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**ANALYSIS OF GOVERNMENT BUDGET DEFICIT AND ITS  
STRUCTURAL DETERMINANTS IN ETHIOPIA**

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Analysis of Budget Deficit and its Structural Determinants in Ethiopia

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## Abstract

Immediately following the declaration of socialism in the country in 1975, both government revenue and expenditure increased substantially. Nevertheless, the growth of government expenditure was not matched by growth of revenue hence persistent and large budget deficits became the feature of Ethiopian economy. In the face of growing budget deficits the military government made no attempt to control its expenditure but relied up on continuous increase in tax rates, introduction of new taxes and manipulation of the ceilings imposed on government borrowing from domestic sources.

This study examined whether the structural factors hypothesised by Morrison (1982) are responsible for the growing budget deficit. The estimated regression results show that in the long run government budget deficits is likely to increase the higher is the degree of government involvement in the economy, the less exercise control over expenditure, the higher is revenue instability and the lower is growth in government revenue. However, the hypothesis that budget deficit decreases as economy grows is not supported. In the short run it is only growth in government revenue that is found to explain the deficits.

Although the recent policy of the Transitional Government of Ethiopia planned to decrease the budget deficits, this objective was not attained due to the reduction in tax rates. Moreover, the introduction of the regional administration led to the duplications of government bureaucracy thereby pushing up the expenditure level.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Statement of the Problem

Ethiopia is a developing country whose economy is characterized by a number of macroeconomic imbalances among which the gap between government outlays and receipts is one. Fiscal deficit became large and continuous in the last two decades. For example, government revenue was 12.8 percent of GDP in 1975, rose to a peak of 28.3 percent in 1989 and dropped to 25.0 percent in 1990. Government expenditure, on the other hand, was 18.8 percent of GDP in 1975, rose to a peak of 47.6 percent in 1989 and dropped to 43.1 percent in 1990. The budget deficit as percentage of GDP was 6.0 percent in 1975 increased to a peak of 19.2 in 1989 and fell to 17.9 in 1990. These trends show that the gap between government revenues and expenditures was generally widening. However, the level of the budget deficit before 1974 was relatively small and averaged 3.3 percent per annum for the period 1968-1973.

Following the 1974 Revolution, the government increased its participation in economic activity through nationalization of private enterprises and involvement in the production and distribution of goods and services. This was so because of the socio-political change brought in the country which limited private investment. While the government increased its

resources through nationalization, it was expected that the returns from such sources would help the government to balance its budget or at least to reduce its deficit. On the other hand, the government adjusted every tax rate upward and also introduced new taxes. Related to this point it was noted that "taxation and finance laws were directed towards generating as much income as possible to the central treasury to the absolute detriment of the growth and viability of enterprises." [Solomon, 1994: 189]. Despite the efforts to increase tax receipts and other revenues, budgetary deficits were growing.

Government can finance its budgetary deficits through issuing government bonds, treasury bills, printing money or borrowing from external sources. But all of these methods have their own negative impact on the economy, if used excessively. Borrowing from external sources can cause appreciation of real exchange rate, current account deficit and external indebtedness. Domestic borrowing brings about high real interest rates and so a fall in private investment, while monetization of deficits will lead to inflation [World Bank, 1989]. In Ethiopia, where capital market is almost nonexistent to provide voluntary absorption for large part of the debt which the government need to float, government relied upon foreign borrowing and monetization to finance the deficits. Recently, the country's external debt as a ratio of GDP, including arrears reached around 90 percent. Debt services have been eating up the meagre foreign exchange earnings through exports thereby worsening the current account balance. For example, the debt service ratio in recent years rose from 30.4

percent in 1990 to 35.5 percent in 1991. Moreover, higher broad money growth was associated with large fiscal deficit in the country [Shibeshi,1994].

In the past, financing of fiscal deficit which resulted in an increase in the ratio of broad money to GDP was accompanied by the fall in the velocity of money circulation because of official rationing, consumers' uncertainty of the availability of goods emanated from occurrences of drought, continuous war and shortage of foreign exchange (Taye,1994, Bevan,1994 ). However,it was noted that in the absence of price control and official rationing which reduce consumers' uncertainty about supply ,thereby leading to a regime of market clearing, high money balance will lead to state of high inflation rates if drastic cut in budget deficit is not implemented [Taye,1994]. Therefore, something should be done to reduce fiscal deficit.

The Transitional Government of Ethiopia (TGE) had emphasised the creation of a conducive environment for development. The government has been relying on macroeconomic and institutional reforms to effect a transition to a market economy. As such the focus was to cushion macroeconomic imbalances, and a wide range of economic reform programs (ERP) including a tight fiscal policy were aimed. According to ERP, fiscal policy should play important role in eliminating domestic inflationary financing and avoid high reliance on external assistance and loans. Here comes an inquiry into how to reduce the level of fiscal deficit which then requires knowledge of the factors governing the deficit.

## 1.2 Objective of the Study

The budget deficit, its composition and its financing interact with domestic macroeconomic variables. However, this paper focuses only on the one way causality from macroeconomic variables to deficit. As such the specific objectives of the study are:

1. To analyze fiscal deficit considering both the revenue and expenditure sides of government budget and explain why fiscal deficits persisted in the Ethiopian economy in the last two decades.
2. To assess and determine quantitatively the structural factors that affect fiscal deficit.
3. To review major strategies used by past military government to finance its growing expenditure
4. To assess whether recent policy reforms are compatible with the TGE's objective of reducing fiscal deficit.

## 1.3 Methodology of the Study and Data Sources

There are various ways of measuring fiscal deficit such as conventional deficit, primary deficit, operational deficit and current account deficit (See Blejer and Cheasty ,1991). Each measurement of deficit is purposeful and the selection depends on the particular objective of the study. For the purpose of this paper we use the narrow definition of fiscal deficit which measures the difference between total government expenditure and total domestic revenue in which grants are

excluded from total revenue.

In the paper, both qualitative and quantitative techniques of analysis are used. In the quantitative technique, statistical computation of ratios, percentage and growth rate are used to analyze changes in government revenue, expenditure and budget deficit over time. Moreover, estimation of the structural factors that affect budget deficit is made. Towards this end OLS estimation technique is used. The qualitative analysis provides intuitive explanation of the persistency of budget deficit in the country.

For the purpose of this study, the necessary data are collected from the Ministry of Finance, Ministry of Planning and Economic Cooperation and the National Bank of Ethiopia.

## CHAPTER TWO

### REVIEW OF LITERATURE

Analysis of fiscal deficit remained peripheral in most literature on public finance. Most of the literature prior to the 1950s focus on separate discussion of the revenue and expenditure sides of government budget where the main occupation of the analysis is to explain the role of fiscal policies in resource allocation, economic stabilization, income distribution and economic growth, and devoted little explanation for fiscal deficit. Most of the literature of that period was based on that of developed countries and the mere discussion of fiscal deficit may be ascribed to developed financial markets which made deficit financing easy with little impact on macroeconomic variables. Moreover, the Keynesian conception of fiscal deficit is that of an average balanced budget over a business cycle (surplus during boom and deficit during recession) as a norm of fiscal behaviour, hence, fiscal deficit accordingly is not much of the problem over a period.

Since the 1960s, however, analysis of fiscal deficit got consideration. Still significant number of studies that model the determinants of fiscal deficit explicitly were limited. In this section we review both theoretical and empirical studies concerned with factors explaining the deficit.

Fiscal deficit is related to the activities of the government. The early Mercantilist school of thought supports active government participation in the economy to promote industry and trade. This view was opposed by the classical

economists which believe that market mechanism itself can regulate the economy and therefore government should limit itself in intervening into economic sphere. However, in the 1930s (due to the Great Depression) economists started to recognize that there are some important instances where the free market operations suggested by classicals do not work perfectly. Models of development in the late 1940s and 1950s focused on market failures in developing countries and hence large involvement of government. Thus, "programmes such as critical minimum effort, the big push, balanced growth, redistribution with growth and basic needs all suggest more and not less government involvement."<sup>1</sup> Obviously, large government involvement engenders increase in government expenditures.

Of course, recent developments argue for a market oriented economy. However, it is noted that although development theories over the past decade have been oriented in replacing government with the market as the engine of economic growth, expansion of public sector in developing countries was influenced by the legacy of earlier theories of the 1940s and 1950s [Lindauer and Velenchik, 1992]. Economic backwardness has also its own contribution for the increase of government expenditure. Private savings are very low in developing countries because of high marginal propensity to consume out of meagre income from a dominantly subsistence economy. Therefore, the problem of mobilizing and allocating financial resources for development rests upon the government. The poorer the country is, the more extensive are the need on government

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<sup>1</sup> quoted in Lindauer and Velenchik (1992). p.70.

outlays. It is in support of this view that "all governments at all times have to face demand for additional spending but... the pressure in underdeveloped countries tend to be particularly intense" [Prest, 1962:14] is noted.

Comparing the government expenditures in developed and developing countries Lindauer (1988) explained that although developing countries have smaller government spending shares out of GDP than do the industrialized countries, the present share of government consumption expenditure out of GDP in developing countries is by far greater than in developed one's. The increase in government expenditures in developing countries is partly because of its wider activities. In most developing countries, in addition to running public administration and providing basic services, the government even engages in the production of goods and services especially through investment in state owned enterprises and encountered large public deficit due to inefficient operation of these enterprises [Nair and Filippides, 1988].

Development models of public expenditure growth divide economic growth into its early stage and middle stage growth and argue the existence of market failure in all stages of development. Increased government expenditure in that event is required to deal with such market imperfection. What is known as Wagner's law of expanding state activity states that expenditure growth (to provide for public services such as education, recreation and culture, health and welfare services) is explained by income-elastic nature of the demand for social

services. According to this law, public expenditure on these services rises more proportionately than GDP and account for rising ratio of government expenditure to GDP. On the other hand, Peacock and Wiseman argue that steep increase in government expenditures occur following major disturbances, war, natural calamity, etc. and then stabilize at that high level until another crises push it to another higher level of expenditure. The Peacock and Wiseman argument is close to the incrementalist hypothesis of public expenditures which states that "in the budget making process only a few unusual departures of amounts in the budget from those allocated in preceding years will receive scrutiny and that a large number of average increase items will be approved routinely" [Rutayisire, 1991: 84].

Brown and Jackson (1994) studied the growth of public expenditure over the period 1900 to 1987 and suggested that such growth should be seen in relation to increase in other economic variables such as the rise in the general price level, growth of income and change in population size. While expenditure growth are explained by such factors, as these, government revenue growth is related to the growth of income, improvement in administrative efficiency and other discretionary changes in the tax system (manipulation of tax rates, introduction of new tax base, etc).

When government spends more than its revenue, budget imbalance results. The pre-keynesian theories of government budget presume that in time of peace the budget is required to

be in balance or even to be in surplus to pay off government debt arising from wartime deficits and governments were devoted to maintain balanced budget even during Great Depression [Fisher and Easterly, 1990]. But the keynesians argue an average balanced budget over the business cycle (i.e surplus during boom and deficit during recession) as a norm of fiscal behaviour. However, the issue that fiscal deficit itself can affect other economic variables as well as determined by them was recognized in the late 1960s when economists considered government budget constraint seriously.

There are many explanations why the government gets into high fiscal deficits which can be mentioned as the political deficit, structural deficit and the inflation tax approaches [see Taylor, 1988: 8]. One approach that blame political forces for expansion of fiscal deficit argues that to maintain its political legitimacy, the government tends to tax little or spending too much which finally leads to deficit. The structuralists, on the other hand, argue that external shocks (such as a fall in the terms of trade, export supply shortfalls or fluctuations of interest rate on foreign debt, financial turmoil and foreign payment obligations) cause deficit expansion. According to the inflation tax approach the desire of the government to use revenue from inflation tax has some contribution. Morrison (1982) identified five structural factors that can affect budget deficit in developing countries: level of economic development, growth of government revenue, instability of government revenues, government control over

expenditures and degree of government participation in the economy.

Generally, the economic determinants of fiscal deficits can be understood by identifying factors that affect government revenues or expenditures. Fiscal deficits in developing countries are the result of both internal and external factors. For example, commodity boom of the 1970s were blamed for the high fiscal deficits of the late 1980s as the following evidence shows.

**"Most African countries started the 1980s with large fiscal imbalance from high government spending - the legacy of commodity booms in the late 1970s - and declining trade tax revenues because of the collapse of commodity prices in the early 1980s. Budget deficits (including grants) in excess of 7 percent of GDP were the norm." [World Bank, 1994: 45].**

The effect of financing from boom gets worse if the boom is used to finance recurrent rather than capital expenditures of government because such expenditures (for example consumer subsidies, subsidies to parastatals, public sector job creation etc) are extremely difficult to cut once the revenue base has disappeared [O'Connell, 1988]. Changes in prices of exports affect government revenue directly through its effect on profit of exporting state-owned enterprises or indirectly through taxes on profits or exports. Change in foreign interest rate also affects the public budget of highly indebted countries.

Inflation affects both the revenue and expenditure sides of the government budget. Inflation will decrease the real

value of tax collection for unindexed tax liabilities due to collection lag [Tanzi, 1977]. Tax compliance and tax enforcement are also expected to deteriorate as inflation induces tax payers to delay payments (to alleviate a squeeze on their liquidity) and tax officers to be susceptible to bribes (due to decrease in real compensation) [Goode, 1984]. On the expenditure side, although government will not adjust wages and salaries in the immediate of inflation, it cannot control over other components of its purchases, and nominal expenditures will rise. According to Aghevli and Khan (1978), government expenditures in developing countries are expected to adjust faster to nominal income increases arising from inflation than revenues do adjust thereby causing enlarged budget deficit.

