

## FISCAL DEFICITS AND THE MONETARY SECTOR IN ETHIOPIA: IMPLICATIONS FOR REFORM

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**Abstract:** *Large macroeconomic disequilibria characterized by a deteriorating current account, inflation and rising debt burden have been major features of the Ethiopian Economy for many years. Fiscal policy can be used as tool of sustained growth and a means to avoid such imbalances. This paper looks into the relationship between fiscal deficits and money supply, price level and public debt. An examination of Ethiopian data for the period 1976-1991 shows that fiscal deficits have been at the root of monetary expansion, inflation and increasing debt burden. The implication is that in the short to medium period, such imbalances may be redressed through setting limits on government bank and external borrowing while simultaneously reforming the expenditure side of the budget.*

### 1. INTRODUCTION

Ethiopia is one of the countries with the lowest per capita income. About 40 percent of GDP at factor cost comes from agriculture, while industry, construction and public utilities contribute only 16 percent of GDP. GDP growth from 1977 to 1991 averaged only 2 percent per annum. In 1990, GDP growth dropped down to zero and in 1991 it turned negative.

Because of slow growth in exports and a deteriorating trading position, the economy is now suffering the consequences of foreign exchange shortages, mounting external debt obligations and an overvalued exchange rate. Although domestic savings and fixed investment were low, 3-5 percent of GDP and 10-15 percent of GDP, respectively, external finance ranging from 7-10 percent of GDP facilitated internal balance to some degree [25].

It was against this background that macroeconomic imbalances developed in the fiscal and monetary sectors. In fiscal year 1990, the fiscal deficit deteriorated to 15 percent of GDP with bank borrowing of about 10 percent, while broad money grew by 18 percent. In 1991, inflation as measured by the retail price index for Addis Ababa reached about 21 percent.

The growth in reserve money was dramatic. It rose from -3 percent in 1975 to 23 percent in 1991. The percentage shares of  $M_1$ <sup>1</sup> and  $M_2$ <sup>2</sup> in GDP rose from 15 percent and

21 percent, respectively, in 1975 to 51 percent and 68 percent, respectively, in 1992. The velocity of circulation ( $GDP/M_2$ ), however, consistently declined from 4.8 to 1.5 during the same period. Thus, while steady monetary deepening was underway, a simultaneous decline in the velocity of money eased the inflationary impact of budget deficits to some degree. However, with the semi-liberalization of the economy and favourable opportunities for the private sector to spend its money holdings, the change in velocity of money could be reversed and induce severe inflationary conditions in the coming years.

Recent developments in the budget also favour this hypothesis. Despite the decrease in government expenditures, due to the decrease in defence spending following the overthrow of the previous regime, the advantage that could have been reaped from this has virtually been lost by an offsetting decline in government receipts, leaving the deficit and bank financing at more or less the same level. For example, total expenditure in 1992 fiscal year declined by 23 percent, while revenue fell by 20 percent. The overall deficit, therefore, remained at about 12 percent of GDP and bank financing at about 9 percent of GDP.

These developments show that the government has been using its tax regime, borrowing and spending powers to influence aggregate economic performance. With the continued legacy of budgetary expansion, a fiscal analysis of the macro-economy would be necessary. Hence, the need to focus on fiscal policy both as a tool of sustained growth and as a means to avoid sources of macroeconomic imbalances in the Ethiopian economy is apparent.

This study takes up one aspect of fiscal policy, i.e., the management of fiscal deficits in Ethiopia. It is organized as follows: the next section outlines the major concepts of fiscal deficits followed by a section discussing causes and consequences of fiscal deficits, the fourth section attempts to estimate the effect of fiscal deficits on monetary, price and debt variables using econometric techniques and, after raising major issues for reform in the fifth section, the paper concludes with a summary.

## 2. CONCEPTS OF FISCAL DEFICITS

Any attempt to assess budgetary impact on macro variables such as money supply, balance of payments, the public debt and aggregate economic activity requires a specific measure of the fiscal deficit. However, several concepts of the fiscal deficit seem to be in circulation. Despite the variations in definition, a deficit has tended to be viewed as a summary of government receipts and payments in a single budget year. In this context, the conventional deficit is defined as follows:

Fiscal deficits as conventionally defined on a cash basis, measure the difference between total government cash outlays, including interest outlays, but excluding amortization payments on the outstanding stock of public debt and total cash receipts, including tax and non-tax revenue and grants but excluding borrowing proceeds... In this manner fiscal deficits reflect the gap to be covered by net government borrowing including borrowing from the central bank [21].

