t is an arithmetic mean of residuals. If the model is appropriately specified, it has a Beta distribution with mean $(t-k)/(T-k)$ (Harvey 1981). The null hypothesis of non-stationarity is rejected if WW_t crosses the boundary determined by the level of the test. The test is applicable for a wide variety of alternatives. The test is appropriate in a situation of haphazard movement of coefficients.

The CUSUM tests are used to test for structural breaks in the data generation process in Tanzania. In particular, these tests are used to examine a structural break on public spending and the GDP series in the 1973-2000 period. As mentioned earlier, during this period Tanzania adopted economic policy reforms. The country was also affected by global economic shocks. Such events have an impact on the data generation process.

6.4.2 Chow Test Methods

There are various Chow test techniques used to assess parameter stability. They are the one-step Chow test, Break-point Chow test and Predictive Chow test. These are briefly described below.

6.4.2.1 One-Step Chow Test

The one-step Chow test indicates the presence of outliers. The test determines the sequence of one period ahead prediction from the recursive estimation period for a sample period (S) and total sample period (T). The underlying assumption of the test statistic is that the dependent variables are approximately normally distributed. The statistic is calculated as:

$$(RSS - RSS_{t-1} (t-k-1)/RSS_{t-1}/T-S-1)$$

Where RSS is residual (error) sum of squares, t is sample period and k is a number of independent variables

The Break-point and the Predictive Failure Chow tests determine the structural breaks and provide formal statistical criteria to distinguish outliers from more fundamental structural change.

6.4.2.2 Break-point Chow Test

The break-point Chow test is also another method used to determine a structural break in parameters. The test involves estimating the model over a whole sample period. This is followed by an assessment of the structural breaks in the parameters, as the sample is recursively reduced. The break-point Chow test is calculated using the formula:

$$(RSS - RSS_{t-1} (t-k-1)/RSS_{t-1}/T-S-1)$$

6.4.2.3 Predictive Failure Chow Test

The predictive failure Chow test also assesses the structural break in parameters. The test is done by first estimating a model for initial sample period observations. The estimated model is then used to test for structural changes in parameters as the number of observation is progressively increased. This is followed by a F-test calculation. The model tests the null hypothesis that the estimated model and forecast will explain or predict the full sample. The test assesses the unbiasedness of prediction for second regime observations (N2) from the regression estimate from the first regime observations (N1) (Calza, Gartner & Sousa 2001; Gamber & Fredrick 2005).

In general, the Chow tests are used to test parameter stability on stationary variables (Maddala & Kim 1998). The tests are also used to determine a structural break in a model explaining public spending and GDP generation series in Tanzania. The diagnostic tests results are presented in Section 6.6.

6.5 Unit Root Diagnostic Test Results

The EViews econometrics programme was used to perform the unit root tests for both nominal and real public spending and GDP time series (Quantitative Micro Software 2004). The test was performed using the different model specifications of data series processes. The time series variables were first transformed into logarithms, before being examined for the unit root. In addition, the tests for a unit root involved examining non-stationarity in the time series in levels and in their first differences.

6.5.1 Unit Root Test Results for Nominal and Real Public Spending and GDP Series in Levels

The results of estimating the equations specifying the data generation process for nominal as well as real public spending and GDP series in levels are presented in Table 6.1. The data generation process for both public spending and GDP is specified as model equation (6.1.1). The equation specifies the respective variables as the function of a lagged variable including a trend term and an error term.

The results of estimating equation (6.1.1) in Table 6.1 revealed that the coefficient of the logarithms of nominal SPEND$_{t-1}$ was negative and insignificant. The results showed that the coefficient of a constant and trend terms were also insignificant. Furthermore, the estimation of equation (6.1.1) for output equation revealed that coefficient of GDP$_{t-1}$ was close to zero and significant. In addition, the constant coefficient was negative and significant, but the trend term was positive and significant as well.

The "t" statistic for the coefficient of the logarithms of nominal and real SPEND$_{t-1}$ as well as GDP$_{t-1}$ were used to test the null hypothesis of unit root by comparing them with critical values at five percent significant level. The results revealed the calculated "t" statistic for public spending and GDP were higher than the critical values. Thus, the null hypothesis of a unit root could not be rejected for both nominal public spending and GDP.

Table 6.1: Unit Root Test Results for Nominal and Real Public Spending and GDP Series (in levels)

$\Delta \; y_t = \beta_0 + \alpha_1 y_{t-1} + \gamma\, T + e_t$ (6.1.1)

Δ ADF FUNCTION	β_0 (t-stat)	α_1(t-stat)	γ (t-stat)
LSPEND$_{t-1}$ (nominal)	3.259 (1.979)	-0.222 (-1.863)	0.049 (1.883)
LSPEND$_{t-1}$ (real)	7.196 (2.639)	-0.472 (-2.442)	0.0035 (0.860)
LGDP$_{t-1}$ (nominal)	-5.897 (2.379)**	-0.172 (-2.460)**	0.011 (2.308)
LGDP$_{t-1}$ (real)	5.897 (2.478)	-0.362 (-2.460)	0.0119 (2.308)

**Rejection of null hypothesis at 5 percent significance level based on Davidson and MacKinnon 1993 values. Table 1 of Dickey-Fuller and Augmented Dickey and Fuller test for critical values at 5 percent significance level was also used to test null hypothesis (Charemza & Deadman 1997).

The results suggested that nominal public spending and GDP series in levels were non-stationary. In particular, while the public spending series were characterised by a random walk process, the GDP series exhibited a random walk with a drift and trend. The finding that the economic variables are non-stationary and exhibit different types of random processes confirms the observation that macroeconomic time series data are non-stationary (Greene 2003).

Further examination of the non-stationarity of the data series included the unit root test on real public spending and GDP series in levels as specified by equation (6.1.1)

above. The results, which are also presented in Tables 6.1 show that the coefficient on the logarithms of $SPEND_{t-1}$ was negative and significant. Furthermore, while the constant and trend terms were both positive, it was only the constant term that was significant.

As shown by Table 6.1, the estimated coefficient of logarithm of real GDP in levels was negative and significant. The constant and trend terms were positive and significant as well. The results of both the lagged coefficients $SPEND_{t-1}$ and GDP_{t-1} were used to test the null hypothesis of unit root.

The t-statistic tests for both real public spending and GDP in levels revealed that calculated statistics for both variables were higher than critical values. Thus the null hypothesis of unit root test could not be rejected. This necessitated a further test for both variables in first difference.

6.5.2 Unit Root Test Results for Real and Nominal Public Spending and GDP Series in First Difference

A further test on non-stationarity of the nominal public spending and GDP time series was performed on the first difference of the respective variables as specified by equation (6.2.2). The equation specifies the random process as a function of a constant, a lagged variable and an error term.

The unit root test was performed on the logarithms of nominal as well as real public spending and GDP in first difference by estimating equation (6.2.2) and examining the "t" statistic. The estimation output for nominal public spending in first difference revealed that the coefficient of $SPEND_{t-1}$ was negative and significant at five percent significance level (see Table 6.2).

The Table also shows that the constant coefficient for spending equation was positive and significant. The estimation result for nominal GDP equation also indicated that the GDP_{t-1} coefficient was negative and significant.

Table 6.2:Unit Root Test Results for Nominal and Real Public Spending and GDP Series (in first difference)

$$\Delta \, \Delta \, y_{t} = \beta_0 + \alpha_1 \Delta \, y_{t-1} + e_t \qquad\qquad (6.2.2)$$

ADF FUNCTION	β_0 (t-stat)	α_1(t-stat)
$LSPEND_{t-1}$ (nominal)	0.187 (3.605)	-0.904 (-4.600)**
$LSPEND_{t-1}$ (real)	0.002 (0.575)	-0.953 (-4.972)**
$LGDP_{t-1}$ (nominal)	0.157 (3.889)	-0.691 (-4.011)**
$LGDP_{t-1}$ (real)	0.046 (3.200)	1.240 (-6.502)**

**Rejection of null hypothesis at 5 percent significance level based on Davidson and MacKinnon 1993 values. Table 1 of Dickey-Fuller and Augmented Dickey and Fuller test for critical values at 5 percent was used to test null hypothesis (Charemza & Deadman 1997)

The t-statistics tests for both nominal public spending and GDP were used to test null hypothesis of unit root. The unit root test results for both nominal as well as real public spending and GDP in first differences indicated that the calculated statistics for both variables were lower than critical values (see Table 6.1). The unit root test results for both real and nominal public spending and GDP series suggested that the variables became stationary after taking their first differences. Thus, the public spending and the GDP series were integrated of order 1, represented as I (1).

The results above confirm that macroeconomic flows or stock variables are non-stationary and that the series tend to grow constantly or wander about without reverting to the fixed mean. The results have important implications for macroeconomic policies. Particularly, since GDP is characterised by I (1), shocks will have permanent effects in the economy.

6.6 Stability Test Results

The real public spending and GDP time series in first differences were used to estimate first order autoregressive models for the respective data series in the 1979-2000 period. The results are presented in Table 6.6 and 6.7 below. The stability test was done using the real variables in first differences because they provided equations with better results compared to the equations estimated using nominal variables. However, the model specification did not take into account structural changes. This may lead to biased results and wrong conclusions about stationarity. This is one of the limitations of this study.

Table 6.3: The Estimated Autoregressive Equation Specifying the Generation of Real Public Spending Series (in first differences)

Independent Variable	Estimated Coefficient	t-ratio
C	-0.014	-0.340
LPSP$_{t-1}$	-0.460**	-2.376
R^2	0.64	
DW	2.288	
Log Likelihood	4.958	

Note: LGDP: Logarithm of real public spending growth, R-coefficient of correlation, DW- Durbin Watson, ** denotes significant at 5 percent level

Table 6.3 presents coefficient estimates of the AR (1) model for the real public spending series. The t-statistics indicate that the regression coefficient of lagged public spending was significant at the 5 percent significance level. In addition, the coefficient of determination shows that 64 percent of the variation in public spending was explained by the previous year's government spending.

Table 6.4 below shows the results of estimating the AR (1) model for GDP series in the 1977-2000 period. The estimation results of the AR (1) model revealed that the constant coefficient was insignificant, but the coefficient of lagged GDP was significant at the 5 percent level. The coefficient of determination also showed that 53 percent of the variation in GDP growth was accounted for by the previous year's output growth.

Table 6.4: The Estimated Autoregressive Equation Specifying Real GDP Series Generation (in first differences)

Independent Variable	Estimated Coefficient	t-ratio
C	-0.001	-0.070
LGDP$_{t-1}$	-0.485**	-2.597
R^2	0.53	
DW	2.588	
Log Likelihood	21.771	

Note: LGDP: Logarithm of real public spending growth, R- coefficient of correlation, DW- Durbin Watson, ** denote significant at five percent level

Tests on parameter stability were performed for estimated coefficients of AR (1) model for public spending and GDP. The tests were done in order to determine the impact of policy reforms on the public spending and GDP series. The two model

equations representing the data generation process of public spending and GDP were used to test the structural stability of the coefficients of the two variables.

6.6.1 Test for Structural Break for the Coefficient of AR (1) Model for Real Public Spending

Different econometric tests were used to determine the structural break in the estimated model specifying the data generation process for real public spending. The tests method used were CUSUM, CUSUMQ tests and various recursive Chow tests methods. The results are presented below.

6.6.1.1 CUSUM and CUSUMQ Tests Results

Figure 6.1 shows the results of testing for a structural break on the coefficients of the AR (1) model for the public spending series using CUSUM test. The test revealed wide divergence of the plotted cumulative sum of the recursive residuals from the zero mean line in the 1982-85 period. In the 1990-95 period, the test revealed less divergence of the residuals from the zero mean line. However, after 1995, the residuals showed increasing divergence from the zero mean line. Overall, the residual movements were within the 5 percent significance boundary lines. This suggests the absence of structural break in the parameters of the AR (1) model for public spending.