Empirical analyses of the effects of inflation on government budget give mixed results. Tanzi (1977) proposed that as inflation rate rises, the collection lag may result in a fall of real tax revenue unless compensated for by tax elasticities. Applying his Analysis to the case of Argentina he estimates an average collection lag of 4.3 months for the whole tax system including social security and concluded that this lag will reduce real tax revenue by about 31 percent for the rise in monthly inflation rate from 1.5 to 9.4 percent [Tanzi, 1977]. After analyzing government deficit and inflationary situation in four developing countries including Brazil, Colombia, Dominican Republic and Thailand Aghevli and Khan (1978) concluded that government expenditures adjusted faster to inflation than taxes. Another study conducted by

Heller (1980) for a sample of twenty-four developing countries found that in more than half of these countries expenditures adjusted faster to inflation than taxes while in the rest of the sample the reverse was observed. For this reason he concluded that it is difficult to generalize the net effect of inflation on fiscal deficit . Heller further noted that expenditure on salaries and government investment adjust more slowly to inflation than expenditures on other goods and services. Easterly and Schmidt-Hebbel (1994) estimated the response of revenue and expenditure to inflation in seven developing countries and found that in two countries inflation reduced tax revenue whereas in the rest of the countries no significant effect was observed because of indexation of tax revenue and indexation of income brackets.

Exchange rate variations also affect government budget. Theoretically, devaluation encourages production for export which again raise income from exports and so revenue collection from both the profit and export tax. On the side of imports, devaluation raises the value of imports in terms of domestic currency and expected to increase revenue from import taxes. However, due to the price effect of devaluation, volume of imports decreases if demand for imports is price elastic. As currency is devalued more of parallel market transactions will be channelled into the official market and possibly increase government revenue [Roe and Griggs, 1990]. External debt and debt service payments in terms of domestic currency will rise due to devaluation [Egwaikhide and Chete, 1994]. An empirical investigation on Nigeria by Egwaikhide and Chete (1994) showed

that volume of imports are an important determinant of import duties. Regarding expenditures, they found strong correlation between the growth rate of external debt and debt services, and the growth in stock of external debt is directly related to the depreciation of the local currency. They also conducted policy simulation analysis and found that exchange rate depreciation affects both sides of the budget significantly with total expenditures responding faster than total revenues hence possibility of generating large budget deficit if not managed properly.

Empirical analysis by Morrison (1982) covering 31 developing countries indicates that budget deficit in developing countries will decrease as their economy grow, as they decrease government participation in the economy and increase expenditure control.

Returning to the Ethiopian case, fiscal deficit became a problem only in the last two decades as government budgets prior to 1975 were characterized either as budgetary surpluses (during 1950-1955), balanced budget (1956-1964) or small deficit (1965-1974) due to the practice of "fiscal conservation" [Teshome, 1993]. The introduction of the persistent structural deficit in the Ethiopian economy since 1974 ascribed to the growth of the public sector economy which can be explained by the following four points [Teshome, 1993].

1. The main concern of economic policies and programmes immediately after the declaration of socialism in 1974 was the establishment of a strong "state economy".
2. Due to the nationalization program, large-scale resources were transferred from the private to the public sector.
3. To manage the expansion of the role of government in the economy many new ministers, institutions and corporations were established and the old ones were greatly expanded.
4. Large-scale mobilization of human, material and financial resources took place to implement different "campaigns"<sup>2</sup>

A study of Ethiopian fiscal system gives an insight into the sustained growth of fiscal deficits. Most of such study concerning the revenue side attempted to explain the role of taxation in mobilizing resources. A study by Teshome (1979) examined the revenue effectiveness of the coffee export taxes by relating the tax revenues to the value and volume of coffee exports. He found that tax revenue was both volume and price inelastic and concluded that constant revisions of the tax laws is necessary as and when there is significant change in prices or volume of coffee exports. In analyzing the properties of personal income tax in the country, the same author estimated

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<sup>2</sup>For different types of campaign conducted, see [Teshome, 1993:74]

the buoyancy and elasticity of this tax for the period 1967-1984 and concluded that "discretionary measures have been exploited almost to their limits yielding considerable tax built-in-elasticity" (Teshome, 1987:87). Another study made by Teame (1985) attempt to explain the role of taxation in mobilizing resources in Ethiopia, and pointed out that the tax yield has increased over time reflecting the tax effort exerted by the government to raise revenue. Nevertheless, the author mentioned some of the problems of the Ethiopian tax structure [Teame, 1985:155] such as:

1. inadequate tax revenue as compared with tax potential which the author demonstrated using index of degree of utilization of taxable capacity.
2. high dependency on foreign trade tax which is characterized by a wide range of uncontrollable fluctuations thereby creating financial uncertainty.
3. tax revenues are income-inelastic reflecting the requirements of rate changes and introduction of new taxes in order to channel higher share of GDP into public treasury.

Thus, government expenditure growth was not fully financed from government revenue and the government resorted to financing the growing deficits through domestic and external borrowing.

In his study of the impact of fiscal deficit on monetary sector in Ethiopia Shibeshi (1994) demonstrated that fiscal deficit contributed much to both external and internal debt. Moreover the author noted that growth in money supply and hence inflation is related to fiscal deficit.

## CHAPTER THREE

### 3.FISCAL POLICY IN ETHIOPIA

Every government makes fiscal policy and change it according to its momentary needs to serve specific interest of social and economic development. Fiscal policy is generally designed to attain the following objectives: resource allocation, distribution of income, promotion of economic growth and stabilization of the economy. Government uses its tax policies, expenditure policies and borrowing policy as basic instruments to achieve such objectives. Fiscal policy that is consistent with growth and stability of the economy depends on measures that bring government expenditure in line with the average level of revenue expected over time. In this chapter we investigate instruments of tax and borrowing policies used by different governments since the imperial period. Such investigation, I believe, will throw some light on the size of budget deficit observed at different periods.

#### 3.1 Tax Policy

In this section an attempt is made to review tax rate policies pursued in the country in different periods, i.e., the imperial period(before 1974), the Derg period(1974-1991) and the recent period of Transitional Government of Ethiopia (TGE). From this review we can judge whether any attempt was made by the government of the Derg regime to increase its

revenue in the face of growing government responsibility in the economy as compared to the imperial period where government participation was limited. Government budgeting system is a recent introduction in the Ethiopian economy. Prior to the 1940s preparation of government budget was not practised and no proper budget had been drawn before 1944 [Perham, 1969]. Following the fall of the Italian colonial power in 1941, the newly restored Ethiopian government recognized that the traditional tax paid in kind and labour services could not finance its bureaucratic machinery (ibid). As a result, new tax laws were introduced.

Now, we start with major development in the area of direct taxation. Although the 1942 proclamation provides payment of land tax in terms of cash,<sup>3</sup> the efficacy of this law was in doubt as in most cases land was not classified and measured as the law requires (Teshome, 1992). It was proclamation No. 60 of 1944 which introduced income taxes from all individuals and business. Subsequently, it was amended on a number of occasions and the fundamental amendment was made in 1967 which divided income into four schedules. These are, income from employment (schedule A), income from rent of land and buildings and from crop sharing arrangements between the land owner and tenants (schedule B), income from business activities, professional as well as vocational occupations (schedule C) and income from agricultural activities including cultivation and livestock

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<sup>3</sup> Land was classified as fertile, semi fertile and poor, and specific rate of 15 Birr, 10 Birr and 5 Birr per "gasha" (approximately fourthy hectares) annually were to be paid respectively.

raising (schedule D). Schedule D was a new introduction as of 1967.

According to the 1967 tax law, employment tax applies to a monthly income greater than 25 birr. Both specific and advalorem rates were applied (see Appendix 1). Accordingly, those income above birr 25 but not exceeding 750 per month were divided into brackets and charged according to specific rate whereas income above 750 was subjected to marginal rate ranging from 10 percent on income between 750 and 800, to a maximum of 25 percent on income above 5000 per month. This rate which was effective until 1978 was amended by proclamation No. 155/1978. This proclamation raised the exemption level to 50 birr per month. Income greater than 50 birr was divided into equal taxable brackets and progressive rates were applied (Appendix 2). This rate started with 10 per cent on income between 51 and 250 per month and is as high as 85 per cent on monthly income greater than 3750 birr. Compared with that of 1967, the rate under the 1978 was very progressive and could tap larger revenue into government treasury.<sup>4</sup>

The TGE introduced proclamation No. 30/1992 which amended the 1978 employment tax and was effective until October 1994 where again further amendment was made by proclamation No. 107/1994. The 1992 amendment raised the exemption level to 105 per month and the marginal rates begin at 10 per cent on income

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<sup>4</sup> For example, a person earning monthly salary of 2000 birr pays monthly income tax of 273.5 birr under proclamation of 1967 and 525 under that of 1978. The same trend holds true for lower incomes except for that of below 50 birr.

between 106 and 400 birr and end at 50 per cent on income above 2500 birr (Appendix 3). However, income of 120 birr was exempted and marginal rate of 10 per cent (on starting taxable income above 120 but below 600 birr) and maximum of 40 per cent on income greater than 3000 birr are currently effective (see Appendix 4). Obviously, the current rates of income tax generate lower tax revenue per person than that of the Derg period both because of lower rates and higher exemption, but the effect on total revenue from employment tax remains to be seen.

Income tax from rent, according to the 1967 tax law, distinguishes between bodies (incorporated business) and individuals. Bodies were taxed at uniform rate of 20 percent while individuals were taxed at a progressive rate ranging from 10 per cent on annual income between 9000 and 9600 to 20 per cent for any income above 27000 (Appendix 5). But, income below 9000 per year was taxed according to the specific rates. However, the coming into power of the military government in 1974 and its subsequent nationalization of rural and urban land and extra dwelling houses in 1976 brought an end to the rental income tax. This was not totally a loss to the government as it generated some income by renting the nationalized extra houses.

The TGE reintroduced this tax by proclamation No. 62/1993 according to which organizations and associations which have legal personality pay flat rate of 35 per cent on taxable income and individuals pay on marginally progressive rate base

from a lower rate of 10 percent to the highest of 45 per cent (see Appendix 6). This introduction of new tax base to some extent is expected to compensate the revenue loss to TGE due to lowering of tax rates on some sources.

Business income was taxed at the same rate as that of rent income by the 1967 tax law. The 1978 proclamation amended this rate. This proclamation taxes organizations at a flat rate of 50 percent (which is higher than 35 percent under the 1967 rate) of their taxable income. Moreover, in 1978 some incomes which had been exempted previously such as income from chance winning, dividends and royalty were brought under taxation at the rate of 10 percent, 25 percent and 40 percent, respectively. The rate on individuals varies from 11 percent on annual income of 1200 birr to a maximum of 89 per cent on annual income greater than 36,000. Any income ranging between 300 and 1200 per annum is taxed according to the specific rate (See Appendix 7). No exemption was granted according to the 1978 proclamation. The council of state's special decree No. 18/1990 amended the business income tax of the 1978 and granted exemption for annual taxable income below 300 birr while income above this level was taxed at marginal rate ranging from 3 percent for taxable income between 300 and 400 birr to a maximum rate of 59 per cent on taxable income greater than 24,000 annually (Appendix 8).

In 1994, the TGE further amended the business income tax rates. According to proclamation 107/1994 the maximum rate was 40 per cent on taxable income more than 50,000 birr per year

while the lower rate was 10 percent on income between 1200 and 6000 birr. This new tax law was also more generous in terms of exemptions. Yearly taxable income below 1200 birr was exempted (Appendix 9) and this exemption level will entail a loss of birr 72 tax revenue per person when compared with the 1978 business tax law and 62 birr when compared with that of 1990.

As far as agricultural income tax is concerned it was introduced in 1967 and prior to that only land tax was practised. The rate structure of the 1967 agricultural income tax law is given in appendix 10. According to this law, organizations were pay 20 per cent of their taxable income and individuals were taxed according to the rate given in the appendix. No income from agriculture was granted any exemption. Like any other income we saw so far, the 1978 proclamation also increased rates on agricultural income and made it highly progressive. While this proclamation required fixed rate of 10 birr for annual income less than 600 birr, income above this level was taxed at minimum rate of 10 percent on income between 600 and 1200 to a maximum of 89 percent on annual income in excess of birr 36,000 (Appendix 11).

Land tax which had been taxed depending on variations in quality of land as before 1976 was replaced by the rural land use fee proclamation of 1976. This proclamation requires a flat rate annual payment of 3 birr and 4 birr for private and members of cooperatives farm, respectively. These rates were immediately changed in 1978 and private farmer was required to pay 10 birr and member's of cooperative farm 5 birr on their

total land holdings while state farms pay 2 birr per hectares on their total land holdings.

So far we have seen major changes introduced on direct tax rates. Now we briefly look at that of the indirect taxes. Indirect taxes in Ethiopia comprise of tax levied on production and consumption which include sales tax, excise tax import duties and export duties. However, it should be noted that comprehensive review of indirect tax's rate reform is difficult task because of a wide range of sub-categories and enormity of the rates.