Although the cash versus the accrual accounting methods of calculating the deficit pose conceptual variations and result in significant differences in policy making, it is sufficient for our purpose to take the conventional deficit measure as a core concept of fiscal deficits. Having done that, it would be relevant to move to certain major purpose-oriented deficit measures. The most widely used purpose-oriented deficit measures are the current account deficit, the structurally adjusted deficit, the primary deficit, and the operational deficit.

### 2.1 Current Account Deficit

The current account deficit is the excess of non-capital expenditures over non-capital revenues. It depicts government dissaving and could be used as a measure of the extent to which government exercises prudence in its financial management.

However useful the current account deficit may be, the problems surrounding its calculation are intractable. A case in point is the treatment of depreciation. In enterprise accounts depreciation is recorded on accrual basis<sup>3</sup>. However, in public sector accounts it becomes available on cash basis. Moreover, the accounting treatment of investment in human capital as current outlay despite its importance in explaining growth is at odds with the economic treatment [5]. Furthermore, the recurrent component of any capital project is

likely to be manipulated in many ways to give different pictures of government saving. Finally, in the context of economic adjustment, the difficulty of separating adjustment induced effects on the budget from those introduced by external shocks limits the use of the current account deficit as a measure of fiscal stance.

## 2.2 Cyclically Adjusted Deficit or Trend Deficit

That the budget and aggregate demand influence each other hardly needs evidence. The cyclically adjusted deficit cleans the budget from the effects of business cycles. It is used as a tool to assess the adequacy of the stance of fiscal policy [7]. In practice an assessment of the adequacy of the stance of fiscal policy involves three simple steps.

First, let us define the cyclically adjusted budget (CAB). This involves developing a budget profile that allows for the impact of the economy on the budget. It should be noted that the choice of a base year when the budgetary position was consistent with a satisfactory level of economic performance is central to the CAB. Thus the CAB can be stated as follows:

$$CAB = g_o PGDP - t_o AGDP \quad (1)$$

where CAB = cyclically adjusted budget

PGDP = potential GDP

AGDP = actual GDP

$g_o$  = base year ratio of government expenditure to actual GDP

$t_o$  = base year ratio of revenue to actual GDP.

Note that relating expenditure and taxes to potential GDP and actual GDP, respectively, allows the budget to vary with the cyclical position of the economy. That is, the deficit will rise during a recession and fall during a boom.

Let us next see the calculation of the cyclical effect of the budget. This is accomplished by comparing the actual deficit with the cyclically neutral budget. Thus,

$$CEB = (G - T) - CAB \quad (2)$$

where CEB = cyclical effect of the budget

G = government expenditure

T = government revenue

Whether fiscal policy was expansionary or contractionary is indicated by the sign of the CEB. A positive CEB points to the former while a negative one indicates the latter.

Third, the stance of fiscal policy is assessed. The appropriateness of fiscal policy is evaluated by comparing the CEB with the cyclical situation. For example, an expansionary CEB would be considered countercyclical if the economy were in a slump and procyclical if it were in a boom.

Sometimes the fiscal impulse, i.e., the change in the impact rather than the impact itself, is used to assess the adequacy of fiscal stance. The fiscal "impulse" is measured by the change in CEB. A positive movement of the CEB indicates fiscal injection while a negative change shows a withdrawal of fiscal stimulus. The reason for using the fiscal impulse is to get around the problem of the choice of a base year.

The need for other deficit measures free from the assumption of the existence of cycles around a stable trend was recognized later [2], [19]. Accordingly, the conventional deficit was adjusted for interest payments and for inflation.

### 2.3 Primary and Operational Deficits

Recall that the CAD includes an important non-discretionary variable, interest payments, which usually depends on previous deficits. The primary deficit (non-interest deficit) is a measure of the fiscal deficit adjusted for interest payments. It is computed by subtracting net interest payments by the government from total government expenditure. The implication is that the primary balance should eventually turn surplus to provide at least in part the wherewithal for paying interest on current debt.

This, however, is not required in a situation where government revenue and GDP grow faster than the real interest rate. What are required are similar growth rates for interest payments, debt and GDP so that they remain constant in relative terms [23]. In any case,

it is difficult for debt and GDP to grow faster than the real interest rate.

One basic problem with the primary deficit is that it does not exclude the part of interest payments induced by inflation. This is particularly important in high inflationary situations. To alleviate this problem the effect of inflation on interest payment should be removed to get an inflation-corrected deficit known as operational deficit.