Figure 6.1: CUSUM Test Results for the Coefficients of AR (1) Model for Public Spending Series (in first difference)
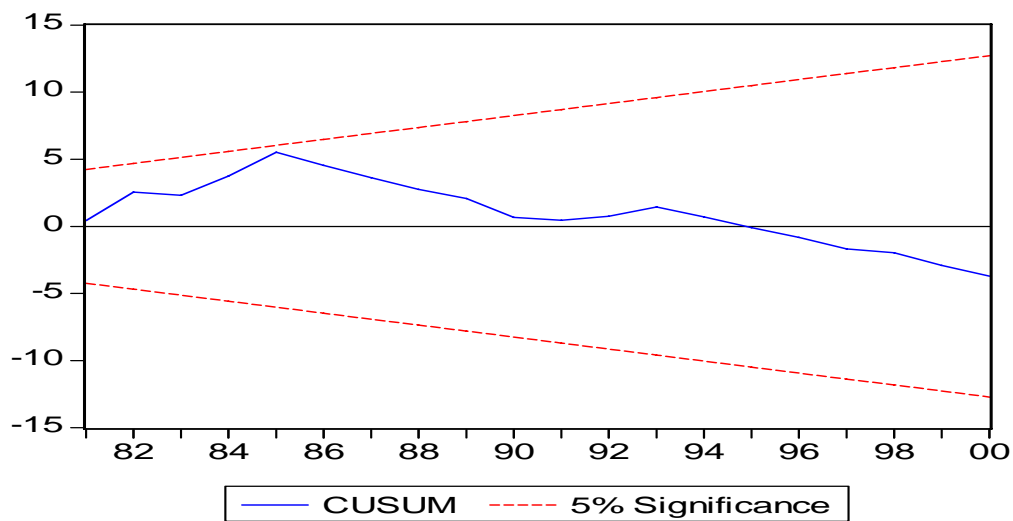
Further tests of parameter stability of the AR (1) model for real public spending were performed using the CUSUMQ test. The test results revealed that the plotted sum of

square residuals diverged widely from the zero mean line in the 1982-85 period (see Figure 6.2). Thereafter, the divergence of the residuals from the zero mean narrowed. Furthermore, the test results revealed that the plotted cumulative sum of residuals moved within the 5 percent significance line in the 1979-2000 period. Thus, the results suggest no evidence of a structural break on the parameters of AR (1) model for real public spending in the 1979-2000 period. Overall, the results from both CUSUM and CUSUMQ test did not suggest a structural break on the estimated parameter of AR (1) model for public spending series.

Figure 6.2: CUSUMQ Test Results for the Coefficients of AR (1) Model for Public Spending Series (in first difference)

6.6.1.2 Chow Test Results

Various Chow tests methods were also used to test for structural changes in the coefficients of the AR (1) model for real public spending series. The intention was to identify the impact of exogenous events and economic policy changes on the public spending series generation process. One of the tests performed was a one-step Chow test. The test results revealed no evidence of outliers in the 1979-2000 period (see Figure 6.3).
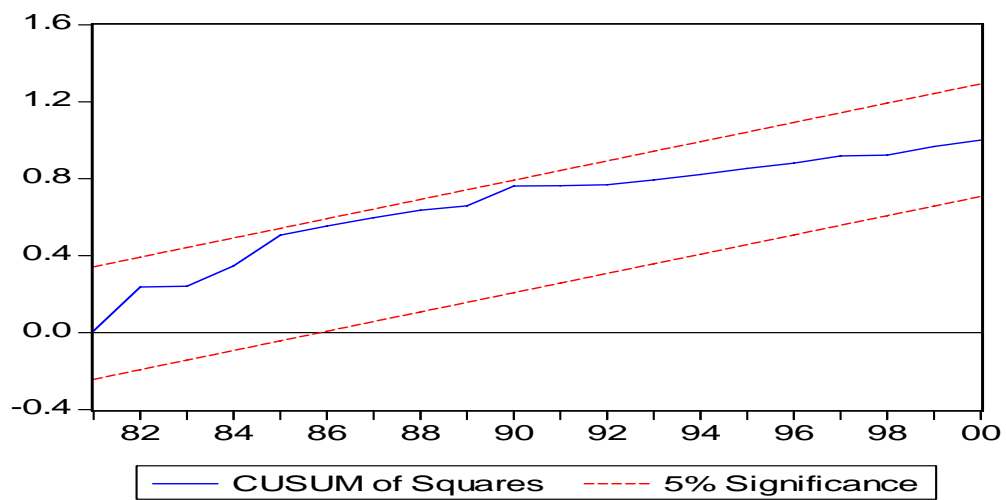
Figure 6.3: One-Step Chow Test Results for the Coefficients of AR (1) Model for Real Public Spending Series (in first difference)
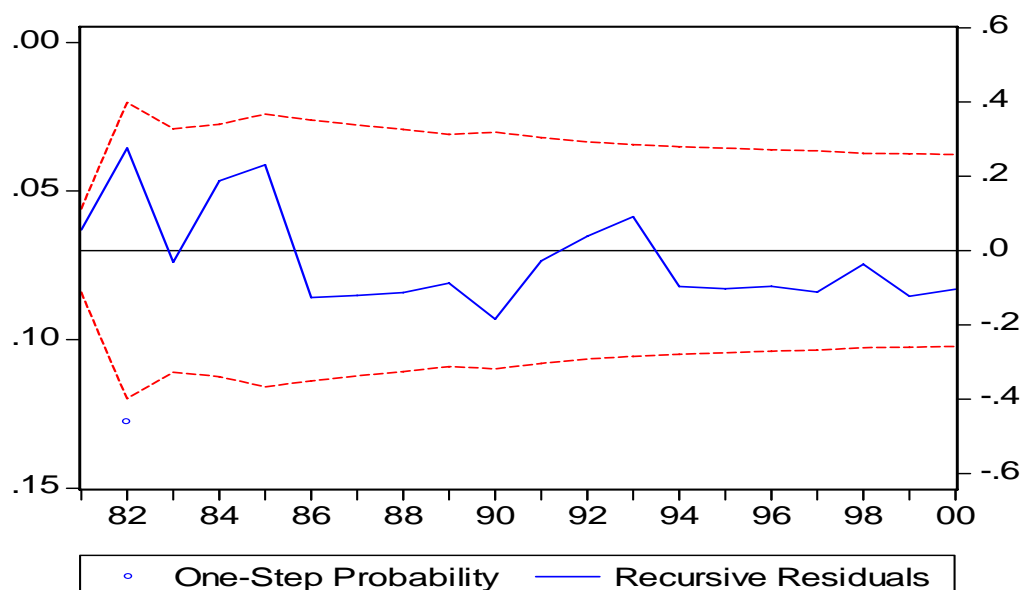
A further test for structural break on parameters involved the use of a break-point test method. The results from the test showed an absence of structural breaks on the parameters of the AR (1) model for the real public spending series (see Figure 6.4). However, the results revealed the presence of instability in public spending in the 1979-86 and 1990–93 periods.

The instability of public spending may be attributed to fluctuations in fiscal revenue. Gavin & Perotti (1997) found that in Latin American countries, liquidity constraints compelled governments to adopt pro-cyclical fiscal policies during periods of economic decline.

Low and fluctuating tax revenue is also linked to low output growth output. Output fluctuations may result in unrealistic fiscal policy targets and public spending levels because the government cannot accurately foresee the implications of output growth on tax revenue generation (Treasury 2002). Tanzania also experienced modest output growth in different adjustment periods prior to and during the policy reform era. This could partly explain not only the instability in public spending but also the persistent fiscal deficit. The result suggests that pro-cyclical policies may be harmful for economies attempting to achieve macroeconomic stability, such as Tanzania.

Figure 6.4: Break-point Chow Test for the Coefficients of AR (1) Model for Real Public Spending Series (in first difference)
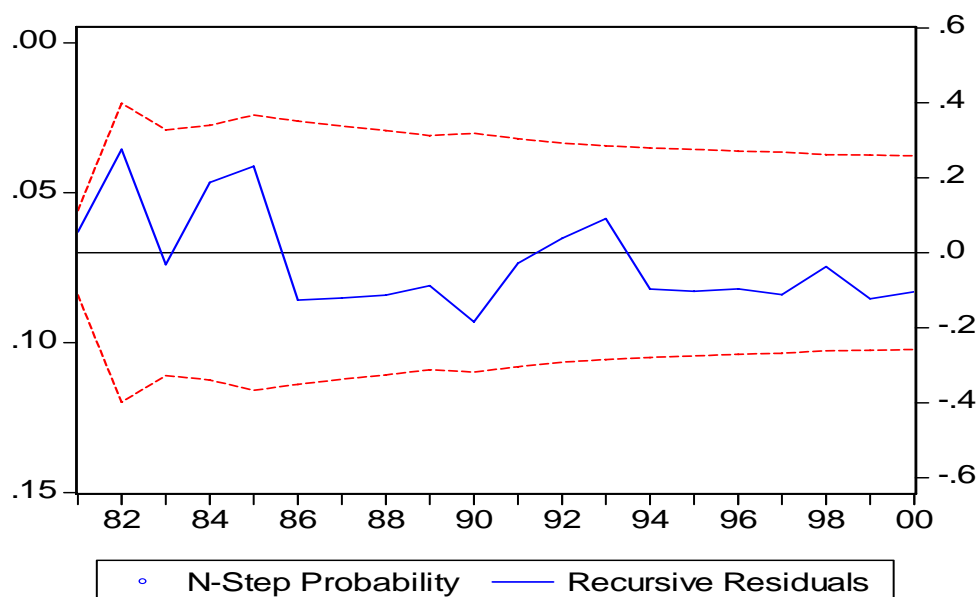
6.6.2 Test for Structural Break for the Coefficient of AR (1) Model for Real GDP

Statistical tests were also performed to examine coefficient stability in the AR (1) model for the real GDP series. The test was performed using CUSUM and CUSUMQ tests and various Chow tests methods. The result need to be taken with caution because the model specification did not take into account a structural break in the data series generation.

6.6.2.1 CUSUM and CUSUMQ Tests Results

The plotted residuals moved away from the zero mean line in the 1994-2000 period (see Figure 6.5). However, the movement of the cumulative sums of residuals was within the two 5 percent critical line over the 1979-2000 period. In this respect, the CUSUM test results indicated no support for a structural break in the coefficients of the AR (1) model for GDP series in the 1979–2000 period.

Figure 6.5: CUSUM Test Results for the Coefficients of AR (1) Model for Real GDP Series (in first difference)
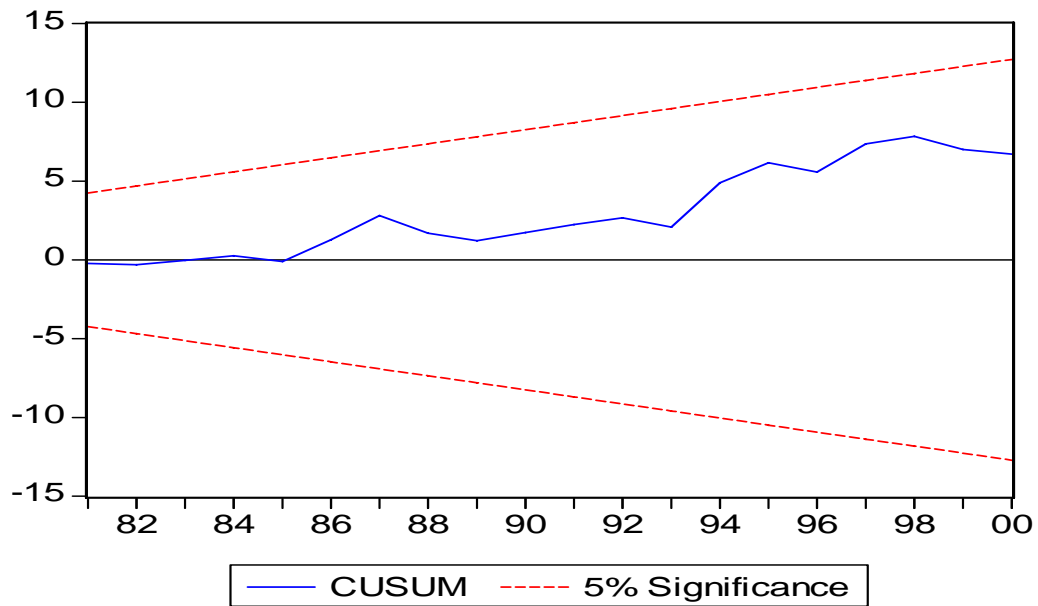
In contrast to the CUSUM test, CUSUMQ test results revealed that parameters of the AR (1) model for the real GDP series was characterised by a structural break. A structural break in the parameters occurred in 1993 (see Figure 6.6). The structural break occurred a year after the introduction of the banking and financial institution reforms in Tanzania. Therefore, parameter instability may have been associated with fundamental changes in the financial markets in Tanzania.