Sales tax composes of transaction tax and turnover tax. According to the transaction tax proclamation No. 205/1963, imported goods are taxed at 12 percent of the value of imports, exports at 2 percent of value of exports, locally manufactured goods at 5 percent of the gross revenue from the sale of products by manufacturers and construction works at 2 percent of the total construction costs. The same proclamation orders payment of turnover tax at a rate of 1 percent on gross revenue of any goods sold. A combination of need for high revenue and import restriction made transaction tax on imports to increase to 18 percent and that on locally produced goods to 7 percent (except for pharmaceutical items which are taxed at 5 percent) while transaction tax on exports remained at 2 percent.<sup>5</sup>

Transaction tax on locally produced goods are collected at manufacturing level when goods are sold or removed from the

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<sup>5</sup> Transaction tax amendments No. 159/1979.

factory for any other purpose while transaction on imports and exports are collected by customs administration at points of entry or exit. Imported agricultural and industrial machinery, goods exported directly by manufacturers and good which are produce of flour mills, bakeries and dairies were exempted.

In 1990, all forms of indirect taxes were consolidated as sales tax<sup>6</sup> and it is to be paid at a rate of 12 per cent (of producer's selling price), 24 per cent (of price on which custom duties are assessed) and 10 per cent (of service charge) respectively on locally produced goods, imported goods and service rendered locally. Sales tax on service was introduced in 1990.

The consolidated sales tax was again disaggregated by proclamation of sales and excise tax No. 68/1993. According to this proclamation both imported and locally produced goods are taxed at the same rate ranging from 5 percent to 12 percent. Locally produced goods are assessed on whole sale prices of the manufacturers and goods imported on cost of insurance and freight.

Excise taxes in most societies are introduced to discourage consumptions of certain commodities considered harmful to the society (eg. tobacco, alcohol, etc.). However, revenue consideration and protection motives make this tax to extend to other commodities. In Ethiopia, although the

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<sup>6</sup> Council of state special Decree No.16/1990. This decree merged all excise and sales taxes.

introduction of excise tax dated to 1943 its coverage was very limited. At time of its introduction excise tax was imposed on alcohol and later in 1955 it was extended to include sugar, cotton yarn and textile fabrics. However, by 1970s this tax extended to cover about fourteen commodities. Most of the rates on excise tax were specific than ad-valorem. The law which is currently in effect is that of sales and excise tax proclamation No. 68/1993. According to this proclamation both imported and locally produced goods are taxed at the same rate. All the rates are advalorem and range from lowest rate of 10 percent on textiles to the highest of 200 percent on alcohol.

Customs duties are also among the earliest tax introduced in Ethiopia. The first proclamation was issued in 1943, and a number of amendments were made. By legal notice No. 354 of 1969 the customs duties rates range from 15 percent on some commodities such as wool, gauze, cotton and some metal manufactures to 75 per cent on meat extracts, soups manufactured from meet and on other related item. The major change introduced in 1969 is that most customs duties which were specific rates changed to advalorem. According to proclamation 42 of 1976, customs duties cover about 520 commodities with varying tariff rate from 5 per cent on goods considered to be necessities to 125 per cent on luxury goods. This proclamation also prohibited importation of some goods and

imposed quantitative restrictions on others<sup>7</sup> due to shortage of foreign exchange.

Although it introduced no major changes, regulation No. 68 of 1979 raised tariff rates on Jewellery, ivory bone, adornment and worked vegetables to about 200 per cent. In 1990 tariff rate on vehicles was raised to as much as 230 per cent.

The TGE introduced customs tariff regulation No. 122/1993 which repealed regulation No. 42 of 1976 and its amendments. The new regulation reduced the maximum import duties from 230 percent to 80 percent and every rate under regulation 122/1993 is lower than that of regulation No. 42/1976. With this high rate reduction revenue from import duties will be affected.

From subsequent discussions we observe that under the Derg regime every rates on direct tax was higher than that of the imperial period. Moreover, we saw that new tax basis such as income from chance winning, income from royalty and sales tax on services were introduced during the Derg period. Regarding indirect taxes, although critical analysis was impaired by complexity of the rate structure (particularly of customs duties), we recognized that rates on sales tax and customs duties were also higher in the Derg period than imperial period. On the other hand, as the transitional government of

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<sup>7</sup> Prohibited goods include liquors with high alcoholic content, weapons, drug etc. and quantitatively restricted goods include food stuffs, building materials, stationery, textiles and their components.

Ethiopia came to power in 1991 subsequent downward adjustment in tax rate was made on almost every tax base.

### 3.2 Borrowing Policy

The Ethiopian budgeting system is characterized by deficit budgeting. That is, at the time of the preparation of the annual government budget estimation of expenditure always exceed that of revenue and the excess has to be financed through external and internal borrowing. External borrowing depends on bilateral agreements and systematic review of policy reforms in this area is difficult. As government has limited control over external loan it highly relied on domestic borrowing.

Domestic borrowing policy is contained in Banking and Monetary Proclamations and involve the use of three instruments: government bonds, treasury bills and direct advancers. In Ethiopia capital market is nonexistent which made it difficult voluntary placement of government debt on public. However, government used to force bank and other financial institutions to purchase its securities. It was the Government Bond proclamation of 1961 (proclamation 172/1961) which for the first time permitted government to use long-term borrowing instrument (bond). Accordingly, the Ministry of Finance was authorized to issue government bond in an amount not greater than thirty million birr and bearing a maximum interest rate of 6.5 percent per annum while the maturity of the bond was 10 years.

Later in 1963, Monetary and Banking proclamation (proclamation 206/1963) was issued and the National Bank of Ethiopia (NBE) was required to manage public debt transactions by purchasing and selling government securities and make "direct advance" in case of fluctuations in the ordinary government revenue. The 1963 proclamation laid down comprehensive law regarding borrowing instruments available to the government and their conditionalities. While this proclamation allowed government to use treasury bills, government bonds and direct advance to finance its deficit, ceiling was set on each instrument of borrowing. According to this proclamation, government can borrow a maximum of 50 percent of the "capital and general reserve fund" of the NBE in treasury bills and 15 percent of the ordinary government revenue in the last fiscal year in direct advance.

Although the early 1963 proclamation permitted government borrowing using treasury bills, its practical application was made in 1969 when Ministry of Finance was authorised to issue treasury bills from time to time. Government of the imperial period celebrated the restrictions of the Monetary and Banking proclamation of 1963 and financed its deficit within the bound of the ceilings imposed by this law. However, dramatic policy changes were made in the areas of domestic borrowing immediately following the coming into power of the military government in 1974. Hardly pressed by huge financial requirements, this government continuously revised the Monetary and Banking laws.

Regarding direct advance, the government issued Monetary and Banking proclamation (amendments) No. 99/1976, No. 289/1985, Council of State Special Decree No. 3/1988 and Council of State Special Decree No. 22/1990 in which it raised the ceiling to 25 percent, 50 percent, 70 percent and 145 percent of the actual ordinary revenue collected in the last fiscal year, respectively, from its 15 percent level as in 1963.

As far as borrowing in treasury bill is concerned the base on which the ceiling is calculated became ordinary revenue in the preceding fiscal year (by proclamation 99/1976) instead of capital and general reserve fund of the NBE in the early years. The 99/1976 proclamation which orders the value of treasury bill issued each year not to exceed 20 percent of the ordinary revenue in the preceding fiscal year was raised to 25 percent in the Special Decree 3/1988 and further to 35 percent in the Special Decree 22/1990.

The case of borrowing in bond was also not different from these general trends. The ceiling which was set at 50 of ordinary revenue by proclamation 99/1976 was raised to 55 percent and to 70 percent respectively, in special Decree 3/1988 and Special Decree 22/1990.

All domestic borrowing was made at rate below the market interest rate. Borrowing in treasury bill throughout the period bear 3 percent per annum while interest rate on bond was

declining over period with the highest of 6.5 percent per annum in 1961 to lowest of 2 percent in 1988.

The general implication of these developments is that government in the post-1974 revolution sustained financing its growing expenditure by eroding the "fiscal discipline" of the Imperial period by "loosening the tight borrowing procedures, raising the loan ceilings, reducing the interest payment obligation and introducing special government bond" (Teshome, 1993: 91). As such the past military government made no attempt to control its expenditure, rather expansionary expenditure policy was followed throughout its period. Moreover, it had extensively used the more inflationary instrument of borrowing, direct advance, despite its ill-effect on inflationary trends. With the intension of reducing budget deficit, the TGE introduced Monetary and Banking proclamation amendment 83/1994 and the ceilings on borrowing in direct advance, treasury bill and bond were respectively reduced (from their highest rates in 1990) to 15 percent, 25 percent and 50 percent of the average ordinary revenue in the last three preceding fiscal years.

## CHAPTER FOUR

### 4. GOVERNMENT BUDGET ,THE STRUCTURE AND NATURE OF BUDGET DEFICIT

#### 4.1 The Structure and Growth of Government Revenue

Analysis of the structure of government revenue is important as the size and share of direct and indirect tax has its own implication for the share of tax revenue in gross domestic product (GDP). It is noted that the tax structure of developing countries which is dominated by indirect taxes itself is responsible for low tax share in national product [Maing, 1983]. A tax structure dominated by indirect taxes, particularly, foreign trade taxes poses constraint on the priority of financial purpose of tax collection, firstly, because of low income elasticity of such taxes and secondly, because of the uncertainty which characterizes the budgetary revenue (Ibid). Towards the general advantage of direct taxes, it was pointed out that the direct tax system has "built in" structure to provide government larger component of revenue from growth without changing the tax rates while in case where the tax system is highly dominated by indirect taxes, government revenue will lag behind the increase in money incomes and prices [Wai, 1962].

Thus revenue mobilizing capacity of the government may be influenced by the structure of the tax system. Tax structure among countries varies because of variations in economic

structure and government's objectives towards tax policies as well as its administrative efficiency and capability.

Government revenue in Ethiopia is broadly classified as direct tax, indirect tax, foreign trade tax and nontax revenue. The revenue structure of the country is given in table 4. From the table we can see that Ethiopian tax structure displays many of the features common to developing countries. Composition of government revenue shows wider fluctuations over period. The periods prior to 1980s were characterized by dominant share of indirect taxes. In this period, the indirect taxes were highly dominated by that of foreign trade taxes. As high as 61 percent of total government revenue was accounted for by indirect taxes in the period 1968-1973 out of which foreign trade tax contributed about 34 percent. However, slight shift was made from indirect tax to direct tax and other nontax revenue in the 1980s, mainly because of the fall in the weight of taxes on foreign trade. Moreover, direct tax revenue increased due to increase in tax rates.

Even in recent period 1989-1992 indirect tax contributed about 40 per cent of the total government revenue (and 57 per cent of tax revenue). According to prest (1985) high share of indirect tax in developing countries is because of the dominating nature of subsistence sector of their economy in which assessment of income remained difficult due to absence of record keeping activities and absence of exchange of large proportion of output for money in the market. On the other hand, high dependency for revenue in developing countries especially on foreign trade taxes is appealing for governments

due to their relative administrative ease owing to the fact that goods enter or leave a country through a limited number of points of entry and exit. The total government revenue raised during the period 1968-1992 was presented in appendix 12. In nominal terms, total tax revenue increased from 315.5 million birr in 1968 to the highest of 2371.0 million birr in 1989 and then fell to 1618.3 birr in 1992. For the same period nontax revenue increased from 73.3 million birr to the maximum of 1149.5 million birr and then fell to 589.7 million birr. The sharp fall in revenues in 1992 from all sources reflect the overall economic crisis due to political instability and war-damage. The period after 1989 represented the last years of the Derg and there were some parts of the country out of the control of the government which led to the collapse of the institutions that acted as tax collectors. However, for the whole period of the Derg regime, especially the 1980s government revenue had been sharply increasing.

**Table 1: Structure of Government Revenue (Average Share in Total Revenue in %)**

Revenue Category	1968	1971	1974	1977	1980	1983	1986	1989	1968
	1970	1973	1976	1979	1982	1985	1988	1992	1992
Tax Revenue	83	87	82	85	78	73	72	70	79
Direct Tax	22	26	24	22	27	28	31	30	26
Indirect Tax	61	61	58	63	51	45	41	40	53
Tax on Domestic Goods	27	28	25	18	22	22	22	24	23
Tax on Foreign Trade	34	33	33	45	29	23	19	16	30
Nontax Revenue	17	13	18	15	22	27	28	30	21

Source: Computed from data obtained from Ministry of Finance.

The tax-GDP ratio, which is more relevant measure of tax performance as it indicates the extent to which government

succeeded in tapping resources into tax revenue, increased from 8.7 percent in 1968 to 21.3 percent in 1989. While nontax revenue-GDP ratio raised from about 2 percent to 10 percent, over the same period. Between 1982-1992 tax revenue averaged about 19 percent of GDP with relatively little trend. Nontax revenue was also substantial and averaged about 7 per cent of GDP, over last decade as the result of which total government revenue shared 26 percent of GDP, on average for the same period.

This revenue performance was impressive compared with that of low-income countries. To this point, World Bank (1991) in its World Development Report revealed that Ethiopia's 25.2 per cent of government revenue as a percentage of GNP for 1989 was the second highest among 23 low income economies preceded only by Togo whose record was 30.2 per cent. Moreover, it would probably not have been feasible and would certainly not have been desirable to attempt to close the excessively large budget deficit by increasing revenue (as revenue was already high), and the bulk of the adjustment inevitably had to take place on the side of expenditure [World Bank, 1990].