The economic underpinning of operational deficit is that inflation-induced interest payments are similar to amortization in that they constitute payments for the value of capital eroded through inflation and do not affect aggregate demand in real terms. Thus, the question is whether inflation-generated interest payments are used to buy new bonds to make up for the loss in the value of capital through inflation or to finance consumption without affecting the net wealth position of the creditor<sup>4</sup>.

Although the practical significance of this deficit measure is clear, it has a macroeconomic deficiency, i.e., by correcting the deficit for the impact of inflation on it, the ability to assess the impact of the deficit on inflation is lost [3]. Nevertheless, it is useful as a guide for practitioners, as it brings out the size of overstatement of the fiscal imbalances given by the conventional deficit during periods of high inflation and high nominal interest rates.

The different deficit measures outlined above are used for different purposes. One can therefore use any one of them depending on the purpose to be served. In particular, where an economic adjustment program is underway, it would be useful to measure the fiscal deficit from different angles. This being the purpose for reviewing the main variants of the fiscal deficit, the conventional deficit measure has been used in the analysis of macroeconomic imbalance of the Ethiopian economy to be presented in the following sections. The reasons for selecting the conventional deficit are firstly, it is the core concept of the fiscal deficit from which all other measures are derived. Secondly, it is relatively easier for computation.

### 3. FISCAL DEFICITS: CAUSES AND CONSEQUENCES

#### 3.1 Causes of Fiscal Deficits

The government's attempt to influence aggregate demand through changes in the fiscal balance is an area of increasing concern in developing and formalizing a consistent and desirable macroeconomic policy, particularly in the context of economic adjustment programs. Although fiscal indiscipline is considered a major factor underlying the expansion of fiscal deficits, there are other structural variables which play no lesser role in explaining budgetary developments. Ethiopia's experience in fiscal policy during the last seventeen years attests to the importance of structural variables in the expansion of budget deficits.

Structural variables are defined as factors that are unchangeable in the short run. Such factors are strongly rooted in the state of the economy. The government is, therefore, unable to control them or to reverse the process underway in the short term [15]. Hence, in this spirit, we shall in what follows list and review the factors, considered to be relevant to the Ethiopian economy:

- (a) level of economic growth;
- (b) size of government;
- (c) growth rate of revenues; and,
- (d) government control over expenditures.

#### 3.1.1 Level of Economic Growth

Countries with low level of economic development (as measured by per capita income) are likely to face difficulties in bringing their fiscal balance to reasonable levels. Three factors are at play against this objective. Excessive pressures on spending, low private saving, and (even if potential private savings are high) poor financial systems and low tax revenues. This has often led governments to impose savings through deficit financing even if its perceived inflationary, costs and debt burden are onerous.

In Ethiopia, average per capita GDP at market prices during 1975-1991 stood at Birr 215.1. This puts the country in the lowest category of level of economic growth. Such a

low level of per capita income leaves very little for savings. It was with this background that the fiscal deficit soared to about 15 percent of GDP in the late 1980s.

### **3.1.2 Size of Government**

The relative size of the government sector tends to be highly correlated with increased government role in production, consumption and distribution of goods and services. This induces an upward pressure on spending and is a difficult process to reverse in the short run.

The extent of government participation in economic management in Ethiopia has been extensive following the "revolution" of 1974. This factor as estimated by the share of total government expenditure in GDP reached over 40 percent in the late 1980s and had a significant influence on the fiscal balance.

### **3.1.3 Growth in Government Revenue**

The need for deficit financing decreases when revenues grow rapidly while expenditures grow at a lesser pace or remain constant or decrease. However, where a sound fiscal management is not underway, revenue growth may induce higher deficits, particularly if the government is a "revenue follower".

### **3.1.4 Government Control over Expenditures**

The government's ability to control expenditures is often influenced by institutional, ideological and structural factors. Among the factors which put upward pressure on spending are lack of coordination between financial and physical plans, development theorizing<sup>5</sup>, high share of recurrent expenditures and revenue and expenditure instabilities.