Figure 6.6: CUSUMQ Test Results for the Coefficients of AR (1) Model for Real GDP Series (in first difference)
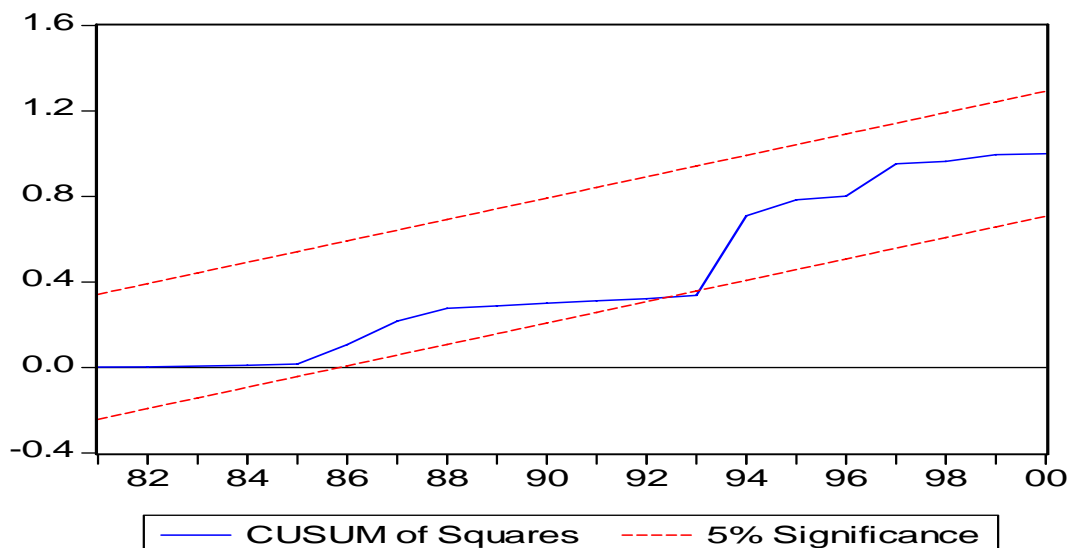
6.6.2.2 Chow Test Results

Various Chow test results were also used to test for a structural break on the parameters for the AR (1) model for the real GDP series. The one-step Chow test revealed that extreme values of real GDP were generated in 1985, 1986, 1987 and in 1994 (sees Figure 6.7). This signified the presence of outliers on the part of the estimated coefficients.

Figure 6.7: One-Step Chow Test Results for the Coefficients of AR (1) Model for Real GDP Series (in first difference)
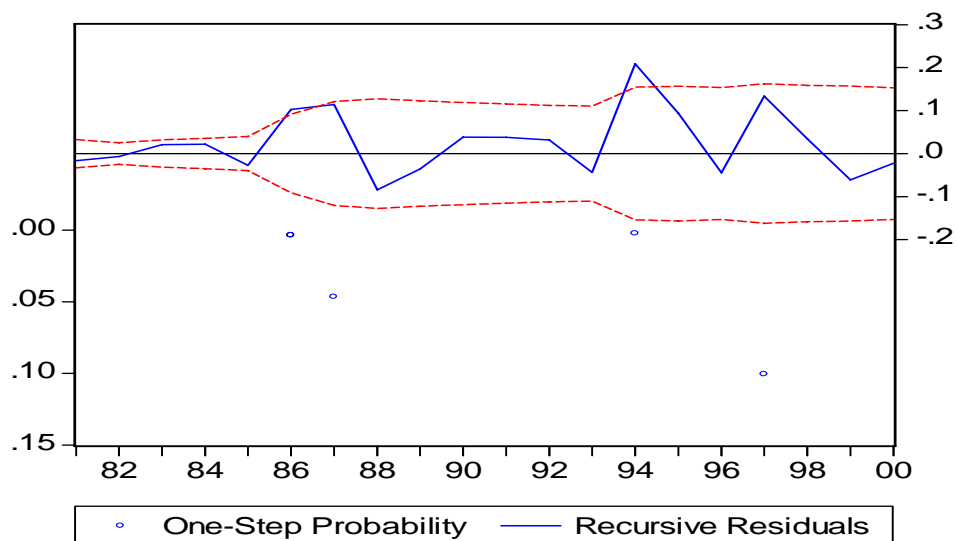
The break-point Chow test indicated that the coefficients of the AR (1) model for the real GDP series was characterised by structural breaks (see Figure 6.8). The structural breaks occurred in 1986 and 1994. These are the same periods in which outliers were observed.

Figure 6.8: Break-point Chow Test for Results for the Coefficients of AR (1) Model for Real GDP Series (in first difference)
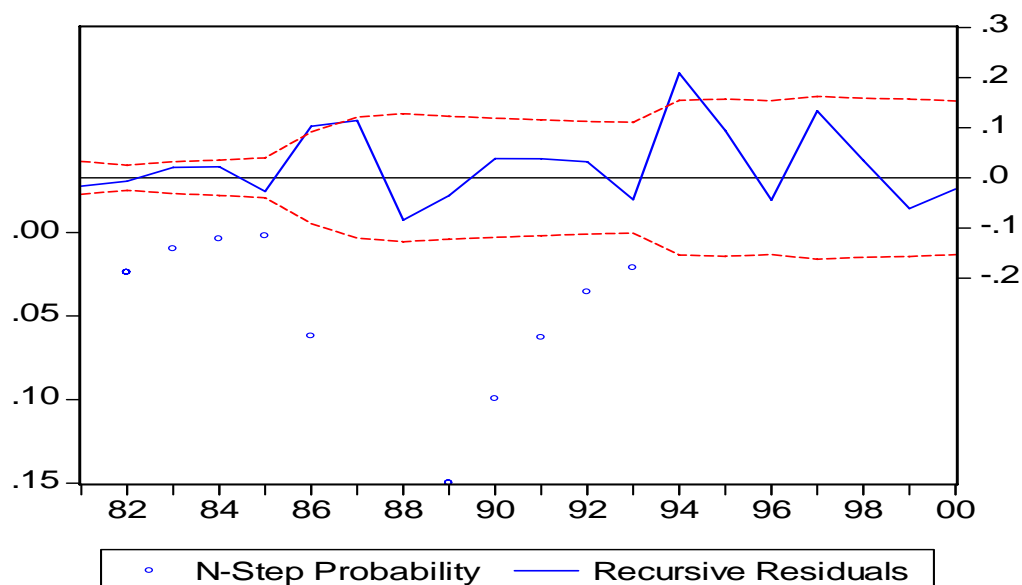
The results from the Chow predictive failure test revealed different results from those of the previous test methods. The test output revealed no evidence of a structural break in the coefficients of the model. However, the test indicated instability in the coefficients of the AR (1) model for the real GDP series. Large instabilities occurred in 1986 and 1994 in Tanzania. The figure showing GDP instability is not presented in this chapter.

Regarding the break-points, it was revealed that the first break-points occurred in 1986 and 1987, and they coincided with adoption of the economic policy reforms in Tanzania. This was also the period that marked the end of the controlled socialist policy regime. The second break-point occurred in 1994. This was the period when Tanzania adopted a market determined exchange rate policy. It was also the year after the introduction of multi-party democracy in Tanzania.

Structural changes in GDP growth may be associated with the changes in the economic structure in Tanzania. These changes were brought about through the adoption of economic policies that were designed to increase efficiency in the allocation and use of the resources. In addition, changes in the political system might have enhanced the opportunities for individuals to participate in a wide number of economic activities compared to the period of single party democracy.

167

6.7 The Analysis of the Impact of Policy Changes on GDP growth and Fiscal Deficit in Tanzania in the 1971-2000 period

In order to confirm the results obtained from testing structural changes in data generation process and to provide a basis for policy recommendation, the estimation of regression equations for GDP and fiscal balance was necessary. The two equations were estimated to identify the impact of policy changes on respective variables in Tanzania in the 1971-2000 period. The EViews econometric programme was used to estimate equations.

6.7.1 Output Growth Model

The output equation was specified as a function of lagged GDP, public spending and money supply. Institutional changes were captured by a trend variable. Furthermore, a dummy variable was introduced to determine the impact of policy changes on output growth. The model specification was prompted by the fact that the study investigates the effect of policy changes on output and its implications for macroeconomic stability in Tanzania.

The lagged output variable is expected to be positively related with GDP growth. Public spending is also presumed to positively relate to GDP growth. This is through the direct impact of public spending on the aggregate demand as well as indirectly through its effect on the productivity of capital.

The growth of money supply is expected to be positively related to economic growth as well. In addition, the dummy variable was included to take into account the impact of adjustment policies on output growth in the 1971-2000 period. The dummy variable took the values of one in 1986, 1988, 1989, 1992 and 1994; the years in which structural break in GDP growth was identified. In all other periods the dummy variable assumed a zero value.

In estimating the equation real variables were used. The variables were transformed into logarithms and were differenced once. Regression results indicated that a number of individual coefficients and the regression equation are statistically significant (see Table 6.5). Lagged GDP growth, money supply and dummy variables were all significant at 5 percent significant level. The results seemed to

suggest that previous economic performance and variation in money supply explained the changes in output growth in Tanzania in the 1971-2000 period.

Table 6.5: The Determination of the Effect Adjustment Policies on Real GDP Growth in Tanzania in the 1971-2000 Period

$GDP_t = \beta_0 + \beta_1 GDP_{t-1} + \beta_2 GVSP_{t-1} + \beta_3 LM1_{t-1} + \beta_4 TREND + \beta_5 DU + e_t$

Independent Variable	Estimated Coefficients
Constant	3.091 (0.614)
GDP_{t-1}	0.512 (2.687)**
$GVSP_{t-1}$	-0.005 (-0.0204)
$M1_{t-1}$	0.195 (2.081)**
TREND	-0.0219 (-0.992)
DU	-0.158 (-2.037)**
Adjusted R^2	0.971
DW	1.623
F-Statistic	193.48

Note: (i) GDP: Gross Domestic Product; GVSP: Government Spending; M1: money narrowly defined, TREND: trend variable; DU: Dummy variable; R- coefficient of correlation, DW- Durbin Watson.
(ii)Figures in parenthesis are the values of t-statistic
(iii) ** denotes significant at five percent significance level

The coefficient of public spending was negative and insignificant (see Table 6.5). The estimated coefficient suggests that output growth has a negative impact on output growth in Tanzania. This also implied that cuts in public spending as part of adjustment policies may adversely affect output growth in Tanzania. The result confirms the findings of Kweka & Morrisey (2000) that in Tanzania public spending has a negative effect on output growth.

Table 6.5 also shows that the coefficient on the dummy variable was negative and significant. The result suggests that policy changes resulted in structural changes in output growth in Tanzania. The significance of the dummy variable implied that policy changes had a negative impact on output growth in Tanzania in the 1971-2000 period. This confirms the previous findings of this chapter on the presence of structural changes on GDP growth in Tanzania after policy reforms.