Increase in government revenue was brought about by all components of government revenue. Direct tax which include employment tax, business profit tax, agricultural income tax and rural land use fee showed remarkable growth after 1978 (see table 2) reflecting the effects of highly progressive tax rates introduced on each component. Among direct tax, the most important source were accounted by business profit tax and

employment income tax ranked second (Appendix 12). But revenue contribution of the agricultural income tax remained low despite the huge share of the sector in GDP, and highly progressive rate on agricultural income. This low contribution attributed to poor enforcement<sup>8</sup> of the tax law as well as the bad harvest due to recurrent drought. Empirical analysis of the Ethiopian agricultural taxation by Teshome (1992) shows that agricultural tax revenue is more responsive to changes in the value of agricultural exports and less responsive to changes in agricultural GDP. On the other hand, growth of revenue from employment tax may be due to government's employment policy in the past which guaranteed employment opportunities for university and junior college graduates as well as graduates from other specialised institutions. Moreover, progressivity of the personal income tax rate has its own contribution in raising more revenue from this tax base<sup>9</sup>.

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<sup>8</sup> Although the law requires tax on agricultural income to be paid according to progressive rate (except the state and agricultural cooperatives) private farmers pay 10 birr annually which the law requires for minimum taxable income of birr 600 [Eshetu, 1987].

<sup>9</sup> For the empirical analysis of the progressivity of different tax laws on personal income tax in Ethiopia, refer (Teshome, 1986).

**Table 2: Average Annual Growth Rate of Government Revenue (%)**

Revenue Category	1968-1970	1971-1973	1974-1976	1977-1979	1980-1982	1983-1985	1986-1988	1989-1992	1968-1988
Direct tax	4.5	4.9	4.8	14.6	14.1	4.4	9.7	-11.1	6.8
Domestic indirect tax	3.4	5.7	1.2	13.9	2.0	5.8	9.1	-12.0	6.7
Foreign trade tax	4.3	7.0	6.9	6.5	-4.4	-3.0	1.7	-7.1	4.7
Nontax revenue	-6.6	7.4	8.5	6.6	17.8	-0.3	10.6	-19.6	8.9
Total revenue	5.6	5.8	4.5	10.3	3.4	2.5	7.3	-12.0	7.2

Source: Computed from data obtained from Ministry of Finance.

Indirect tax and nontax revenue became fast growing component of government revenue especially after 1979 reflecting the effects of upward adjustment in tax rates in the former and the introduction of the new tax base in the latter.<sup>10</sup> Every category of government revenue grew at favourable rate (Table 5) except incase of foreign trade tax and nontax revenue which depicted negative growth rate for some periods.

#### 4.2 The Structure and Growth of Government Expenditure

Government expenditure is generally categorized into recurrent and capital expenditure. Recurrent expenditure is expenditure generally held for running government administrative machinery and other social and economic services. Capital expenditure is government outlays for economic and social development. Some government investment is

<sup>10</sup> nontax revenue includes pension contribution, charges and fees, sale of movable property, interest on loans, capital charges and residual surplus from public enterprises, etc. The last two were introduced in 1979.

profit oriented like that of private sector investment, but in most case this is not a necessary condition for government capital expenditure.

Recurrent expenditure claims perpetual existence once it is incurred and is difficult to reverse or reduce [O'Connell, 1988]. Therefore, the relative share of recurrent expenditure in total government expenditure has important implication for the size of fiscal deficit.

With the general objectives of improving the economic performance and living standard of the population as well as with intention that planning is considered to be effective in mobilizing resources and allocating them into priority areas of development, Ethiopian governments at different periods resorted to planning. The formulation of development planning and programming since the first five year plan of (1957-1961) required huge mobilization of resources to implement the plan. This focus has gained prominence with the government's socialist oriented policy since 1974. Especially, the successive annual development campaigns (1978-1985) and the Ten years perspective plan (1984-1994) were the framework within which development activities were carried out. In most cases the targets which the plans drafted to attain were requiring huge resources and were not compatible with the government's financial capacity. However, in trying to fulfil the targets, government resorted to borrowing or aid and expenditure rose substantially.

Socialist-way of development pursued by military government in the past was characterized by massive expansion of state activities in almost all sectors of the economy both through nationalizing large-scale private enterprises and establishment of new state owned enterprises. "The expansion of the public sector, it is argued, led to public sector employment growth, the rapid expansion of bureaucracy and hence the establishment of a permanent budget line in the government expenditure budget system" [Teshome, 1993]. Moreover, some of the public enterprises had been operating under loss and were in a critical financial condition. The implication of this poor performances for state subsidy is obvious.

The period after 1974 is also characterized by recurrent drought and continuous civil war which posed intensive pressure on government expenditure. The structure and growth in government expenditure is shown in table 3. As shown in the table, the share of capital expenditure in total expenditure had been increasing since 1974 reflecting the military government's control over almost all economic activities<sup>11</sup>. With the public enterprises' inefficient operation this increased public investment denied the society some of the benefits that would have been enjoyed from private investment activities that was believed to have higher rate of returns.

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<sup>11</sup>However, the rise in percentage share of capital expenditure in total government expenditure since 1975 does not necessarily imply a significant overall change in investment level in the economy as it can be indicated from national income account that rate of investment growth rather decreased since 1974 from its annual average rate of 3.3 percent during 1961-1974 to 2.54 percent during 1975-1991.

Table 3: Structure of Government Expenditure (Average Percentage Share)

Expenditure Category	1968	1971	1974	1977	1980	1983	1986	1989
	1970	1973	1976	1979	1982	1985	1988	1992
Capital Expenditure/1	17.3	21.2	23.1	21.3	24.0	30.8	32.5	26.8
Economic development/2	70.8	79.2	81.3	87.5	85.7	89.7	89.6	89.8
Social development/2	27.3	18.9	17.8	11.9	13.7	8.5	7.6	8.7
General Service/2	1.9	1.9	0.9	0.6	0.6	0.8	1.1	1.5
Recurrent Expenditure/1	82.7	78.8	76.9	78.7	76.0	69.2	67.5	73.2
Economic service/3	9.3	9.0	8.6	6.3	5.3	5.0	5.0	5.5
Social service/3	17.6	21.6	23.0	17.6	17.3	18.0	19.0	17.5
General service/3	44.6	42.6	47.0	60.0	54.3	50.6	47.6	49.0
Defence/3	19.0	17.3	24.6	43.6	41.3	38.6	36.3	39.5
Transfer/3	9.6	11.0	8.0	9.6	14.0	16.0	17.0	23.0

Note: 1. Percentage share in total government expenditure

2. Percentage share out of total capital expenditure

3. Percentage share out of total recurrent expenditure, figures in this case not add up to 100% as there is un allocated recurrent expenditures.

Source: Computed from data obtained from Ministry of Finance.

The economic crisis of the country which was magnified since the second half of the 1970s is partly explained by the overcentralization and overregulation of the economy. Within the capital expenditure, priority was given to economic development (agriculture, industry, transport and communication etc.) at the expense of the social development (education, health, culture etc.) whereas general service (mainly of public buildings) maintained its relative share.

While capital expenditure allocated for economic development increased from annual average share of 75.0 percent of total capital expenditure for the period 1968-1973

to 87.2 percent for 1974-1992, the share of social development expenditure decreased from 23.1 percent to 11.4 percent for the same period. This decrease in relative share coupled with rapid population growth caused deterioration in quality of education and health services.

Recurrent expenditure is categorized as economic service, social service, general service and transfer payments. This expenditure dominated the capital expenditure in the Ethiopian budgetary system. In the recurrent expenditure category, the share of economic and social services had decreased over the whole period while general service and transfer payments received increasing share. General services ate up almost half of the recurrent expenditure during the period 1968-1992.

One interesting point to be revealed from table 3 is that since 1974, resources that had been used to finance unproductive and more destructive projects i.e., national defence, increased substantially. Defence expenditure which shared about 18.1 percent of recurrent expenditure between 1968-1973 had increased to annual average share of 37.3 percent between 1974-1992. It seems that the prime objective of the past military government was to safeguard its sovereignty and maintain internal stability. Even in plan programs defence expenditure was given due consideration. As envisaged in Ten years perspective plan, in order to implement development plans, it was found important to build and strengthen the national defence capacity. Thus, it was stated that "the urgent task of building up the nation's defence

capability is inseparable from building up a modern economy" [Typp, 1984:7]. The slogan "everything to the war front" of the military government is also our short memory. Thus, manpower, financial and transport resources were diverted to the war effort thereby depriving the economy of scarce investment resources.

Generally, while on a prior ground one expects a relatively higher expenditure on capital than recurrent expenditure in the face of a dominant role the state played (due to socialism) in the development process of the economy in the past, such performance was not a feature of the country's expenditure system. Rather recurrent and unproductive expenditure dominated the expenditure system.

Total government expenditure was 542.2 million birr (14.0% of GDP) in 1968. In 1973, the final year for the imperial regime, it rose to 716.2 million birr (14.2% of GDP) and sudden jump in government expenditure was observed immediately following the 1974 revolution and expenditure rose to 1048.9 million birr (18.9% of GDP) in 1975 and further to 5369.2 million birr (43.2% of GDP) in 1990. The annual average growth rate of government expenditure which was 5.3 percent for the period 1968-1973 rose to 10.5 percent between 1974-1991.

#### 4.3 The Nature of Budget Deficit and the Structure of its Financing

Review of the budget deficit in Ethiopia shows that during the 1950s and the first half of the 1960s government budget was either in surplus or in balance. Small budget deficit was observed during 1965-1974 but was financed within the limit of "fiscal discipline" (Teshome, 1993). However, since the beginning of the second half of the 1970s budget deficits became large and has been growing at faster rate.

We had already seen that the military government in the past had attempted to increase its revenue mainly through increasing tax rates and partly by introducing new tax bases. Of course, the effect of these changes was observed to increase government revenue. On the other hand, extensive involvement of the government in economic activities and its policy towards domestic borrowing undeniably made government expenditure to grow at a faster rate. The rate of increase in revenue had hardly matched the rate of increase in government expenditure. What is more surprising is that in some years, ordinary government revenue even failed to finance fully recurrent expenditure let alone financing economic expansion.

The extent of budget deficit and the way it has been financed was reported in table 4. As shown in the table, budget deficit which was 156.4 million birr (4% of GDP) in 1968 was more than doubled, i.e., 337.3 million birr (6.0% of GDP) in 1975 and since then deficit has been growing rapidly and reached the highest level of 2391.7 million birr (19.2% of

GDP) in 1989. These high deficits have been incurred not to stabilize the economy as the keynesian theory suggests, rather, it is structural deficit in the sense that it represents basic imbalances between government spending and revenue. The growing budget deficit was not cyclical as it lacks periodicity and pattern with business cycle, rather it is the result of "independent development in both revenue and expenditure sources and indicates a vulnerable budgeting system with erratic fiscal behaviour." (Teshome, 1993: 76).

At time of high financial inflow from abroad in the form of grant or aid, heavy and unsustainable financial injection was made which created permanent claim in the government budget. Moreover, government revenue which was highly dominated by income inelastic tax categories aggravated the deficit in the face of downward rigidity of government expenditure.

The period of past military government was characterized by over expansion of the public sector through nationalization of private enterprises. In the process of centralization the government had not even left an activity in which it has comparative disadvantage to the private sector. Rather, it engaged in every production and distribution system by limiting private investment through capital ceiling. Particularly, its intervention into the agriculture sector through state farms were criticized for eating up huge resources of the country including foreign exchange with little contribution to government treasury.

The economy was also characterized by its unprecedented militarization especially towards the second half of the 1980s where the government used the maximum possible human and material resources to the prosecution of the war. As we had already seen, growth rate and share of defence expenditure were high. This high growth rate directly affected the size of budget deficit. Also war damaged infrastructures and other vital institutions affected by the war need to be rehabilitated and this posed another burden on government budget. The war also damaged the productive base of the economy and government revenue base.

The openness of the economy also exposed the country to various external shocks emanated from export price instability. The country's continuing reliance on a single primary commodity, coffee, for its foreign exchange earnings made the country to suffer from deterioration of terms of trade especially since the collapse of the International Coffee agreement in 1989. The subsequent decline in the coffee prices together with the general rise in the price of imports hurt the government budget.