## **3.2 Consequences of Fiscal Deficits**

Fiscal deficits provide a measure of the excess of the government's spending over its revenue and, as such, indicate budgetary addition to domestic demand. A simple accounting relationship can be established between budget deficits, private investment/savings balance and the external balance. GDP can be defined in terms of expenditure components as follows:

$$GNP = C_p + I_p + G + X - M = C_p + S_p + T + NTR \quad (3)$$

where  $C_p$  = private consumption

$I_p$  = private investment

$G$  = Government spending

$X$  = exports of goods and services

$M$  = imports of goods and services

$S_p$  = private savings

$T$  = Government revenues

$NTR$  = net current transfers

Rearranging,

$$G - T = (S_p - I_p) + (M - X + NTR) \quad (4)$$

$$\begin{array}{rcl} \text{Fiscal} & = & \text{Net private} + \text{Foreign} \\ \text{deficit} & & \text{savings} \quad \text{savings} \end{array}$$

Equation (4) shows the fiscal balance as the counterpart of the private sector's savings-investment balance and the current account balance. It can be seen that an increase in the fiscal deficit must be matched by an increase in private savings (increase in net private savings or decrease in private investment, or both) or an increase in the current account deficit or a combination. The specific behavioral relationship will depend on the impact of fiscal deficits on the private sector's investment-savings balance and the relation between budget deficits and current account deficits, since budget deficits respond to as well as influence external balances.

An important point to note is that budget deficits in themselves do not imply automatic macroeconomic difficulties. An efficient and productive employment of resources can meet debt servicing requirements easily. Deficits induced by natural disasters or wars can be accepted as a way of inter-generational distribution of costs. Hence deficits can be easily borne by efficient economies with high private savings and well-developed financial markets. However, in highly distorted and low-saving economies, even a small deficit may be

destabilizing [23].

The link between Ethiopia's low savings rate and the deteriorating fiscal situation and the possible spill-over to the current account deficit can be seen from Table 1.

Although the private sector consistently maintained positive resource balances, the dissaving by the government, added to negative public enterprise resource balances, brought the overall public sector balance to an average of about -15.1 percent of GDP over the ten-year period (see Table 1). This was mainly driven by the growth of government consumption, which averaged 32.2 percent of GDP per annum. It is also interesting to note that while private sector investment fell from 2.7 percent of GDP in 1984 to 1.5 percent of GDP in 1990, it was the major source of surplus funds to the government and the public enterprise sector. However, since private sector surplus alone often cannot cover additional public deficits, a spill-over to the current account of the balance of payments is bound to occur. It is, nevertheless, difficult to separate the effect of the budget on the current account and its response to the current account.

Table 1. Public, Private and External Sectors Resource Balances (% of GDP)

Fiscal Year	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Public Sector:										
+ Government										
Revenue	19.7	20.5	21.7	22.9	23.5	25.9	26.1	28.7	29.9	24.4
Consumption *	21.7	23.6	32.4	27.5	33.5	31.0	31.0	38.3	36.7	35.8
Savings	-2.0	-3.1	-10.7	-4.6	-10.0	-5.1	-4.8	-9.5	-6.8	-11.6
Investment	3.8	4.1	4.9	3.8	4.7	5.5	4.2	2.1	2.9	3.3
Balance	-5.8	-7.2	-15.5	-8.4	-14.7	-10.6	-9.0	-11.6	-9.8	-15.0
Public Enterprises:										
Savings	1.7	1.8	1.4	2.2	2.4	2.0	3.0	3.1	2.8	2.7
Investment	4.1	5.1	3.9	6.3	7.1	5.2	8.4	11.3	8.7	7.2
Balance	-2.3	-3.3	-2.4	-4.1	-4.7	-3.3	-5.4	-8.2	-5.9	-4.5
Total Public Sector:										
Balance	-8.1	-10.5	-17.9	-12.5	-19.4	-13.9	-14.4	-19.8	-15.7	-19.4
Private Sector:										
Savings	3.2	3.3	11.7	4.3	9.7	4.8	4.5	9.8	6.4	8.6
Investment	2.5	2.6	2.5	2.7	2.2	2.0	2.0	1.9	1.7	1.5
Balance	0.7	0.7	9.2	1.6	7.6	2.8	2.5	7.9	4.8	7.1
External Sector:										
Current Account Balance	-7.2	-9.1	-7.6	-8.6	-8.8	-5.8	-9.0	-9.8	-5.7	-4.9

\* Government consumption is defined as central government current expenditure plus non-investment capital expenditure.

SOURCES: The World Bank, *Ethiopia: Financial Sector Review*, 1990.  
IMF, *Recent Economic Developments in Ethiopia*, 1984.

Having reviewed the broad macroeconomic relationships of the budget, the private sector balance and the external balance, we shall next analyze the effects on monetary aggregates and the public debt of the budget deficit from the financing side.