6.7.2 Fiscal Deficit Model

Fiscal deficit was expressed as a function of a previous year deficit, lagged GDP, inflation rate and public debt. The variables reflect the objectives of the IMF supported adjustment programme in Tanzania, which included reduction of the fiscal deficit and inflation rate as well as stimulation of output growth. In addition, a trend variable was introduced to capture the institutional changes. Dummy variable was also added to capture the effect of the policy changes on the fiscal deficit in the 1971-2000 period in Tanzania.

The correction of the fiscal deficit as a result of policy changes depends on the level of the fiscal deficit prior to adjustment. In general, it is expected that the high level of the fiscal deficit will be associated with a large improvement in the fiscal balance. Furthermore, output growth is likely to positively influence the correction of the fiscal balance. The high level of output growth is expected to result in the higher level of tax revenue generation.

A high inflation rate is expected to negatively affect the fiscal balance because of the Oliver-Tanzi effect on nominal tax revenue. According to the Oliver-Tanzi effect, inflation has effect on tax revenue because of the collections lag involved in the tax system (Agénor & Montiel 1996). As a result of the collection lag, nominal tax revenue is fixed in the short-term. In this regard, while a high inflation rate is expected to negatively affect the fiscal balance, a low inflation is likely to result in a positive impact on the fiscal position. Public debt is also another variable that influence fiscal balance as well, and was included in the fiscal equation.

Trend and dummy variables were also introduced in the fiscal equation. While the trend variables captured institutional and economic development in the country, dummy variables discern the impact of policy changes on the fiscal deficit in Tanzania in the 1971-2000 period.

The estimation results of the fiscal balance equation are presented in Table 6.6. The Table excludes the estimation results of domestic and external debt as well as a trend variable because they were not significant. The Table also reveals that the lagged fiscal deficit variable significantly explained the variation in the fiscal deficit in

Tanzania. This seems to suggest that high deficit prior to adjustment lead to increased efforts to overcome the fiscal imbalance.

Table 6.6: Determination of the Effect Adjustment Policies on Fiscal Deficit in Tanzania in the 1971-2000 period

$FDF_t = \beta_0 + \beta_1 FDF_{t-1} + \beta_2 GDP_{t-1} + \beta_3 INFL_{t-1} + \beta_4 DU + e_t$

Independent Variable	Estimated Coefficients
Constant	-53.546 (-2.659) **
FDF_{t-1}	0.570 (3.724)**
GDP_{t-1}	4.526 (2.027)**
$INFL_{t-1}$	0.111 (0.38)
DU	10.14 (1.037)
Adjusted R^2	0.51
DW	2.071
F-Statistic	6.15

Note: R- coefficient of correlation, DW- Durbin Watson. Figures in parenthesis are the values of t-statistic
** denote significant at five percent level

Note: (i) FDF: Fiscal deficit; GDP: Gross Domestic Product; INFL: inflation rate; DU: Dummy variable; R-coefficient of correlation; DW- Durbin Watson.
(ii)Figures in parenthesis are the values of t-statistic
(iii) ** denotes significant at five percent level

In addition, Table 6.6 indicates that the coefficient of the lagged GDP was positive and significant. The result implied that output growth have a positive impact on correcting the fiscal deficit in Tanzania. The finding confirms the observation of Búlir & Moon (2003) that output growth positively influences the improvement of fiscal balance.

The coefficient of the dummy variable was positive and insignificant. As observed in the analysis of the data process in this Chapter, the result may also imply that adjustment policies did not result in structural changes in fiscal balance but fiscal instability. The estimated results of the fiscal deficit equation seems to suggest that model specification of the fiscal equation was inappropriate to capture the effect of policy changes on fiscal deficit or explain the fiscal changes in Tanzania.

6.8 Conclusion

This chapter examined whether exogenous events and policy reforms had an impact on public spending and GDP growth in Tanzania. This involved testing for a unit root hypothesis on the public spending and GDP time series in the 1979-2000 period. The results revealed that public spending and GDP time series were non-stationary in levels. However, the first difference of the public spending and GDP series were stationary. The stationary data were used to estimate the AR (1) models specifying real public spending and GDP time series generation.

In order to examine the impact of policy changes on the public spending and GDP time series, stability tests on the coefficients of AR (1) models for respective series were performed. The CUSUM test, CUSUMQ tests and various Chow test methods were used to test the stability of the coefficients of the AR (1) models for public spending and GDP time series. The results revealed no evidence of a structural break on the coefficients of AR(1) models for public spending. However, the results suggested that the coefficients of the public spending model showed instability. This signified that public spending data series generation was characterised by instability. Thus, economic policy changes may be associated with the instability in public spending in Tanzania. Particularly, the instability may be attributed to low tax revenue generation in different years.

Public spending instability may also be associated with low or fluctuating output growth. Low output is associated with low and fluctuating fiscal revenue as well as a fiscal deficit. Semboja (1995) observed that fiscal deficit and public spending followed the trend of GDP growth in Tanzania. Osoro (1997) also observed that the fiscal deficit was associated with public spending instability in Tanzania. This suggests that high and stable output growth is essential for correcting the fiscal deficit in Tanzania.

The output of parameter stability test for AR (1) model for the real GDP series suggested changes in regression coefficients. The changes also signified a structural break in the coefficients of the model and break-points in GDP data series generation process in 1986, 1988 1992 and 1994. Similar findings were observed after

estimating GDP equations and testing for a structural break as shown in Section 6.7.1. The structural breaks coincided with the periods in which the government introduced different economic policy reforms. The finding that structural breaks on the GDP series coincided with the periods of economic policy changes suggests that economic reforms resulted in fundamental changes in the economy (Chevillon 2004; Debs 2001). The 1986 changes of policy regime from a controlled to a market economy were associated with the adoption of measures emphasizing structural transformation and efficiency in the allocation of resources in the economy. Specifically, the 1986 economic policy reforms led to the introduction of price and trade liberalisation in Tanzania.

The structural break in GDP series may also be attributed to the introduction of new exchange rate policy in 1994. The introduction of a new policy was preceded by the banking and financial institutions reforms in 1992. The government introduced an interbank foreign exchange market that led to a market determined exchange rate regime in Tanzania. Price liberalisation and introduction of the new exchange rate regime had a potential impact on resource allocation in the short- and the long-term. Overall, the result of testing the structural break on public spending and GDP series suggests that economic policy changes had an impact on the Tanzanian economy.

The results of this study need to be interpreted with caution because data were obtained from different sources. In addition, the number of observations was not large. This may have effect on the power of tests and the conclusions reached.

CHAPTER 7

CONCLUSIONS AND POLICY IMPLICATIONS

This chapter provides conclusions and policy implications arising from the findings and discussion of the previous chapters. The main objective of the study is to empirically analyse the impact of fiscal adjustment policies on correcting the fiscal deficit and the implications for macroeconomic stability in Tanzania. A number of recent studies on stabilisation or macroeconomic studies on fiscal policy in Tanzania focused on the effect of the policies on monetary outcome and inflation rate before or during the policy reforms periods (Aiko 2003; Laryea & Sumaila 2001; Mushi 2000; Moshi 1998, Gibbons & Raikes 1996; Ndulu 1987; Green, Rwegasira and Van Arkadie 1982). Little attention has been given to analysing the effect of fiscal adjustment policies on the fiscal deficit both, prior to and during policy reform epochs. In contrast to the previous studies on fiscal adjustment in Tanzania, this study seeks to examine whether the conduct of fiscal adjustment policies is linked to the fiscal deficit in both periods.

This study provides four main findings. The first finding is that fiscal adjustment policies resulted in successful adjustment episodes that were not durable in all adjustments periods. All successful adjustment episodes in Tanzania, prior to or during the policy reforms, were followed by either an episode of decline in the fiscal deficit or an increase in the deficit or vice versa. The findings conform to the previous studies which indicated that inadequate fiscal adjustment policies resulted in a failure of stabilisation policies (Kandil 2000; Ter Minassian & Schwartz 1997; Alesina & Perotti 1995). In particular, failure to ensure efficiency in public spending and inadequate fiscal reforms resulted in a persistent deficit. Inadequate fiscal reforms were also a result of lack of political will on part of the government to undertake necessary measures to deal with inefficient public enterprises that were the causes of increased public spending in Tanzania.

In addition, previous studies on fiscal adjustment identified that public spending cuts of both recurrent and investment spending resulted in an increase in public spending and fiscal deficit in subsequent years (Engberg-Pedersen et al. 1996; Ismihan, Meti-Ozcan & Tansel 2003; Roche & Pichetti 2003). The studies also revealed that

spending based adjustment policies resulted in a durable reduction of fiscal deficit while tax based did not (Alesina & Perotti 1995;1996; Alesina & Ardagna 1998).This indicates that the choice of adjustment policies determine the outcome of fiscal adjustment policies. However, in the case of Tanzania it is difficult to achieve a meaningful reduction of the fiscal deficit through public spending cuts. Increases in tax revenue are also necessary in order to avoid the money financing of public spending.

In this regard, this study recommends that in Tanzania, fiscal adjustment policy include measures that enhance efficiency in public spending and that contribute to output growth. It is also recommended that fiscal adjustment policies constitute an appropriate composition of recurrent and investment spending so as to enhance productivity growth and overcome the fiscal deficit in Tanzania. This study also recommends that the government political will and be committed to undertake necessary fiscal adjustment measures including streamlining and enhancing efficiency in public spending.

The recommended policies should result in output growth because they will lead to cuts in unproductive spending and result in efficient allocations of resources in the economy. The attainment of high output growth results in the reduction of the fiscal deficit because it leads to increased tax revenue, a reduced inflation rate and interest rate. Increased output growth signifies the expansion of the tax base, and given appropriate tax structure, it results in an increase in tax revenue and correction of the fiscal deficit. Increases in tax revenue are also necessary because they are the viable means to finance government spending.

The second finding is that economic policies and changes in macroeconomic conditions determined the impact of fiscal adjustment policies on correcting the fiscal deficit in Tanzania prior to and during the policy reforms era. Specifically, macroeconomic policies and structural changes influenced the outcome of fiscal adjustment policies on the fiscal position because they had an impact on tax revenue and output growth. Correction for the overvaluation of the domestic currency together with trade liberalisation increased tax revenue from customs duties and sales taxes from imported goods, leading to a temporary reduction of the fiscal deficit in

different adjustment periods. However, relying on the adjustment of nominal exchange rates to increase tax revenue and on international trade was not a sustainable way to finance public spending, given that the economy was characterised by a high inflation rate. The high inflation rate resulted in overvaluation domestic currency and adversely affected the tax revenue from import. This confirms the findings in previous studies that short-term macroeconomic policies were associated with temporary increase in tax revenue and with short-term improvement in the fiscal position (Ter Minassian & Schwartz 1997; Tanzi 1989).

Both low manufacturing output growth and GDP growth also determined the outcome of fiscal adjustment policies on the fiscal position in Tanzania. Low manufacturing output growth was a result of biased industrial policies and low productivity growth. Furthermore, as part of adjustment policies, the government reduced public spending while output growth was low. As discussed in Chapter Five such a practice exacerbated the decline in GDP growth and the fiscal deficit. Moreover, structural change measures that constituted commercialisation of public enterprises and relocation of public investment led to the fall of GDP growth. The findings support previous studies on fiscal adjustment policies which identified that policy reforms involving relocation of public investments and reorganisation of production resulted in low output growth and the decline in tax revenue (Pirtillä 2001). In addition, as highlighted in Chapter Five, previous studies on fiscal adjustment in developing countries also indicates that countries pursuing stabilisation policies experienced difficulties in output recovery and growth including the widening of budget deficit (Corbo & Fischer 1998; IMF 2001; Arida & Taylor 2003).

Even though the fall of output growth was expected, the persistent low GDP growth and slow output recovery contradicts the experience of a number of countries that also pursued policy reforms and experienced output recovery after two to three years (Pirtillä 2001; Subramanian 1997). The delays in output recovery are linked to inappropriate policy measures that exacerbated output decline.