**Table 4: Budget Deficit and the Structure of its Financing (in million birr)**

year	Fiscal Deficit		Financing the Deficit							
			External loan		External Assistance		Domestic Borrowing			
	In Birr	As % GDP	In Birr	%*	In Birr	%*	Direct Advance		Others**	
							Birr	%*	Birr	%*
1968	156.4	4.0	26.1	16.7	87.5	55.9	-	-	34.9	22.3
1969	126.2	3.0	23.6	18.7	85.2	67.5	-	-	30.5	24.2
1970	156.1	3.4	48.3	30.9	14.1	9.0	9.8	6.2	9.7	6.2
1971	165.5	3.4	61.0	36.8	25.8	15.6	0.3	0.2	11.0	6.6
1972	177.0	3.7	62.5	35.3	24.1	13.6	10.3	5.8	11.2	6.3
1973	160.0	3.1	68.9	43.1	52.0	32.5	-2.2	-1.4	12.2	7.6
1974	159.3	2.8	46.9	29.4	48.1	30.2	-28.1	-17.6	26.1	16.4
1975	337.3	6.0	114.3	33.9	96.1	28.5	11.1	3.3	116.1	34.4
1976	419.5	6.9	121.9	29.1	77.2	18.4	60.5	14.4	159.8	38.1
1977	333.2	4.8	105.2	31.6	82.6	24.8	66.4	19.9	79.0	23.7
1978	588.5	8.1	89.6	15.2	71.6	12.2	118.2	20.1	230.0	39.1
1979	510.6	6.3	185.8	36.3	194.6	38.1	-54.9	-10.8	138.6	27.1
1980	570.4	6.7	184.1	32.3	174.1	30.5	176.1	30.9	54.0	9.5
1981	539.9	6.1	145.1	26.9	190.4	35.3	34.7	6.4	169.0	31.3
1982	773.0	8.5	494.8	64.0	261.6	33.8	14.6	1.9	2.0	0.3
1983	1633.4	16.5	444.2	27.2	259.3	15.9	-87.3	-5.3	1017.1	62.3
1984	904.2	9.1	237.6	26.3	253.7	28.1	228.2	25.2	184.8	20.4

Table 4. Continued...

year	Fiscal Deficit		Financing the Deficit							
			External loan		External Assistance		Domestic Borrowing			
	In Birr	As % GDP	In Birr	%*	In Birr	%*	Direct Advance		Others**	
							Birr	%*	Birr	%*
1985	1635.5	16.4	376.9	23.0	631.3	38.6	130.3	7.9	462.9	28.3
1986	1510.8	13.8	544.7	36.1	443.1	29.3	463.4	30.7	-126.0	-8.3
1987	1321.9	11.5	493.7	37.3	322.0	24.3	163.0	12.3	285.0	21.6
1988	1673.3	14.1	539.2	32.2	635.9	38.0	414.0	24.7	-14.0	-0.8
1989	2391.7	19.2	748.8	31.3	799.0	33.4	-49.0	-2.0	525.0	21.9
1990	2226.9	17.9	552.7	24.8	401.4	18.0	703.0	31.6	592.5	26.6
1991	2206.7	16.4	466.7	21.1	463.3	20.9	797.0	36.1	407.5	18.5
1992	2048.9	15.3	350.8	17.1	542.9	26.5	1162.0	56.7	-	-

Note: \* represents percentage share in total deficit.

\*\* indicates the sum of borrowing in Treasury Bills and Bonds.

Source: Computed from data obtained from Ministry of Finance.

Fiscal irresponsibility is another reason for growing budget deficit in Ethiopia. Fiscal irresponsibility in this case refers to the size of budget deficit allowed by the government. Government in the past made no attempt to control its deficit. Rather (as we had seen in chapter 3) it emphasised relying upon deficit financing through raising borrowing ceilings and broadening the base on which the ceiling on domestic borrowing is calculated.

Now, let us look at the way the government has been financing the growing deficit. Table 4 provides the structure of financing the deficit. The deficit has been financed

through external borrowing, external assistance and domestic borrowing. As data from the Ministry of finance show no external assistance was received as before 1963 and even domestic borrowing was not common because of the relative smallness of government deficit.

Generally seen, external loans and assistance constitute an important sources of financing government deficit compared to the domestic borrowing. For the period 1968-1974 external assistance and loan financed, on average, 32.0 percent and 30.0 percent of the fiscal deficit respectively, while direct advance and other domestic borrowing respectively financed about 6.2 percent and 12.8 percent of the deficit during the same period. However, during the 1974-1992 the share of external assistance was reduced to 27.5 percent while that of external loan remained at 30.3 percent. The fall in the share of external assistance in this period was compensated by growing share of both direct advance and other domestic borrowing to the level of 18.9 percent and 22.9 percent, respectively. This shows the military government's high reliance on easy mode of financing the deficit (direct advance) and other domestic borrowing through manipulations of borrowing ceilings.

## CHAPTER FIVE

### 5. SOME POLICY REFORMS OF THE TRANSITIONAL GOVERNMENT OF ETHIOPIA AND THEIR IMPLICATIONS FOR FISCAL PERFORMANCE

The purpose of digression in this chapter is to incorporate policy changes since 1991 in the study. We are not intending to review the economic policy of TGE in general. However, we focus on elements of fiscal reforms and major institutional changes that are believed to affect fiscal performance directly.

The Transitional government of Ethiopia (TGE) introduced radical changes in both political and economic spheres of the country. Various policy measures have been taken through adoption of structural adjustment program (SAP). It was proposed that market mechanism has to play major role in allocating resources, and the burden of development on government is to be reduced. That is, the government intended to limit itself only to regulatory functions by withdrawing from all activities deemed nonstrategic to the government and to introduce economic policies that create enabling environment for the participation of the private sector in economic activities. One of these policies is fiscal policy. The tax policy since the beginning of 1990s seems to focus on incentive aspects so that it will be compatible with the free market operations. We have already mentioned in chapter three that tax reforms introduced by TGE have focused on reduction of tax rates on almost all tax bases. Even though this reduction may induce investors in the long run and broaden

the tax base, the short run impact is likely to reduce tax revenue unless new tax bases are introduced. Of course, certain tax bases such as urban land lease fees, capital gain tax and rent on housing and buildings were introduced so far.

On the side of expenditure, rationalization of government outlays with little economic or social benefit was the main targets (IMF and World Bank, 1994). As such it was intended to reduce expenditure on security below the rate of growth of nominal GDP and enhance expenditure on human resources and basic infrastructure.

The growing level of budget deficit was also recognized and the economic reform program suggested:

- Gradual reduction of budget deficit and attempt to keep the deficit consistent with sustainable concessional external financing and non inflationary domestic finance.
- to rely highly on sale of government bond to public and limit direct borrowing from the national bank (IMF and World Bank, 1994).

The TGE also launched privatization program of public enterprises to promote economic efficiency through liquidating economically unviable parastatals, divesting those enterprises that would operate more efficiently under the private sector and restructuring the remaining parastatals with a view of boosting their efficiency. For these purposes the Ethiopian Privatization Agency was established by proclamation No.87/1994 and it was concerned with examining the economic,

technical and financial conditions of enterprises. Beginning from January 1995 the agency started putting loss making enterprises up for sales.

From the privatization process of public enterprises, government loses some revenue collected in the form of capital charges and residual payments as these are not paid by the private enterprises. However, for loss making public enterprises, privatization benefits the government by reducing the subsidy provided to them through the budget.

Coupled with the privatization process, the TGE planned to boost the efficiency of the civil service by having a small but manageable, well paid and efficient service. In an attempt to achieve these objectives the TGE introduced manpower retrenchment program in which a number of workers had been laid off from the public enterprises and parastatals (including Ethiopian Building and Construction Authority, the Maritime Transport Authority, State Farms, etc.). Of course, as workers are dismissed from these enterprises central government wage bill decreased. But this is not the end result. Most of the laid off workers from the centre immediately found recruitment in regional self governments bureaus and overall wage bill reduction was impaired. On the other hand, since November 1994 revision of civil service remuneration was made. Accordingly, a salary freeze which was set on monthly income above 636 birr during the Derg period was removed and the salary scale was also adjusted upwards. The upgrading of the salary and wage scale is rational and

deemed necessary as real wages have been thoroughly eaten up by cumulative inflation over the last twenty years. But the problem here is that this reform claims huge government resources as it increases government expenditure more than it increases revenue from personal income tax.

Besides changes in economic policies, the TGE introduced a radical change in the political and administrative experiences of the country. Political commitment was made to create a substantial degree of decentralization instead of the long history of centralised government, and was affirmed by the charter of TGE which provided "the rights of nations, nationalities and peoples to self determination and to determine their own affairs by themselves." The first step taken in this direction was the introduction of the proclamation No. 7/1992 which provided national/regional self government based on ethnic identity. According to this proclamation, fourteen regional governments were established.

Later, proclamation 41/1993 was issued to transfer responsibilities to regions of establishing, directing and supervising social and economic development, establishing enterprises, developing and protecting their natural resources, establishing and directing regional security and police forces, owning properties of the region and performing all other matters not reserved for the central government. Central government is responsible for issue of currency, economic policy, conferring of citizenship, declaration of state emergency, development of the army, national defence,

foreign affairs and undertaking major development establishments such as communication networks.

To accomplish the duties assigned to the regional governments, local "bureaus", which are, of course, the mirror image of the central government's ministries, were established in each region, and within the region up to the lower administrative unit, "Wereda". This process led to duplication of staffs at regional levels. Although there is no accurate data about how many civil servants were employed by regional bureaus, the estimation for 1994 ranges from 30 to 40 thousand employees (World Bank, 1995). Besides increase in employment, other recurrent costs associated with the expansion of bureaus were there. As regional governments try to fulfil the objectives set to them their expenditures are expected to increase relative to the centre.

In the face of currently decentralized fiscal powers from central government to the regional governments, the ability of the central government to control the overall budget deficit depends on whether regions support themselves or require deficit financing. However, the revenue raising capacity of the regions was very limited because of their limited tax base. For example, in the context of the "Derg's period regional administration", out of total government revenue collected between 1979 and 1989 about 70.6 percent was collected by Ministry of Finance in Addis Ababa whereas about 14.8 percent was collected from Eritrea and Assab, and only the remaining 14.6 percent was collected from the remaining

regions (Wogene, 1994). Under the new federal arrangements the capacity of the regions to raise their own revenue is even more limited as the proclamation of the revenue sharing between the centre and regions (proclamation No. 33/1992) left regional governments to inadequate and unproductive tax bases.<sup>12</sup> This limited base coupled with huge responsibilities assigned to regions means they need financial support from the centre.

Drawing these various reforms together, what can be said about their actual fiscal consequences? Although we have limited observations on the fiscal performance of the TGE (only three years data), let us rely on it and see what happened to the revenue and expenditure performance and the resulting budget deficits in comparison to the fiscal performance of the last three years of the Derg period.

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<sup>12</sup> According to proclamation 33/1992 regional government's revenue include personal income tax from employees of the region, agricultural income tax and rural land use fee, profit and sales tax from individual traders, all forms of tax collected from enterprises owned by regional governments (no such enterprises are developed yet), and charges and fees on licences and services issued or rendered by regional government. Given the Ethiopian tax structure, these tax bases provide limited revenue.

Table 5: Government Revenue (1989-1994) (in million birr)

Revenue Category	1989	1990	1991	1992	1993	1994
Direct Tax	1062.0	924.5	831.4	663.7	708.4	927.9
Personal income tax	270.3	280.9	267.7	269.1	251.8	266.8
Business Profit Tax	683.9	553.4	473.9	386.7	376.8	557.3
Agricultural Income Tax	61.5	54.2	54.7	3.5	40.9	55.5
Rural Land Use Fee	45.2	34.6	33.5	3.6	37.9	47.0
Indirect Tax	1309.1	1234.4	1219.0	954.6	1426.9	2069.1
On Domestic Goods	784.5	759.3	757.8	534.5	711.2	816.5
On Foreign Trade	524.6	475.1	464.2	420.1	715.7	1252.6
Nontax Revenue	1149.5	983.4	652.9	589.7	956.3	833.2
Total Revenue	3520.5	3142.3	2706.3	2208.0	3091.6	3830.2
- as % of GDP	28.3	25.2	19.7	16.5	19.1	23.6
External Grants	799.0	401.4	463.3	543.0	1067.1	1218.1

Source: Ministry of Finance

The revenue yield of the government was given in table 5. A glance at the table indicates that total domestic revenue since the TGE (in 1991) has been lower than the level it was at the end of 1980s. For example, domestic revenue which was 3520.5 million birr (28.3% of GDP) in 1989 declined to 2208.0 million (16.5% of GDP) in 1992 and rose a little bit to 3091.6 million (19.1% of GDP) in 1993 but still below the level it was in 1989. The fall in revenue was emanated from every revenue base. The only revenue category showing improved performance was tax on foreign trade. This may be the result of devaluation of the birr which encouraged producers and exporters to supply more to the official market by switching supply in the parallel market. Moreover, recent coffee boom contributed significant gain from coffee surtax. Total

domestic government revenue in 1994 which was higher than any level since 1989 reflects the effect of the boom. But such

gain is transitory as the boom is temporal rather than permanent.

The fall in nontax revenue may be the result of Public Enterprises Proclamation 25/1992 according to which out of about 200 public enterprises, 160 of them were given autonomous management and exempted from payments of capital charges and residual surplus to the treasury. Fall in direct tax revenue among other things, is ascribed to the reduction in tax rates. Because other factors which affect revenue performance such as tax administration improved with the introduction of the regional self government during the TGE period. Moreover, one cannot blame economic performance for a fall in revenue as real GDP which grew at annual average rate of 0.2 percent during 1988-1990 increased to 5.3 percent during 1992-1994.

If the tax rates reduction is accompanied by introduction of new and broader tax base, the resulting revenue loss from rate reduction will be compensated. Although most of the new tax bases introduced by TGE were not yet fully implemented to provide us with data on their revenue performance, it is most likely that except land lease fee, tax on capital gain and income from building and house rent will not provide reliable revenue sources. Because I believe that assessing house rent income from individual unit is difficult and government probably get access only in case where building or house is rented through legal or formal procedure. However, most of

renting is accomplished through "informal" procedure and getting access to such income seems cost ineffective.

The fall in revenue coupled with the TGE's declaration of reducing budget deficit implies that cut in overall expenditure is mandatory. Following the fall of the Derg regime and the end of the war, defence expenditure fall drastically (see table 6).

Defence expenditure decreased by 50 percent and 62 percent respectively in 1992 and 1993 as compared to that of 1990. However, recurrent expenditure as the whole had not followed the same trend because of increase in its other components (expenditure on economic service, social service and transfers).