#### 4. FINANCING THE DEFICIT

Once budgetary gaps are created, whether they promote desired macroeconomic goals such as controlling inflation, boosting private investment and growth and maintaining external credit worthiness, or induce adverse effects on these goals depend, to a very large extent, on the way they are financed.

There are two options for the government to finance its deficit: domestic financing and external financing. The former includes borrowing from domestic bank and non-bank sectors including printing new money, and the latter refers to borrowing from the rest of the world or from part of its savings.

Government borrowing from the central bank directly affects reserve money and the total money supply. Recourse to commercial bank finance may also have similar effects, if banks are not forced to constrain credit to other borrowers. In this context the government sector would be the primary source of monetary expansion, and excessive growth in the money supply is likely to induce higher inflation and external imbalances. In Ethiopia, when the fiscal deficit soared to 15 percent of GDP in the 1990 fiscal year, broad money growth reached an all time high of 18 percent compared to the preceding years.

Reliance on non-bank finance adversely affects the structure of demand and growth potential. In a world of administered interest rates and controlled credit supplies, private investment would be retarded not through the cost-of-capital route but by the limit to the availability of credit to the private sector [6], [8], [13], [16].

Excessive resort to foreign borrowing leads to overvalued exchange rates, deteriorating current account deficits, higher external debt (and the consequent debt service burden which may constrain domestic investment and growth) and dwindling foreign exchange reserves. Financing through the accumulation of arrears has similar

macroeconomic effects to other forms of public borrowing, endangering future financing and the integrity of the budget as well [9], [12].

It is interesting to note that the worsening budget deficit in Ethiopia and the higher external financing (ranging between 7 and 10 percent of GDP) occurred side by side with an appreciating exchange rate, higher external debt (over 50 percent of GDP) and falling foreign exchange reserves. Recent developments in the budget also indicate that external debt including arrears as a share of GDP has reached around 90 percent.

So far, we have considered the options available for the government to finance its deficit and partly touched upon parallel developments in other variables. An attempt is made, in the next sub-section, to approximate the effects of the fiscal deficit and/or its financing components on monetary and debt variables using regression techniques. Data on the concerned variables were compiled from the Ministry of Finance and the National Bank of Ethiopia and OLS regression analysis was undertaken. Only equations that had passed the standard tests of significance have been reported (see annex).

#### 4.1 Fiscal Deficits, Money and Inflation

Fiscal deficits when financed through credit expansion obviously result in increased money supply. Regression results between narrow money and deficits, broad money and deficits, and reserve money and deficits, indicate that there exists a fairly significant relationship between the monetary aggregates and the fiscal deficit. The Durbin-Watson statistic also indicates that first order serial correlation is not serious at all (see appendix).

The impact of the fiscal deficit on inflation has been measured by running OLS regression of the Addis Ababa CPI (Consumer price index for Addis Ababa) on its one-year lagged value and the fiscal deficit lagged similarly. The results show that, while the lagged CPI value significantly explains the inflationary situation (pointing to the role of expectations in price developments), the lagged fiscal deficit tends to be a contributory factor to inflation, though at 15 percent level of significance.

However, in an economy with a shallow monetary depth, the impact of money creation brought about by the need to finance fiscal deficits is cushioned by the growth in demand for money.

The government can, therefore, finance its expenditures by expanding the monetary base and increased monetary deepening without causing inflation<sup>6</sup>. Inflation would occur to the extent that the rate of money creation exceeded the growth in money demand. Monetary deepening was significant in Ethiopia over the last fifteen years. The  $M_1$ /GDP and  $M_2$ /GDP ratios grew from 15 and 23 percent in 1977 to 51 and 68 percent in 1991, respectively. Moreover, the velocity of circulation ( $GDP/M_2$ ) consistently declined from 4.3 to 1.6 during the same period.

All these developments indicate that the Ethiopian government was to some degree able to finance its deficits without causing full inflation. Thus, seigniorage revenue - the government's claim on resources in return for issuing currency - of the order of 2 percent of GDP per annum on average were raised in the 1980s [25].

Having put this caution - the dampening effect of seigniorage on inflation - one can tentatively conclude that inflation in Ethiopia is partly expectations-motivated and partly a fiscal phenomenon.

#### 4.2 Fiscal Deficits and Public Debt

The fiscal deficit has a direct effect on domestic debt through borrowing from the non-bank and banking sectors. External borrowing to finance the deficit is also expected to influence external debt.

Regressing government domestic debt (GDDT) on its lagged value and the current fiscal deficit produced significant results. The Durbin h-test was also found to be acceptable.