From the above discussion, it is obvious that macroeconomic and structural adjustment policies adversely affected the success of fiscal adjustment policies in

correcting the fiscal deficit in Tanzania. Thus, this study recommends that the government adopt consistent economic policies in order to enhance tax revenue generation and a positive outcome of fiscal adjustment measures on correcting the fiscal deficit. For example, consistency between the adjustment of the nominal exchange rate and fiscal policies will result in a reliable flow of tax revenue from international trade taxes and an increase in the level of economic activities. Revenue from international trade taxes accounts for one third of total tax revenue in Tanzania.

This study also recommends that the government adopt structural reform measures which emphasize the expansion of production capacity and productivity growth. Such measures are expected to result in higher GDP growth and enhance the success of fiscal adjustment policy measures on correcting the fiscal deficit. Delays in undertaking comprehensive reforms results in low output growth and macroeconomic instability.

The third finding is that economic policy changes resulted in public spending instability in Tanzania. The instability in public spending is attributed to the fluctuations in fiscal revenue and a persistent fiscal deficit. Fluctuating and low tax revenue are linked to low output growth and inadequate macroeconomic policies adopted during the policy reforms era. This finding also suggests that economic policy reforms influenced the outcome of fiscal adjustment policies on correcting the fiscal deficit in Tanzania.

Previous studies found that public spending instability was associated with low output growth (Búlir & Moon 2003; Gavin & Perotti 1997). In Latin America, public spending instability was attributed to the restrictions on borrowing from external sources because the countries experienced macroeconomic instability (Gavin & Perotti 1997). In addition, the studies in developing countries have indicated that cyclical factors contributed to public spending instability and had an impact on the fiscal position (Búlir and Moon 2003).

In Tanzania, public spending instability was a result of exogenous policy shocks that affected output growth and tax revenue. Macroeconomic conditions did not restrict the accessibility of the country to foreign funding sources, particularly after policy

reforms because the bilateral donors continued to disburse funds to Tanzania. Specifically, the implementation of the economic reform policy measures determined the inflow of foreign funds in Tanzania. However, part of the funds were import tied and this restricted the flexibility in the use of funds for productive spending or priority public spending components. This suggests that the government could not prevent the effect of exogenous policy shocks on the fiscal balance, given the continuous precarious financial situation it experienced over a long period and restrictions on the use of foreign funds.

Although economic shocks are expected to be temporary, in countries with inappropriate macroeconomic policies they last longer and jeopardise growth prospects. Thus, this study recommends that the government should pursue appropriate macroeconomic policies to minimize the effect of shocks on the economy. In addition, it is recommended that the government maintain a surplus budget to deal with fiscal deficit that arises due to economic shocks and adversely affects economic growth. It also recommended that public spending priority be on activities that promote economic and productivity growth. Research studies also show a strong positive relationship between an increase in productive public spending and output growth (Búlir & Moon 2003). Higher output growth would minimise the effect and duration of economic shocks in the economy.

The fourth finding is that economic policy changes led to structural changes in GDP growth in Tanzania. This follows from the fact that real output was truly I (1). In such a situation, shocks to the GDP series have permanent effects (Greene 2003). The estimation results of both AR(1) models for the GDP series and GDP growth equation suggest structural changes in GDP growth in Tanzania after the policy reforms. The structural changes occurred in the period in which the economic and political system changed, leading to fundamental changes in the economy. The times series econometric test results indicated that the structural breaks in the GDP series coincided with periods in which major economic policy changes occurred. The structural breaks in the GDP series occurred in the years in which the economic regime changed from a socialist to market economy, financial institutional reforms were adopted and multiparty democracy was introduced in Tanzania. In addition, the

introduction of the market determined exchange rate also resulted in the changes in GDP series in Tanzania.

The finding that policy shocks result in structural changes in the GDP series confirms the previous findings in the economic literature (Chevillon 2004; Kapetanios & Tzavalis 2004; Debs 2001). The literature identifies that exogenous economic events including policy shocks result in fundamental changes in the economy. Such changes affect GDP growth and the fiscal position over a short- or long-term.

Previous studies indicated that the exogenous events or policy shocks caused fiscal problems, particularly in developing countries with weak economic structures or that pursued inappropriate economic policies (World Bank 1996b; Ziky & Mansouri 2003) One of the outcomes of exogenous shocks was the change in the conduct of fiscal policy in a number of developing and industrialised countries because the shocks revealed the weakness of the policies the governments had pursued.

In Tanzania, the structural changes in GDP growth are linked to changes in the economic structure and the level of economic activities. Policy reforms led to the adoption of economic policies emphasising economic transformation and efficient allocation of the resources. The change in the political system also had an impact on the levels of economic activities because, it enabled the participation of individuals in the production activities that were restricted to the public sector during the socialist regime or were not undertaken at all. This meant that changes in economic policy and the political regime policy had an impact on macroeconomic conditions in Tanzania because they influenced the GDP growth.

Exogenous policy shocks resulted in a number of episodes of structural breaks in the GDP series and changes in macroeconomic conditions over a period in Tanzania. Such a situation had an effect on the fiscal position as well. The changes in macroeconomic conditions affected the outcome of fiscal adjustment policies on the fiscal position in Tanzania.

In developing countries, continual changes in macroeconomic policies or conditions are detrimental to endeavours to increase tax revenue because they cause difficulties

during the adjustment periods. Such a situation also restricts the use of alternative policy measures to deal with the difficulties during the adjustment epochs and thereby exacerbate the fiscal deficit.

The difficulties during the adjustment process become severe if a country experiences low real GDP and per capita GDP growth. One of the alternative measures is to enhance productivity growth in order to minimise the effect of continual changes in policies on the fiscal deficit, but it takes time before such measures result in higher output growth. Thus, it is recommended that fiscal adjustment policies should not be undertaken when a series of policy changes are envisaged in the economy. The policies will not result in successful correction of the fiscal deficit. The adjustment policies should be undertaken when few changes in economic policies are undertaken or envisaged to be undertaken.

In sum, this study focused on understanding the relationship between fiscal adjustment policies and the fiscal balance in Tanzania. The findings suggest that the fiscal adjustment policies resulted in successful adjustment episodes that were not long lasting prior to and after policy reforms; and that changes in macroeconomic condition and policies determined the impact of adjustment policies on correcting the fiscal deficit in Tanzania. Other findings are that economic policy reforms resulted in public spending instability and a structural break in the GDP growth series in Tanzania. This suggests that policy makers need to pay attention to these issues in order to realise success in implementing fiscal adjustment policies in Tanzania.

The thesis has not dealt with issues such as the exchange rate and its impact on fiscal policies. However, exchange rate policy may have an impact on fiscal policies in an open economy. Little is known about the effect of the exchange rate regime in correcting the fiscal deficit in different adjustment periods in Tanzania over the 1971-2000 period. Sketchy knowledge of the impact of exchange rate policy on fiscal policy in Tanzania suggests that a country study is worthwhile undertaking.

Table 1: Data on Fiscal Revenue and Public Spending in Tanzania in the
1971-2000 Period

YEAR	TAX REVENUE	NON-TAX REVENUE	CURRENT REVENUE	TOTAL PUBLIC SPENDING
1971	1,307,800,000	551,000,000	1,858,800,000	2,359,500,000
1972	1,699,200,000	753,800,000	2,453,000,000	3,156,600,000
1973	2,255,400,000	747,000,000	3,002,400,000	4,040,300,000
1974	2,974,400,000	967,900,000	3,942,300,000	6,079,500,000
1975	3,129,000,000	933,000,000	4,062,000,000	6,000,000,000
1976	3,439,700,000	1,493,700,000	4,933,400,000	7,785,600,000
1977	5,333,700,000	1,297,700,000	6,631,400,000	9,061,100,000
1978	5,377,300,000	1,064,800,000	6,442,100,000	12,397,100,000
1979	6,147,900,000	1,531,700,000	7,679,600,000	13,943,000,000
1980	7,908,400,000	663,000,000	8,571,400,000	14,755,200,000
1981	8,502,000,000	904,000,000	9,406,000,000	17,387,000,000
1982	12,529,100,000	51,700,000	12,580,800,000	18,993,000,000
1983	13,397,900,000	108,100,000	13,506,000,000	20,409,000,000
1984	18,482,500,000	155,500,000	18,638,000,000	28,509,100,000
1985	21,781,800,000	249,900,000	22,031,700,000	31,710,000,000
1986	27,406,600,000	1,924,400,000	29,331,000,000	47,870,400,000
1987	42,556,700,000	4,922,700,000	47,479,400,000	75,296,900,000
1988	63,083,100,000	7,332,300,000	70,415,400,000	106,097,900,000
1989	81,470,700,000	13,184,100,000	94,654,800,000	140,874,000,000
1990	118,257,200,000	18,835,700,000	137,092,900,000	207,292,400,000
1991	153,356,000,000	20,210,000,000	173,566,000,000	207,292,000,000
1992	146,420,000,000	17,689,000,000	164,109,000,000	261,051,000,000
1993	220,358,000,000	22,086,000,000	242,444,000,000	336,015,000,000
1994	299,899,000,000	31,340,000,000	331,239,000,000	485,216,000,000
1995	196,535,000,000	64,629,000,000	261,164,000,000	469,660,000,000
1996	267,053,000,000	66,675,000,000	333,728,000,000	445,542,000,000
1997	491,045,000,000	52,960,500,000	544,005,500,000	658,523,000,000
1998	547,953,000,000	73,041,200,000	620,994,200,000	730,338,000,000
1999	662,001,000,000	92,537,300,000	754,538,300,000	816,706,000,000
2000	770,242,000,000	10,183,560,000	780,425,560,000	1,168,779,000,000

Source: Bank of Tanzania (1975;1986;1990;1996;2005), United Republic of Tanzania (1997; 1999; 2000a)

Table 2: Monetary Data and Informal Economy GDP in Tanzania in the 1973-2000 period (informal economy GDP estimated using Guttmann Method)

YEAR	CC	DD	CC/DD	INFGDP	%INFGDP/OFFGDP
1973	12.011.000	15.761.000	0.76	1.852.477	16.12
1974	11.986.000	19.390.000	0.62	930.012	6.64
1975	15.173.000	25.280.000	0.60	926.676	5.45
1976	17.558.000	32.605.000	0.54	307.172	1.39
1977	20.713.000	40.031.000	0.52	0	0
1978	23.797.000	39.117.000	0.61	1.785.621	5.99
1979	29.152.000	63.800.000	0.46	-1.400.988	-3.99
1980	52.454.000	81.006.000	0.65	3.220.845	8.57
1981	66.160.000	87.852.000	0.75	7.230.449	15.53
1982	79.887.000	103.345.000	0.77	9.474.016	16.84
1983	81.904.200	123.701.000	0.66	5.875.721	9.54
1984	104.724.000	100.647.000	1.04	25.730.813	34.47
1985	127.190.000	125.512.000	1.01	33.233.754	32.68
1986	183.097.000	174.999.800	1.05	47.221.410	34.85
1987	245.508.000	225.798.000	1.09	70.056.333	37.55
1988	317.023.000	336.987.000	0.94	92.136.461	27.9
1989	410.948.000	413.239.000	0.99	162.159.706	31.44
1990	579.191.000	531.658.000	1.09	253.207.944	37.69
1991	636.046.000	723.212.000	0.88	197.037.725	23.86
1992	954.545.000	904.217.000	1.06	452.571.186	35.47
1993	1.221.667.000	1.249.244.000	0.98	487.917.033	30.35
1994	1.763.082.000	1.533.165.000	1.15	880.609.331	41.69
1995	2.443.137.000	1.839.714.000	1.33	1.493.904.175	53.42
1996	2.576.628.000	1.915.500.000	1.35	1.883.297.330	54.55
1997	2.878.771.000	2.059.917.000	1.40	2.486.291.664	58.00
1998	3.077.987.000	2.377.183.000	1.29	2.625.710.629	51.23
1999	3.848.480.000	2.477.232.000	1.55	4.081.648.915	68.28
2000	3.924.042.000	3.026.023.000	1.30	3.449.202.039	51.36

Note:CC: Currency in Circulation; Demand Deposits; INF: Informal economy; Gross Domestic Product; OFFGDP: Official GDP
Source: Bank of Tanzania (1974;1982;1986;1996;2002)

REFERENCES

Adam, C & Bevan, D 2002, 'Fiscal Deficit and Growth in Developing Countries', *Discussion Paper Series , Department of Economics, University of Oxford,* vol. Number 120.