Particularly, recurrent expenditure jumped to a higher level after 1993 reflecting the effects of expansion in government bureaucracy as regional self governments started their functions. Moreover, in the face of transition from war, the need to rehabilitate demobilized soldiers, the displaced and returnees, and building of social infrastructure which was devastated by the war posed additional pressure on government recurrent expenditure. The same is true for trend in capital expenditure and therefore for overall government expenditure.

Table 6: Government Expenditure and Budget Deficit (1989 - 1994) ( in million birr)

Expenditure Category	1989	1990	1991	1992	1993	1994
Recurrent Expenditure	3972.6	3929.1	3698.9	3305.1	3953.2	4581.8
General Service	2031.1	2266.4	2009	1135.3	1173.4	1452.5
Defence	1673.9	1871.6	1683.8	752.9	697.0	709.3
Economic Service	206.9	222.2	214.4	243.8	329.7	452.9
Social Service	644.1	665.5	653.2	716.4	876.9	1224.9
Transfers	685.1	567.9	540.6	802.5	973.2	1451.5
Capital Expenditure	1939.6	1440.1	1214.1	951.8	1797.0	2832.5
Economic Development	1727.3	1300.1	1091.4	841.5	1509.0	2051.1
Social Development	171.3	111.7	99.5	91.2	267.9	718.2
General Service	31.3	18.6	17.8	15.2	20.1	63.2
Total Expenditure	5912.2	5369.2	4913.0	4256.9	5750.2	6774.3
_as percentage of GDP	47.6	43.1	35.9	31.8	35.6	41.7
Budget Deficit	2391.7	2226.9	2206.7	2048.9	2658.6	2944.2
-as Percentage of GDP	19.2	17.9	16.1	15.3	16.5	18.1

Source: Ministry of Finance

Total government expenditure which was 5369.2 million birr (43.1 percent of GDP) in 1990 increased to 5750.2 million birr (35.6 percent of GDP) in 1993 and further to 6774.3 million birr (41.7 percent of GDP) in 1994. Because of the fall in domestic government revenue and rise in total government expenditure budget deficit during the TGE remained at its historical level. That is, budget deficit remained as high as it was in the 1980s. The deficit which stood at 2226.9 million birr (17.9 percent of GDP) in 1990 rose to 2944.2 million birr (18.1 percent of GDP) in 1994.

Mention that should not be escaped here is that the TGE has received huge external grants in the form of adjustment fund mainly from the World Bank and IMF and succeeded to finance its deficit without much reliance on domestic

borrowing. External grants which was 799.0 million birr in 1989 increased to 1218.1 million birr in 1994 (with annual average growth rate of 7.3 percent). However, external grant is not sustainable source of financing the deficit and there is fear whether the growing deficit can be financed from other reliable sources when the aid in the form of adjustment fund is over.

## CHAPTER SIX

### IDENTIFICATION AND ANALYSIS OF THE DETERMINANT OF BUDGET DEFICIT

#### 6.1 Identification of the Determinants

We had already reviewed some of the theoretical and empirical studies pertaining to factors underlying the budget deficit, in chapter two. In this section, we identify the variables that are retained in our model.

The model used in this study is that of Morrison (1982). According to him certain structural factors which he defines as "the economic characteristics of the country which are not changeable in the short run" are responsible for the budget deficit (Ibid, p.468). He identified five such variables.

##### 6.1.1 Level of Economic Development

Theoretically, as a country progresses to a higher level of development, more of its economy is monetized, tax base widens and eventually direct tax (which is more income elastic) account for a greater share of total revenue. Therefore, government revenue increases rapidly with the economic growth. On the expenditure side, the Wagner's law states that as economy develops, the demand for social services such as education, health services etc. increases more proportionally than income thereby putting up pressure on total government expenditure. Therefore, the effect of

economic growth on government budget deficit cannot be determined a priori and should be determined empirically. Gross domestic product per capita is used as proxy variable for the level of economic growth in the empirical model.

### 6.1.2 Growth of Government Revenue

It is common knowledge that governments of most developing countries collect larger proportion of their revenue from indirect tax. This is the result of the low income level of vast of economic agents that fell outside the scope of the tax net.

A government that faces favourable growth in its revenue is less prone to deficit financing than a government whose revenue is stagnating or growing slowly. The problem of government with rapid growth of revenue is how to search viable projects in which to invest, whereas government with slow growing revenues may need deficit financing in order to support even the minimum expenditures that it considers to be economically and politically necessary ( Morrison, 1982). Annual revenue growth rate is used in the empirical model to capture the effect of growth in government revenue on budget deficit.

### 6.1.3 Instability of Government Revenue

Higher expenditure initiated by the sudden jump of government revenue causes high deficit and it is difficult to

adjust expenditures when the boom is over. The major source of government revenue instability in developing countries is export earning instability. Primary products whose prices are volatile in the world market are the major foreign exchange earning of these countries. An upward movement in the world prices of these products engenders high export earnings thereby increasing foreign exchange reserve available to import the necessary goods and services. In this case foreign trade tax increases both because of increase in tax revenue from exports and imports. Although, such windfall gains are usually temporary in nature, yet they induce governments to increase their recurrent expenditure which are virtually impossible to reduce in revenue shortfall years.

Ethiopia is not an exemption to world price fluctuations, especially coffee price. Moreover, recurrent drought and continuous civil war in the country posed another sources of government revenue instability.

A proxy variable (RI) is used to capture the effects of revenue instability on budget deficits. Annual data of RI are generated from quarterly government revenue data for the period 1975Q<sub>1</sub> to 1992Q<sub>4</sub> using the normalized coefficient of variation defined as:

$$RI_t = SDR_t / MR_t \dots\dots\dots (1)$$

Where  $RI_t$  is index of revenue instability in year  $t$ ,  $SDR_t$  is standard deviation of government revenue in year  $t$  and  $MR_t$  is

the mean value of government revenue in year t. Standard deviation ( $SDR_t$ ) and mean value ( $MR_t$ ) of revenue at year t is calculated as follows:

$$SDR_t = \sqrt{\frac{\sum_{i=1}^4 (R_{Q_{ti}} - MR_t)^2}{4}} \dots \dots \dots (2)$$

Where

$$MR_t = \frac{\sum_{i=1}^4 R_{Q_{ti}}}{4} \dots \dots \dots (3)$$

and  $R_{Q_{ti}}$  is revenue in the  $i^{th}$  quarter of year t.

#### 6.1.4 Government Control Over Expenditure

Ability of government to control its expenditure is influenced by institutional and structural factors. Such factors as the share of recurrent expenditure in total revenue, coordination between planning and finance ministries and efficiency of government budgetary system influence the ability of government to exercise control over its expenditure. Lack of government control over expenditure may be due to lack of fiscal discipline.

The large share of recurrent expenditure in total expenditure caused mainly by growing defence expenditure in the last nearly two decades posed constraint on government's effort to maintain steady state expenditure level in Ethiopia. A proxy variable for ability of government expenditure control (c) is defined as the ratio of index of government expenditure

instability to government revenue instability and may be stated as:

$$C_t = IE_t/RI_t \dots (4)$$

where  $IE_t$  is index of government expenditure instability and is defined in the same manner as in (1). This proxy is justified, according to Morrison, on the basis that the government that exercise control over its expenditure (through sound financial management) is likely to run budget surplus when government revenue increases which it uses later to cushion the deficit if revenue falls. The variable  $C$  is likely to be less than unity for such period. But in the period when the government is susceptible to political pressures, expenditure budget may bear little relation to the ability of revenue to finance it. In this case the  $C$ -ratio normally exceeds unity.

#### 6.1.5 Degree of Government Participation in Economy

The hypothesis in this case is that an economy with a relatively greater degree of government participation is subject to greater spending pressure. Because under such circumstance, public relies more and more heavily on the government for broad range of goods and services and it is difficult for the government to restrain expenditures in the face of revenue constraints. The problem gets worse by the inefficient operation and loss making nature of most of public enterprises in developing countries which posed substantial drain on government budget in the form of subsidies.

The experience of Ethiopia during the military government supports these facts. Due to the ideology of socialism, government had nationalized private enterprises and increased its participation in every sector of the economy. Price control and poor management of public enterprises made most of these enterprises to depend on government budget. High degree of government participation is a difficult process to reverse in the short run, and continues to pose constraint on managing the deficit level. The effect of large degree of government participation in the economy is captured by the ratio of government expenditure to gross domestic product.

The budget deficit equation for the structural variables mentioned above may be specified as:<sup>13</sup>

$$BUD_t = a_0 + a_1C_t + a_2RI_t + a_3GI_t + a_4RGDPPC_t + A_5RGR_t + U_t \dots (5)$$

With  $a_1, a_2, a_3, > 0$  and  $a_4, a_5 < 0$  and  $a_4 ?$   
Where

- $BUD_t$  is ratio of budget deficit to government expenditure in year t.
- $RGR_t$  is real growth rate of revenue in year t
- $RGDPPC_t$  is real gross domestic product per capita in year t
- $GI_t$  is Proxy for degree of government involvement in the economy in year t and
- $C_t$  is Proxy for ability of government control over its expenditure.

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<sup>13</sup> All variables except rate of growth of revenue which is negative in some years are specified in log-linear form.

## 6.2 Estimation Procedure

In model specification of any time series data it is important to investigate the behaviour of economic variables, to determine their time series characteristics. Economic variables should be identified as stationary or nonstationary before any estimation is made. This is normally done to avoid spurious regression results that are encountered when running regression of stationary variable on nonstationary variable(s). Unit root tests provide such identifications. These tests are basically required to ascertain the number of times a variable has to be differenced (order of integration) to arrive at stationarity. A series is said to be integrated of order  $K$  if it becomes stationary after differencing  $K$  times. Economic variables that are stationary are called  $I(0)$  series and that have to be differenced once to obtain stationarity is called  $I(1)$  series (see Kennedy, 1992).

Some of the methods available to evaluate these time series characteristics of variables are Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) tests. The DF test is a test against the null hypothesis that there is a unit root of  $I(1)$  of the series and the test utilizes the equation of the form:

$$Y_t = B_0 + B_1T + B_2Y_{t-1} + E_t$$

where  $Y_t$  is the series whose order of integration is to be tested and  $T$  stands for time trend.

The test employs the t-statistics on the coefficient of the lagged dependent variable ( $B_2$ ). Thus, the null hypothesis: the series is nonstationary is rejected if the t-value in absolute term is significantly greater than the critical value.

The ADF test is virtually the same as the DF test, except that the former involves longer lag length in order to reflect the additional dynamics that could not be captured by the latter. Microfit 286 (version 3) provides both DF and ADF test at 5% level of significance and each variable used in this paper is tested accordingly and are found to be nonstationary in levels.

A test of cointegration is also made to find a long run relationship between a dependent variable and its regressors. This is normally done using cointegration analysis with Error Correction Model (ECM). According to Engle and Granger (1987), if there is cointegration, the equation with nonstationary variables is best estimated by the ECM. Testing for the presence of cointegration relationship involves two steps (Ibid). First, unit root test is conducted on all variables in an equation and if the variables are nonstationary, a static model is estimated for the cointegrating regression. The second stage is to evaluate the order of integration of the residual generated from the static model. If this residual is found to be  $I(0)$  then the existence of cointegration is proved.

The presence of cointegration implies that even if the dependent and explanatory variables are nonstationary, their deviations are stationary and error correction specification would provide a better fit than would be the case without it. The ECM is then used to see the short run dynamics of the regressions.

### 6.3 Estimation and Analysis of the Results

The results in table 7 shows that the model fits the data reasonably well in the long run. That is, the budget deficit is well specified by the structural factors according to the goodness of fit measures and diagnostic tests.<sup>14</sup> The results of the equations confirm theoretical expectations. The hypotheses that a government is likely to have larger budget deficit the greater is its revenue instability, the less control exercised over its expenditure, the lower is its revenue growth rate and the greater is its participation in economic activities had been supported empirically. But economic growth is found to be positively related with budget deficit reflecting the fact that although economic growth was observed in the country, no structural transformation had took place. That is, the agriculture sector still dominates the whole structure of the economy and posed serious problem on tax revenue collection due to administrative difficulty associated with assessment of income from this non-monetized

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<sup>14</sup>The estimated equations (in both long run and short run) are not subject to problems of heteroscedasticity, serial correlation and functional form. The F-statistics indicates that the joint sets of the explanatory variables have significant influence on the budget deficit at 1% level.

sector. On the other hand, there is high pressure on government budget for infrastructural development .

Table 7: Results of the Estimation of the Structural Determinants of Budget Deficit

Regressors	Dependent Variable	
	Log Bud (Static)	Log Bud (Dynamic)
Constant	-2.788 (-2.011)	0.004 (0.156)
$\log (\text{RGDPPC})_t$	0.504 (1.703)*	
$\text{Log } (C)_t$	0.172 (1.995)*	0.006 (0.125)
$\text{Log } (\text{RI})_t$	0.202 (1.969)*	0.022 (0.334)
$\text{RGR}_t$	-0.015 (-3.345)**	-0.006 (-2.068)**
$\text{Log } (\text{GI})_t$	0.505 (2.559)**	0.173 (0.849)
$R^2$	0.72	0.85
$\bar{R}^2$	0.60	0.79
DW		2.58
$\text{ECM}_{t-1}^{15}$		-1.549 (-4.080)

Note: - Figures in brackets are t-ratios and all explanatory variables in the dynamic equation are in log difference form.