While external borrowing seemed to have partly influenced changes in external debt, other factors tended to have been largely at play in causing its evolution.

All said, the fiscal deficit has been the major cause for creating an unsustainable debt situation, which increases the debt service burden and jeopardizes access to future financing. Moreover, if the debt service burden is excessive, it constrains domestic investment and growth. In the Ethiopian situation, fiscal retrenchment is a necessary condition for controlling inflation, encouraging private investment and growth, easing the debt service burden, and facilitating access to foreign finance.

## 5. ISSUES FOR REFORM

As shown earlier, resource use in Ethiopia over the last decade centred on the financing of the fiscal deficit (see Table 1). The deficit was financed from three sources: the financial sector (NBE and CBE), the rest of the world and public enterprises. The CBE finances the government through purchases of treasury bills and treasury bonds by mobilizing private sector savings. NBE lends the government through its Ways and Means Advance from its holdings of CBE's excess reserves<sup>7</sup>. Public enterprises capital charges and residual surpluses<sup>8</sup> finance government spending. External borrowing and grants also constituted one means of financing the deficit.

As reviewed in the preceding chapter, the fiscal deficit had adverse effects on monetary aggregates, prices and the public debt. It was also shown that private investment declined consistently in the 1980s, when the fiscal deficit was rapidly expanding. One can therefore assess the appropriateness of the deficit by relating it to the promotion of private investment and growth, the control of inflation and the maintenance of a serviceable debt level to ensure credit worthiness.

The relationship between the fiscal deficit and monetary expansion in Ethiopia can be seen from the following identities:

$$\Delta MS = \Delta IR + \Delta DC \quad (5)$$

$$\Delta DC = \Delta DC_p + \Delta DC_g \quad (6)$$

where  $MS$  = end-of-year money stock

$IR$  = international reserves

$DC$  = domestic credit (net)

$DC_p$  = credit to the private sector

$DC_g$  = credit to the government

$\Delta$  = a one period change.

The external debt situation can also be presented by

$$\Delta ED = \Delta ED_p + \Delta ED_g \quad (7)$$

where  $ED$  is national external debt and

$ED_p$  and  $ED_g$  are the private and public held components of the national external debt.

Introducing the government budget constraint gives the following relationship:

$$G-T = \Delta DC_g + \Delta ED_g \quad (8)$$

where  $G$  = total government expenditure

$T$  = total government revenue

$G-T$  = fiscal deficit.

It is clear that the last three identities [6], [7], [9] establish the relationship between monetary growth and the fiscal position of the government. This provides a rationale for controlling the public sector deficit through imposing ceilings on both the magnitude of external borrowing ( $ED_g$ ) and the amount of bank financing ( $DC_g$ ) carried out by the government. This being the principal means of monitoring the public sector financial balance from the financing side, the policies underlying that balance are essentially concerned with expenditures and revenues. For lack of space and as a matter of relative practical expediency, the former will be dealt with here, without, of course, disregarding the importance of the latter in fiscal reforms. Moreover, the issues of revenue revitalization in Ethiopia belong to long-term economic policy reform programs, while the immediate concern of this paper is to raise issues of fiscal reform relevant to the short and possibly the medium term.

Policies regarding public spending structures can be summarized in three main sub headings:

- a) Expenditure Reductions
- b) Expenditure Rationalization
- c) Budget Planning and Control

### 5.1 Expenditure Reductions

Faced with a serious resource constraint, the public sector in Ethiopia should carefully consider the areas where its involvement is necessary. This issue has been deeply debated and has produced what are known as the "crowding-out" and "crowding-in" effects of public spending.

In this context, Ogura and Yohe [1977] distinguish between three types of public spending:

- a) those that provide services that are direct substitutes for goods and services provided by the private sector;
- b) those that provide direct consumption benefits to the private sector and;
- c) those that are complementary to private investment.

Accordingly, it is suggested that the expenditure-cutting priorities should first concentrate on category (a) before touching category (b) or (c). The implication is that category (b) has an outright "crowding-out" effect on private investment, while the remaining two categories should be carefully analyzed as to their "crowding-in" effects.

Several studies have shown that public investment in infrastructure is complementary to private investment and hence has a "crowding-in" effect on private investment [1,4,6]. Moreover, these studies favour the hypothesis that non-infrastructure public investment has a negative effect on private investment.