Addison, T & Ndikumana, L 2001, 'Overcoming Fiscal Crisis of African States', *IMF Discussion Paper*, no. 001/12.

Agénor, P & Montiel, P 1996, *Development Macroeconomics*, Princeton University Press, Princeton Jersey.

Ahsan, S, Kwan, A & Sahni, B 1992, 'Public Expenditure and National Income: Causality and further Evidence', *Southern Economic Journal,* vol. 58, no. 3, pp. 623-634.

Aiko, R 2003, 'Fiscal Adjustment in IMF supported Adjustment Programme: The Tanzanian Experience', *African Journal of Finance and Management,* vol. 11, pp. 84 - 103.

Al- Faris, A 2002, 'Public Expenditure and Economic Growth in Gulf Cooperation Countries', *Applied Economics Journal,* vol. 34, no. 9, pp. 1157 - 1169.

Alesina, A & Ardagna, S 1995, 'Fiscal Adjustment in OECD Countries', *Economic Policy,* vol. 10, no. 2, pp. 207-248.

Alesina, A & Ardagna, S 1998, 'Tale of Fiscal Adjustment', *Economic Policy*, pp. 488-545.

Alesina, A & Perotti, R 1995, 'Fiscal Expansion and Adjustment in OECD Countries', *Economic Policy,* vol. 21, pp. 205 - 48.

Alesina, A & Perotti, R 1997, 'Fiscal Adjustment in OECD Countries: Composition and Macroeconomic Effects', *IMF Staff Papers,* vol. 44, no. 2, pp. 210-248.

Alm, J, Bahl, R & Murray, M 1990, 'Tax Structure and Tax Compliance', *The Review of Economics and Statistics*, pp. 603-613.

Ansari, M 1993, 'Testing the Relationship between Government Expenditure and National Income in Canada, Employing Granger Causality', *Manegarial Finance,* vol. 19, no. 7, pp. 31-46.

Ansari, M, Gordon, D & Akuamoh, C 1997, 'Keynes versus Wagner: Public Expenditure and National Income for three African Countries', *Applied Economics,* vol. 29, no. 4, pp. 543-550

Arida, P & Taylor, L 2003, 'Short Run Macroeconomics', in H. Chenery & T.N. Srinivassan (eds.), *Handbook of Development Economics*, Amsterdam, pp. 885-882.

Ariyo, A 1996, 'Quality of Macroeconomic Data on Africa: Nigeria as a Case Study', *AERC Special Paper,* no. 22.

Ariyo, A 1997, 'Productivity of the Nigerian Tax System 1970-1990', *AERC Papers*, no. 67.

Aschauer, D 1989a, 'Does Public Capital Crowd out Private Capital ?' *Journal of Monetary Economics,* vol. 24, pp. 171-88.

Aschauer, D 1989b, 'Is public Spending Productive ?' *Journal of Monetary Economics,* vol. 23, pp. 177-200.

Ayoki, M, Obwona, M & Ogwapus, M 2005, 'Tax Reforms and Domestic Revenue Mobilisation in Uganda', *Global Development Network and Institute of Policy Research and Analysis, Uganda* (Second Draft).

Bagachwa, M 1992, ' Background, Evolution, Essence and Prospects of Current Economic Reform in Tanzania', in M. Bagachwa, A. Mbelle, and B. Van Arkadie, B (ed.), *Market Reforms and Parastatal Restructuring in Tanzania*, Economics Department a*r*nd Economic Research Bureau University of Dar es Salaam, Dar es Salaam, pp. 19-43.

Bagachwa, M, Luvanga, N & Mjema, G 1989, 'Tanzania: A study on Non-Traditional Exports (Preliminary Draft)', *Mimeo, University of Dar es Salaam*.

Bagachwa, M & Naho, A 1995, 'A Review of Recent Development in the Second Economy in Tanzania', *AERC Special Paper*, no. 16.

Bigsten, A, Mutalemwa, D, Tsikata, Y & Wangwe, S 1999, *Aid and Reforms in Tanzania*, Economic and Social Research Foundation, Dar es Salaam.

Bank of Tanzania, 1972, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1973, *Economic and Operation Report*, Dar es Salaam.

Bank of Tanzania, 1974, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1975, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1982, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1984, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1985, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1986, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1989, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1990, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1996, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 1997, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 2000, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 2001, *Tanzania Investment Report: A Report on the Study of Foreign Private Capital Flows in Mainland Tanzania*, Dar es Salaam.

Bank of Tanzania, 2002, *Economic and Operations Report*, Dar es Salaam.

Bank of Tanzania, 2005, *Domestic Debt in Tanzania*, (Draft Report), Dar es Salaam.

Birdsall, N 2003, 'Economic Approach to Population Growth', in H. Chenery & T. N. Srivnavasan (eds.), *Handbook of Development Economics*, vol. I, Nort Holland Elservier, Amsterdam, pp. 477-535.

Biswal, B, Dhawan, U & Lee, H-Y 1999, 'Testing Wagner Versus Keynesian Hypothesis using Disaggregated Public Expenditure Data', *Applied Economics,* vol. 31, pp. 1283-1291.

Blanchard, O & Giavazzi, F 2003, *Reform can be done: Improving SGP through Proper Accounting of Public Investment*. from http://www.lavoce.info/news/images/blanchardgiavazzi2002stability_pact.pdf.

Blanchard, O & Sheen, J 2004, *Macroeconomics - Australian Edition*, Pearson Education Australia, Frechs Forests, NSW.

Bol, D 1995, 'Employment and Equity', in L. Msambichaka, A. Kilindo & G. Mjema (eds.), *Beyond Structural Adjustment Programmes in Tanzania*, Economic Research Bureau; University of Dar es Salaam, Dar es Salaam, pp. 193-234.

Branson, W 1979, *Macroeconomics*, Universal Bookstall, New Dehli.

Broendal, G 1986, *Fiscal Policy in Small Industrial Countries 1972-82*, International Monetary Fund, Washington, D.C.

Bukuku, E 1992, *The Tanzanian Economy: Income Distribution and Economic Growth*, Preager, New York.

Búlir, A & Moon, S 2003, 'Do IMF supported Programme make Fiscal Adjustment more Sustainable', *IMF Working Papers,*, no. 38.

Burgess, R & Stern, N 1993, 'Taxation and Development', *Journal of Economic Literature,* vol. 31, no. 2, pp. 762 - 830.

Caballero, J. R 2000, 'Macroeconomic Volatility in Latin America: A View and Three Case Studies', *NBER Working Paper*, no. 7782.

Calza, A, Gartner, C & Sousa, J 2001, 'Modelling Demand for Private Sector in Europe', *European Central Bank Working Paper Series*, no. 55.

Charemza, W & Deadman, F 1997, *New Direction in Econometric Practices*, Edward Elgars, Cheltenham,.

Chevillon, B 2004, 'A Comparison of Multi-Step GDP Forecast for South Africa', *Discussion Paper Series, Department of Economics, University of Oxford*, no. 212.

Chipeta, C 1998, 'Tax Reforms and Tax Yield in Malawi', *AERC Research Paper*, no. 81.

Chipeta, C 2002, 'The Second Economy and Tax Yield in Malawi', *AERC Research Paper*, no. 113.

Collier, P & Gunning, J. W 1991, 'Money Creation and Financial Liberalisation in a Socialist Banking System: Tanzania 1983-88', *World Development,* vol. 19, no. 5, pp. 533-38.

Collins, S, Bosworth, B & Rodrick, D 1996, 'Economic Growth in East Asia: Accumulation versus Assimilation', *Brookings Papers of Economic Activities,* vol. 2, pp. 135-203.

Conway, P 1994, 'IMF lending programs: Participation and Impact', *Journal of Development Economics,* vol. 45, pp. 365-391.

Corbo, V 1985, 'Reforms and Macroeconomic Adjustment in Chile During 1974 - 1984', *World Development,* vol. 13, no. 8, pp. 893-916.

Corbo, V & Fischer, S 1994, *Structural Adjustment and Stabilisation Policy Reforms: Domestic and International Finance*, Pontificia Universidad Catolica De Chile, Santiago.

Corbo, V & Fischer, S 1998, 'Structural Adjustment and Stabilisation Policy Reforms', in H. Chenery & T. N. Srinivasan (eds.), *Handbook of Development Economics*, North Holland, Amsterdam, pp. 2845-2917.

Crane, S & Nourzad, F 1986, 'Inflation and Tax Evasion: An Empirical Analysis', *Review of Economics and Statistics,* vol. 68, no. 2, pp. 217-223.

Crompton, P, Swann, M, Hopkins, S & McEachern, W 2002, *Introduction to Macroeconomics*, Thomson, Southbank Victoria.

Debs, A 2001, 'Testing for a Structural Break in Volatility of Real GDP Growth in Canada', *Bank of Canada Working Paper*, no. 2001-9.

Devarajan, S, Swaroop, V & Zou, H 1996, 'The Composition of Public Expenditure and Economic Growth', *Journal of Monetary Economics,* vol. 37, pp. 313-44.

Diamond, J 1977, 'Econometric Testing of the Displacement Effect: A Reconsideration', *Finanzarchiv,* vol. 35, no. 3, pp. 387-404.

Dicks-Mireaux, L, Mecagni, M & Schadler, S 2000, 'Evaluating the Effects of IMF Lending to Low Income Countries', *Journal of Development Economics,* vol. 61, pp. 495-526.

Doriye, J 1995, 'Macroeconomic Overview', in L. Msambichaka, A. Kilindo and G. Mjema (ed.), *Beyond Structural Adjustment Programme in Tanzania.: Success, Failure and New Perspective*, Economics Department and Economic Research Bureau, University of Dar Es Salaam, Dar Es Salaam, pp. 7-26.

Dornbusch, R 1989, 'Credibility Debt and Unemployment: Ireland Failed Stabilisation', *Economic Policy,* vol. 4; no 1; pp 173-209,

Easterly, W & Rebelo, S 1993, 'Fiscal Policy and Economic Growth', *Journal of Monetary Economics,* vol. 32, pp. 417 -458.

Engberg-Pedersen, P, Gibbon, P, Raikes, P & Udholt, L (eds.) 1996, *Limit of Adjustment in Africa*, James Currey, Oxford.

ESRF & TBC 1997, 'The Parallel Economy in Tanzania: Magnitude Causes and Policy Implications', *ESRF Discussion Paper No. 11*.

Fedelino, A & Kudina, A 2003, 'Fiscal Sustainability in HIPC Countries: A Policy Dilemma', *IMF Working Paper*, no. 03/187.

Financial Times 2004, 'De Soto Reveals the Magnitude of Wealth Accumulation in the Informal Economy in Tanzania', *Financial Times,* 22.11.2004,

Fischer, S & Sahay, R 2000, 'The Transition Economies after Ten Years', *IMF Working Paper*, no. 0030.

Fishlow, A & Friedman, J 1994, 'Tax Evasion, Inflation and Stabilisation', *Journal of Development Economics,* vol. 43, pp. 105-123.

Fjeldstad, O & Semboja, J 2001, *Dilemma of Fiscal Decentralisation: A Study of Local Government Taxation in Tanzania*.

Fjelstad, O, Hussein, U & Shallanda, B 2002, 'TAXMOD: A Revenue Projection Model for Tanzania, Prepared for the Macroworking Group', *Presented at the 2nd National Workshop on Macromodelling in Tanzania, Bahari Beach Hotel; 29-30 April 2002*.

Fjetdstad, O & Rakner, L 2003, 'Taxation and Tax Reforms in Developing Countries: Illustration from Sub Saharan Africa', *Research Report R-2003:6*.