- \* and \*\* indicate that the coefficients are statistically significant at 10% and 5% level respectively.

But for the short run (dynamic) budget deficit model, it is found that only rate of growth of government revenue significantly explained the variations in budget deficit. Revenue instability which explained budget deficit in the long run failed to explain it in the short run. This may possibly

<sup>15</sup>  $\text{ECM}_{t-1}$  stands for the error correcting term which is the lagged residual saved in the static regression to capture past periods disequilibrium.

reflect the inflow of external aid at times of intensive drought, and forced contribution from the mass in the form of war levy that the military government had used to overcome short term revenue fluctuations. Ability of government to control its expenditure was also not important explanatory variable in the short run indicating the long term plan action that is required even if government wants to execute control over its expenditure.

The coefficient of the error correction term is significant at 1% level, validating the error correction specification. It indicates a speed of adjustment of 154 percent from actual budget deficit in the previous year to equilibrium (long run) budget deficit.

## CHAPTER SEVEN

### Summary and Conclusion

In the past twenty years, large and a rapid expansion of state-activity in the economy has led to the dramatic growth of the public sector. Both recurrent and capital expenditures grew at rapid rate with the former dominating the whole structure of total expenditure. About 73.5 percent of total government expenditure, on average, had been allocated to finance recurrent expenditure during the period 1974-1992. Defence expenditure alone accounted for about 37.3 percent of recurrent expenditure for the same period signifying the military government's wasteful resource allocation. The continuous civil war and recurrent drought in the country posed double impact on government budget. On the one hand, they reduced the volume of revenue that the government can collect (by eroding tax bases). On the other hand, they claimed government to finance to alleviate their effects.

Capital expenditure which was designed to improve economic growth of the country failed to attain its target. Their inefficient operations made most of public enterprises to depend on government subsidy. In the face of rapidly growing expenditure, the military government tried to mobilize more resources using its tax policy and borrowing policy. Tax rates on all existing tax bases were raised and new bases such as capital charge and residual payments from public enterprises, tax on income from chance winning, sales tax on services and tax on income from royalty were introduced. On the side of borrowing policy, the government had raised the

ceilings set on all forms of domestic borrowing (direct advance, treasury bill and bond) without due consideration given to the impact these reforms have on the economy.

An examination of the tax structure of the country displayed many features common to developing countries. Indirect taxes particularly taxes from foreign trade had been dominating the revenue structure of the country. With widely recognized income inelastic and unstable nature of this revenue source and ever increasing of the government's financial requirements, the implication for budget is clear. However, since the 1980s direct tax and nontax revenue became major sources of government revenue. Even though revenue performance in terms of its share in GDP had been improved over the Derg regime, it failed to keep pace with growth of government expenditure. The result was that government deficit which stood merely at 4.0 percent of GDP in 1968 rose to 17.9 percent of GDP in 1990. No explicit policy action was taken by the military government in the past to control this growing deficit.

Empirical estimation was also made to test whether certain structural factors such as, level of economic growth, instability of government revenue, government control over expenditure, degree of government participation in the economy and growth in government revenue are responsible for the budgetary imbalances in the country. The estimation results for the period 1975-1992 show that in the long run all the structural variables explain variation in budget deficit.

However, in the short run, only growth in government revenue is found to explain government deficit.

The Transitional Government of Ethiopia (TGE) which came to power in 1991 recognized the growing level of budgetary imbalance in the country and planned to reduce it. Since 1991, Ethiopia has been implementing the structural adjustment program (SAP). As the general recommendation of the program, the TGE had designed to limit its activity in the economy. Towards fulfilling this objective, decision was made to privatize loss making public enterprises while those operating profitably was granted autonomous management in view of boosting their efficiency.

However, budget deficit during the TGE remained at its historical level of the 1980s mainly because of the other policy measures introduced by the government. The TGE decreased tax rates on almost all tax bases and government revenue decreased following this change. On the other hand, the political change which introduced ethnic-based regional government led to the duplication of staffs at regional level thereby increasing overall government expenditure.

The important development in the fiscal area during the TGE period were that the end of the war had significantly reduced defense expenditure. Thus, resources which had previously been used to finance the civil war now are used to finance development projects. Moreover, large aid inflows to support the adjustment program has helped the government to

finance its deficit without much reliance on domestic bank borrowing.

These conclusions have certain policy implications for a government requiring to reduce its budget deficits. In order to reduce the budget deficits in Ethiopia:

- the government should decrease its degree of participation in economic activity. Of course, currently the government is attempting to privatize all loss-making public enterprises while limiting itself to the provision of basic services which private sector is reluctant to undertake.
- the government should save large revenue inflows from aid or gains from favourable international price whenever such inflows are believed to be temporary.
- the government should exercise control over its expenditure especially through limiting its domestic borrowing from banking system.

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>> 40	9.75
>> 50	1.50
>> 60	2.00
>> 80	2.75
>> 100	3.75
>> 125	4.75
>> 150	5.0
>> 175	7.50
>> 200	9.00
>> 250	13.5
>> 300	18.5
>> 350	22.5
>> 400	27.0
>> 450	31.0
>> 500	36.0
>> 550	40.0
>> 600	48.0
>> 650	52.0
>> 700	56.0
>> 750	60.0
>> 800	10.5%
>> 850	11.5%
>> 900	12.5%
>> 950	13.5%
>> 1000	14.5%
>> 1075	15.5%
>> 1150	16.5%
>> 1225	17.5%
>> 1300	18.5%
>> 1375	19.5%
>> 1450	20.5%
>> 1525	21.5%
>> 1600	22.5%
>> 1675	23.5%
>> 1750	24.5%
>> 1825	25.5%

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APPENDICES

Appendix 1

Tax Rates on Income from Employment (1967)

Taxable income per month (in Birr)	Tax Rate (in Birr or %)
up to 25	0.75
over 25 up to 40	1.50
>> 40 >> >> 50	2.00
>> 50 >> >> 60	2.75
>> 60 >> >> 80	3.75
>> 80 >> >> 100	4.75
>> 100 >> >> 125	6.0
>> 125 >> >> 150	7.50
>> 150 >> >> 175	9.00
>> 175 >> >> 200	13.5
>> 200 >> >> 250	18.5
>> 250 >> >> 300	22.5
>> 300 >> >> 350	27.0
>> 350 >> >> 400	31.0
>> 400 >> >> 450	36.0
>> 450 >> >> 500	40.0
>> 500 >> >> 550	46.0
>> 550 >> >> 600	52.0
>> 600 >> >> 650	60.0
>> 650 >> >> 700	67.0
>> 700 >> >> 750	10%
>> 750 >> >> 800	10.5%
>> 800 >> >> 850	11%
>> 850 >> >> 900	11.5%
>> 900 >> >> 950	12%
>> 950 >> >> 1000	13%
>> 1000 >> >> 1075	14%
>> 1075 >> >> 1250	15%
>> 1250 >> >> 1500	16%
>> 1500 >> >> 1750	17%
>> 1750 >> >> 2000	18%
>> 2000 >> >> 2500	20%
>> 2500 >> >> 3000	21%
>> 3000 >> >> 3500	22%
>> 3500 >> >> 4250	23%
>> 4250 >> >> 5000	24%
over 5000	25%

Source: Negarit Gazeta 27<sup>th</sup> year NO.4, 1967

Appendix 2

Tax Rates on income from Employment (1978)

Taxable income per month (in Birr)	Tax rate on every additional income
up to 50	
over 50 up to 250 on the next 200	null
>> 250 >> >> 500 >> >> >> 250	10%
>> 500 >> >> 750 >> >> >> 250	13%
>> 750 >> >> 1000 >> >> >> 250	19%
>> 1000 >> >> 1250 >> >> >> 250	24%
>> 1250 >> >> 1500 >> >> >> 250	29%
>> 1500 >> >> 1750 >> >> >> 250	34%
>> 1750 >> >> 2000 >> >> >> 250	39%
>> 2000 >> >> 2250 >> >> >> 250	44%
>> 2250 >> >> 2500 >> >> >> 250	49%
>> 2500 >> >> 2750 >> >> >> 250	54%
>> 2750 >> >> 3000 >> >> >> 250	59%
>> 3000 >> >> 3250 >> >> >> 250	64%
>> 3250 >> >> 3500 >> >> >> 250	69%
>> 3500 >> >> 3750 >> >> >> 250	74%
over 3750	79%
	85%

Source: Negarit Gazeta, Proclamation No. 155/1978

Appendix 3

Tax Rates on Income from Employment (1992)

Taxable Income per month (in Birr)	Tax rates on every additional income
up to 105	
over 106 up to 400 on the next 295	null
>> 400 >> >> 700 >> >> >> 300	10%
>> 700 >> >> 1000 >> >> >> 300	15%
>> 1000 >> >> 1300 >> >> >> 300	20%
>> 1300 >> >> 1600 >> >> >> 300	25%
>> 1600 >> >> 1900 >> >> >> 300	30%
>> 1900 >> >> 2200 >> >> >> 300	35%
>> 2200 >> >> 2500 >> >> >> 300	40%
over 2500	45%
	50%

Source: Negarit Gazeta, Proclamation No.30/1992

Appendix 4  
Employment Tax Rate (1994)

Taxable income per month(in Birr)	Tax rates on every additional income
up to 120	
over 120 up to 600 on the next 480	null
>> 600 >> >> 1200 >> >> >> 600	10%
>> 1200 >> >> 2000 >> >> >> 800	15%
>> 2000 >> >> 3000 >> >> >> 1000	20%
over 3000 >> >>	30%
	40%

Source: Negarit Gazeta Proclamation No.107/1994.

Appendix 5  
Tax Rates on Income from Rent of Land and Building (1967)

Annual Taxable Income (in Birr)	Tax per annum in Birr or %
up to 300	3.0
over 300 up to 480	9.0
>> 480 >> >> 600	18.0
>> 600 >> >> 720	24.0
>> 720 >> >> 900	33.0
>> 900 >> >> 1200	48.0
>> 1200 >> >> 1500	60.0
>> 1500 >> >> 1800	75.0
>> 1800 >> >> 2100	90.0
>> 2100 >> >> 2400	108.0
>> 2400 >> >> 3000	162.0
>> 3000 >> >> 3600	216.0
>> 3600 >> >> 4200	270.0
>> 4200 >> >> 4800	324.0
>> 4800 >> >> 5400	378.0
>> 5400 >> >> 6000	432.0
>> 6000 >> >> 6600	480.0
>> 6600 >> >> 7200	552.0
>> 7200 >> >> 7800	630.0
>> 7800 >> >> 8400	720.0
>> 8400 >> >> 9000	810.0
>> 9000 >> >> 9600	10%
>> 9600 >> >> 10200	10.5%
>> 10200 >> >> 10800	11%
>> 10800 >> >> 11400	11.5%
>> 11400 >> >> 12000	12%
>> 12000 >> >> 12900	13%
>> 12900 >> >> 13800	14%
>> 13800 >> >> 15000	15%
>> 15000 >> >> 18000	16%
>> 18000 >> >> 21000	17%
>> 21000 >> >> 24000	18%
>> 24000 >> >> 27000	19%
over 27000	20%

Source: Negarit Gazeta, Proclamation No.4/1967

Appendix 6

Tax Rates on Income Earned from Renting Buildings

Annual Taxable Income (in Birr)	Tax Rate on every Additional Income
up to 1200	null 10% 15% 21% 28% 36% 45%
from 1201 up to 6000	
>> 6001 >> >> 12500	
>> 12501 >> >> 21500	
>> 21501 >> >> 33500	
>> 33501 >> >> 50000	
over 50000	

Source: Negarit Gazeta, Proclamation No. 62/1993

Appendix 7

Business Income Tax Rate (1978)

Annual Taxable income (in Birr)	Tax Rates on every Additional Income
up to 300	10 Birr 18 24 40 70 11% 14% 20% 26% 33% 46% 47% 54% 61% 68% 75% 82% 89%
over 300 up to 500	
>> 500 >> >> 700	
>> 700 >> >> 900	
>> 900 >> >> 1200	
>> 1200 >> >> 3000	
>> 3000 >> >> 6000	
>> 6000 >> >> 9000	
>> 9000 >> >> 12000	
>> 12000 >> >> 15000	
>> 15000 >> >> 18000	
>> 18000 >> >> 21000	
>> 21000 >> >> 24000	
>> 24000 >> >> 27000	
>> 27000 >> >> 30000	
>> 30000 >> >> 33000	
>> 33000 >> >> 36000	
over 36000	

Source: Negarit Gazeta, Proclamation No.155/1978.

Appendix 8  
Business Income Tax Rate (1990)

Annual Taxable Income (in Birr)				Tax Rate on Additional Income
up to	300			null
300	up	to	400	3%
400	>>	>>	500	4%
500	>>	>>	600	5%
600	>>	>>	700	6%
700	>>	>>	800	7%
800	>>	>>	900	8%
900	>>	>>	1000	9%
1000	>>	>>	1200	10%
1200	>>	>>	3000	11%
3000	>>	>>	6000	14%
6000	>>	>>	9000	20%
9000	>>	>>	12000	27%
12000	>>	>>	15000	34%
15000	>>	>>	18000	41%
18000	>>	>>	21000	48%
21000	>>	>>	24000	55%
over			24000	59%

Source: Negarit Gazeta, Proclamation No. 18/1990.