If Ethiopia is to launch an economic adjustment program, fiscal stimulus to aggregate demand through increased public spending should be controlled by first considering withdrawal from the areas of public spending that have replaced the private sector. This would be one factor that would contribute eventually to bringing the fiscal deficit to a

sustainable level. A gradual phasing out of programs as opposed to shock-therapy or quick-fix solutions is considered to be superior and effective, without taking gradualism as a means for delaying the introduction of adjustment programs.

## 5.2 Expenditure Rationalization

Expenditure reform can greatly contribute to higher productivity and greater utilization of existing capacity. Government investment that is productive should be encouraged. Projects should be subjected to a number of economic tests and those that are found to be unproductive must be eliminated. These assessments should be made in the context of general policies to correct distortions in relative factor and commodity prices [10].

The issue of funding operations and maintenance should also be addressed. In many cases the maintenance and repair of existing capital could be more effective than undertaking new capital investment. Inadequate spending operations (whether supplies or personnel costs) can lead to low levels of effectiveness in areas such as education and health. Add to that the possibility of a rapid deterioration of physical capital owing to inadequate spending on maintenance and repair [23].

Sources of low productivity in the public sector should also be taken into account in an attempt to rationalize expenditures. Low pay and inadequate salary differentials and the public sector acting as the employer of last resort may discourage work effort and contribute to low productivity in the public sector. This has a particular importance in the Ethiopian economy. It needs to be underscored that an efficient civil service that is commensurate with the capacity of the economy is a precondition for development.

Government objectives of income distribution, external or internal security and self-sufficiency need also to be attached to cost-effective expenditure policies. In this regard consideration of replacing general food subsidies by targeted schemes is necessary based on matters of cost-effectiveness as well as fulfilment of government objectives.

Constraining government consumption to raise national savings and to reduce the need for raising taxes is also a matter of importance. Gradually diminishing less productive forms of government consumption could also contribute largely to financing growth.

### 5.3 Budget Planning and Control

In the medium term, efficiency and effectiveness of public spending can be raised by undertaking fiscal planning, budgeting, implementing and monitoring of government operations. Fiscal planning involves the formulation of a phased investment program, the projection of current spending needs and assessing revenue availability and borrowing requirements consistent with other macroeconomic objectives in the medium term. The annual budget should then be a one-year slice of the medium-term plan, emphasizing firm budget constraints. With a strong and increased transparency and timeliness of fiscal reporting, effective fiscal management and the ability to monitor the public sector, including public enterprises, can be facilitated.

In summary, the fiscal deficit in Ethiopia has been the major source of monetary expansion, and hence inflation and unsustainable growth in the public debt. Increased fiscal deficits financed through domestic credit expansion, particularly credit going to the government have produced inflationary conditions and were associated with a fall in private investment growth. This also resulted in the growth of domestic debt. Higher external borrowing to finance part of the deficit raised the external debt level. The emergence of arrears financing on the budget, though a recent phenomenon, has put the country at the risk of deteriorating external credit worthiness.

Hence, if one approaches the budget from the financing side, sound fiscal management calls for setting a limit on domestic credit to the government and controlling external borrowing. While this is important in the short run, reforming the expenditure side in the medium term is crucial for controlling inflation, promoting growth and maintaining external credit worthiness in the country.

A critical problem in the short run is the size of the bank financed component of the fiscal deficit, which is about 7-8 percent of GDP. This problem must be addressed immediately if the deficit is to be brought to a controllable level within the medium term. To eliminate the bank-financed part of the deficit, the government must "demonetize" it. This can be attained through selling publicly owned urban houses to the private sector and using the proceeds to cover the deficit. The government, in so doing, loses nothing in terms of asset ownership because government owned assets in the form of urban houses would now

be owned in other forms. \* In other words, the government can use such proceeds to construct infrastructure facilities.

The act of selling public urban houses to the private sector should, however, be well thought of as part of an overall program to privatize urban land and housing and not as a quick-fix solution to the budgetary problem. With such caution, this measure would contribute much to the overall effort of easing the incipient upward pressure on inflation that otherwise could materialize given the persistence of the monetized deficit at its current level.

### NOTES

<sup>1</sup>  $M_1 = M_2$  less quasi-money (i.e. time and saving deposits).

<sup>2</sup>  $M_2$  (End of year stock of broad money) is defined as the sum of currency outside banks, demand deposits and quasi-money.

<sup>3</sup> The current account measure of the fiscal deficit is basically used for comparing the government with other parts of the national accounts or evaluating government accounts using private sector accounting standards. However, while detailed public sector accounts are available on financial basis those of the private sector are available on accrual basis.