Gamber, E & Fredrick, L 2005, 'The Yield Slope and Monetary Policy Innovations', *Institute for Advanced Studies Economic Series*, no. 171.

Gavin, M & Perotti, R 1997, 'Fiscal Policy in Latin America', *NBER: Macroeconomic Annual*, pp. 11- 71.

Ghura, D 1998, 'Tax Revenue in Sub Saharan Africa: Effect of Economic Policies and Corruption"', *IMF Working Paper*, no. 98/135.

Giavazzi, F & Pagano, M 1990a, 'Can Fiscal Contraction be Expansionary: Tale of two Small European Countries', *CEPR*.

Giavazzi, F & Pagano, M 1990b, 'Can Severe Fiscal Adjustment be Expansionary', *NBER: Macroeconomic Annual*.

Giavazzi, F & Pagano, M 1996, 'Non Keynesian Effects of Fiscal Policy Changes: International Evidence and Swedish Experience', *Swedish Economic Policy Review,* vol. 3, pp. 67 - 103.

Gibbon, P & Raikes, P 1996, 'Structural Adjustment in Africa: A Survey of Experience -Tanzania', in P. Engberg-Pedersen, P. Gibbon, P. Raikes & L Udholt (eds.), *Limit of Adjustment in Africa*, James Currey, Oxford, pp. 215-301.

Goldsbrough, D, Coorey, S, Dicks-Mireaux, L, Horvath, B, Kochhar, M, Mecagni, M, Offerdal, E & Zhou, J 1996, 'Reinvigorating Growth in Developing Countries: Lessons from Adjustment Policies in Eight Economies', *IMF Occasional Papers,* vol. 139.

Goldstein, M & Montiel, P 1986, 'Evaluating Fund Stabilization Programs with Multi-country Data: Some Methodological Pitfall', *IMF Staff Papers,* vol. 33, no. June.

Gomulka, S 1995, 'The Fund Supported Programs of Poland and Russia, 1990-94:Principles Errors and Results', *Journal of Comparative Economics,* vol. 20, no. June, pp. 316-346.

Green, R 1981, 'State and Class Formation in Uganda:' *Paper Presented at 25th Conference of African Studies Association, Washington.*

Green, R. H, Rwegasira, D.G & Van Arkadie, B 1982, *Economic Shocks and National Policy Making: Tanzania in 1970s*, The Institute of Social Studies, The Hague.

Greene, W. H 2003, *Econometric Analysis,* Fifth Edition (edn), Pearson Education Inc, New Jersey.

Guardian 2003, 'World Bank earmark 62bn/- for DAWASA water project, 10.06.2003 pp4 col. 4

Guardian 2004, 'Factories Dormant Since Privatisation', *The Guardian*, 31.07.2004.

Guardian 2005, 'Private Investors Required to Invest more on DAWASA and TTCL', *Guardian*, 8. August 2005, p. 1.

Gupta, S, Clemence, B, Baldacci, E & Mulas-Granados, C 2002, 'Expenditure Composition, Fiscal Adjustment and Growth in Low Income Countries', *IMF Working Papers,* Working Paper 02/77.

Hansen, B 1991, *A Comparison of Test for Parameter Instability: An Examination of Asymptotic Local Power*. Retrieved 08.03.2004, from http//www.ssc.wisc.edu/~bhansen.

Hansen, B 2001, 'New Econometrics of Structural Change: Dating Breaks in US Labour Productivity', *Journal of Economic Perspective,* vol. 15, no. 4, pp. 117 - 128.

Harvey, A.C, 1981, *The Econometric Analysis of Time series*, Philip Allen Publishers Limited, Oxford.

Hill, C.R, Griffiths, W.E & Judge, G.G 2001, *Undergraduate Econometrics*, John Wiley and Sons Inc., New Jersey.

Hopkins, S 2004, 'Economic Stability and Health Status: Evidence from East Asia before and after 1990 Economic crises, *Working Paper Curtin Business School*.

IMF, 1975, *Government Finance Statistics Yearbook*, International Monetary Fund.

IMF, 1980, *Government Finance Statistics Yearbook*, International Monetary Fund.

IMF, 1990, *Government Finance Statistics Yearbook*, International Monetary Fund.

IMF, 1991, *International Financial Statistics*, International Monetary Fund, Washington.

IMF, 1992, *International Financial Statistics*, International Monetary Fund, Washington.

IMF, 1996, *International Financial Statistics*, International Monetary Fund, Washington.

IMF, 1997, *International Financial Statistics*, International Monetary Fund, Washington.

IMF, 1999, *Enhanced Structural Adjustment Facility: Paper for 1998/99 - 2000/01*. Retrieved 08.03.2004, from http://www. imf.org/external/np/pfp/1999/Tanzania/indexhtm.

IMF, 2000, *International Financial Statistics*, International Monetary Fund, Washington.

IMF, 2001, 'Selected Euro-area Countries: Rules Based Fiscal Policy and Job-Rich Growth France, Germany, Italy and Spain', *IMF Country Report*, no. 01/123.

Ismihan, M, Meti-Ozcan & Tansel, A 2003, *Macroeconomic Instability, Capital Accumulation and Growth: The Case of Turkey 1963-1999*. Retrieved 2.2.2006, from http://www.econmod.net/conferences.economod2003/econmod papers Ismihan.

Iwata, S, Khan, M & Murao, H 2002, 'Sources of Economic Growth in East Asia:Non-Parametric Assessment', *IMF Working Paper*, no. 02/13.

Ivanova, I, Mayer, W, Mourmouras, A & Anayitotos, G 2003, 'What Determines the Implementation of IMF-Supported Programs', *IMF Working Paper,* vol. WP/03/8.

Jimenez, E 1995, 'Human and Physical Infrastructure, Public Investment and Pricing Policies in Developing Countries', in J. Berhman & T.N Srinivasan (eds.), *Handbook of Development Economics*, vol. III, Science BV, Elsevier.

Johnston, J & Dinaro, J 1997, *Econometric Method*, McGraw Hill Companies Inc., New York.

Jones, C 2002, *Introduction to Economic Growth,* Second (edn.), W.W. Norton and Company Inc.

Kandil, M 2000, 'Macroeconomic Shocks and Dynamics in the Arab World', *7th ERF Conference Paper*.

Kapetanios, G & Tzavalis, E 2004, 'The Impact of Large Structural Shock on Economic Relationships: Evidence from Oil Price Shocks', *Working*

Paper, Department of Economics, Queens Mary University of London, no. 524.

Katunzi, A 1997, 'Managing Change in Public Enterprises: Swallowing Bitter Pills', *The IFM Journal of Finance and Management,* vol. 6, no. 2, pp. 14-23.

Kaufmann, D. and O'Connell, S.A 1999, 'The Macroeconomics of Delayed Exchange Rate Unification', *Policy Research Working Paper,* Working Paper 2060.

Kerr, I 1993, 'The Growth of Government', in P. Maxwell & S. Hopkins (eds.), *Macroeconomics: Contemporary Australian Reading*, Haper Educational, Pymble Victoria.

Khan, M 1990, 'Private Investment and Economic Growth in Developing Countries', *World Development,* vol. 18, pp. 19-27.

Kilindo, A. A. L 1992, *Inflationary Finance and Dynamics of Inflation in Tanzania*, Unpublished, Dar es Salaam.

Kilindo, A. A. L & Nyagetera, B.M 1995, 'Financial Sector Reforms in Tanzania:An Assessment', in L. Msambichaka, A. Kilindo & G. Mjema (eds.), *Beyond Structural Adjustment Program in Tanzania*, Economic Research Bureau, Dar es Salaam.

Kim, C. J & Nelson, C 1999, 'Has the US Economy became more Stable: A Bayesian Approach based on a Markov Switching Model of Business Cycle', *Review of Economics and Statistics,* vol. 81, no. 4, pp. 604 - 616.

Kimei, C 1987, *Tanzania's Financial Experience in the Post War Period*, Department of Economics Uppsala University, Uppsala.

Kolodko, G 1992, 'Stabilisation in Poland', *Economic Policy*, vo.7 no.1 pp. 211-213.

Kolluri, B, Panik, M & Wahab, M 2000, 'Government Expenditure and Economic Growth: Evidence from G 7 Countries', *Applied Economics,* vol. 32, pp. 1059-1068.

Koptis, G 1987, 'Structural Reforms Stabilisation and Growth in Turkey', *IMF Occasional Paper*, no. 52.

Kose, A. Otrok, C & Whiteman, C 1999, 'Economic Shocks and Economic Dynamics: In case of Africa', *A Paper Presented at Indiana Econometric Society in New York, University of Iowa*.

Kose, A. M, Prasad, S. E & Terrones, M. E 2003, 'Financial Integration and Macroeconomic Stability', *IMF Working Papers*, no. 03/27.

Kose, A. M & Riezman, R 1999, 'Trade Shock and Macroeconomic Fluctuation in Africa', *CEsifo Working paper,* vol. Working Paper.

Kouassy, O & Bohoun, B 1994, 'Fiscal Adjustment and Growth in Ivory Coast', *World Development,* vol. 22, no. 8, pp. 1119- 1128.

Kweka, J. P & Morrissey, O 2000, 'Government Spending and Economic Growth in Tanzania, 1965 - 1996', *Centre for Research in Economic Development and International Trade, University of Nottingham, Research Paper*, no. 00/6.

Laryea, S. A & Sumaila, U. R 2001, 'Determinants of Inflation in Tanzania', *Working Paper, Chr. Michelsen Institute, Development Studies and Human Rights*, no. WP 2001:12.

Levacic, R & Rebmann, A 1991, *Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies*, Mcmillan Education Limited, London.

Lipumba, N. 1988, 'Policy Reform for Economic Development', in S. K. Commins (ed.), *Africa's Development Challenges and the World Bank. Hard Questions and Costly Choices*, Cynne Rienner Publishers, Colorado.

Lipumba, N. 1992, 'The Nature and Prospects of Current Economic Reforms in Tanzania', in M. Bagachwa, A. Mbele & B. Van Arkadie (eds.), *The Nature and Prospects of Current Economic Reforms in Tanzania*, Economic Research Bureau and Department of Economics, Dar Es Salaam, pp. 43-56.

Lipumba, N. & Ndulu, B. 1989, 'Long-term Trends in Exports', *Tanzania Economic Trends,* vol. 2, no. 1, pp. 11-23.

Lucas, R 1988, 'On Mechanics of Economic Development', *Journal of Monetary Economics,* vol. 22, pp. 3-42.

Lugalla, J. P. L 1996, 'Economic Reforms and Health Conditions of the Urban Poor in Tanzania', *African Studies Quarterly*. Retrieved 4/16/2005, from http://web.africa.ufl.edu/asq/v1/2/2htm

Maddala, G & Kim, I-M 1998, *Unit Root Cointegration and Structural Change*, Cambridge University Press, Cambridge.

Maliyamkono, T & Bagachwa, M 1990, *The Second Economy in Tanzania*, James Currey, London.

Masambichaka, L & Naho, A 1995, 'Agricultural Sector Performance under SAP in Tanzania: Promising or Frustrating Situation ?' in L. Masambichaka, A. Kilindo & G. Mjema (eds.), *Beyond Structural*

Adjustment Programmes in Tanzania, Economic Research Bureau; University of Dar es Salaam, Dar es Salaam, pp. 29-68.

Mbele, A 2001, 'The HIPC Relief: Too Late, too Little ? Perspective from the new Qualifier, Tanzania', *UNU/WIDER Conference on Debt Relief, Helsinki 17-18, August*.

McConnell, M & Quiros, G 1997, 'Output Fluctuation in United State: What has Changed since Early 1980s', *Federal Reserve Bank of New York*, no. 9735.

McConnel, M & Quiros, GP 2000, 'Output Fluctuation: What has changed since Early 1980s', *American Economic Review,* vol. 90, pp. 1464-1476.

McDermott, P & Wescott, R 1996, 'An Empirical Analysis of Fiscal Adjustment Policies', *IMF Staff Paper,* vol. 43, no. 4, pp. 725 - 753.