Appendix 9  
Business Income Tax Rate (1994)

Annual Taxable Income (in Birr)				Tax Rate on every additional Income
up to	1200			null
over	1200	up to	6000	10%
>>	6000	>>	15600	15%
>>	15600	>>	30000	20%
>>	30000	>>	50000	30%
over			50000	40%

Appendix 10  
Agricultural Income Tax Rate (1967)

Annual Taxable Income (in Birr)		Tax Rate (in Birr or %)
up to	300	
	300	1.5 Birr
	480	6.0
	600	18.0
	720	24.0
	960	33.0
	1200	45.0
	1500	60.0
	1800	75.0
	2100	90.0
	2400	108.0
	3000	162.0
	3600	216.0
	4200	270.0
	4800	324.0
	5400	378.0
	6000	432.0
	6600	480.0
	7200	552.0
	7800	530.0
	8400	720.0
	9000	810.0
	9600	10%
	10200	10.5%
	10800	11%
	11400	12%
	12000	13%
	12900	14%
	13800	15%
	15000	16%
	18000	17%
	21000	18%
	24000	19%
over	27000	20%

source: Negarit Gazeta, Proclamation No. 4/1967

Appendix 11  
Agricultural Income Tax Rate (1978)

Annual Taxable Income (in Birr)		Tax Rate on every Additional Income
up to	600	10 Birr
over	600	10%
>>	1200	11%
>>	3000	14%
>>	6000	20%
>>	9000	26%
>>	12000	33%
>>	15000	46%
>>	18000	47%
>>	21000	54%
>>	24000	61%
>>	27000	68%
>>	30000	75%
>>	33000	82%
>>	36000	89%
Over	36000	

Source: Negarit Gazeta, Proclamation No. 155/1978.

Appendix 12 Government Revenue (in million Birr)

Year	1		2		3		4		5		6		7		8	
	Birr	%	Birr	%	Birr	%	Birr	%	Birr	%	Birr	%	Birr	%	Birr	%
1968	315.5	8.7	69.0	1.9	-	-	0.3	-	7.2	0.2	104.1	2.8	134.3	3.7	70.3	1.9
1969	332.1	8.6	89.9	2.3	-	-	0.5	-	-	-	106.0	2.8	128.3	3.3	73.3	1.9
1970	371.8	8.9	47.4	1.1	31.7	0.8	15.4	0.4	7.8	0.2	115.7	2.8	152.7	3.6	57.3	1.4
1971	407.1	9.7	56.0	1.3	39.5	0.9	18.9	0.5	7.4	0.2	127.7	3.0	156.6	3.7	58.9	1.4
1972	433.2	9.8	61.7	1.3	43.6	1.0	20.0	0.5	7.9	0.2	145.8	3.3	153.0	3.5	61.5	1.4
1973	483.8	10.3	67.0	1.5	47.4	1.1	14.0	0.3	13.2	0.3	150.8	3.4	191.4	4.3	72.4	1.6
1974	537.1	10.4	72.8	1.6	55.3	1.9	11.3	0.2	12.4	0.3	168.2	3.6	217.1	4.7	81.0	1.7
1975	589.8	11.5	85.9	1.7	74.3	1.4	10.4	0.2	6.2	0.1	194.1	3.8	218.9	4.2	121.8	2.4
1976	613.3	11.1	75.1	1.5	76.5	1.5	9.7	0.2	13.0	0.3	174.0	3.4	265.0	5.2	167.7	3.3
1977	855.9	13.9	74.6	1.4	98.3	1.8	18.7	0.3	17.4	0.3	181.4	3.3	465.5	8.4	155.3	2.8
1978	938.8	14.4	84.2	1.4	104.1	1.7	18.2	0.3	19.3	0.3	186.8	3.0	526.2	8.5	169.2	2.7
1979	1146.5	15.9	102.3	1.4	117.4	1.6	48.7	0.7	47.2	0.7	268.9	3.7	562.0	7.8	188.9	2.6
1980	1298.2	16.8	119.0	1.5	161.5	2.1	51.3	0.7	48.3	0.6	373.6	4.8	544.3	7.1	269.3	3.5
1981	1361.8	17.2	128.3	1.6	256.8	3.2	53.6	0.7	50.2	0.6	387.3	4.9	485.0	6.1	394.6	4.9
1982	1436.4	17.7	136.7	1.9	326.2	4.0	50.3	0.6	49.8	0.6	396.2	4.9	475.1	5.8	440.3	5.4
1983	1558.0	17.2	153.5	1.7	344.7	3.8	52.6	0.6	51.3	0.6	443.1	4.9	510.6	5.6	616.4	6.8
1984	1731.5	19.7	171.4	1.9	384.5	4.3	48.6	0.6	48.1	0.5	495.5	5.6	579.1	6.6	562.4	6.4
1985	1677.5	18.8	186.1	2.1	416.5	4.7	41.9	0.5	41.4	0.5	523.7	5.9	465.8	5.2	611.6	6.8
1986	1876.3	19.1	203.4	2.1	467.9	4.8	46.9	0.5	44.0	0.4	554.2	5.6	556.1	5.7	744.0	7.6
1987	2092.4	20.5	226.5	2.2	582.1	5.7	50.0	0.5	45.8	0.4	623.9	6.1	562.2	5.4	722.8	7.1
1988	2317.8	21.9	244.3	2.3	662.1	6.3	57.0	0.5	47.4	0.4	720.4	6.8	585.0	5.5	1006.4	9.5
1989	2371.0	21.3	270.3	2.4	683.9	6.1	61.5	0.5	45.2	0.4	784.5	7.1	524.6	4.7	1149.5	10.3
1990	2158.9	19.2	280.9	2.5	553.4	4.9	54.2	0.9	34.6	0.3	759.3	6.8	475.1	4.2	983.4	8.8
1991	2053.4	16.9	267.7	2.6	473.9	3.8	54.7	0.4	33.5	0.3	757.8	6.1	464.2	3.7	652.9	5.2
1992	1618.3	13.0	269.1	2.2	386.7	3.1	3.5	-	3.6	-	534.5	4.3	420.1	3.4	589.7	4.7

Note: 1. Tax revenue 2. Personal income tax 3. Business profit tax 4. Agricultural income tax 5. Rural Land use fee 6. Domestic indirect tax  
7. Foreign trade tax 8. nontax revenue\* Figures in percent represent share out of GDP.

Source: Ministry of Finance

## APPENDIX 13

## Government Expenditure, Revenue and Budget Deficits (in million)

Year	Recurrent expenditure	Capital expenditure	Total expenditure	Tax Revenue	Non-tax Revenue	Total Revenue	Budget deficit	GDP
1968	439.5	102.7	542.2	315.5	70.3	385.8	156.4	3856.0
1969	454.5	77.1	531.6	332.1	73.3	405.4	126.2	4085.4
1970	478.9	106.3	585.2	371.8	57.3	429.1	156.1	4482.8
1971	507.1	124.4	631.5	407.1	58.9	466.0	165.5	4733.3
1972	521.7	150.0	671.7	433.2	61.5	494.7	177.0	4768.1
1973	563.1	153.1	716.2	483.8	72.4	556.2	160.0	5030.4
1974	599.2	178.2	777.4	537.1	81.0	618.1	159.3	5577.3
1975	811.2	237.7	1048.9	589.8	121.8	711.6	337.3	5551.0
1976	917.7	282.8	1200.5	613.3	167.7	781.0	419.5	5995.8
1977	1019.8	324.6	1344.4	855.9	155.3	1011.2	333.2	6854.5
1978	1367.2	329.3	1696.5	938.8	169.2	1108.0	588.5	7252.9
1979	1477.2	368.8	1846.0	1146.5	188.9	1335.4	510.6	8071.3
1980	1694.7	443.2	2137.9	1298.2	269.3	1567.5	570.4	8540.7
1981	1791.2	505.1	2296.3	1361.8	394.6	1756.4	539.9	8720.7
1982	1934.6	715.1	2649.7	1436.4	440.3	1876.7	773.0	8997.8
1983	2562.4	1245.4	3807.8	1558.0	616.4	2174.4	1633.4	9759.4
1984	2265.0	933.1	3198.1	1731.5	562.4	2293.9	904.2	9835.5
1985	2737.5	1187.1	3924.6	1677.5	611.6	2289.1	1635.5	9923.5
1986	2659.4	1471.7	4131.1	1876.3	744.0	2620.3	1510.8	10905.6
1987	2754.0	1383.1	4137.1	2092.4	722.8	2815.2	1321.9	11398.9
1988	3596.1	1401.4	4997.5	2317.8	1006.4	3324.2	1673.3	11850.9
1989	3972.6	1939.6	5912.2	2371.0	1149.5	3520.5	2391.7	12413.5
1990	3929.1	1440.1	5369.2	2158.9	983.4	3142.3	2226.9	12430.2
1991	3698.9	1214.1	4913.0	2053.4	652.9	2706.3	2206.7	13669.8
1992	3305.1	951.80	4256.9	1618.3	589.7	2208.0	2048.9	13348.7

Source: Ministry of Finance and Ministry of Planning and Economic Cooperation.

APPENDIX 14 Data Used for the Regression Analysis

Year	Revenue Growth Rate	Proxy for Government Expenditure Control	Proxy for Revenue Instability	Proxy for Degree of Government Participation	Ratio of Budget Deficit to Total Expenditure	Real GDP Per Capita
1975	15.13	1.18	0.15	0.19	0.32	405.00
1976	9.75	0.50	0.31	0.20	0.35	358.79
1977	29.48	0.95	0.51	0.20	0.25	328.23
1978	9.57	1.49	0.13	0.23	0.35	285.63
1979	20.52	1.79	0.09	0.23	0.28	276.06
1980	17.38	0.94	0.15	0.25	0.27	251.07
1981	12.05	0.73	0.17	0.26	0.24	244.71
1982	6.85	1.52	0.16	0.29	0.29	228.90
1983	15.86	0.90	0.20	0.39	0.43	232.39
1984	5.50	1.23	0.11	0.33	0.28	228.24
1985	-0.20	1.08	0.22	0.40	0.42	189.24
1986	14.47	2.26	0.17	0.38	0.37	193.18
1987	7.44	2.00	0.10	0.36	0.32	216.63
1988	18.08	2.36	0.10	0.42	0.33	214.14
1989	5.91	3.00	0.09	0.47	0.40	198.87
1990	-10.74	0.38	0.27	0.43	0.41	183.99
1991	-13.87	3.32	0.13	0.36	0.45	162.53
1992	-18.41	2.48	0.17	0.32	0.48	127.38

Source: Computed from data obtained from Ministry of Finance and National Bank of

Ethiopia

Appendix 15 Quarterly Data on Government Revenue and Expenditure (in million Birr)

Quarter	Revenue	Expenditure
75Q1	108.7	164.9
75Q2	124.6	251.0
75Q3	137.8	208.1
75Q4	153.6	227.9
76Q1	265.9	218.5
76Q2	197.6	308.8
76Q3	187.9	249.1
76Q4	119.9	235.6
77Q1	215.9	248.1
77Q2	235.8	285.2
77Q3	213.9	295.0
77Q4	213.6	279.1
78Q1	237.3	288.8
78Q2	288.1	413.7
78Q3	222.4	278.7
78Q4	282.7	321.4
79Q1	261.4	352.5
79Q2	311.4	423.4
79Q3	257.7	295.7
79Q4	269.9	318.0
80Q1	364.5	447.6
80Q2	446.2	541.7
80Q3	323.6	385.0
80Q4	331.4	435.7
81Q1	396.3	487.9
81Q2	410.1	567.2
81Q3	275.1	418.2
81Q4	390.9	514.4
82Q1	434.9	649.0
82Q2	516.4	809.9
82Q3	347.0	457.9
82Q4	452.0	553.6
83Q1	498.6	584.2
83Q2	585.2	768.5
83Q3	370.0	508.4

Source: National Bank of Ethiopia Quarterly Bulletin various issues.

## Appendix 15 Continued...

Quarter	Revenue	Expenditure
83Q4	412.3	
84Q1	593.4	570.1
84Q2	629.5	741.5
84Q3	478.6	927.1
84Q4	552.2	667.4
85Q1	478.6	765.5
85Q2	552.2	667.4
85Q3	598.0	765.5
85Q4	784.6	888.2
86Q1	574.8	1132.6
86Q2	669.6	620.1
86Q3	776.2	800.1
86Q4	844.4	951.7
87Q1	872.9	1453.3
87Q2	1026.1	911.1
87Q3	848.0	1178.2
87Q4	827.7	1494.0
88Q1	852.6	1155.3
88Q2	1046.1	911.1
88Q3	863.3	1178.4
88Q4	972.3	1219.9
89Q1	757.8	719.0
89Q2	844.8	820.5
89Q3	812.0	1209.1
89Q4	692.7	1327.2
90Q1	772.0	1583.5
90Q2	741.3	958.5
90Q3	743.3	1218.7
90Q4	390.0	1185.7
91Q1	508.0	1103.0
91Q2	505.5	640.1
91Q3	477.3	716.6
91Q4	633.3	849.9
92Q1	796.6	1529.0
92Q2	638.6	802.0
92Q3	663.6	1060.1
92Q4	992.5	1412.9
		1835.0

## DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university. All sources of material used for the thesis have been duly acknowledged.

Name: Dereesu Tserepsye

Signature: [Handwritten Signature]

Date: June 26/1996

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Name: Derees Tserepsye

Signature: 

Date: June 26/1996