<sup>4</sup> The effect of inflation-induced interest payments on aggregate demand is zero or positive depending on whether such payments exactly compensate or more than offset the value of capital eroded through inflation. If their effect is the former, then the impact on aggregate demand is neutral because such payments do not represent new incomes to the bond holder. With the latter, however, real interest payments could be consumed without affecting the net wealth position of the bond holder which would have an expansionary impact on aggregate demand.

<sup>5</sup> Theories of development of the 1950s accorded the state an ever greater role in the overall all effort to bring about development and the state believed that this would materialize through increased involvement in economic management and thus through higher spending. Moreover, the ever increasing demand for goods and services in a world of inelastic supply induced the state to use its spending powers more intensively.

<sup>6</sup> The impact of the deficit on inflation was weakened by monetary deepening. Three major factors underlie monetary deepening in Ethiopia. (1) interest rate structure which allowed the government to borrow at low interest rate (3% on treasury bills) while offering positive real interest rates on small savings (6%) and penalizing large depositors (0 and 1% on demand deposits and time deposits, respectively). (2) adverse policies of licensing, ceilings and collateral requirements applied on the private sector and (3) with excessive foreign exchange shortages enterprises were forced to borrow less from banks to finance imports. All this led to the accumulation of financial assets deposited as excess reserves with the Commercial Bank of Ethiopia.

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\* I owe this to Ato Taye Mengistae, Addis Ababa University, Economics Department.

<sup>7</sup> CBE's reserve requirement is 5% of total deposits (demand, time and saving deposits). However, actual reserves are reserve with NBE plus cash in hand. The difference between the latter and the former has been large and positive which served as a source of lending to the government through NBE's Ways and Means Advance.

<sup>8</sup> Public enterprises, apart from paying profit taxes, were subject to a capital charge of 5% on the book value of state capital invested in them. In addition, they were allowed to retain only 10% of after-tax enterprise profits. The remaining had to be transferred to the treasury as residual surplus.

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Annex  
OLS Regression Results

Equation N°	Equations
1	$M_1 = 664.2157 + 3.8137 DF$ (13.792) $R^2 = 0.931$ DW = 1.7 F=190.2
2	$M_2 = 419.3335 + 2.9884 DF$ (12.932) $R^2 = 0.928$ DW = 2.1 F=167.2
3	$RM = 510.8130 + 2.2612 DF$ (10.569) $R^2 = 0.889$ DW = 1.7 F = 111.7
4	$COB = 351.8176 + 1.6048 DF$ (10.870) $R^2 = 0.894$ DW = 2.03 F = 118.2
5	$CPI = 61.3795 + 0.8243CPI_1 + 0.0466 FD_1$ (6.494) (1.562) $R^2_1 = 0.917$ Dh = 0.60 F = 83.9
6	$CPI = 274.9730 + 0.2337BD$ (4.104) $R^2 = 0.529$ DW = 0.83 F = 16.3
7	$d = 90.5408 + 0.0285BD$ (3.859) $R^2 = 0.498$ DW = 0.67 F = 14.9
8	$CPI = 256.3447 + 0.2014DF_1$ (5.648) $R^2 = 0.70$ DW = 1.6 F = 31.89
9	$GDDT = -74.9533 + 0.9271GDDT_1 + 0.7947DF$ (26.214) (7.331) $R^2_1 = 0.996$ Dh = 0.58 F = 1780.0
10	$DTE = -25.2953 + 1.4428BE$ (3.509) $R^2 = 0.468$ DW = 2.10 F = 12.3

SOURCE: Estimations based on data from Ministry of Finance and National Bank of Ethiopia.

NOTES: - Figures in brackets are t-ratios.

- All the regression coefficients are significant at 1% except the coefficient of  $DF_1$  in equation (5) which is significant at the 15% level.
- $R^2_1$  is the adjusted R-Squared.
- RM (Reserve money) is defined as the sum of currency outside bank and bank reserves. Bank reserves are equal to cash in the Commercial Bank plus reserve requirements with the National Bank.
- COB = Currency outside banks.
- DF = Fiscal deficits (conventional measure).
- $DF_1$  = The fiscal deficit lagged by one year.
- CPI = Consumer price index for Addis Ababa.
- $CPI_1$  = The CPI lagged by one year.
- GDDT = Government domestic debt.
- $GDDT_1$  = GDDT lagged by one year.
- BD = Domestic borrowing, including borrowing from the National Bank.
- d = GDP deflator.
- DTE = External public debt.
- BE = External borrowing used to finance the deficit.