Mjema, G 2000, 'Debt Relief and Poverty in Tanzania: Prospect and Challenges', *Paper Presented at the Ist IFMASA Worksop on Poverty Alleviation and the Finance Management System in Tanzania, Novermber 29*.

Mjema, G. D & Shitundu, J 1995, 'Performance of Industrial Trade Sector During Economic Recovery Programme and Some Reflection on Future Prospects', in L. Msambichaka, A. Kilindo and G. Mjema, (ed.), *Beyond Structural Adjustment Programme in Tanzania.: Success, Failure and New Perspective*, Economics Department and Economic Research Bureau, University of Dar es Salaam, Dar es Salaam, pp. 93-118.

Monsingh, V 1999, *Direct Taxation and its Effects on Savings and Capital Formation in Asian Economies*, Curtin University of Technology.

Montiel, PJ 1989, 'Empirical Analysis of High Inflation Episodes in Argentina Brazil and Israel', *IMF Staff Paper,* vol. 36, pp. 527-49.

Moshi, H. P 1998, 'Fiscal and Monetary Burden of Tanzania's Corporate Bodies: The Case of Public Enterprises', *AERC Research Papers*, no. 75.

Mpango, P. I 1995, *Evasion of Import Duties: An Economic Analysis of the Case of Tanzania*, University of Dar es Salaam.

Mshomba, R 1993, 'The Magnitude of Arabica Coffee Smuggled from Northern Tanzania into Kenya', *Eastern Africa Economic Review,* vol. 9, no. 1, pp. 165-75.

Mtatifikolo, F 1998, 'The Content and Challenges of Reform Programme in Africa: The Case study of Tanzania', *Berichte aus dem Weltwirtschaftlichen Colloquium der Universitaet Bremen*.

Mushi, D 2003, 'De Soto's Model Relevant to Tanzania', *Financial Times*, 15.10.2003, p. 4.

Mushi, R 2000, 'Fiscal Impact of the Parastatal Sector in Tanzania', *African Journal of Finance and Management,* vol. 9, no. 1, pp. 59-65.

National Bureau of Statistics 2002, *Population Census and Housing Results*, National Bureau of Statistics, Dar es Salaam. Retrieved 12.09.2005, from http;www.tanzania.go,tz/census.

National Bureau of Statistics & Ministry of Community Development Women and Children 1995, *Analysis of African Women and Men: The Case of Tanzania, Dar es Salaam*.

Ndulu, B 1987, *Stabilisation and Adjustment Policies and Programmes*, World Institute for Development Economics Research.

Neuman, W 2003, *Social Research Methods*, Pearson Education, Inc.

Nyagetera, B. M 1992, 'Reforming and Restructuring the Financial Sector in Tanzania', in M. Bagachwa, A. Mbele & B. Van Arkadie (eds.), *The Nature and Prospects of Current Economic Reforms in Tanzania*, Economic Department and Economic Research Bureau, Dar es Salaam, pp. 74-89.

Osoro, N 1994, *Taxation in Tanzania: Motivations, Directions and Future Prospects*, Dar es Salaam University Press, Dar es Salaam.

Osoro, N 1997, 'Public Spending, Taxation and Deficit', *AERC Research Paper*, no. 62.

Perron, P 1989, 'The Great Crash, the Oil Price Shock and Unit Root Hypothesis', *Econometrica,* vol. 57, no. 6, pp. 1361 - 1401.

Peter, V & Kerr, I 2001, 'The Influence of Tax Mix and Tax Policy on Savings and Capital Formation in Developing Countries: A Survey', *Working Paper Series No.01.21, Curtin University of Technology, School of Economics and Finance*, pp. 1-27.

Pirtillä, J 2001, 'Fiscal Policy and Structural Reform in Transition Economies: An Empirical Analysis', *Economics of Transitions,* vol. 9, pp. 29-52.

Purfield, C 2003, 'Fiscal Adjustment in Transition Countries: Evidence from 1990s', *IMF Working Paper*, no. 03/36.

Quantitative Micro Software, L 2004, *EViews 5 User's Guide*, Microsoft Corporation, Irvine.

Ram, R 1986, 'Government Size and Economic Growth: A new Framework and some Empirical Evidence from Cross Section and Time Series Data', *American Economic Review*, pp. 191-203.

Roche, F & Pichetti, P 2003, 'Fiscal Adjustment in Brazil', *RBE Rio Janairo,* vol. 71, no. 1, pp. 239 - 252.

Rueg, R 2006, *Bridging from Project Case Study to Portfolio Analysis in a R&D Program*, Department of Commerce, USA, Gaithersburg.

Saunders, P & Klau, F 1985, 'The Role of Public Sector: Causes and Consequences of the Growth of the Government', *OECD Economic Studies*.

Seade, J 1990, 'Tax Revenue Implications of Exchange Rate Adjustment', in V Tanzi (ed.), *Fiscal Policy in Open Developing Economies*.

Semboja, J 1995, 'State Financing of Basic Services During Structural Adjustment Period', in L.A. Msambichaka, Kilindo. A. A. L. and Mjema, G. D. (ed.), *Beyond Structural Adjustment Programme in Tanzania.: Success, Failure and New Perspective*, Economics Department and Economic Research Bureau, University of Dar es Salaam, Dar es Salaam, pp. 149-168.

Senhadji, A 2000, 'Sources of Economic Growth: An Extensive Growth Accounting Exercise', *IMF Staff Papers,* vol. 47, no. 1, pp. 129-157. Shitundu, J & Luvanda, E 2000, 'The Effect of Inflation on Economic Growth in Tanzania,' *The African Journal of Finance and Management,,* vol. Vol. 9, no. No. 1.

Shitundu, J & Luvanda, E 2000, 'The Effect of Inflation on Economic Growth in Tanzania,' *The African Journal of Finance and Management,,* vol. Vol. 9, no. No. 1.

Simon, J 2001, 'The Decline in Australian Output Volatility', *Research Discussion Paper, Economic Research, Reserve Bank of Australia*.

Singh, A 1986, 'Tanzania and the IMF: The Analysis of Alternative Adjustment Programmes', *Development and Change,* vol. 17, pp. 425-454.

Singh, B & Sahni, B 1984, 'Causality Between Public Expenditure and National Income', *Review of Economics and Statistics,* vol. 66, no. 4, pp. 630-644.

Skarstein, R & Wangwe, S 1986, *Industrial Development in Tanzania: Some Critical Issues*, Scandinavian Institute of African Studies in Cooperation with Tanzania Publishing House, Dar es Salaam and Stockholm.

Sowa, N. K 1994, 'Fiscal Deficit, Output Growth and Inflation Targets in Ghana', *World Development,* vol. 22, no. 8, pp. 1105 - 1117.

Stepanyan, V 2003, 'Reforming Tax System: Experience of Baltic Russia and Other Countries of the former Soviet Union', *IMF Working Paper*, no. 03/173.

Subramanian, A 1997, 'The Egyptian Stabilization Experience: An Analytical Retrospective', *IMF Working Paper*, p. 1997.

Tanzi, V 1989, 'The Impact of Macroeconomic Policies on the Level of Taxation and Fiscal Balance in Developing Countries', *IMF Staff Papers,* vol. 36, no. 3, pp. 633-656.

Tanzi, V & Zee, H 1997, 'Fiscal Policy and Long Run Growth', *IMF Staff Paper,* vol. 44, no. 2, pp. 179 - 209.

Temple, J 1999, 'New Growth Evidence', *Journal of Economic Literature,* vol. 37, pp. 112 - 156.

Ter-Minassian, T & Schwartz, G 1997, 'The Role of Fiscal Policy in Sustainable Stabilization: Evidence from Latin America', *IMF Working Paper*, no. 97/94.

Treasury, H 2002, *UK Government.* Retrieved 25.03.2004, from http//hm-treasury.gov.uk/media/BE324/,.

Tundui, H 2002, 'The Growth and Involvement of Women in the Informal Sector in Tanzania: The Case of Urban Informal Sector', in *Paper Presented to the 8th International Interdisciplinary Congress on Women, Women's World 2002*, Makerere University, Kampala Uganda.

Ul Haque, N & Khan, M 1998, 'Do IMF Supported Programme Work ? A Survey of the Cross-Country Empirical Evidence', *IMF Working Paper,* vol. WP/98/169.

United Republic of Tanzania 1982, *Structural Adjustment Programme*, Dar es Salaam.

United Republic of Tanzania 1986, *Economic Recovery Programme*, Dar es Salaam.

United Republic of Tanzania 1990, *Economic Recovery Programme* II, Dar es Salaam.

United Republic of Tanzania 1997, *Economic Survey*, Government Printer, Dar es Salaam.

United Republic of Tanzania 1998, *Economic Survey*, Dar es Salaam.

United Republic of Tanzania, *Annual Report on Debt Management in Tanzania*, Accountant General's Department, Dar es Salaam.

United Republic of Tanzania 1999, *Economic Survey*, Government Printer, Dar es Salaam.

United Republic of Tanzania 2000a, *Economic Survey*, Dar es Salaam.

United Republic of Tanzania 2000b, 'Hotuba ya Waziri wa Fedha katika Bunge Tarehe 15, Juni, 2000, Akiwasilisha Mapendekezo ya Serikali Kuhusu Makadirio ya Mapatao na Matumizi kwa Mwaka 2000/2001, (Budget Speech)'.

United Republic of Tanzania 2002, *Economic Survey*, Dar es Salaam.

United Republic of Tanzania 2005, *Poverty and Human Development Report*, Mkuki na Nyota Publishers, Dar es Salaam.

Wahab, I 1995, 'Structural Adjustment and Government Consumption in Sub Saharan Africa', in D Simon, Dixon, C. Narman, A. (ed.), *Structural Adjusted Africa; Debt, poverty and basic needs*, Pluto Press, London, pp. 187 - 201

Wangwe, S 1992, 'Nature and Extend of Parastaral Restructutring:Case of Industrial Parastatals in Tanzania', in MSD Bagachwa, AVY Mbele & B Van Arkadie (eds.), *The Nature and Prospects of Current Economic Reforms in Tanzania*, Economic Research Bureau, Dar es Salaam.

Wangwe, S, Semboja, H & Tibandibage, K (eds.) 1998, *Transitional Economic Policy and Policy Options*, Mkuki na Nyota Publishers, Dar es Salaam.

Watson, M 1994, 'Business Cycle Duration and Post-war Stabilisation of the US Economy', *American Economic Review*, pp. 24-46.

World Bank 1996, *Tanzania: The Challenge of Reform, Growth and Income and Welfare, Report No. TZ 14982*, The World Bank, Washington.

World Bank 2000, *World Development Indicators*, Washinton DC.

World Bank 2001, *Country Study: Tanzania at the Turn of the Century*, World Bank, Washington.

World Bank 2001, *World Development Indicators*, Washington DC.

World Bank 2003, 'World Tables', *EconData*.

World Bank, 2004, *World Development Indicators*, Washington DC.

World Bank & United Republic of Tanzania 1999, *Public Expenditure Review*, Washington, Dar es Salaam.

World Bank & United Republic of Tanzania 2001a , *Public Expenditure Review Report No. 22078-TA*, Washington.

World Bank & United Republic of Tanzania 2001b, *Tanzania from Reform to Sustained Growth and Poverty Reduction: Country Study*, Washington, DC.

Yaniv, G 1990, 'Tax Evasion under Differential Taxation', *Journal of Public Economics,* vol. 43, pp. 327-337.

Young, A 1992, 'A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore', *NBER Macroeconomic Annual*, pp. 13-54.

Young, A 1995, 'The Tyranny of Numbers: Confronting Statistical Realities of the East Asian Growth Experience', *Quarterly Journal of Economics*, vol. 110, no3, pp. 641-680.

Ziky, M & Mansouri, B 2003, 'The Role of Openness in Transmitting External Shocks Affecting The Moroccan Economy: Analytical and Empirical Approaches', *ERF Conference Paper*.